Lifelong Learning and the Library Connection

A Perceptual Model for Tertiary Library Customer Education

Deborah Ann Cronau, M.Ed.
(Research), M.App.Sc. (Library & Information Management), B.A.
(Library & Information Science),

A Thesis submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy in the Faculty of Education, Northern Territory University
No portion of this thesis may be reproduced, stored in a retrieval system, or transmitted in any form by any means electronic, mechanical, photocopying, recording, or any other without written permission of this thesis writer.
Declaration

I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree or qualification at a Higher Education Institution.

I certify that all sources have been acknowledged in this thesis.

Signed:

Date: 1 April 2000
ABSTRACT

The Lifelong Learning and Library Connection as a model for tertiary library customer education examined the transitional skill and ability expectations of undergraduate tertiary education students to propose a Perceptual Model of lifelong learning as an alternative to behavioural and relational models which are more experientially or practice based. The hypothesis was that the personal perceptions of customers can mirror personal reality. What customers believe can predict what they will pursue. Therefore a Perceptual Model can offer the advantage of facilitating lifelong learning through library customer education approaches geared to the sequential levels of skills needed by customer groups.

The perceptual model proposed is comprised of areas that, according to literature, can most affect the lifelong learning skills and abilities of students. It considered the affect of perceptions on these areas rather than measuring skills as in other models. The model may be visualized as a ladder that sequentially leads to higher level skills as perceptual awareness of information needs increases.

Using details obtained from literature reviewed about the theoretical and practical applications of lifelong learning and the role of tertiary libraries, questions on the perceptions of customers were raised. Literature was categorized into four foci: customer group segmentation; library use issues; library skills assessment; and library integration into tertiary life. Literature portrayed gaps in customer perceptions research in these areas. These gaps were manipulated to encapsulate the key questions, concepts and principals for the study. These were:
• **Segmentation (Focus A)** – What are the most appropriate divisions of customer groups to facilitate a lifelong learning development through library customer education? What are the segments customers belong to and do these groups have homogeneous customer education needs? What are the lifelong learning needs to be met or assisted by the library through customer education?

• **Library Issues (Focus B); Skills Assessment (Focus C); Course Integration (Focus D)** – What are customer's personal methodologies for using libraries and information resources, and the library use rationale or personal feelings and motivations associated with using libraries and information resources? What are the personal perceptions of students regarding the value of library customer education required for the library to positively influence lifelong learning behaviour and philosophies? What are the future directions for the library to improve their lifelong learning role through customer education?

One of the primary goals of libraries is to facilitate lifelong learning. These are the pivotal points for lifelong learning but because personal perceptions are developed by individuals over many years, library customer education is required to help develop a lifelong learning attitude.

This case study targeted the students of a tertiary institute to assist in identifying the most affective library customer education segment focus for fostering lifelong learning attitudinal and skill development. It investigated how lifelong learning can be used as a focus for customer education programmes by suggesting a Perceptual Model of lifelong learning based on library customer education motivators and student perceptions.
**Dedication**

**WITH MOST SINCERE GRATITUDE TO:**

My Supervisor  
Darol Cavanagh

and  
The personnel of the NTU,  
particularly the NTU Librarians.

**DEDICATED TO:**

Those I love who did not live to see this work completed…  

My Dad  
Anthony (Tony) Charles John Cronau

My Aunt  
Lynette Elizabeth Scott

My Pa  
Peter Alfred Scott

… and those I love who did see it through …

My Mum  
Shirley Margaret Ann Cronau

My Brother  
Anthony Scott Cronau

My Ma  
Elizabeth (Bess) Gibb Scott
Table of Contents

Chapter 1 - INTRODUCTION AND OVERVIEW ............................... 1
  1.1 Introduction .............................................................................. 1
  1.2 Background to the Problem ..................................................... 2
  1.3 Statement of the Problem ........................................................ 3
  1.4 Purpose of the Study ............................................................... 4
  1.5 Significance of the Problem .................................................... 5
  1.6 Details of the Proposed Study ................................................. 6
    1.6.1 Definitions ..................................................................... 9
  1.7 Research Questions ................................................................ 14
  1.8 Assumptions ........................................................................... 16
  1.9 Limitations and Delimitations ................................................ 16
    1.9.1 Limitations .................................................................. 16
    1.9.2 Delimitations ............................................................... 17
  1.10 Organization of Chapters ..................................................... 18

Chapter 2 - BACKGROUND AND SUBJECT OVERVIEW .............. 22
  2.1 Introduction ............................................................................ 22
  2.2 Existing Theories and Models of Education and Librarianship ................................................... 22
  2.3 Lifelong Learning Attributes .................................................. 32
    2.3.1 Lifelong Learning Skills ............................................. 32
    2.3.2 Lifelong Learning Characteristics ............................... 33
    2.3.3 Lifelong Learning Methodologies ............................... 36
  2.4 Lifelong Learning and Tertiary Education ............................. 38
    2.4.1 Lifelong Learning Goals of Tertiary Education ........... 41
    2.4.2 Development of Lifelong Learning in Tertiary Education .......................................................... 42
    2.4.3 Tertiary Education Methodologies for Lifelong Learning ............................................................ 43
    2.4.4 Lifelong Learning Skills desired in Graduates .......... 47
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 Lifelong Learning and Libraries</td>
<td>49</td>
</tr>
<tr>
<td>2.5.1 Tertiary Education Libraries</td>
<td>53</td>
</tr>
<tr>
<td>2.6 Lifelong Learning in Australia</td>
<td>68</td>
</tr>
<tr>
<td>2.6.1 Australian Government Reports</td>
<td>69</td>
</tr>
<tr>
<td>2.7 Studying Library Customers</td>
<td>76</td>
</tr>
<tr>
<td>2.7.1 Library Customer Study Methodologies</td>
<td>78</td>
</tr>
<tr>
<td>2.7.2 Role of Library Surveys and Research</td>
<td>81</td>
</tr>
<tr>
<td>2.7.3 Perceptions</td>
<td>83</td>
</tr>
<tr>
<td>2.8 Conclusion</td>
<td>86</td>
</tr>
<tr>
<td>Chapter 3 - LITERATURE REVIEW OF TOPIC</td>
<td>89</td>
</tr>
<tr>
<td>3.1 Introduction</td>
<td>89</td>
</tr>
<tr>
<td>3.2 Demographics and Segmentation (Focus A)</td>
<td>92</td>
</tr>
<tr>
<td>3.2.1 Customer Perception</td>
<td>94</td>
</tr>
<tr>
<td>3.3 Library Issues (Focus B)</td>
<td>99</td>
</tr>
<tr>
<td>3.4 Library Customer Information Retrieval Skills Assessment (Focus C)</td>
<td>103</td>
</tr>
<tr>
<td>3.4.1 Implications for Customer Education</td>
<td>107</td>
</tr>
<tr>
<td>3.4.2 Customer Education Methodologies</td>
<td>108</td>
</tr>
<tr>
<td>3.5 Integration of Lifelong Learning Skills into Tertiary Libraries</td>
<td>111</td>
</tr>
<tr>
<td>3.6 Literature Review Conclusion</td>
<td>115</td>
</tr>
<tr>
<td>Chapter 4 - CHRISTIAN COLLEGE</td>
<td>120</td>
</tr>
<tr>
<td>4.1 Introduction</td>
<td>120</td>
</tr>
<tr>
<td>4.2 College Foundations</td>
<td>120</td>
</tr>
<tr>
<td>4.3 Document Analysis for Lifelong Learning Principles</td>
<td>124</td>
</tr>
<tr>
<td>4.3.1 Structure and Composition of the Curriculum</td>
<td>124</td>
</tr>
<tr>
<td>4.3.2 Teaching and Assessment of Students</td>
<td>131</td>
</tr>
<tr>
<td>4.3.3 The Overall Ambience of the Institution</td>
<td>135</td>
</tr>
<tr>
<td>4.4 Evaluation of College's Commitment to Lifelong Learning</td>
<td>139</td>
</tr>
</tbody>
</table>
Lifelong Learning Resources System .............................................. 550
Competencies of Lifelong Learning Comprised of the Skills for
Various Life Roles (Knowles 1990) ............................................ 551
Zachert's Model for Planning Education Services (Zachert 1990:35)
............................................................................................................. 553
............................................................................................................. 554
Major Characteristics of Lifelong Learning ............................... 555
............................................................................................................. 556
List of Figures

Figure 7.1 The Perceptual Model ...................................................... 455
List of Tables

Table 5.1: Summary of Customer Perception Literature Reviewed
Motivating further Research .............................................................. 151
Table 5.2: Summary of Customer Education Literature Reviewed
Motivating further Research .............................................................. 152
Table 5.3: Summary of Skills Assessment Literature Reviewed
Motivating further Research .............................................................. 153
Table 5.4: Focus A – Demographics and Segmentation ............. 154
Table 5.5: Focus B1 – Library Issues – Library Use ......................... 156
Table 5.6: Focus B2 – Library Issues – Library Use Rationale or Perception .............................................................. 157
Table 5.7: Focus C1 – Skills Assessment – Library Use .................... 158
Table 5.8: Focus C2 – Skills Assessment – Rationale or Perception ............................................................................................................. 160
Table 5.9: Focus D1 – Integration of Lifelong Learning Skills into Tertiary Libraries – College, Course and Library Integration and Library Use ............................................................................................................................. 163
Table 5.10: Focus D2 – Integration of Lifelong Learning Skills into Tertiary Libraries – College, Course and Library Integration and Library Use Rationale or Perception .............................................................. 165
Table 6.1: Selected Study Groups ...................................................... 204
Table 6.2: Foci ................................................................................... 204
Table 6.A1&2: Demographics ........................................................... 207
Table 6.A3.1: Gender – Raw Numbers by Year-level Segmentation ............................................................................................................. 208
Table 6.A3.2: Gender – Raw Numbers by Course Segmentation...... 208
Table 6.A3.3: Gender – Percentages/Deviation Results ..................... 209
Table 6.A4.1: Age Bracket – Raw Numbers by Year-level Segmentation ............................................................................................................. 210
Table 6.A4.2: Age Bracket – Raw Numbers by Course Segmentation ................................................................. 211
Table 6.A4.3: Age Bracket – Percentages/Deviation Results ................................................................. 211
Table 6.A5.1: Highest Education Level – Raw Numbers by Year-level Segmentation ......................................................... 212
Table 6.A5.2: Highest Education Level – Raw Numbers by Course Segmentation ......................................................... 213
Table 6.A5.3: Highest Education Level – Percentages/Deviation Results ......................................................... 214
Table 6.A6.1: Most Recent Occupation – Raw Numbers by Year-level Segmentation ......................................................... 214
Table 6.A6.2: Most Recent Occupation – Raw Numbers by Course Segmentation ......................................................... 215
Table 6.A6.3: Most Recent Occupation – Percentages/Deviation Results ......................................................... 216
Table 6.A7.1: Time Away from Studies – Raw Numbers by Year-level Segmentation ......................................................... 216
Table 6.A7.2: Time Away from Studies – Raw Numbers by Course Segmentation ......................................................... 217
Table 6.A7.3: Time Away from Studies – Percentages/Deviation Results ......................................................... 217
Table 6.A8.1: Time Away from Library Use – Raw Numbers by Year-level Segmentation ......................................................... 218
Table 6.A8.2: Time Away from Library Use – Raw Numbers by Course Segmentation ......................................................... 219
Table 6.A8.3: Time Away from Library Use – Percentages/Deviation Results ......................................................... 219
Table 6.B1.1.1: Frequency of Library Use – Raw Numbers by Year-level Segmentation ......................................................... 221
Table 6.B1.1.2: Frequency of Library Use – Raw Numbers by Course Segmentation ........................................... 221
Table 6.B1.1.3: Frequency of Library Use – Percentages/Deviation Results ................................................................. 222
Table 6.B1.2.1: Expected Graduate Library Use – Raw Numbers by Year-level Segmentation ........................................... 223
Table 6.B1.2.2: Expected Graduate Library Use – Raw Numbers by Course Segmentation ........................................... 224
Table 6.B1.2.3: Expected Graduate Library Use – Percentages/Deviation Results ................................................................. 224
Table 6.B1.3.1: Information Sought from Library – Raw Numbers by Year-level Segmentation ........................................... 226
Table 6.B1.3.2: Information Sought from Library – Raw Numbers by Course Segmentation ........................................... 226
Table 6.B1.3.3: Information Sought from Library – Percentages/Deviation Results ................................................................. 227
Table 6.B1.4.1: Resource Provision Agency for Information Used – Raw Numbers by Year-level Segmentation ...................... 228
Table 6.B1.4.2: Resource Provision Agency for Information Used – Raw Numbers by Course Segmentation ...................... 229
Table 6.B1.4.3: Resource Provision Agency for Information Used – Percentages/Deviation Results ................................................................. 229
Table 6.B1.5.1: Part of Library Collection Preferred for Information Use – Raw Numbers by Year-level Segmentation ...................... 231
Table 6.B1.5.2: Part of Library Collection Preferred for Information Use – Raw Numbers by Course Segmentation ...................... 232
Table 6.B1.5.3: Part of Library Collection Preferred for Information Use – Percentages/Deviation Results ................................................................. 233
Table 6.B1.6.1: The Source of Information Preferred – Raw Numbers by Year-level Segmentation .................................................. 234
Table 6.B1.6.2: The Source of Information Preferred – Raw Numbers by Course Segmentation ......................................................... 235
Table 6.B1.6.3: The Source of Information Preferred – Percentages/Deviation Results ........................................................................... 235
Table 6.B1.7.1: Services/Facilities Considered Most Important in Finding Information – Raw Numbers by Year-level Segmentation ................................................................................................................. 237
Table 6.B1.7.2: Services/Facilities Considered Most Important in Finding Information – Raw Numbers by Course Segmentation .......... 238
Table 6.B1.7.3: Services/Facilities Considered Most Important in Finding Information – Percentages/Deviation Results ....................... 239
Table 6.B2.1: Feelings about Provided Statements – Raw Numbers by Year-level Segmentation ............................................................... 241
Table 6.B2.2: Feelings about Provided Statements – Raw Numbers by Course Segmentation .................................................................... 242
Table 6.B2.3: Feelings about Provided Statements – Percentages/Deviation Results .............................................................................. 243
Table 6.B2.2.1: Library Use Motivation – Raw Numbers by Year-level Segmentation ................................................................................. 245
Table 6.B2.2.2: Library Use Motivation – Raw Numbers by Course Segmentation ..................................................................................... 245
Table 6.B2.2.3: Library Use Motivation – Percentages/Deviation Results ................................................................................................ 245
Table 6.B2.3.1: Frequency of Library Use – Raw Numbers by Year-level Segmentation ................................................................. 247
Table 6.B2.3.2: Frequency of Library Use – Raw Numbers by Course Segmentation .................................................................................. 248
Table 6.B2.3.3: Frequency of Library Use – Percentages/Deviation Results .............................................................................................. 249
Table 6.B2.4.1: Reason for Using the College Library – Raw Numbers by Year-level Segmentation ................................................ 251
Table 6.B2.4.2: Reason for Using the College Library – Raw Numbers by Course Segmentation ..................................................... 252
Table 6.B2.4.3: Reason for Using the College Library – Percentages/Deviation Results ........................................................... 252
Table 6.B2.5.1: Plan for Using the Library – Raw Numbers by Year-level Segmentation .............................................................. 254
Table 6.B2.5.2: Plan for Using the Library – Raw Numbers by Course Segmentation ................................................................. 255
Table 6.B2.5.3: Plan for Using the Library – Percentages/Deviation Results ........................................................................... 255
Table 6.B2.6.1: Library Use Following Graduation – Raw Numbers by Year-level Segmentation .................................................... 257
Table 6.B2.6.2: Library Use Following Graduation – Raw Numbers by Course Segmentation .......................................................... 258
Table 6.B2.6.3: Library use Following Graduation – Percentages/ Deviation Results ................................................................. 259
Table 6.B2.7.1: Skills Libraries Should Cater For – Raw Numbers by Year-level Segmentation ..................................................... 261
Table 6.B2.7.2: Skills Libraries Should Cater For – Raw Numbers by Course Segmentation ......................................................... 262
Table 6.B2.7.3: Skills Libraries Should Cater For – Percentages/ Deviation Results ................................................................. 262
Table 6.C1.1A.1: Perceptions on Library Use Quantity – Raw numbers by Year-level Segmentation ........................................ 263
Table 6.C1.1A.2: Perceptions on Library Use Quantity – Raw Numbers by Course Segmentation ................................................. 264
Table 6.C1.1A.3: Perceptions on Library Use Quantity Percentages/ Deviation Results .......................................................... 264
Table 6.C1.1B.1: Perceptions on Library Use Quality – Raw Numbers by Year-level Segmentation ................................................ 265
Table 6.C1.1B.2: Perceptions on Library Use Quality – Raw Numbers by Course Segmentation ................................................... 265
Table 6.C1.1B.3: Perceptions on Library Use Quality Percentages/Deviation Results ........................................................................ 266
Table 6.C1.1C.1: Perceptions on Benefit of Customer education – Raw Numbers by Year-level Segmentation ......................... 266
Table 6.C1.1C.2: Perceptions on Benefit of Customer education – Raw Numbers by Course Segmentation ....................... 267
Table 6.C1.1C.3: Perceptions on Benefit of Customer education – Percentages/Deviation Results ........................................................... 267
Table 6.C1.1D.1: Expected Attendance at Customer education Sessions – Raw Numbers by Year-level Segmentation .......... 268
Table 6.C1.1D.2: Expected Attendance at Customer education Sessions – Raw Numbers by Course Segmentation ................... 268
Table 6.C1.1D.3: Expected Attendance at Customer education Sessions – Percentages/Deviation Results ........................................................... 269
Table 6.C1.2.1: Most Common Problem with Obtaining Information – Raw Numbers by Year-level Segmentation .......... 271
Table 6.C1.2.2: Most Common Problem with Obtaining Information – Raw Numbers by Course Segmentation .......... 271
Table 6.C1.2.3: Most Common Problem with Obtaining Information Percentages/Deviation Results ........................................................... 272
Table 6.C1.3.1: Most Common Problem with Using Information – Raw Numbers by Year-level Segmentation .......... 274
Table 6.C1.3.2: Most Common Problem with Using Information – Raw Numbers by Course Segmentation .......... 275
Table 6.C1.3.3: Most Common Problem with Using Information – Percentages/Deviation Results ........................................................... 275
Table 6.C1.4A.1: Developing a knowledge of personal information needs, interests, concerns and abilities – Raw Numbers by Year-level Segmentation .............................................................. 277

Table 6.C1.4A.2: Developing a knowledge of personal information needs, interests, concerns and abilities – Raw Numbers by Course Segmentation .............................................................. 277

Table 6.C1.4A.3: Developing a knowledge of personal information needs, interests, concerns and abilities – Percentages/Deviation Results ................................................................................ 278

Table 6.C1.4B.1: Realizing how to Learn Through Using a Library Because Learning is Experiential when using a Library – Raw Numbers by Year-level Segmentation ........................................ 279

Table 6.C1.4B.2: Realizing how to Learn Through Using a Library Because Learning is Experiential when using a Library – Raw Numbers by Course Segmentation ........................................ 279

Table 6.C1.4B.3: Realizing how to Learn Through Using a Library Because Learning is Experiential when using a Library – Percentages/Deviation Results .................................................. 280

Table 6.C1.4C.1: Learning methods to suit my individual learning style are flexible when using a library – Raw Numbers by Year-level Segmentation .............................................................. 281

Table 6.C1.4C.2: Learning methods to suit my individual learning style are flexible when using a library – Raw Numbers by Course Segmentation .............................................................. 281

Table 6.C1.4C.3: Learning methods to suit my individual learning style are flexible when using a library – Percentages/Deviation Results ................................................................................ 282

Table 6.C1.4D.1: Clear Aims and Objectives Underpinning programmes and Targeting Specific Learning Outcomes that help
Develop Information Literacy Skills – Raw Numbers by Year-level Segmentation ............................................................... 283

Table 6.C1.4D.2: Clear Aims and Objectives Underpinning programmes and Targeting Specific Learning Outcomes that help Develop Information Literacy Skills – Raw Numbers by Course Segmentation ...................................................................................... 284

Table 6.C1.4D.3: Clear Aims and Objectives Underpinning programmes and Targeting Specific Learning Outcomes that help Develop Information Literacy Skills – Percentages/Deviation Results ................................................................................................  284

Table 6.C1.5.1: Reason for Non-Library Use – Raw Numbers by Year-level Segmentation ........................................................................ 286

Table 6.C1.5.2: Reason for Non-Library Use – Raw Numbers by Course Segmentation ......................................................................... 287

Table 6.C1.5.3: Reason for Non-Library Use – Percentages/Deviation Results ............................................................................... 288

Table 6.C1.6.1: Preferred Customer education Format – Raw Numbers by Year-level Segmentation ................................................ 289

Table 6.C1.6.2: Preferred Customer education Format – Raw Numbers by Course Segmentation ..................................................... 290

Table 6.C1.6.3: Preferred Customer education Format – Percentages/Deviation Results ........................................................... 291

Table 6.C1.7.1: Perceptions of Important Issues – Raw Numbers by Year-level Segmentation ....................................................... 293

Table 6.C1.7.2: Perceptions of Important Issues – Raw Numbers by Course Segmentation ................................................................. 293

Table 6.C1.7.3: Perceptions of Important Issues Percentages/Deviation Results ............................................................................... 294

Table 6.C1.8.1: Developmental Areas of Library Integration – Raw Numbers by Year-level Segmentation ....................................................... 295
Table 6.C1.8.2: Developmental Areas of Library Integration – Raw Numbers by Course Segmentation ................................................................. 296
Table 6.C1.8.3: Developmental Areas of Library – Integration Percentages/Deviation Results ............................................................... 296
Table 6.C2.1: Skills Expected to be Developed by Library – Raw Numbers by Year-level Segmentation ................................................................. 298
Table 6.C2.2: Skills Expected to be Developed by Library – Raw Numbers by Course Segmentation ................................................................. 299
Table 6.C2.3: Skills Expected to be Developed by Library Percentages/Deviation Results ............................................................... 299
Table 6.C2.2.1: Physical Skills in Library Use – Raw Numbers by Year-level Segmentation ................................................................. 301
Table 6.C2.2.2: Physical Skills in Library Use – Raw Numbers by Course Segmentation ................................................................. 301
Table 6.C2.2.3: Physical Skills in Library Use – Percentages/Deviation Results ................................................................. 301
Table 6.C2.3.1: Feelings about Personal Abilities – Raw Numbers by Year-level Segmentation ................................................................. 303
Table 6.C2.3.2: Feelings about Personal Abilities – Raw Numbers by Course Segmentation ................................................................. 304
Table 6.C2.3.3: Feelings about Personal Abilities – Percentages/Deviation Results ................................................................. 304
Table 6.C2.4.1: Skills of Knowing to be Developed – Raw Numbers by Year-level Segmentation ................................................................. 306
Table 6.C2.4.2: Skills of Knowing to be Developed – Raw Numbers by Course Segmentation ................................................................. 306
Table 6.C2.4.3: Skills of Knowing to be Developed – Percentages/Deviation Results ................................................................. 307
Table 6.C2.5A.1: Familiarity with Library Procedures – Raw Numbers by Year-level Segmentation ................................................................. 308
Table 6.C2.5A.2: Familiarity with Library Procedures – Raw Numbers by Course Segmentation ................................................................. 309
Table 6.C2.5A.3: Familiarity with Library Procedures – Percentages/Deviation Results ........................................................................... 309
Table 6.C2.5B.1: Familiarity with Library Services – Raw Numbers by year-level Segmentation ................................................................. 310
Table 6.C2.5B.2: Familiarity with Library Services – Raw Numbers by Course Segmentation ................................................................. 311
Table 6.C2.5B.3: Familiarity with Library Services – Percentages/Deviation Results ............................................................................... 311
Table 6.C2.5C.1: Familiarity with Library Resource Types – Raw Numbers by Year-level Segmentation ...................................................... 312
Table 6.C2.5C.2: Familiarity with Library Resource Types – Raw Numbers by Course Segmentation ................................................................. 313
Table 6.C2.5C.3: Familiarity with Library Resource Types Percentages/Deviation Results ........................................................................... 314
Table 6.C2.5D.1: Ability to Search Library Catalogue – Raw Numbers by Year-level Segmentation ................................................................. 315
Table 6.C2.5D.2: Ability to Search Library Catalogue – Raw Numbers by Course Segmentation ................................................................. 315
Table 6.C2.5D.3: Ability to Search Library Catalogue – Percentages/Deviation Results ........................................................................... 316
Table 6.C2.5E.1: Understanding of Periodical Indexes – Raw Numbers by Year-level Segmentation ................................................................. 317
Table 6.C2.5E.2: Understanding of Periodical Indexes – Raw Numbers by Course Segmentation ................................................................. 318
Table 6.C2.5E.3: Understanding of Periodical Indexes Percentages/Deviation Results ........................................................................... 318
Table 6.C2.5F.1: Understanding of Library Technology – Raw Numbers by Year-level Segmentation ................................................................. 319
Table 6.C2.5F.2: Understanding of Library Technology – Raw Numbers by Course Segmentation ..................................................... 320

Table 6.C2.5F.3: Understanding of Library Technology Percentages/Deviation Results ........................................................... 320

Table 6.C2.5G.1: Familiarity with Types of Printed Reference – Tools Raw Numbers by Year-level Segmentation ............................................. 321

Table 6.C2.5G.2: Familiarity with Types of Printed Reference – Tools Raw Numbers by Course Segmentation ........................................... 322

Table 6.C2.5G.3: Familiarity with Types of Printed Reference – Tools Percentages/Deviation Results ........................................................... 323

Table 6.C2.5H.1: Ability to Locate Current and Historical Information – Raw Numbers by Year-level Segmentation ............................................. 324

Table 6.C2.5H.2: Ability to Locate Current and Historical Information – Raw Numbers by Course Segmentation ........................................... 325

Table 6.C2.5H.3: Ability to Locate Current and Historical Information – Percentages/Deviation Results ........................................................... 325

Table 6.C2.5I.1: Ability to Assess Quality of References – Raw Numbers by Year-level Segmentation ........................................................... 326

Table 6.C2.5I.2: Ability to Assess Quality of References – Raw Numbers by Course Segmentation ........................................................... 327

Table 6.C2.5I.3: Ability to Assess Quality of References – Percentages/Deviation Results ........................................................... 327

Table 6.C2.5J.1: Ability to Access and Apply Information – Raw Numbers by Year-level Segmentation ........................................................... 328

Table 6.C2.5J.2: Ability to Access and Apply Information – Raw Numbers by Course Segmentation ........................................................... 329

Table 6.C2.5J.3: Ability to Access and Apply Information – Percentages/Deviation Results ........................................................... 329

Table 6.C2.6A.1: Familiarity with Library Procedures – Raw Numbers by Year-level Segmentation ........................................................... 331
Table 6.C2.6A.2: Familiarity with Library Procedures – Raw Numbers by Course Segmentation ..................................................... 332
Table 6.C2.6A.3: Familiarity with Library Procedures – Percentages/Deviation Results ................................................................. 332
Table 6.C2.6B.1: Familiarity with the Services Offered by Libraries – Raw Numbers by Year-level Segmentation .............................................. 333
Table 6.C2.6B.2: Familiarity with the Services Offered by Libraries – Raw Numbers by Course Segmentation ................................................. 334
Table 6.C2.6B.3: Familiarity with the Services Offered by Libraries – Percentages/Deviation Results ........................................................ 334
Table 6.C2.6C.1: Familiarity with the Types of Resources held by Libraries – Raw Numbers by Year-level Segmentation ..................... 336
Table 6.C2.6C.2: Familiarity with the Types of Resources held by Libraries – Raw Numbers by Course Segmentation ......................... 336
Table 6.C2.6C.3: Familiarity with the Types of Resources held by Libraries – Percentages/Deviation Results ........................................... 337
Table 6.C2.6D.1: Ability to Search a Library Catalogue and Find the Things Needed – Raw Numbers by Year-level Segmentation...... 338
Table 6.C2.6D.2: Ability to Search a Library Catalogue and Find the Things Needed – Raw Numbers by Course Segmentation .......... 339
Table 6.C2.6D.3: Ability to Search a Library Catalogue and Find the Things Needed – Percentages/Deviation Results ......................... 339
Table 6.C2.6E.1: Understanding of how to use Periodical Indexes – Raw Numbers by Year-level Segmentation ............................................. 341
Table 6.C2.6E.2: Understanding of how to use Periodical Indexes – Raw numbers by Course Segmentation ................................................. 341
Table 6.C2.6E.3: Understanding of how to use Periodical Indexes – Percentages/Deviation Results ................................................................. 342
Table 6.C2.6F.1: Understanding of how to use Library Technology – Raw Numbers by Year-level Segmentation ............................................. 343
Table 6.C2.6F.2: Understanding of how to use Periodical Indexes – Raw Numbers by Course Segmentation ............................................ 344
Table 6.C2.6F.3: Understanding of how to use Periodical Indexes – Percentages/Deviation Results ........................................................... 344
Table 6.C2.6G.1: Familiarity with Different Types of Printed Reference Tools – Raw Numbers by Year-level Segmentation .............. 345
Table 6.C2.6G.2: Familiarity with Different Types of Printed Reference Tools – Raw Numbers by Course Segmentation .................. 346
Table 6.C2.6G.3: Familiarity with Different Types of Printed Reference Tools – Percentages/Deviation Results ............................................. 347
Table 6.C2.6H.1: Ability to Locate Both Current and Historical Information on any Topic of Interest – Raw Numbers by Year-level Segmentation ...................................................................................... 348
Table 6.C2.6H.2: Ability to Locate Both Current and Historical Information on any Topic of Interest – Raw Numbers by Course Segmentation ...................................................................................... 349
Table 6.C2.6H.3: Ability to Locate Both Current and Historical Information on any Topic of Interest – Percentages/Deviation Results ................................................................................................ 349
Table 6.C2.6I.1: Given a List of References, Ability to Tell which becomes most useful – Raw Numbers by Year-level Segmentation ............................................................................................................. 351
Table 6.C2.6I.2: Given a List of References, Ability to Tell which becomes most useful – Raw Numbers by Course Segmentation ........ 351
Table 6.C2.6I.3: Given a List of References, Ability to Tell which becomes most useful – Percentages/Deviation Results ................. 352
Table 6.C2.6J.1: Ability to take Information from Various Sources and Apply it to Solve a New Problem – Raw Numbers by Year-level Segmentation ....................................................................................................... 353
Table 6.C2.6J.2: Ability to take Information from Various Sources and Apply it to Solve a New Problem – Raw Numbers by Course Segmentation ........................................................................................................... 354

Table 6.C2.6J.3: Ability to take Information from Various Sources and Apply it to Solve a New Problem – Percentages/Deviation Results ........................................................................................................... 354

Table 6.C2.7A.1: Desire to be more Familiar with Library Procedures – Raw Numbers by Year-level Segmentation .......... 356

Table 6.C2.7A.2: Desire to be more Familiar with Library Procedures – Raw Busbars by Course Segmentation ...................... 357

Table 6.C2.7A.3: Desire to be more Familiar with Library Procedures – Percentages/Deviation Results ................................. 357

Table 6.C2.7B.1: Desire to be more Familiar with Library Services – Raw Numbers by Year-level Segmentation .................. 358

Table 6.C2.7B.2: Desire to be more Familiar with the Services Offered by Libraries – Raw Numbers by Course Segmentation ....... 359

Table 6.C2.7B.3: Desire to be more Familiar with the Services Offered by Libraries – Percentages/Deviation Results .................. 359

Table 6.C2.7C.1: Desire to be more Familiar with the Types of Library Resources – Raw Numbers by Year-level Segmentation...... 361

Table 6.C2.7C.2: Desire to be more Familiar with the Types of Resources held by Libraries – Raw Numbers by Course Segmentation ........................................................................................................... 361

Table 6.C2.7C.3: Desire to be more Familiar with the Types of Resources held by Libraries – Percentages/ Deviation Results ....... 362

Table 6.C2.7D.1: Desire to be able to Search a Library Catalogue and find the things needed – Raw Numbers by Year-level Segmentation ........................................................................................................... 363
Table 6.C2.7D.2: Desire to be able to Search a Library Catalogue and find the things needed – Raw Numbers by Course Segmentation ................................................................. 364
Table 6.C2.7D.3: Desire to be able to Search a Library Catalogue and find the things needed – Percentages/Deviation Results ............... 365
Table 6.C2.7E.1: Desire for a better Understanding of how to use Periodical Indexes – Raw Numbers by Year-level Segmentation....... 366
Table 6.C2.7E.2: Desire for a better Understanding of how to use Periodical Indexes – Raw Numbers by Course Segmentation ........... 367
Table 6.C2.7E.3: Desire for a better Understanding of how to use Periodical Indexes – Percentages/Deviation Results ....................... 367
Table 6.C2.7F.1: Desire for a better Understanding of how to use Library Technology – Raw Numbers by Year-level Segmentation... 369
Table 6.C2.7F.2: Desire for a better Understanding of how to use Library Technology – Raw Numbers by Course Segmentation ........ 370
Table 6.C2.7F.3: Desire for a better Understanding of how to use Library Technology – Percentages/Deviation Results ....................... 370
Table 6.C2.7G.1: Desire to be more Familiar with Different Types of Printed Reference Tools – Raw Numbers by Year-level Segmentation ......................................................................... 371
Table 6.C2.7G.2: Desire to be more Familiar with Different Types of Printed Reference Tools – Raw Numbers by Course Segmentation ......................................................................... 372
Table 6.C2.7G.3: Desire to be more Familiar with Different Types of Printed Reference Tools – Percentages/Deviation Results .......... 372
Table 6.C2.7H.1: Desire to more easily Locate both Current and Historical Information on any Topic of Interest – Raw Numbers by Year-level Segmentation ............................................. 373

Table 6.C2.7H.2: Desire to more easily Locate both Current and Historical Information on any Topic that of Interest – Raw Numbers by Course Segmentation ................................................................. 374
Table 6.C2.7H.3: Desire to more easily Locate both Current and Historical Information on any Topic of Interest – Percentages/Deviation Results ................................................................. 375
Table 6.C2.7I.1: Given a List of References, desired ability to more easily Tell which becomes most useful – Raw Numbers by Year-level Segmentation ................................................................. 376
Table 6.C2.7I.2: Given a List of References, desired ability to more easily Tell which becomes most useful – Raw Numbers by Course Segmentation ................................................................. 376
Table 6.C2.7I.3: Given a List of References, desired ability to more easily Tell which becomes most useful – Percentages/Deviation Results ................................................................. 377
Table 6.C2.7J.1: Desired Ability to Obtain more Information from Various Sources and apply it to Solve a New Problem – Raw Numbers by Year-level Segmentation ................................................................. 378
Table 6.C2.7J.2: Desired Ability to Obtain more Information from Various Sources and apply it to Solve a New Problem – Raw Numbers by Course Segmentation ................................................................. 379
Table 6.C2.7J.3: Desired ability to Obtain more Information from Various Sources and apply it to Solve a New Problem – Percentages/Deviation Results ................................................................. 379
Table 6.D1.1: Number of Subjects Requiring Library Use – Raw Numbers by Year-level Segmentation ................................................................. 381
Table 6.D1.2: Number of Subjects Requiring Library Use – Raw Numbers by Course Segmentation ................................................................. 382
Table 6.D1.3: Number of Subjects Requiring Library Use Percentages/Deviation Results ................................................................. 382
Table 6.D1.2.1: Subjects Require a Variety of Information Sources
Raw Numbers by Year-level Segmentation ........................................... 383
Table 6.D1.2.2: Subjects Require a Variety of Information Sources
– Raw Numbers by Course Segmentation ............................................ 384
Table 6.D1.2.3: Subjects Require a Variety of Information Sources
Percentages/Deviation Results .......................................................... 384
Table 6.D1.3.1: Subjects Require Increasingly Complex
Information Seeking Skills Throughout the Course – Raw Numbers
by Year-level Segmentation ............................................................. 385
Table 6.D1.3.2: Subjects Require Increasingly Complex
Information Seeking Skills Throughout the Course – Raw Numbers
by Course Segmentation ................................................................. 386
Table 6.D1.3.3: Subjects Require Increasingly Complex
Information Seeking Skills Throughout the Course – Percentages/
Deviation Results ........................................................................... 386
Table 6.D1.4.1: Did the Last Piece of Assessment Work Submitted
Require Library Use – Raw Numbers by Year-level Segmentation
......................................................................................................... 388
Table 6.D1.4.2: Did the Last Piece of Assessment Work Submitted
Require Library Use – Raw Numbers by Course Segmentation ....... 388
Table 6.D1.4.3: Did the Last Piece of Assessment Work Submitted
Require Library Use – Percentages/Deviation Results ....................... 389
Table 6.D1.5.1: Type of Assessment – Raw Numbers by Year-level
Segmentation .................................................................................. 390
Table 6.D1.5.2: Type of Assessment – Raw Numbers by Course
Segmentation .................................................................................. 391
Table 6.D1.5.3: Type of Assessment – Percentages/Deviation
Results .............................................................................................. 392
Table 6.D1.6.1: Becomestter Library Use Have Improved Results –
Raw Numbers by Year-level Segmentation ....................................... 393
Table 6.D1.6.2: Would better Library Use Have Improved Results – Raw Numbers by Course Segmentation ............................................ 393
Table 6.D1.6.3: Would better Library Use Have Improved Results – Percentages/Deviation Results ........................................................... 394
Table 6.D1.7.1: Perceptions of Role of Library in Skill Development – Raw Numbers by Year-level Segmentation ..................... 395
Table 6.D1.7.2: Perceptions of Role of Library in Skill Development – Raw Numbers by Course Segmentation .................... 396
Table 6.D1.7.3: Perceptions of Role of Library in Skill Development – Percentages/Deviation Results .................................................. 396
Table 6.D1.8.1: Library Integration with Life – Raw Numbers by Year-level Segmentation ................................................................. 398
Table 6.D1.8.2: Library Integration with Life – Raw Numbers by Course Segmentation ................................................................. 400
Table 6.D1.8.3: Library Integration with Life – Percentages/Deviation Results .................................................................................. 400
Table 6.D2.1: Study Behaviour – New Subjects – Raw Numbers by Year-level Segmentation .......................................................... 402
Table 6.D2.2: Study Behaviour – New Subjects – Raw Numbers by Course Segmentation ............................................................. 404
Table 6.D2.3: Study Behaviour – New Subjects – Percentages/Deviation Results ................................................................................ 404
Table 6.D2.2.1: Frequency of Library Use – Raw Numbers by Year-level Segmentation ........................................................................ 406
Table 6.D2.2.2: Frequency of Library Use – Raw Numbers by Course ................................................................................................. 407
Table 6.D2.2.3: Frequency of Library Use – Percentages/Deviation Results ........................................................................................ 408
Table 6.D2.3.1: Frequency of Library Use – Raw Numbers by Year-level Segmentation ........................................................................ 410
Table 6.D2.3.2: Frequency of Library Use – Raw Numbers by Course Segmentation

Table 6.D2.3.3: Frequency of Library Use – Percentages/Deviation Results

Table 6.D2.4.1: Perceptions on Role of the Library – Raw Numbers by Year-level Segmentation

Table 6.D2.4.2: Perceptions on Role of the Library – Raw Numbers by Course Segmentation

Table 6.D2.4.3: Perceptions on Role of the Library – Percentages/Deviation Results

Table 6.D2.5.1: Perception on Role of College Library – Raw Numbers by Year-level Segmentation

Table 6.D2.5.2: Perception on Role of College Library – Raw Numbers by Course Segmentation

Table 6.D2.5.3: Perception on Role of College Library Percentages/Deviation Results

Table 6.D2.6.1: Life Roles Library Should Cater For – Raw Numbers by Year-level Segmentation

Table 6.D2.6.2: Life Roles Library Should Cater For – Raw Numbers by Course Segmentation

Table 6.D2.6.3: Life Roles Library Should Cater For Percentages/Deviation Results

Table 6.D2.7.1: Perceptions on Role of Library – Raw Numbers by Year-level Segmentation

Table 6.D2.7.2: Perceptions on Role of Library – Raw Numbers by Course Segmentation

Table 6.D2.7.3: Perceptions on Role of Library – Percentages/Deviation Results

Table 6.D2.8.1: Perceptions of Education Role of Library – Raw Numbers by Year-level Segmentation
Table 6.D2.8.2: Perceptions of Education Role of Library – Raw Numbers by Course Segmentation ......................................................... 426
Table 6.D2.8.3: Perceptions of Education Role of Library – Percentages/Deviation Results ............................................................. 427
Table 6.D2.9.1: Responsibility for Information Skill Training – Raw Huabers by Year-level Segmentation .................................................. 428
Table 6.D2.9.2: Responsibility for Information Skill Training – Raw Numbers by Course Segmentation ..................................................... 429
Table 6.D2.9.3: Responsibility for Information Skill Training Percentages/Deviation Results ................................................................. 430
Chapter 1
INTRODUCTION AND OVERVIEW

1.1 Introduction

Librarians need to develop a better understanding of the lifelong learning habits and needs of customers. An understanding of the relationship among library customer perceptions, practices, and personal philosophies would aid planning of library customer education to best meet customer needs. It would heighten customer awareness of the library and facilitate more affective promotion of library facilities and services, particularly customer education (Nicholson 1994:17; Wright 1994:14; Gruppen 1990:165; Keane 1990:116–126). The personal perceptions of customers can mirror personal reality and people are more inclined to participate in skill and knowledge building activities if they believe they will be beneficial. Analysis of customer perceptions can lead to increased and more efficient library use (Wells 1995:128; Groen 1989:76).

There has been extensive literature on the many means of library customer education including Grosser (1988) and Tomaiuolo (1990). Few articles consider the skills customers feel they require and how these can best be acquired. Coombs and Houghton (1995:261) endeavoured to clarify customer perceptions about library use skill needs and whether skill development through customer education is beneficial. However, they only considered one customer group, new students.

The purpose of the initial chapter of this study is to introduce both the setting and the context within which the research will take place. It begins to explore the background from history to more recent developments of lifelong learning in a tertiary library context, and
the gaps in present understandings. These will be further examined in subsequent chapters. Plans for the present study are also introduced in this chapter:

- Statement of the Problem
- Purpose of the Study
- Significance of the Problem
- Details of the Proposed Study
  - Definitions
- Research Questions
- Assumptions
- Limitations and Delimitations
  - Limitations
  - Delimitations

1.2 Background to the Problem

There has been much written, particularly in recent times, on the relationship between education and lifelong learning, and increasingly more is being published on the relationship of education, lifelong learning and libraries. There have been detailed reports on tertiary library customer education, the teaching of the information skills required to use the library efficiently. Research in information skills and teaching methodologies for specific customer groups was undertaken by Breivik (1993). Bruce (1990;1991) examined the information skill needs of postgraduate students. Wilson (1994a;1994b) examined the information needs of external students while Coombs and Houghton (1995) examined the information needs of new entry tertiary students. Novak and Lidstone (1992) examined the information needs of academics; and Bruce (1997) examined the perceptions of Australian academics. There have been few studies dealing with
lifelong learning, and libraries, especially library customer education, and even fewer considering tertiary libraries and consulting all customer groups including new students.

The connection between lifelong learning skills evaluated by library customer studies in the planning and implementation of customer education has a long history. Lifelong learning skills and customer needs are a reliable foundation for customer education programmes (Wilson 1994b) yet this is more evident in library practice than in documented research. Determining perceived needs is the first stage in understanding customers. Recognizing the self-perceived needs of customers and catering for preferred learning styles facilitates the creation of appropriate customer education programmes.

Library customers' perceptions of their needs historically differs from librarians' perception of customer needs. Librarians need to develop a better understanding of their market in order to meet self-recognized customer needs. An understanding, by librarians, of the lifelong learning and customer education self-perceived needs of customers would lead to increased knowledge of customer education needs in a given environment. An efficient and affective means of planning customer education services can be developed from a thorough understanding of the lifelong learning information and skills required by customers.

1.3 Statement of the Problem

The hypothesis of the study is that customers' personal perceptions of their lifelong learning skill needs are able to mirror their personal reality or philosophical base. This means, put simply, that by determining at what strength customers feel their information needs
and skills are in certain areas, strategies may be planned that lead to more effective customer education.

The connections between lifelong learning and the tertiary library were compiled through a literature review. At a sample tertiary campus, the personal perceptions of students about various issues related to these connections were then analyzed. This analysis was used to determined what areas of customer education might develop the lifelong learning skills of customers. A model is needed that facilitates examination of issues through the perspective of customers and that places learning at the heart of library services. This study develops a model that focuses on students' perceptions of personal lifelong learning skills and needs as a basis for the development of lifelong learning skills through library customer education at a tertiary campus.

1.4 Purpose of the Study

The study includes all internal students at a particular college site during 1997. It examines, through a study of the student market and investigation of the college documentation, the perceived connection between lifelong learning and the library. The resulting information is used in the development of customer education approaches to meet the self-perceived needs of students. It also ensures that library customer education programmes are offered in ways that facilitate the development of lifelong learning skills and that customer education is directed at appropriate groups or segments of customers.

This study investigates how lifelong learning could be used as a focus for customer education programmes. The subjective aspect of information systems, procedural efficiency as viewed by library administration rather than customers, means that the human perspective and the views of customers is often neglected. Failing to
realize the opinions of customers disregards the fact that particular groups or segments of people will accept only those modes of information transfer perceived as personally relevant or applicable (Kunz, Rittel & Schwuchow 1977:9).

Literature reviewed tended to indicate that the hypothesis would be supported and conclude that the lifelong learning and library connection is implicitly acknowledged and practiced on campus. It is expected that patterns of perceptual overlap between customer groups will be discovered. Library customer education will help develop positive customer perceptions of lifelong learning through the role of the library.

1.5 Significance of the Problem

Bruce (1997:10) examined information literacy, a component of lifelong learning, in Australian universities from an academic's perspective. Bruce concluded that the unaddressed issues related to how lifelong learning, specifically information literacy, programmes be “designed, implemented, evaluated?” Do students' needs in this area “differ at different levels, and if so how?”; and what is the role of libraries and in the design, teaching and resourcing of customer education, and furthering the experience? There appears to be no studies that have considered the varying customer education needs of customer segments in a tertiary education setting. This includes the development of positive information retrieval skills perceptions leading to lifelong learning skill development. The current study endeavours to address these issues and expand on them.

There has been extensive literature on the many means of library customer education but few articles consider the skills customers feel they require and how these can best be acquired. Bruce (1997:157)
stated that “within the higher education sector, we have as yet no picture of information literacy as it is experienced amongst students. This is a significant gap in a picture”. The current study will commence at this point examining lifelong learning, of which information literacy is a component.

1.6 Details of the Proposed Study

The literature survey investigated recent related research through searches of manual indexes, electronic databases, and the Internet to search general and cross-referenced terms related to education, libraries, and lifelong learning. The specific education terms of adult education, curriculum, innovative education, interdisciplinary learning, learning outcomes, learning processes, and teaching methodology were selected. The library terms of college/university/tertiary libraries, information literacy, library customer education and library user education, and the lifelong learning terms of continuing education, co-operative education, graduate characteristics, independent learning, integrated learning, learning-to-learn, problem-based learning, self-directed learning, and transferable skills were also searched and cross-referenced against each other with particular reference to student perceptions and information needs and desires. Internet searching was followed by searches of AEI (Australian Education Index), APAIS (Australian Public Affairs Information Service), AST (Applied Science and Technology Index), ARI (Australian Religious Index), CURRICULUM (Curriculum Technology Index), DAI, EDLINE (Education Database), ERIC (Educational Resource Information Centre), MLA (International Bibliography), SSI (Social Sciences Index), using the key words noted above. The bibliographies of all articles were then considered for further reference and many further articles obtained.
This current study will examine the self-perceived lifelong learning and information skill needs of customers and how they considered their use and knowledge of the library could fulfil these needs. The proposed study will utilize a variety of methods to obtain perceptual information from students. The approach of the methods used and wording of the questionnaire encouraged students to further refine and recognize their own independent learning styles and facilitate adaptive, critical, and evaluative approaches to thought by leading students through a series of questions designed to encourage reflection on their perceptions related to a variety of lifelong learning and library issues.

The study will take place on one site and involve the tertiary campus, The Christian College, offering undergraduate and postgraduate degrees. The case study library was chosen because it serves a tertiary level college serving a diverse customer base representing many age groups and education backgrounds. The students come from many different urban and rural areas of Australia including Aboriginal and overseas students. The Christian rather than humanistic philosophy held by the campus is extremely facilitative of the lifelong learning philosophy. This will be discussed in greater depth in Chapter 4. The campus typifies Christian tertiary colleges because of their world view which transcends ethos, propaganda or policy by lying at the foundation of the philosophical views of the campus and being widely displayed in daily campus practice and procedures. This can be seen in the priority of endeavouring to meet the needs of the whole person rather than just the academic needs. The findings could, therefore be considered transferable within the settings of other tertiary campuses of similar size and philosophical orientation.

The Christian College was chosen for this study because of its written philosophical position that teaching and learning can not be
conceived within narrow parameters. This means that the campus does not just consider the academic needs of the student but recognizes the spiritual and personal needs of the individual and attempts to develop these in conjunction with academic development. It is also reflected in the very individualized approach where faculty endeavour to reach the person behind the student. The mission statement of the college states the desire to produce graduates who possess a broader understanding of learning, an understanding that should facilitate positive lifelong learning perceptions, skills and attitudes through the personal experience of a learning environment that integrate many aspects of life and learning. The courses offered by the College lay a foundation for flexibility and responsiveness to emerging needs and develop a broader personal framework (CHC 1992a:15). This is achieved through the inclusion of a variety of teaching and assessment methodologies and approaches.

Lists of specific lifelong learning skills and library customer education foci were extracted from the literature, and manipulated to encapsulate the key concepts and principals for the study. These statements were the basis for a document analysis of college documentation (Chapter 4). The document analysis of all college documents, including Policy and Procedure Manuals, Queensland Accreditation Submission documents, minutes from course co-ordination committees and faculty planning and staff development sessions, for recognition of lifelong learning ideals derived from the literature review, the role of the library in education, and facilitativeness of the campus in the implementing of library customer education. An examination of library and institute documented aims and objectives, and policies and procedures should provide insight into the extent to which the theoretical and practical aspects of lifelong learning are realised. The context of any specific or implied references to lifelong learning or the
skills and characteristics of lifelong learning as listed in the literature review and appendices will be examined (Chapter 4).

The college was chosen because it represents two distinct levels of post-compulsory education, independently managed under the umbrella of one central organization. The college is a small private tertiary institute of three hundred and fourteen internal students, close to Brisbane city. It focuses on teacher education, and arts with counselling/psychology commencing in 1998 and business in 1999. The library holds over forty thousand resources; is multidisciplinary with holdings in the disciplines of education, arts, theology and general humanities; and is staffed full time by two librarians and four library assistants whose hours facilitate library use by customers day and evening. It is located in one building on a campus where no main buildings are physically connected. The library is easily accessible to staff and students, although not located in a central position.

The case study will consist of three stages:

i. A content analysis and document survey of campus documented aims and objectives, policies and procedures to determine extent of lifelong learning philosophies – Semester 2, 1996.

ii. Literature review and Christian College document survey used to form questionnaire – Semester 2, 1996.

iii. A survey determining current customer perceptions of the lifelong learning and library issues – Term 1, Semester 1, 1997 – Blanket, self-selecting sample from all full and part-time students.

1.6.1 Definitions

Clear definitions are essential to comprehend properly the customer education function of the library. Definitions constitute a theoretical
framework for library customer education (Christ 1972:72). The following definitions have been adopted for this study:

**Customers**

This study was initiated believing, in keeping with policies and procedures of the College Library, that every person on campus is a potential, successful customer of the library. Library research endeavours to find ways to ensure that all customers who choose to make use of the library service are beneficiaries.

It is difficult to find an adequately descriptive term for the libraries market. There are at least four distinguishable customer categories within the library market. These are potential or needing, expected or intending, actual or current, and beneficiary or successful customers (Kunz, Rittel & Schwuchow 1977:17). Throughout this thesis, the terms ‘library customer’ and ‘customer’ have been used to distinguish customers from other users such as staff. It will refer to all enrolled students, both potential and actual student customers. Similarly, library customer education encompasses all activities designed to teach the customer about library resources, services, and research techniques (Gruppen 1990).

**Market Segmentation**

The various library customer groups able to be served by the library are called markets within the library's community (Zachert 1990:184). Market segmentation is one way to study these groupings. A systematic analysis of the actual and potential customer population is one of the most vital means of improving library services. It was for this reason that market segmentation was developed. Specific knowledge about customers allows for the designing and
presentation of education services to meet specific needs. Since the population of the library market is not homogeneous, the best way to examine customer information needs is to group customers into segments (Massey 1976:473; Zachert 1990:185). The ways of segmenting customer groups are almost limitless, but there are several traditional patterns accepted as relevant for understanding and planning purposes. Market segmentation, as the basis for market analysis, examines the demand for services by particular customer groups and demonstrates how a rational and precise adjustment should satisfy customer requirements (Massey 1976:473).

The underlying belief in market segmentation is that the marketplace is comprised of individuals who have different needs, some of which are shared, to varying degrees, with others. Zachert (1990:184) described this as being a means of determining which segments in the marketplace need to be taught particular information skills by library staff. Segmentation is a process of gathering information about customers, and then quantifying this information for the projection of library customer education needs. Zachert (1990:185) described it as a “marketing measure” essential for “realistic planning”.

**Benefit Segmentation**

Benefit segmentation is the analysis of the benefits customers desire in their use of the library services. Massey (1976:475–76) observed that segments are defined by the primary benefit being sought. Benefits should always be defined from the customer's point of view, not from the point of view of the library as a whole, or the librarian. They should be categorized on the basis of needs, determined through data gathering techniques such as questionnaires. Each segment is then contrasted with all other segments on the basis of set characteristics.
This facilitates increased understanding of customer groups (Massey 1976:475).

**Demographic Segmentation of Customers**

A popular method of segmenting market groups is demographic segmentation. Demographic segmentation is the grouping of customers under any one or group of variables. Demographic segmentation was selected for this study because each customer role has its own knowledge or skill structure, or its own specific reason for library use (Wilson 1994a). Each customer group, divided demographically, may perceive varying information needs and diverse roles for the library in lifelong learning. This would necessitate different approaches to library customer education.

**Information Literacy**

Information literacy, the ability of individuals to recognize when information is required and then to locate, use and evaluate information for a given need, is fundamental to the decision-making skills of all students. The subsequent quality of their personal and professional lives after graduation, including their ability to comprehend, analyze and propose solutions to problems can depend on the quality of information literacy skills.

Information literacy is characterised by an integrated set of skills that promote participation in continued learning; developed through acquisition of positive attitudes toward continued learning; and usually driven by immediate, personal need (Breivik 1986:723; ALA 1989:2; American Library Association Presidential Committee on Information Literacy Report 1989; Jessup 1993:124–125).
The term information literacy has come to represent a cluster of abilities that are required to cope with, and take advantage of, the unprecedented amounts of information that encompass every aspect of life (Candy 1993b:60). There is a need for co-operation between librarians and other educators to develop appropriate teaching strategies for information literacy (Rader 1990:18–20).

**Customer Education**

Library customer education encompasses all activities designed to develop in customers skills related to library resources, services, and research techniques. There are many synonyms for customer education but the most common are library instruction, user education, and end-user education (Gruppen 1990; Renford & Hendrickson 1980:33).

**Lifelong Learning**

Lifelong learning is a philosophy which incorporates a collection of beliefs and goals (appendix 1, appendix 2, Knowles 1990:181–183; & appendix 3, Dave 1973). It is also a theory of education encompassing a model of human nature and a unifying principle that clarifies and integrates a number of educational trends and practices (Cropley 1980:7–8). Lifelong learning is connected to individual development including any activity that provides the opportunity to aid discovery and develop inner growth, creativity, and renewal throughout the entire lifespan. In the simplest definition, lifelong learning has been described as a mode of behaviour, intrinsic, demand-oriented and heavily dependent on learner motivation and ability to continue learning.

Succinctly stated, lifelong learning may be conceptualized as a continuous learning and adaptation process throughout life, very broad
and comprehensive and including all learning; formal, nonformal and informal; across the lifespan (Candy, Crebert & O'Leary 1994:xi; Candy & Crebert 1991:4). The difference between lifelong learning and lifelong education are the philosophical implications of lifelong learning and the practical focus of lifelong education (Candy & Crebert 1991:4). Knapper and Cropley (1985:20) defined lifelong education as all the procedures in place to promote lifelong learning. This would include the organizational, administrative, methodological and procedural measures required to promote lifelong learning.

1.7 Research Questions

Customer Studies will be conducted to clarify personal perceptions. A customer study was planned using information obtained during the literature and document searches. The case study will be conducted using the students of the Christian College. The questionnaire will use a blanket, self selecting sample to give all students the opportunity to participate in the study.

Survey data will be categorized demographically twice using questionnaire Part A data, field of study and the year-level of study. It is anticipated that determining market segmentation will allow specific direction of customer education activities to meet the needs and expectations of all students.

The key areas of concern uncovered during the literature review were divided into foci for the present study:

Focus A. Demographic

• What are the most logical divisions of customers to facilitate a lifelong learning library education approach and are there identifiable similarities in key areas of customers' backgrounds?
Focus B. Library

B1. Library Use

• What personal methodologies are implemented when using libraries and information resources and do these indicate a lifelong learning philosophy, reflected in a broad view of what constitutes learning (formal, nonformal and informal) and a desire to develop the skills required to learn throughout life?

B2. Library Use Rationale or Perception

• What personal feelings and motivations are associated with using libraries and information resources and do these indicate a lifelong learning philosophy?

Focus C. Skills Assessment

C1. Skills Assessment and Library Use

• Do customers present similar responses when self-assessing their information skills and their library use and what do these indicate about their lifelong learning abilities?

C2. Skills Assessment Rationale or Perception

• Do customers expect to develop their information skills and their library use abilities throughout their time at college and do their expectations indicate lifelong learning desires?

D. Integration of Lifelong Learning Skills into Tertiary Libraries

D1. College, Course and Library Integration and Library Use

• Do customers feel college subjects integrate with library use and do customers view the library as a lifelong learning facilitator?

D2. College, Course and Library Integration and Library Use Rationale or Perception

• Do customer library behaviours and motivations reflect integration of college, course and library and does this reflect a customer view of the library as a lifelong learning facilitator?
These foci were then explicated into questions for a written survey. The questionnaire sought information on the implied and explicit education needs of library customers. The use of meta-analysis cumulating in a broader inference procedure review of literature recognizes and responds to the expanding quantity of literature. This is reflected in the survey instruments and should result in enhanced validity of conclusions.

1.8 Assumptions

The basic assumption of this thesis is that the library, as a social system, can be conceptualized as a system of learning resources. Generating from this conceptualization, libraries may be perceived to deliver implicit and explicit educational services. This presents a new institutional form for education, defined by Knowles (1990:171–72) as a Lifelong Learning Resource System or Learning Community. This model is based upon eight assumptions (appendix 1) and a spiralling series of seven elements (appendix 2). It is skill and performance based providing the practical, physical basis of the proposed perceptual model.

1.9 Limitations and Delimitations

1.9.1 Limitations

a. Self-assessment skills and the ability to communicate these, while expected to be present in all tertiary students, will exist to a greater or lesser extent in each student.

b. Although the use of different data collection tools enable access to customers' thoughts, it does not guarantee that all or true thoughts will be revealed, nor is it possible to know the extent of hidden thoughts. The positive Christian tone of the campus does provide confidence that responses will be honest, but questions will be
directed in such a way that follow-up questions will act as a checking mechanism.

c. Qualitative research will be used in data analysis, and through interpretation, the findings are, due to human nature, subject to unconscious bias. Similar to quantitative research methodologies, qualitative research reflects an underlying understanding of reality. This approach tends towards making no assumption about the phenomenon being studied but explores the respondents' own perceptions of their world. Qualitative research, therefore, reflects the complexity of life, especially feelings. It results from the epistemological assumption that an absolute understanding of truth is not possible because any research situation will be biased due to the perceptions of the reality of the researcher. This bias will influence interpretation regardless of the methodological objective.

d. The uniqueness of the case study site to Australian tertiary history, both in the age of the campus, its size, and philosophy or worldview, make it unlikely that exact replication of the study becomes possible although a similar study of other private or small tertiary institutions could anticipate similar results.

e. Participation in the study could affect the attitudes of students and taint responses but the open, responsive nature of the institution should compensate for this tendency.

1.9.2 Delimitations

a. The research was conducted only in a Christian tertiary education situation. The results may not be applicable to any other education levels or non-Christian campuses.

b. Since the research only deals with students studying internally in education or humanities, it may not be applicable to other disciplines or modes or study.
c. The research was conducted in a setting where new ideas and methodologies are encouraged, and faculty and students supportive through broad awareness and interest in the work of others from the College. The results may not be transferable to settings where this atmosphere does not exist.

1.10 Organization of Chapters

This chapter has provided a broad overview of the study and how the feasibility of using the connection between lifelong learning and libraries as a focus for tertiary library customer education was investigated using single-case study research methods and analysis of college documentation. This chapter introduced the plans to propose a model of lifelong learning, perceptual in nature, as an alternative to behavioural and relational models which are more experientially or practice based.

The remaining chapters are organized in the following way:

**Chapter 2: BACKGROUND AND SUBJECT OVERVIEW**

Chapter 2 establishes a foundation to this current study by examining and organizing available, documented information on the background and current standing of lifelong learning, tertiary education and tertiary library descriptions and definitions. The chapter commences with a discussion of the existing theories and models of education and librarianship. Chapter 2 proceeds to present the attributes of lifelong learning which would affect the proposing of a new lifelong learning model. Many people have listed the attributes of lifelong learning and lists overlapped considerably so it was an essential starting point to consolidate these lists to establish exactly what are the suggested skills, characteristics, and methodologies of lifelong learning to be considered.
Lifelong learning and tertiary education is considered from four sequential aspects: lifelong learning goals of tertiary education; development of lifelong learning in tertiary education; tertiary education methodologies for lifelong learning; and lifelong learning skills desired in graduates. This is followed by an examination of the background of lifelong learning and libraries. Less has been written about tertiary education libraries and lifelong learning. For this reason a broader perspective has been used commencing with tertiary education libraries and moving through the areas of library skills in the tertiary curricula; customer education and the library; and library customer education methodologies.

An overview of general issues related to lifelong learning in Australia and Australian government reports is provided along with the provision of an explanation of the basis for studying library customers including library customer study methodologies and the role of library surveys and research.

**Chapter 3: LITERATURE REVIEW OF TOPIC**

A review of literature uncovered four fundamental gaps in existing research. These became the four foci of the present study. Chapter 3 investigates the existing research under these four foci. This current study takes a distinct library focus, a librarian based in a library. The research from this perspective was rare, hence the clear gaps that became evident. These gaps have the common thread of supporting the emergence of a perceptual model. A model facilitating lifelong learning through library customer education strategies. These strategies would aim to identify the most effective library customer education focus for fostering the lifelong learning attitudinal and skill development of tertiary student segments. This
determines the current and ideal customer-perceived role of a tertiary library in facilitating the development of lifelong learning skills in students. It investigates how lifelong learning can be used as a focus for customer education programmes.

Chapter 4: CHRISTIAN COLLEGE

Chapter 4 commences with an introduction to the Christian College. A schema was created using information obtained and discussed in chapters 2 and 3. This schema is the focus of Chapter 4 and is used to analyze college documentation for recognition of lifelong learning principles. It follows sequentially through the areas as discussed in the literature examining curriculum structure and composition; teaching and assessment of students; and the overall ambience of the institution. The chapter concludes with an evaluation of Christian College's commitment to lifelong learning.

This was required to ensure that the most affective library customer education segment focus for fostering lifelong learning attitudinal and skill development, identified during this study, supports the aims and objectives of the institute. This determines whether the current and ideal customer-perceived role of a tertiary library in facilitating the development of lifelong learning skills in students can be in keeping with the aims and objectives of the college. It also establishes whether lifelong learning can be used as a focus for customer education programmes within the current campus environment.

Chapter 5: METHODOLOGY

Chapter 5 presents a discussion of the fundamentals of the study. It considers the method and design of the study, particularly case study design. Data collection methods are discussed including the document survey, and questionnaire. Methodological assumptions
about quantitative research and qualitative research are considered along with issues about the organization and analysis of data.

Chapter 6: DATA ANALYSIS – SURVEY

Chapter 6 presents an analysis of the study from which emerges the foundations for a new perceptual model. The study consisted of an indepth questionnaire which is analyzed in this chapter. The chapter is divided into four foci. This is then subdivided by the two areas identified during the literature review: library use, and library use rationales or perception.

Chapter 7: CONCLUSIONS AND IMPLICATIONS

Chapter 7, the final chapter, summarizes the outcomes of the study. It commences with a discussion of the affects of participation in the study. The chapter then proceeds to examine contributions to lifelong learning theory through implications for customer education practice and recommendations for further research. The study contributes to reducing four evident gaps in existing literature by producing a new model of lifelong learning.
Chapter 2
BACKGROUND AND SUBJECT OVERVIEW

2.1 Introduction

This chapter provides an overview and background of the issues surrounding lifelong learning paying particular attention to its connection with education and librarianship, as addressed in the literature, particularly Australian literature. It also introduces the background and need for research into areas of librarianship. The chapter presents a view of the knowledge that forms the foundation of current understanding in these areas. Chapter 3 will examine current research that has built upon this foundation to reveal the gaps in research that require further investigation.

Chapter 2 identifies foundations in the literature and critiques them in the light of historical, theoretical and practical considerations. The attributes of lifelong learning have been listed by many authors and will be discussed in this chapter. Many of the attributes of lifelong learning have been repeated and embellished over time and more recently considered in relation to specific disciplines and groups of individuals. Before these applications of lifelong learning may be considered, the existing theories and models of education and librarianship will be considered to set the scene for the emergence of lifelong learning as a leading concept in library customer education.

2.2 Existing Theories and Models of Education and Librarianship

Researchers have attempted to identify, describe, explain and predict the factors, processes and outcomes that are associated with learning.
Some have given attention to behavioural aspects, others have focused on cognitive or meta-cognitive issues.

Literature in this area has continued to build, layer upon layer, upon previous works and studies. Saljo (1993), for example, researched perceptions of learning over the previous twenty years. Qualitative research in education over the last twenty years, particularly by Marton, Hounsell and Entwistle (1984) and Marton, Dall'Alba and Beaty (1993), examines perceptions of learning, particularly from a learner's perspective. Edwards (1989) recommended that learning be viewed as personal development. Marton, Dall'Alba and Beaty (1993:277–300) built on this to suggest that six qualitatively different perceptions of learning were increasing one's knowledge; memorizing and reproducing; applying; understanding; seeing something in a different way; and changing as a person.

The majority of traditional customer education programmes are based on Bloom's *Taxonomy of Educational Objectives* which endeavoured to rank cognitive skills hierarchically (Fjallbrandt & Malley 1984:24, Wilson 1994a). Highly and sequentially developed skills, however, will not automatically lead to increased library use or an adopting of lifelong learning skills and philosophy. A positive perception of the library and lifelong learning may be used to support skill development and encourage the development of lifelong learning skills and philosophy. Knapp introduced the use of conceptual frameworks in library science and Tuckett and Stoffle (1984) analyzed their use in conjunction with problem-solving teaching and learning styles. This model focused on the customer rather than the reference tool or the bibliographic skill. It recommends that librarians adopt a problem-solving approach to customer education (Sheridan 1986:163; Oberman 1983:22).
Candy, Crebert and O'Leary (1994:185) concluded that a firm commitment to lifelong learning was difficult due to practical, philosophical and structural issues that would represent a significant paradigm shift. It is also difficult for students to become lifelong learners if educators and librarians fail to recognize that lifelong learning skills must be incorporated into learning experiences.

Education, as traditionally recognized, presents deficiencies which reduce the likelihood of openness to lifelong learning ideals. Education restricts learning to childhood and places a pre-eminence on the formal years of schooling (Cropley & Dave 1978:7–9). The excessive emphasis formal education places on knowledge and facts dissociates education and life. These traditional pedagogical models emphasising content and an authoritarian approach to education prove unsuccessful in the development of lifelong learning skills. Pedagogical models tend to restrict independence, self-reliance and ownership of the learning episode from the learner and generally typify a spoon-feeding approach where control for learning is in the hands of the educator. In an effort to develop a model of lifelong learning, educational theorists investigated new ways of approaching the learning processes.

Pedagogy facilitates growth of a child into adult social roles, whereas andragogy helps the adult become more competent in those roles. Lifelong learning appears more suited to an andragological model where ownership of the learning episode is given back to the learner, and the educator, if involved, is more a facilitator or assistant to the learning experience (Wilson 1994b:248–249).

Educational theory can be divided into two general models or world views based on the work of two developmental psychologists,
Hayne W. Reese and Willis F. Overton. These two systems are a “mechanistic” and an “organismic” world view.

The basic metaphor for the mechanistic world view is the machine. Learning theorists who subscribe to this model view the learner as a machine, essentially passive until motivated by external forces. The relationship between the external force and the machine is one of cause and affect. In principle it should be possible to quantify both and to predict the results of interactions. Theorists subscribing to this model view educators as being in control of the learning experience through the management of reward. They see learners as empty organisms who respond to stimuli more or less randomly and automatically. The primary teaching methodology involves stimulus and response to goals set by the educator. Teaching is the management of procedures to assure specified behavioural changes as prescribed learning products. A mechanistic model of learning supports theories of education that regard teaching as the transmission of a set body of knowledge (Knowles 1990:15–16,77).

In an organismic world view, the basic metaphor is the organism, the “living organised system presented to experience in multiple forms” (Knowles 1990:15). In this model the learner is active, not reactive and learning behaviour is purposeful with an emphasis on the processes of learning not the transmission of knowledge. Acceptance of this model has led to the development of learning theories that concentrate on learning processes rather than products and on qualitative not quantitative changes. This model is lifelong learning facilitative.

Adult learning theories, whether relational or behavioural, provide an ideal framework for teaching lifelong learning because they emphasise
the development of skills rather than the transmitting of content. There are two adult learning theories particularly relevant to any discussion of lifelong learning and library customer education. These two theories are the Library College Theory and the Lifelong Learning Resource System. The two theories will be discussed in further detail throughout this thesis. To ensure lifelong learning customer education programmes are effective and meet the needs of particular student groups, measurement of information skill abilities and needs is essential. Information skills may be divided into three basic groups:

i. Psychomotor Skills – These are the physical competencies of handling manual and electronic information tools.

ii. Cognitive Skills – These are intellectual skills associated with finding and using information resources and are the skills targeted by customer education.

iii. Affective Skills – These pervade every aspect of lifelong learning skill acquisition through areas of perception and value and provide incentives and disincentives to the acquisition of new skills. (Fjallbrandt & Malley 1984:23)

The development of sophisticated theories of learning in the tertiary education context provides a different perspective on teaching and learning. Until recently, understanding of how tertiary students learn was limited, but the 1980s and 1990s saw the emergence of tertiary education theories and provided a powerful framework and language for the analysis of learning. Adult learning theories emphasise the learning goal identification, the development of independence and the importance of learning process reflection and integration. This improves understanding of learning and provides a greater appreciation of the relationship between language and learning (Mullins 1993:44).
Education must prepare students for an unknown future, for a lifestyle that does not yet exist. A life of increased job mobility and rapid technological changes requiring continued education throughout life. Education fostering initiative and offering flexibility in learning patterns is essential (Butler 1989:18).

The working paper prepared by Knowles (1983) for the UNESCO Institute for Education pleaded for new conceptualizations of education. UNESCO in Hamburg (1978) identified five criteria for a system of education (Appendix 10). Knowles (1990:167) thought that the nineteenth-century model, on which current education systems are based, is fundamentally mechanistic and no longer functional in a world experiencing accelerating rates of change. Knowles (1990:169) suggested that many eminent social analysts had substantial doubts of whether conventional models of human learning could still be considered adequate. In changing times, learning that can support problem reformulation is essential for survival.

Conceptual frameworks in library science are used in conjunction with problem-solving teaching and learning styles. The model developed through this study will focus on the customer rather than the bibliographic skill.

**Andragological Teaching Model**

The term ‘andragogy’ was coined by Kapp, a German educator, in 1933. The word was derived from the Greek word ‘andros’ meaning ‘grownup’. It was introduced in the English education sector by Knowles, a Boston University educator, in a speech at West Georgia College in 1968 (Knowles 1968:350; Houle 1961).
Knowles (1990:30) quoted Lindeman who in 1926, as a pioneer of adult learning theory, stated that adult education was a process through which learners became aware of “significant experience”. Recognition of the significance of experience leads to evaluation. Meanings accompany experience when the learner knows what is happening and what importance the event includes for personalities. The theory of andragogy is a focus on the unique characteristics of adults as learners. These characteristics bring unique incentives that involve anticipated gains such as time, money, future security, praise, pride, advancement, and self-confidence. The incentives for adult learning had previously been divided into four categories according to what people wanted to gain; hoped to be; wished to do; or wanted to save (Sheridan 1986:157–158; Knowles 1980).

The purpose and incentives of adults to learn are different from those of children. However, as a learning theory, andragogy has not been universally accepted. Pedagogy facilitates growth of a child into adult social roles, andragogy helps the adult become more competent in those roles. It recognizes the transactional nature of students as proactive agents deeply involved in their endeavours (Sheridan 1986:159,164).

Andragogy developed largely within the framework of behavioural and progressive schools of educational philosophy (Sheridan 1986:159). The concept differentiates between the teaching of adults and children. It is a normal aspect of the process of maturation for a person to move from dependency toward increasing self-directedness, people progress at different rates. People grow and develop and accumulate a reservoir of experience that has the potential to become an increasingly rich learning resource. More personal meaning is subsequently attached to the knowledge attained though these experiences. People become ready
to learn when they experience a need to learn a particular thing. It is learned in order to cope more satisfyingly with real-life tasks or problems. Learners see education as a process of developing increased competence. For an adult to benefit from a learning experience he or she must build upon past experiences. It is essential that the learning experience be problem or task-oriented, becoming increasingly self-directed (Weingand 1986:191–93).

**Lifelong Learning**

The skills of lifelong learning are a prerequisite of “successful human activity” (Lupton 1993:40) and need to be integrated into all curriculum areas at both a theoretical and a practical level. A theoretical understanding of what it means to be a lifelong learner is vital if libraries are to serve all the needs of customers. This leads to the development of appropriate structures and practices for customer lifelong learning within the library.


**Library College Theory**

The Library College Theory reflects a theory of education, relevant to both education and librarianship. The Library College Theory highlights the library and its learning mode of independent study as the most appropriate education structure. The foundation of the Library
College Theory is the relationship among the principles, methods, and advantages of library study and those of education. The theoretical framework of education and library study are thus reconciled. The library can make a significant contribution through customer education because of the interdisciplinary nature of knowledge (Christ 1972:85–97).

The Library College Theory is seldom acknowledged today and only received attention at its inception in 1972. The concept constituted a “high order abstraction”, integrating generalizations pertinent to both the concepts of libraries and education while still allowing each to maintain a high degree of autonomy. Christ (1972:93) analyzed the conceptual framework of the Library College as a “highly acceptable operational definition” for a “useful theoretical construct” of a valuable philosophy of education relevant to both institutions.

The theoretical structure underpinning both the functional and the operational structure of library science is the “concept of education”. The functional essence of library science, within this framework, involves the collection and organization of resources, relevant to either “independent or institutionalized epistemology and pedagogy” (Christ 1972:72).

It has been predicated that library client education will be a primary avenue of continuing and expanding involvement for librarians. Tertiary librarians are credited as being “pioneers” for the “whole profession” in the area of the Library College Theory (Beckman 1990:93).

**Lifelong Learning Resource System**
Knowles (1990) created a systems model called the Lifelong Learning Resources System. Central to this model is the concept of the post-compulsory education learner and the development of self-directed learning skills. These skills (appendix 7) include “to identify human, material and experiential resources for accomplishing various learning objectives; and to design a plan of strategies for the affective use of appropriate learning resources” (Knowles 1990:174).

Points five (v) and six (vi) deal implicitly with the concept of information literacy a key area of lifelong learning. Any social system may be conceptualized as a system of learning resources. When these are conceptualized the organisation and delivery of educational services are subsequently likewise conceived.

While it is clearly understood that educational research has important implications for instructing, perceiving, thinking, learning, critically reflecting and meta-cognating, a great deal of work still needs to be completed if library educators are to be able to integrate the process, product and personal perception approaches that are outlined in this chapter. It is the understanding of each of these dimensions together with the facilitation and orchestration of educational activities to promote the integration of knowledge, skills, processes, and affective aspects, that is expected to enable customers to make meaning both of and through all areas of customer education.

Account must also be taken of the interactions between learning, specifically lifelong learning, and perception. While there are some common attributes to these, learning must be considered always as the superordinate concept, while perception is the subordinate one. If both cognition and perception are given too high a place in learning priorities, learning associated with ethics, values, attitudes, sensitivities
and emotions (the affective domain), the psychomotor domain, the
experiential, the procedural and the personal may not be as holistic as
they should be. There must be a balanced integration of the cognitive
process, product and perceptive approaches to lifelong learning.

2.3 Lifelong Learning Attributes

Lifelong learners develop from students who experience educational
experiences offering greater student control over content and learning
mode, interaction with active learning processes, motivation, scope
for intellectual independence and a well-structured knowledge base
(Gibbs 1992:154). Some students arrive at university without having
developed these lifelong learning skills (Stone 1978:241–331).

2.3.1 Lifelong Learning Skills

Candy (1991:459–466) listed over one hundred characteristics,
attributes and qualities of effective lifelong learners based on a wide
search of available literature. Lifelong learning skills are necessary for
purposeful and constructive living. This requires access to information
and educational delivery systems that facilitate the development and
support of these skills. This is vitally important in an increasingly
complex society. Lifelong learning skills are therefore essentially an
issue dealing with the quality of life (Owen 1992:68).

The skills of lifelong learning are:

i. An inquiring mind: a love of learning; a sense of curiosity and
question asking; a critical spirit; comprehension-monitoring and
self-evaluation;

ii. Helicopter vision: a sense of the interconnectedness of fields; an
awareness of how knowledge is created in at least one field of
study, and an understanding of the methodological and substantive limitations of that field; breadth of vision;

iii. Information literacy: knowledge of major current resources available in at least one field of study; ability to frame researchable questions in at least one field of study; ability to locate, evaluate, manage and use information in a range of contexts; ability to retrieve information using a variety of media; ability to decode information in a variety of forms: written, statistical, graphs, charts, diagrams and tables; critical evaluation of information;

iv. A sense of personal agency: a positive concept of oneself as capable and autonomous; self-organization skills (time management, goal-setting etc.); and

v. A repertoire of learning skills: knowledge of one's own strengths, weaknesses and preferred learning styles; range of strategies for learning in whatever context one finds oneself; and an understanding of the differences between surface and deep level learning (Candy, Crebert & O'Leary 1994:43–44).

Lifelong learning competencies are comprised of the various life role skills (Knowles 1990) and are listed in appendix 8.

**2.3.2 Lifelong Learning Characteristics**

Lifelong learning dictates a self-directed mixture of learning styles and strategies. Dave (1976:35–36) noted that lifelong learning is characterized by a flexibility of time, place, content, and technique. The goal of lifelong learning is the fulfilment of the individuals' adaptive and creative functions leading to the continuous improvement of the quality of life. Learning opportunity, motivation, and educability are the three essential prerequisites for the realization of this goal.
Lifelong learning characteristics suggest that artificial barriers between levels of education should, as far as possible, be eradicated. This has been referred to as vertical integration (Candy 1993b:68). It is the key point for articulation of what Cropley and Dave (1978:9–12) suggested were the three major characteristics of lifelong learning. These characteristics were:

i. Vertical integration – Education throughout life:

   This is based on the view that learning occurs throughout life as per physical and personal development and is a normal, natural process. For this reason, systematic and purposeful learning should be fostered, integrated, and co-ordinated from early years through to old age. The purpose of lifelong learning episodes could include the remedying of earlier educational defects, the acquiring of new skills, or vocational upgrading. Formal schooling would gain in importance as it develops into a foundation for the building of learning throughout life.

ii. Horizontal integration – Linking education and life:

   Education needs to be linked horizontally to life through using the educational potential of the identification, recognition, and improvement of the persons, processes, structures and agencies in each culture.

iii. Pre-requisites for learning – The means of lifelong learning:

   The first two points above deal with opportunity to learn, number three is educability. Educability requires the appropriate disposition to learn including motives, values and attitudes. It also requires appropriate learning skills including the ability to set oneself learning tasks and make use of appropriate facilities to carry them out and then evaluate outcomes. Learners must also be autodidactic (Dumazedier 1972:19). This means that learners would
possess “appropriate levels of motivation, positive attitudes towards continued learning, self definition of oneself as a learner, belief in one's own ability to learn, and similar properties” (Cropley & Dave 1978:12).

Lifelong learning skills are necessary for purposeful and constructive living, to make the most of opportunities and to create further ones. There are many characteristics of lifelong learning (Owen 1992:68; Knowles 1990; Cropley 1974; Lengrand 1970; Dave 1973,1975; Candy 1991:459–466). Cropley and Dave (1978) consolidated the characteristics of lifelong learning into a list of five major characteristics to define a policy for organizing educational systems in terms of lifelong learning. This related to all levels of education, especially adult or continuing education as many in these areas would not have experienced lifelong learning skill development during their compulsory education years. The major characteristics of lifelong learning are set out in appendix 11.

The unique dimensions of lifelong learning can be examined under the concepts – being, belonging, and becoming. Personal development, or ‘being’, as depicted by Maslow (1987). ‘Becoming’ in the sense that Allport (1961) purported that human development never stops. ‘Belonging’, conceived by Kidd (1983:533) in that informal environments such as the family are social as well as being solitary, for the benefit of the individual and of society.

The concepts of lifelong learning were listed by Cropley (1980):

i. Lasts the whole life of each individual.

ii. Leads to the systematic acquisition, renewal, upgrading, and completion of knowledge, skills, and attitudes, as become necessary in
response to the constantly changing conditions of modern life, with the ultimate goal of promoting the self-fulfilment of each individual.

iii. Be dependent for its effective implementation on people's increasing ability and motivation to engage in self-directed learning activities.

iv. Acknowledge the contribution of all available educational influences including formal, non-formal and informal. Stone (1978:241–331) suggested a list of influences affecting the design of lifelong learning programmes that involved the systems approach; conditions for adult learning; learning needs; task analysis; determining goals and objectives; evaluation; and recognition of continuing education.

2.3.3 Lifelong Learning Methodologies

Candy, Crebert and O'Leary (1994:127) argued that there was considerable evidence to support the removal of didactic teaching approaches in favour of more interactive, problem-based, and independent approaches because these methods support the student to develop responsibility for their own learning.

Evaluation of the level of lifelong learning commitment by education facilities must be measured against the quality of partnership in curriculum development, particularly in integrating the key competencies; methodology change from teacher to learner centred; ethos and cultural change in both the institution and its library. Adequate resources and information services are required to establish the desired learning culture and environment in the library and its parent institution (Harrison 1993b:47).

Turner (1980:174) outlined three points described as vital to the conducting of lifelong learning: the learner must enjoy themselves; the average person is ready for all that justifies us in calling a subject
humane; and wise and sympathetic guidance is required and adult students never fail to appreciate and respond to it.

**Andragological Teaching Model**

It is important to centre all customer education on the unique needs of the customer. The lifelong learning or andragological model, also utilized in discussions of adult education models, uses an instruction style based in collaboration. It implies a movement from dependency to autonomy; knowledge accrued becomes its own resource; a person's social role becomes the prime motivation for further education; and learning becomes problem-centred rather than subject-centred (Sheridan 1986:159).

Shared curriculum responsibility, active participation, ample feedback, basic skill reinforcement, use of experience and responsive to demonstrated learning needs, transition from the simple to the complex and encouragement to apply new knowledge beyond the educational environment should be central features of the andragological model of education (Conti 1985:220–228; Dixon 1985:16–18,26–27; Sheridan 1986:163).

Sheridan (1986) and Schoen (1983) stressed the importance of centring all customer education on the unique needs of the customer. Andragogy rejects the traditional hierarchical structures previously accepted (Sheridan 1986:162,165).

There are four underlying assumptions distinguishing it from pedagogical learning:

i. Growth implies a movement from dependency to autonomy or self-direction;
ii. knowledge accrued becomes its own resource;

iii. a person's social role becomes the prime motivation for further education; and


2.4 Lifelong Learning and Tertiary Education

Candy, Crebert and O'Leary (1994) observed that there are university librarians in Australia, for example, Wilson (1994a) from Western Australia and Bruce (1997) from Queensland, who have written into mission and policy statements their personal commitment to lifelong learning even though lifelong learning was not listed as a principal aim of the Australian higher education system in Higher Education: Achieving Quality (Candy, Crebert & O'Leary 1994).

The Candy, Crebert and O'Leary (1994:190) report recommended that, in order for graduates to possess appropriate lifelong learning skills and strategies, universities should have an explicit policy on developing lifelong learners. These policies would need to include aims, strategies and resources; along with recognition in core objectives of all courses. Policies should also provide documented requirements for academic staff development to enhance those aspects of curriculum design, review, teaching and assessment which develop
the qualities of the lifelong learner. The policy should ensure academic staff develop skills and attitudes necessary to make use of systems of course development, delivery and assessment that do not work towards the development of lifelong learners. This should include the principles for content and structure of undergraduate education; demonstrate specific support for learning-to-learn and information literacy programmes; and where appropriate, introduce students to alternative learning strategies and teaching technologies which encourage self-managed learning (Chubb 1994:3; Candy, Crebert & O'Leary 1994:190). Teaching students how to learn, in courses with an underlying philosophical commitment to lifelong learning, is more likely to produce independent, self-directed learners (Aulich Report, Australia 1990:9–10; Candy, Crebert & O'Leary 1994:120).

To develop appropriate lifelong learning information or information literacy skills, information skill components need to be included in all course units. There are many lifelong learning methodologies applicable to tertiary education. It has been recommended by Candy, Crebert and O'Leary (1994:119,148–149), Owen (1992:75), and Bruce (1997:9) that through incremental course structures, students gradually gain in independence and become independent, self-directed learners. Demands upon students increase their responsibility for learning as course structures become more complex. Undergraduate education as part of the continuum of lifelong learning can increase the quality of graduates' further lifelong learning through increased ability and willingness to continue participation in lifelong learning (Candy, Crebert & O'Leary 1994:47).

The two concepts embedded in the term lifelong learning are ‘lifelong’ and ‘learning’. Placing these at the centre of undergraduate programmes would have significant implications. Even with regard to
the word ‘lifelong’, many academics and administrators lose sight of the fact that the university years are only a very small component of an individual’s life. Admittedly these tend to be pivotal years with many students making the difficult transition from adolescence to adulthood, but it must be realized that a considerable degree of learning occurs before, and even more occurs following. This reinforces the need to tie learning to prior and subsequent experiences, but also as a “correction” to those who argue that everything must be packed into a few short years on the assumption that learning will not be ongoing. In the final analysis, the university experience must be seen within the “total lifelong and lifewide context of each person's learning” (Candy, Crebert & O’Leary 1994:186).

The second concept of ‘lifelong learning’ is ‘learning’. There is considerable difference between viewing learning as a consequence of teaching; and as the superordinate construct, with teaching as only one contributing factor. Placing learning at the centre of the undergraduate experience would cast a different light on teaching and on the role of the library, in pursuing the role of learning facilitation (Candy, Crebert & O’Leary 1994:186).

The transferable skills for lifelong learning need to be reinforced or even developed during tertiary education. It has been recommended that librarians lobby institutional administrators and academics to raise their awareness of what the library offers and integrate lifelong learning skills into the curriculum. Curriculum writers need to explicitly state the information literacy skills required by students, librarians and teaching staff must co-operate in the development of learning packages (Hegarty 1993:121–123).
2.4.1 Lifelong Learning Goals of Tertiary Education

Student demographic diversity in Australian universities has necessitated a critical examination of traditional courses and methods and a reconsideration of goals and study approaches. The incentive to change was a realization of the need for the integration of theory and practice. This came from a need to make tertiary learning relevant to professional practice through the development of students' interest and learning independence. The goal being to teach students how to think like the specific professional they are studying to become and to develop the literacy of the particular discipline (Mullins 1993:42–44). It is now an accepted goal of higher education to “create people who can make informed decisions, creatively solve problems and think critically and responsively” (Burge 1983:513).

The need for library planning and the coherent development of a total programme to recognize learning activities, based upon specific plans and objectives was supported by Burge (1983:519) who acknowledged Weingand, Hawes, Helen Lyman Smith, and Houle as supporters. This recognition of lifelong learning in library policy is not new. In 1954 Helen Lyman Smith observed that the commitment in libraries to lifelong learning was as vital as it was thirty years previously (Burge 1983:520).

The Mission of the University of South Australia is an example of a lifelong learning focus. It reads to “advance, disseminate and preserve knowledge through the provision of a teaching, learning and research environment that fosters excellence in scholarship, innovation and social responsibility”. The importance of learning is emphasised in the first two major goals: to provide educational programmes of high quality which are responsive to the needs of students; and to
provide educational programmes of high quality which meet personal and community needs (Robinson 1993:5).

Candy, Crebert and O'Leary (1994:55) presented the Victoria University of Wellington's Draft Strategic Plan (1993) which identified the lifelong learning skills required by students. These skills centred on igniting in students a desire to develop the skills for continued intellectual and creative development. This should be a fundamental aim of a university education and part of any graduate profile.

The University of Technology, Sydney (1993:1) promoted a philosophy which recognized that independent learning was “developmental and students have different requirements at different stages”. The university thought that the generic attributes of graduates should form the basis of statements of outcome per faculty. Many of the skills listed were directly related to lifelong learning attributes. One specifically was under the heading of Personal Skills which stated that the graduate should have the capacity and desire to continue learning (Candy, Crebert & O'Leary 1994:55).

### 2.4.2 Development of Lifelong Learning in Tertiary Education

There are ‘unprecedented turbulence and pressure’ (Candy, Crebert & O'Leary 1994:185) stressing the necessity for lifelong learning skills to be central to the university experience. These pressures include the continual increase in the quantity of knowledge required to function in modern society and the decreasing half-life of professional knowledge; the increasing influence of interdisciplinary understanding in the professions; the transition from an industrial world to an information-based society using increasingly sophisticated technology; increasing internationalisation; the changing shape of organisations and professions; and debate about the appropriate form of articulation
between higher education, work and other forms of education (Candy, Crebert & O'Leary 1994:185). Penhale and Taylor (1986:212) observed that as many relevant citations may be retrieved by a librarian in twenty minutes of online literature searching as by an average manual searcher in two hours of literature searching.

Institute climate was described by Candy, Crebert and O'Leary (1994:181) as the single most influential factor in shaping whether or not graduates choose to become lifelong learners. It may be argued however that other variables, including personal predispositions and belief systems, are equally important. This “nebulous construct”, which embodies the “views and values of senior staff”, the “attitudes and practices of academics and support staff”, and the “history and culture of the organisation”, “intangibly yet inexorably” influences and forms the orientations of student. It determines whether or not the institution “encourages, endorses, enhances and enables” the pursuit of lifelong learning (Candy, Crebert & O'Leary 1994:181).

The Higher Education Council list a number of characteristics which constitute “good practice” for education facilities in enhancing lifelong learning. These are listed in appendix 12.

2.4.3 Tertiary Education Methodologies for Lifelong Learning

The encouragement and enabling of lifelong learning skills is not only imperative as a response to the rate of change and future needs but because it is “entirely consistent” with the “university's traditional commitment to a liberal education”. The traditional concept of an educated person includes the skills and attitudes of intellectual curiosity and critical appreciation of the nature of knowledge, leading to a “continuation of learning throughout life” (Candy, Crebert & O'Leary 1994:185).
The pressure to increase course content by lengthening courses or increasing the number of topics covered in increasingly less depth leads to increasingly ineffective courses. Courses should help students become independent learners and provide skills and attitudes required to equip them for lifelong learning. The undergraduate curriculum cannot respond to the massive growth of knowledge by attempting to embrace it in entirety. This self-defeating exercise has been termed the ‘front end loading’ concept of education where a bank of essential knowledge is attempted to be taught to serve a student for life. The rate of knowledge growth means that the curriculum would always be behind. A better approach therefore is to teach students how to learn. (Aulich Report, Australia 1990:9–10)

In courses based on an “underlying philosophical commitment to lifelong learning”, students are more likely to experience a “deliberate progression through the various stages of independent, self-directed learning”. (Candy, Crebert & O’Leary 1994:120)

Educational methodologies in the tertiary sector have not been greatly effected by the ‘information age’ with the sector still dominated by teacher-centred and content-based delivery. The result being that students completed study programmes ill-equipped to continue learning. Generic skills are essential in both the broad working environment and society in general (Owen 1992:75). Winter and Cameron (1983:89) stated that to develop appropriate information skills, important skills which should be developed through tertiary study, information skill components needed to be included in all course units. There are many lifelong learning methodologies applicable to tertiary education in incremental course structures, students gradually gain in independence and become independent, self-directed learners. Demands upon students is a variable able to
increase, or even decrease, their responsibility for learning at various levels when course structures become more complex. (Candy, Crebert & O'Leary 1994:119,148–149)

Many students are not conscious of how they learn and which particular methodologies suit their personal learning style. This results in many students transferring the tried and tested learning approaches that were used during secondary school to the tertiary environment. These students often rely on note-taking, summarising and revising and generally attempt to know a little about everything likely to appear in examinations. Many students do not recognise the need to understand how and why they learn and unless they are confronted with a particular problem that necessitates such understanding, are likely to graduate university with no more interest in the learning process than they had when they arrived. (Candy, Crebert & O'Leary 1994:101)

**Teacher Trainees and Lifelong Learning**

Teacher education traditionally has had three primary elements: theoretical and knowledge content of courses; teaching and learning strategies; and practice teaching. It is often seen as only a pre-service course but it is, in reality, a point on a career continuum. The need for teachers to engage in continuous learning to keep up to date is reflected in the three phases of teacher education. Each phase has an effect on the lifelong learning values of the individual. These have been listed in three phases as, pre-entry, pre-service and inservice. (Adey 1993:78; Cropley & Dave 1978:63–65; Bar & Slomma 1973:41; James 1972:1)

Restructuring is an issue in many Australian tertiary education institutes, particularly education faculties experiencing progressive
reductions in intakes and subsequent income. This has been a long-term trend which has shown little sign of slowing creating a situation where these faculties are forced to reduce size and review programme delivery methodologies. It may even present impetus for the promotion of resource based and student centred learning. If this is a restructuring inevitability as early signs would indicate, it will necessitate information literacy skills being more manifest in course expectations. This will need to be set against the outcomes of societal values, significantly favouring the skill base and expectations of students entering pre-service courses. (Owen 1993:80)

Owen (1993:81) made the following recommendations:

i. As teacher education is lifelong, not just four-year programmes, employers of teachers must be influenced to facilitate inservice education, particularly for teachers who were not themselves educated in the context of information literacy;

ii. attitudes to curriculum are revised to facilitate information literacy;

iii. attitudes to methods and curriculum are changed to recognize that education is increasingly technology driven and there is a need to prepare materials with which students interact;

iv. provide inservice training in information literacy for current teacher educators;

v. persuade employers to acknowledge responsibility for providing inservice opportunities for those already in teaching to encounter the concept of information literacy; and

vi. commission research into current practices by which academic staff keep up to date.

The idea of encouraging trainee teachers in the ways of lifelong learning is to develop professionals who possess the appropriate skills
and endorse its values. These teachers would then habitually practise the principles of lifelong learning both professionally and personally. (Cropley & Dave 1978:63)

There are eight key aspects of the attitude of teachers applicable to lifelong learning. These are attitude to pupils; colleagues; superiors; learning; school work and difficulties with it; society; aesthetics; and professional values. Teacher training that has a lifelong learning focus fosters knowledge of lifelong learning and the understanding of these attitudes but also its implications, capacities, motives, attitudes and values. This type of teacher training would have the concepts of applicability of lifelong education; and continuity of teacher training. (Cropley & Dave 1978:41–44,162)

2.4.4 Lifelong Learning Skills desired in Graduates

The Aulich Report (1990) raised concern that the tertiary education sector is failing to ensure the development of appropriate lifelong learning skills and attitudes and therefore producing graduates who were frequently not familiar with the society in which they were going to practise their profession, and who were not “critical, analytical, creative thinkers”. Their education did not provide the basis for adequate flexibility. Students were not sufficiently attuned to the need for lifelong learning and were not good communicators. Graduates were generally highly trained technicians who were “under-educated in the broader sense of the term”. (Aulich Report, Australia 1990:3; Owen 1992:67)

There are many recent documents that identify the attributes employers consider desirable and/or lacking or undeveloped in graduate employees (Candy, Crebert & O'Leary 1994; NBEET 1992a; NBEET 1992b; B/HERT 1993). Hounsell (1990:219), for example,
stated that employers thought that tertiary educated employees did not appear to be “adaptive, flexible and capable”. These are all skills that are developed through a lifelong learning approach.

There has been much discussion of the impacting pressures for continued learning after graduation. These pressures mean that graduates will need to continue learning after their graduation simply to maintain the same level of knowledge. The list of pressures faced by graduates would include:

i. the increasing pace of change and the subsequent inability of education facilities to impart all the knowledge and skills individuals will need;

ii. the basic amount of knowledge required to function adequately in society is increasing; the half life of professional knowledge is decreasing;

iii. the explosion of knowledge and the use of sophisticated technology;

iv. the nature of work and employment is rapidly changing with the emergence of new occupations and careers;

v. the continuing shift to an information society;

vi. the competing influences of specialisation and professional interdependence;

vii. increasing internationalisation; and


There are identifiable generic characteristics or qualities of the lifelong learner applicable to all different types and contexts of postgraduate learning. These qualities are affected by variables including background and study speciality of individuals and will
be evident at varying degrees and combinations in different people. (Candy, Crebert & O'Leary 1994:43–44)

The documentation of institutional commitment to lifelong learning encourages students to accept personal responsibility for, and confidence in their own future learning. Students are subsequently far more likely to adopt deeper approaches because they have learned how to search, analyse and comprehend information. Transferable, higher order meta-cognitive abilities are developed and the strategies and learning skills gained at university transferred into personal and work environments. Graduates should be able to determine what they need to know in order to “perform particular tasks or to draw meaningful conclusions”. (Candy, Crebert & O'Leary 1994:101)

Through gaining lifelong learning skills individuals are able to develop the capacity to recognize the need for information; define the purpose of any task; formulate and pose questions related to the task; use a wide range of information sources; select appropriate information; organize information; communicate and present information; and evaluate end results. (Gapper & Styles 1993:102)

2.5 Lifelong Learning and Libraries

Learner needs are innumerable. Learner maturity can present most substantial learning differences including self-concept moving from dependence toward self-direction; accumulation of a growing reservoir of experiences that become an increasing resource for learning; time perspective changes from one of postponed to immediate application of knowledge, and learning orientation shifting from subject-centredness to problem-centredness. It is necessary for customers to become familiar with relevant information for professional and personal development. To fulfil this ideal, customers must become
familiar with the modern technologies available for literature searching and information accessing. Customers need to develop the skills to locate the most appropriate information addressing their unique interests. (Verdiun 1986:15)

There are many variables which act as barriers to the development of comprehensive lifelong learning programmes in libraries. These are real world considerations involving issues of time, space, budget, administrative commitment and customer perceptions. Lifelong learning is “reaching the status of mission”, where librarians are deliberately setting policies and resources behind it as a priority (Messerle 1990:184). This is moving libraries closer to a customer base. The primary consideration in the direction chosen by any library is to meet customer needs. Librarianship is a customer-centred profession. (Nicholson 1994:17; Anderson 1992:19–20).

Learning in a library may take place in the structured setting of a formal education centre, in various information situations, or within instantaneous processes such as on-the-spot learning. All that is required to learn is an open, aware mind during the many aspects of daily life. Different learning opportunities develop different skills and techniques, including the optimum selection of learning resources and procedures (Wildman 1972:130). These learning resources and procedures often involve the utilization of libraries and library resources.

The challenge of lifelong learning through libraries is to maximise the virtuous interdependence in the field of learning. Through sharing learning locally, nationally, and internationally, individuals may achieve “greater happiness, harmony and prosperity” for themselves throughout their lifespan. (Lynch 1982:169)
Gann (1985:6) commenced a bibliographic guide on lifelong learning and libraries by stating that libraries were generally viewed as “enhancing lifelong learning”. The topic received further attention with the publication of the book Library Literacy Means Lifelong Learning by Michaels (1985). Libraries may serve lifelong learning ideals in three distinct ways (Kidd 1983:539–40). Firstly, libraries house learning resources; secondly, libraries are major learning institutions facilitating learning processes for different kinds of learning styles and circumstances; and finally, libraries offer choice and services where specialized needs may be met.

There are also three principal areas of consideration related to the facilitation of lifelong learning by libraries and the interaction of the library and the learner. Firstly, Knowles's (1990) concept of andragogy differentiates between the art and science of teaching adults (andragogy) and teaching children (pedagogy). Secondly, that learners need to be treated as individuals within the context of their whole lifespan considering the role changes that the living environment creates as well as the physical, cultural, and emotional aspects of the changing times. Finally, that the stages of life provide additional clues for the understanding of learners (Weingand 1986:191). When changing events occur, the necessity for adaptation is often produced bringing with it a heightened interest for involvement in activities that lead to learning the skills or knowledge required for the adaptation. This is widely known, within the library profession, as the “teachable moment’. The resulting activity need not necessarily be directly related to the change or be consciously recognized by the learner. The teachable moment is found widely in libraries and has been evidenced in recent studies by Wilson (1994a) and Bruce (1997). Teachable moments are best catered for by library personnel because library resources and services are often the impetus for continued reading.
and learning (Weingand 1986:191–195). Library goals facilitating the teachable moment focus upon the recognition of the problem, task, and personal changes stimulating learning, and recognize the individual learning methods of adults (Burge 1983:516–518). Libraries are able to offer unique learning opportunities to meet unique individual needs. They have the potential to serve individuals throughout each life stage and can have a unique influence in lives. Kidd (1983:525) described lifelong learning as “ultimately learning for survival”.

The North York (Ontario) Public Library service concentrated upon the identification and utilization of the teachable moment. It could be conceptualized as a learner-centred view of library practice. This view would move education activities away from abstract, idealistic service goals that must depend upon intrinsic-motivated learning and the characteristics of the learner.

Carr (1986) thought the library assisted learners most through the subtleties of “instrumental participation”. This is the concept of serving library customers through the helping process within the library context. The interpersonal communication and theme of interdependence were significant as implications for the facilitation of lifelong learning within any library practice.

Turner (1980:192–93) explained that the significance of lifelong learning was in its contribution to the “solution of the massive problems” facing individuals today, not merely by the increment of the average skill and knowledge level of the community. Lifelong learning must allow individuals the opportunity to develop to their full potential. Librarians facilitate continuing learning for their customers. (Stone 1978:242).
Denton (Verdiun 1986:13), in a synthesis of literature suggested that the primary motivations or orientations for adult learning were preparing for an occupational change or advancement; seeking social relationships; learning for learning's sake; as a way of escaping boredom and/or seeking stimulation; and using knowledge to help some sector of society. It is not possible to generalise because the motivational forces for library use vary with library type (Verdiun 1986).


### 2.5.1 Tertiary Education Libraries

The origin of the cliche about the library being the heart of the university seems to have originated from The University of Chicago president who, in 1902, stated that “the library is, or should be, the very heart of the institution”. The United Kingdom University Grants Committee similarly declared in 1921 that the library was the ‘central organ’ of the university (Radford 1992:20). The primary concern of the academic librarian until the early 1970s was facilitation of access to information through the collection and organisation of resources. With a body of knowledge small enough to be obtained in near entirety researchers could navigate through libraries and information with relative ease. The focus of library attention was on technical and disseminatory duties, the custodial relationship between
the librarian and document. The increase in the size and complexity of bibliographic and other sources of information during the 1970s developed the role of the university library into the formal education arena. The library started to formally recognize their teaching role to help students obtain and interpret information. (Wilson 1994a; Frick 1982:193)

During the later part of the twentieth century, Australian university libraries have transcended from curatorial to brokerage services because of increasingly complex information resources and the rapid evolution of disciplines and information technologies in production and dissemination. This is well documented under the title of the ‘information explosion’ (Wilson 1994a).

Librarians are becoming change agents in the university culture. They are working closely with academic personnel to facilitate positive attitudinal changes, however only a few university libraries in Australia involve librarians in course planning committees and in the design of resource-based learning courses. Once universities recognize that the facilitation of lifelong learning is a central purpose the subsequent perspective of all activities will support services that operate to fulfil this mission. (Candy, Crebert & O'Leary 1994:103,182)

Haworth (1982:153–160) suggested that academic staff did not expect much from the library and did not communicate with them when developing course materials. Crocker (1985:15) encouraged librarians to assume a higher profile in course development to “permeate” the courses with subtle lifelong learning and library skills. Libraries need to be prepared for “affective advocacy” in lifelong learning and have the ability to articulate this succinctly. They need to have a clear
educational rationale, a purpose clearly aligned with student learning outcomes. (Harrison & Owen 1992:56)

The educational role of the library has long been perceived as the cornerstone of its activities because it facilitated self-education and lifelong learning. Historically, libraries have had a critical role in tertiary education (Marshall & King 1990:1; Schmidt 1981:97). From the research of literature related to the roles of libraries in lifelong learning and results of an informal survey of librarians, Messerle (1990:180–187) identified several innovative services in their integration of the library with the lifelong learning processes of customers. Four distinctive areas of support were identified which related the library to lifelong learning these being resources, content, education, and information management. These areas not only supported the traditional service role of the library for educators but encouraged the library to move from being subservient within the lifelong learning process of professionals to becoming that of a facilitator.

Librarians must be change agents and take an advocacy role, “interpreting the function” of the library to students. The lifelong learning role of the librarian becomes the participation in the planning and implementation of total curricula, particularly by:

i. advising on the use of resources;
ii. selection, acquisition, organization, and operation of resources and services to meet customer needs;
iii. co-operation with educators in the planning, teaching, and evaluation of units of work;
iv. negotiation with educators to determine what will be covered for particular groups of students, and who will accept prime responsibility for the teaching and application of skills;
v. teaching some of the skills as mutually agreed upon;
vi. providing incidental, follow-up support and reinforcement to individual customers. (Kirk 1987:87)

There has been much written about customer education in tertiary libraries during this century, particularly about customer education theory and methodology (Oberman & Strauch 1982). It was during the 1970s that customer education began to receive increased recognition from the academic community. By 1975, the practice of conducting formal customer education programmes was well established in Australia (Grimison 1986:75). Wilson (1994a) challenged librarians to make their primary service objective to assist learners. Librarians must become proactive advocators of the library as a vehicle for self-transformation throughout the lifespan of customers to create a cultural institution where thinking and “knowing through information and informing acts occur as in no other human settings” (Carr 1986:327).

Tertiary libraries need to realign their mission and objectives to an educational focus and a reorganization of funding and personnel priorities on an unprecedented scale. Libraries are generally designed to serve the customer body as a whole, not the varying needs of different groups or segments of customers which is the focus of this current study. It is important, therefore, to identify the most effective library customer education segment focus for fostering lifelong learning attitudinal and skill development while still supporting the aims and objectives of the institute. This present study investigates the current and ideal customer-perceived role of a tertiary library in facilitating the development of lifelong learning skills in students. The
study investigates how lifelong learning can be used as a focus for customer education programmes.

Carr's (1991) concept necessitates a paradigm shift in tertiary libraries similar to that which occurred in Australian school libraries during the 1980s (MacKenzie & Critchley 1992:69–71). It requires a realignment of the mission and objectives of the library service to an educational focus and a reorganisation of funding and personnel priorities on an unprecedented scale (Ready et.al. 1990:44). Tertiary librarians have a considerable amount to learn from teacher librarians in this regard. The pace of change may vary, but the reward will be the library occupying a critical position in the university, instead of being politically marginalized from much of the learning activity going on around it. (Wilson 1994a)

Wilson (1994a) recommended that library use skill definitions be used in conjunction with academic course co-ordinators to create a student year and course level profile of required skills. The principles of co-operative programming, planning and teaching, should be implemented with academic course co-ordinators and librarians working together to consciously integrate information skill building into strategic course units (Wilson 1994a; Crocker 1985:14). The strategic design of these integrated units will avoid complaints about information skills education impinging on teaching time. Integrated and planned appropriately, information skills education should actually serve to increase unit learning time through increased motivation and information skill efficiency. (Booker 1991:7)

2.5.1.1 Library Skills in the Tertiary Curricula

The integration of library skills into the tertiary education programme is a concept which focuses primarily on the nature of the learner
and the many processes involved in the development of thinking and learning skills. Integration is compatible with the ways in which people learn and develop. An integrated approach to library and formal education programmes supports the humanistic nature of learning. A study by Mueller and Foreman (1987) on methodological and scheduling aspects of library customer education concluded that integration was preferred by customers.

A review of the history of educational activities in libraries suggested that librarians have increasingly taken a more active education role beyond bibliographic instruction. The information age, according to Moore (1989:26–32), demands that librarians take active roles in the education process. The education of tertiary students has changed over the last decade to meet societal and technological demands. Little had been documented about the reforms necessary to improve the concept of the library as central to lifelong learning and even less written about the perceptual role of the information professional on the lifelong learning continuum. (Hackleman & Bischoff 1990:155)

The transition of society into the information age has raised a number of issues including the role of libraries in facilitating learning by individuals. Many issues, nevertheless, are connected with this role including the role and perceived value of information, the protection of intellectual property, and the determination of what future information professionals will need to know to meet the changing needs of the information age. Bearman (1984:3–15) suggested that there was an urgent need to realize the role of libraries in the development of the information skills required for customers to keep pace with societal changes.
Library instruction, in most tertiary settings, has been an add-on to a course and an additional function of the library, not an inclusion to the curriculum (Bruce 1997; Wilson 1994a; Breivik 1992), and as a result has had little bearing on the recorded results received by students. Information literacy requires students to competently use a variety of information resources as part of their regular assignments. Students are thus taught that being able to locate, evaluate, and affectively use information is “critical to learning” (Breivik 1992:6) and that in this a wide variety of sources or suppliers are available to them, one of which is the library. Roe (1981:14) raised questions related to the process of skill acquisition for students to use resources effectively and suggested that the majority of tertiary students learned library and information handling skills by experience or exposure, often but not exclusively through schooling. Many students undertaking projects had received no preparation or training for library and information use. Roe (1981:14) considered it more serious however that designs for the use of the project method generally make no reference to information handling skills. Oberman (1991:200) thought that librarians had a role to play in the development of all such levels of information skills.

The integration of information literacy skills, the lifelong learning library skills needed to recognize the need for information; identify, locate, and evaluate the information sources; organize and use the information effectively – critical thinking skills (Harrison 1993a:lll), encourages students to use a variety of information resources as part of their regular assignments.

The value of libraries and information to tertiary students may be both tangible and intangible. The intangible values are difficult to measure and may be subconscious. They may be the contribution to intellectual development or the inspiration to pursue topics further.
The tangible value relates to whether the information enables the student to attempt an assignment or examination, or attain better results. It is difficult to assess the extent of library contribution to academic achievement because of the many variables involved between information acquisition and the end result. These variables include information synthesis and idea development, expression and presentation; environmental factors, stress, motivation, intellectual ability, time devoted to studies, and quality of teaching. (Wells 1995:121)

Librarians consulted during the Candy, Crebert and O'Leary (1994:104) study thought that, for a variety of reasons, the traditional library orientation session was fruitless. They thought that positive results could be achieved if academic personnel linked research methods to information literacy and included an assessable component of library research in assignments. Library customer education could then be offered to coincide with assignments. The Queensland University of Technology believe that information literacy is “absolutely fundamental” to the design and delivery of every course. They suggest that if information skills are valued it becomes expected that this is reflected in the curriculum with course aims and objectives specifying information skills. Teaching methodologies would incorporate information building skill strategies, reading lists become minimal and alternative sources encouraged, library reserve collections becomes of reduced importance but library usage becomes of primary importance. Assessment would encompass information skills. (Candy, Crebert & O'Leary 1994:103)

A lack of confidence amongst students may act as a barrier to affective information seeking behaviour (Renner 1991:320; Oberman 1991:193–194). Wilson (1994a) considered student levels
of confidence in asking for information assistance when required and independent information seeking skills. Students in the Wilson study appeared confident about approaching library staff for assistance, which was in contrast to findings of studies conducted with internal students by Hatchard and Toy (1984a, 1984b) and Crocker (1985:101).

2.5.1.2 Customer Education and the Library

Library customer education in the tertiary setting has been described as a “no-man's-land” between librarian and educator, where each assumes the preparation of students has been undertaken by the other. During the 1970s when customer education was becoming prominent, it was observed that customer education courses had far-reaching benefits for customers, librarians, and ultimately the general campus community (Walser & Kruse 1977:265–67). The guiding principle behind customer education is that even the greatest library collections have diminished value unless they are efficiently and effectively used. The partnership between the library and the education profession is actually twofold; customers partake in the vast potential of the library resources and develop skills and understandings which, in turn, benefit the field of education. (Tiefel 1986:34)

Library customer education should be directly related to the “needs, interests, and problems” of customers. Library customer education is not an “end in itself” but a vehicle for increased efficient and effective library use. It should facilitate the development of high level communication and information skills in an environment where opportunities are created to assist learners realize their full potential. Individuality should be recognized and encouraged, and innate curiosity fostered and channelled to include a broad area of general and specific knowledge, skills, and attitudes required in a well-rounded individual. Library customer educators must be facilitators
and mentors of positive attitudes to all aspects of communication, life, and learning. (Finn, Ashby & Drury 1978:4)

The librarian's primary education function is the development of a programme that will exploit the “complementary relationship between the general pursuit of subject content and the research skills associated with recorded knowledge and library organization” (Christ 1972:81). Libraries teach customers to better utilize library services in their learning processes. They must be able to function with balanced interdisciplinary perspectives within a modern information environment (Baker, Huston & Pastine 1991:212; Yeoh 1991:70). Library customers need to receive enabling education to facilitate comprehension of the conceptual aspects of information searching. Customers must have a comprehensive framework to assimilate all the seemingly discrete activities that take place in the process of information retrieval. (Baker, Huston & Pastine 1991:214; Dalrymple 1990:272–281)

Customers need to be trained to formulate their own appropriate access strategies to locate desired information. This requires an understanding of the structure of information and bibliographies along with the ability to evaluate the contextual adequacy of the information they retrieved in relation to information needs. Baker, Huston and Pastine (1991:212) credited Huston and Oberman (1989:199–212) with the concept that the retrieval of information is inextricably linked to the growth and development of customers' and society's cumulative knowledge base.

The primary role of the library is to empower. Cram (1993:50) observed that increased competency in any area has a “halo affect”, contributing to self esteem. Library contributions to customer
competency fulfils primary aims and objectives of the library. There are three primary communicative purposes of library customer education. These are knowing what information is available; how to use the information; and how to affectively deal with the information (QUT 1991).

Lester (1979:368–69) painted a verbal picture of the library customer on one side of a river and the information required on the other. Library customer education acts as the bridge of skills developed by customers to allow them to reach the information and make appropriate selections. Librarianship is a bridge leading from a problem to the solution and customer education can be the promotion vehicle to encourage crossing. Library education is the foundations of the bridge to lead customers from an information need to knowledge through mediating, facilitating, and encouraging (Finn, Ashby & Drury 1978:54). Libraries operate to share knowledge through education and communication. This knowledge helps bridge the gap.

Customer education involves the imparting of information about library resources and services. It can develop a sound base for library use skills while reducing methodological frustration. Additionally, it encourages continued utilization of the library and its services and prepares the customer for personal continuing education, freeing library staff from the “more routine or basic reference queries” (Stoffle & Bonn 1973:129).

A library education programme should help customers develop individual search strategies. These programmes must commence with general library orientation skills and progressively build into more sophisticated information retrieval skills. Collins (1989:151) added that library customer education should eventually lead to a sophisticated
knowledge of sources. This could be rephrased in library objectives to read a ‘sophisticated level of skills in the utilization of a variety or resources’.

The fundamental objective of education services in libraries is to alter the behaviour of customers. Positive information handling behaviour changes should make each learner more independent and more efficient in their information work. This facilitates a more efficient, more sophisticated customer service. Customer education allows customers to make more relevant and valuable demands upon library services. It should go beyond the teaching of particular utilization skills to facilitate the development of problem solving abilities. A valuable education activity should transcend training and achieve skill proficiency. (Zachert 1990:5; King 1987:89–90)

King (1987:86) believed that it was difficult to generalize about the education needs of customers, justifying the need for instructional practices to alter in accordance with local circumstances. Articles including Mander's (1988:30) Encouraging Students to be Research Minded, however, explained the general endeavours to create “true” professionals. Walser and Kruse (1977:265) identified that many library customers were unaware of the scope of the resources available to them. Customer education programmes equip customers with the skills and attitudes for effective utilization of a full range of available instruments designed for accessing, retrieving, and managing information both during the initial library orientation period and throughout life. Maranda (1989:128), considering the role of customer education in the library, stated that librarians were information specialists, best equipped to assume the vital role of customer educator.
The majority of formal customer education programmes are remedial in nature. These short term measures educate the existing customer but do not bring the long term benefits that could be derived from library customer education. Library education activities must actively meet the real and perceived education needs of customers. The primary consideration of any library seeking to serve customers is the ability to seek out both actual and potential customers in a continuing attempt to systematically discern their library and information requirements, attend to them, and then anticipate future ones. (Hubbard & Wilson 1986:16; Cannon 1979:92; Davis 1975:197)

Students who lacked experience in the psychomotor skills of information seeking may fail to overcome elementary barriers to successful library use. This may lead to a loss of confidence and a reluctance to persist with lifelong learning. Psychological barriers in tertiary students can lead to a reluctance to ask for assistance in the library. Oberman (1991:193–194) and Wilson (1994a) found that this was a widespread and persistent library problem. Wilson (1994a) found that students who displayed a positive perception regarding lifelong learning skills acquisition demonstrated initiative, confidence and independence leading to increased library use satisfaction.

2.5.1.3 Library Customer Education Methodologies

Renford and Hendrickson (1980) noted the many different methodologies for customer education. The development of any customer education programme must consider the interests, education levels, and subject expertise of potential customers. These variables influence the content and methodologies chosen for any customer education programme. Nahl-Jakobovits and Nahl-Jakobovits (1985:17–28) encouraged librarians to affirm students' micro-information environment or experiential knowledge, and recognize affective aspects
such as attitude. Customer education should be designed to improve and reinforce attitudes in addition to the facilitation of lifelong learning skill development. Librarians should encourage students to be logical and systematic in their information finding methods and be seen as helpful, communicative, and empathetic. (Nahl-Jakobovits & Nahl-Jakobovits 1985; Ramey 1985) Librarians should “demonstrate how the library fits into the students’ daily life experiences and what future possibilities it offers” (Ramey 1985:128). The critical thinking skills of evaluation, analysis and synthesis are the foundations of customer education. These specific cognitive skills need to be overt goals of every customer education activity. (Oberman 1991:195,198)

Librarians considering the implementation of education programmes must commence with an examination of the earlier library experiences of customers. Many customers have experienced some form of library education during their early education years. It is generally recommended that library customer education link theory to practice and be integrated into training (Wakeman 1990:37). A customer oriented approach to information provision would dictate a focus relative to the immediate context of individual needs, and customers constructing needs out of personally important situations, as foundations to customer education programmes. (Kirk & Todd 1993:128)

Librarians need to take a very broad view of what constitutes customer education (Marshall 1989:24). Informal demonstrations and the very regular, almost routine discussions with customers are often the best teachable moments available. Some believe that the information needs of customers are too diverse and unpredictable for them to benefit from formal education programmes. On-the-spot assistance has been called the best and most efficient contribution the librarian could
make to the information needs of customers. Librarians, in this respect are intermediaries and facilitators of information transfer (Lester 1979:377). Point-of-need training permits education to be offered at increasingly sophisticated levels, gradually increasing the customer's skill proficiency levels. Motivation, a crucial element in customer education, is also generally highest at the actual time of need.

Lester (1979:369–70) argued against formal, isolated customer education sessions and was one of the earliest supporters of the integration of library skills into the general education programme. Lester's view of customer education was far narrower than that of Marshall (1989) and, although supportive of integrated library programmes, may not have considered the different preferred learning styles of customer segments.

Comprehensive basic library skills encompass an understanding of the physical environment, procedure and services offered by any particular library. They are the initial customer education skills usually considered during orientation sessions. Typical examples include maps or tours of the library, service handouts, and library rules or procedures. Knowledge skills provide an understanding of the general structure of manual and electronic information resources. It has been argued that this area of customer education is necessary because of failed bibliographic control and can be reduced or eliminated by simplifying the procedures for using the library and its resources. The overwhelming range of bibliographic choices and technologies available enable this type of customer education to remain essential. This is supported by a considerable amount of evidence documenting the difficulties that students have with library technology. (Wilson 1994a; Grimison 1986:76; Oberman 1991:191)
Library customer education often becomes limited in its ultimate goals and pedagogy to the improvement of library use ability and the creation of a positive customer attitude or interest in the library. Emphasis has often been, therefore, generally placed upon instructional orientation programmes designed to educate customers in the basic skills necessary for library use (King 1984:75).

2.6 Lifelong Learning in Australia

The Australian Library Association's Education Statement, endorsed by General Council in 1992, states that libraries are committed to the provision of services and products “directly tuned” to the needs of customers. Librarians are employed to plan, develop, manage and operate services in response to customer information and education needs. The General Council presented a list of education functions for libraries including designing information products and services; diagnosing information needs; evaluating, synthesising, structuring and packaging information to meet those needs; and educating users to access and use information. (ALIA 1992)

Staff development for educators was discussed at Information Literacy for the Australian Agenda, a conference conducted by the University of South Australia Library late 1992. Because teacher education is part of the lifelong learning experience the facilitation of inservice education is vital, particularly for teachers not educated in the context of lifelong learning. Recommendations from the conference included that increased co-operation between education professionals is required to lead to greater development and confidence in lifelong learning skills. The main aims of the conference included the emphasis of information literacy as an essential lifelong learning competency. Part of the final conference aim was to identify the agenda for change needed across the education sector to raise the level of lifelong
learning. This was the question of what issues were required in higher education, particularly in the teaching and learning context, to develop a successful agenda for change? (Owen 1993:151–152; Mullins 1993:42; Booker 1993:1)

2.6.1 Australian Government Reports

There is a consistent theme running through the reports, articles and committee papers published on library customer education. This is that learning how to handle information is the foundation of the library customer education process (Cannon 1979:92). In Australia, the issue of lifelong learning has appeared in reports including government reports and papers since around the early 1970s, often from different perspectives. (Candy, Crebert & O'Leary 1994:xi)

Government policy through the late 1970s and early 1980s moved the Australian education emphasis from the lifelong learning trend of the early 1970s back to tertiary participation by youth. However, the Dawkins' Green Paper (1987) did express the necessity for graduates to learn how to learn and develop critical and analytical skills. The Dawkins' White Paper (1988:68) confirmed that lifelong learning was “now accepted as fundamental” for social, cultural, technological, structural and economic development. A policy framework was still missing. Acting for the Commission for the Future, Butler (1989) published a discussion paper, Lifelong Education Revisited: Australia as a Learning Society which made an unsuccessful attempt to provide the missing framework.

Thirteen federal government reports, published between 1990 and 1992 highlight the importance the Australian government placed on lifelong learning issues. Due to national co-operation between higher education, union and employer representatives, several landmark
documents considering lifelong learning were published. (Hazell 1993:28; Lupton 1993:38–39)

The role of governments in lifelong learning, according to Beazley (1994:2), was to facilitate debate and encourage curricula change through funding allocation. Ideally, government and private institutions should integrate lifelong learning opportunities into their systems and display “more than a philosophical commitment to lifelong learning, the essence of which is the vertical integration of all stages of education”. (Crudden & Randell 1992:5)

**Higher Education Council Papers and Reports (1990s)**

Late during 1990, the Higher Education Council document, Higher Education: The Challenges Ahead suggested that transferable and adaptable generic skills were extremely valuable for graduates. The skills of analysis, the marshalling, integration and evaluation of facts, problem solving and high-level technical skills are of long-lasting value and transferable beyond the confines of a single study. (HEC 1990:1)

The Quality of Higher Education, discussion papers of the Higher Education Council discussed the attributes and generic skills desired in graduates. These skills also included knowing how to learn and solve problems, the capacity for logical, lateral and independent thought, the ability to be intellectually rigorous, to integrate information and communicate affectively. The primary skill desired in graduates should be those of lifelong learning, the ability to “manipulate a rich body of knowledge”, through knowing the way the knowledge is structured and developed (1992:8–9,39).
The report (1992:47) noted that the availability of quality library and information resources is “essential to the realization of the purposes of higher education”, particularly those about the development of independent inquiry and critical skills. Achieving Quality in Higher Education, the final report of the Higher Education Council (1992:22) also listed the desirable generic characteristics of graduates including the skills of critical thinking, intellectual curiosity, problem solving, logical and independent thought, effective communication and related skills in identifying, accessing and managing information. It listed the purposes of higher education but made no direct reference to lifelong learning (1992:12).

It represented the culmination of recent considerations of quality in education and successfully raised the issue of how quality can be recognized, enhanced and assured in order to prepare graduates to continue learning after graduation. The report suggested that to enable graduates to “operate affectively” in a range of activities during their life, and not just immediately after completion of formal studies, then lifelong learning characteristics must be developed. (HEC 1992:20; Candy, Crebert & O'Leary 1994:4)

The National Board of Employment, Education and Training considered information from the Higher Education Council to advise the Minister for Employment, Education and Training on the enabling characteristics of undergraduate education. The National Board discussed and endorsed the report from the Higher Education Council and the consultant's report from Professor Phil Candy in June 1994. The Higher Education Council advised that the report becomes used to “stimulate wider debate in the higher education sector on the nature and purposes of undergraduate education, and on lifelong learning and lifelong learners”. (Laver 1994:1)
There were several Australian reports that considered, among other educational issues, areas of lifelong learning. These dealt with tertiary libraries and provided a basis for the fundamental involvement of tertiary libraries in the lifelong learning process. These are outlined, chronologically below:

**Aulich Report (1990)**

The Aulich (1990:3) report for the Senate Standing Committee on Employment, Education and Training investigated areas of higher education requiring reform. The development of lifelong learning skills was found to be the area most needed for graduates to be able to keep up to date in a rapidly changing world. The Aulich Report (1990) was very critical of tertiary teaching standards and stressed the importance of a lifelong learning process, both in terms of national and individual priorities. This report was one of the more solid political recognitions of lifelong learning as a direction of education for Australia in the 1990s.

Achieving Quality of Higher Education, the report from the Higher Education Council, listed the generic qualities of critical thinking, intellectual curiosity, problem solving, logical and independent thought, and effective communication as essential for higher education graduates. These skills were described as “learning how to learn”, the skills of lifelong learning. Due to the short half life of professional and technical knowledge, graduates needed to develop from their higher education courses explicitly, generic qualities that were easily adaptable to change. (Robinson 1993:4–5; Booker 1993:5)

The Higher Education Council believed that effective lifelong learners displayed a number of characteristics and that these characteristics are desirable in all graduates. Workplaces are demanding these skills
and attitudes in graduates. Graduates require the skills to locate, access, retrieve, evaluate, manage and make use of information – the skills of lifelong learning. They should have an inquiring mind; an awareness of the nature and interconnectedness of knowledge; information literacy skills; an understanding of personal capabilities and agency; and a repertoire of learning skills. They need the skills of independent learning, teamwork, problem solving, initiative, and enterprise. (Chubb 1994:3; Candy, Crebert & O'Leary 1994:102–103; Owen 1992:69)

**Ross Report (1990)**

The Ross Report, Library Provision in Higher Education Institutions Report commissioned by the National Board of Employment, Education and Training, was established for the provision of integrated, independent policy advice to the Commonwealth Minister of Education in the areas of employment, education, training, and research. (Hazell 1993:29; NBEET 1990).

The report listed the elements of co-operative programme planning and teaching for customer education in higher education libraries. It included the need for information skills to be taught in context; and for librarians to contribute to the teaching/learning process because they see the problems customers have in carrying out research/inquiry based tasks. It observed that the skills for independent learning are fundamental to lifelong learning and must be explored at the same time as the curriculum is being developed. (1990:69)

Recommendation number 3:12 (1990:69) was that teacher training institutions include, in co-operation with their libraries, a formal curriculum element on information skills development in children emphasising the role of the librarian and resource based learning.
Finn Review (1991)

Young People's Participation in Post Compulsory Education and Training, the Finn Review (1991), Australian Education Council Review Committee, was explicitly limited to identifying the key competencies of initial and lifelong employability of young Australians. It recommended that Australia, as a nation, should be committed to the provision of lifelong learning skills education/ training in all individuals (1991:41–43,54).

Key areas of competence addressed by the Finn review included skills of lifelong learning such as the language and communication skills of accessing and using information; and problem solving. (Hazell 1993:32)


The Jones Reports, two 1991 and a 1992 report from the House of Representatives Standing Committee for Long Term Strategies brought together different aspects of information access and the role of libraries. The first report dealt with broader, background issues involving the role of information in Australian society and government and the need for a framework for the development of a national information policy. The second report recommended a national library policy and consideration of the standard of Australian libraries at a Special Premiers' Conference. These reports were viewed as clearly identifying many relevant issues while not addressing general lifelong learning ones. The Jones Report concluded that access to information via library systems was the “hub” of the information system and essential for the development of all aspects of society. (Horton 1992:230; Judge 1991:5; Lupton 1993:38–39)
A major inquiry into information policy at a national level, Australia as an Information Society: Volume 1, Grasping New Paradigms (1991a) and Australia as an Information Society: Volume 2, The Role of Libraries/ Information Networks (1991b), provided a preliminary overview of the implications of the information society for nearly every sector of the community, including educational providers such as libraries. Volume 1, and particularly Volume 2, were relevant to the consideration of libraries and lifelong learning. The first volume stressed the need for an increased capacity of all education systems to impart information literacy and skills, including the development of an understanding of personal information rights. (1992:xiv,4,26)

The second volume identified four primary factors that should impact on the role of information practitioners in the context of lifelong learning into the 21st century. It indicated that libraries will need to address the development of lifelong learning as a goal, and that they will play an increasingly vital role in the development, implementation and evaluation of information literacy programmes. (Kirk & Todd 1993:127)

**Mayer Reports (1992)**

The Mayer Committee, a subcommittee of the Finn Review into Young People's Participation in Postcompulsory Education and Training, developed essential employment-related key competencies for young people to develop, regardless of their chosen education or training. It identified lifelong learning skills as a vital part of the employment key competencies. (Owen 1992:73–75)

The first Mayer report, Employment Related Key Competencies for Post Compulsory Education and Training: A Discussion Paper (1992a:2–3) identified six employment related competency areas, each
consisting of applications of knowledge and skills in a workplace context. It included the lifelong learning skills of finding and using a variety of information sources to collect and organize information; and selecting, interpreting, analyzing and evaluating information. (1992a:14)

The second Mayer report, Employment Related Key Competencies: A Proposal for Consultation (1992b) and the third, Putting General Education to Work (1992c), further developed key competencies through a process of consultation and various education and community body submissions. They recommended key competencies to contribute to student acquisition and use of lifelong learning.

2.7 Studying Library Customers

Library surveys have been prominent in literature throughout the history of librarianship. They have a “distinguished history dating back to the late 19th century” and the foundation of many libraries. There are two primary rationales for conducting a library survey: the need to improve current practices for the benefit of customers; and to clarify the role of libraries for librarians and administrators. (Freedman 1985:69)

To consider the future growth of the library, many issues pertaining to current, future, and potential development need to be considered. A library study of the market is the vital first step in this realization. The needs of customers are crucial in the planning of any library's development. A multitude of “major improvements” may be directly related to a better knowledge of the library's market (Norton & Gautschi 1985:195). Subsequently, improved knowledge should facilitate service in a legitimate customer-oriented sense, a

Data collected, pertaining to general customer needs, may also be used for a general quality assurance exercise. Quality assurance activities using data collected can increase the ability of a library to upgrade services; maintain the service quality; facilitate goal setting; make library staff more responsive to customer needs; and influence library behaviour practices (Self 1980:291–92).

The intangible results of library research can prove the most rewarding. Welborn and Kuehn (1988:138) noted advantageous by-products of research, including the positive image developed in customers able to use the library confidently. The attraction of new customers and increased library-articulate requests; and increased, more enthusiastic use of the library, are further advantages of undertaking library studies (Massey 1976:476–81; Norton & Gautschi 1985:195).

Studying library customers is the foremost method, ahead of the using the perceptions of librarians or administrators, of determining the needs, preferences, and use patterns of customers (Gruppen 1990:165). A greater understanding of the identification of existing information retrieval problems and planning future services means that library customer studies are able to provide product–service analysis, consumer information, attitude considerations, motivational analysis, experimentation with controllable variables or forecasting future product and service demands (Massey 1976:473; Gruppen 1990:165). Application of even basic library customer study techniques would facilitate insight into customer needs although the variables
associated with different techniques mean that some methods are more reliable and applicable to different customer groups.

The measuring of attitudes is an important and time-tested means of forecasting (Gruppen 1990:164). There is a significant body of research to substantiate the hypothesis that perceived preferences are not significantly different from actual customer satisfaction (Gruppen 1990:165). By implementing a library study the library can undertake forecasting and may be more assured that the customer education methodology selected will appeal to customers.

2.7.1 Library Customer Study Methodologies

Not all desirable activities may be embodied in all library customer needs investigations. Customer studies determine the content and emphasis of education programmes. Studies can analyze needs from documentary sources and customer responses; they investigate present levels of library service and resource use and understanding; and consider the success of customer education as preferred by the target demographics. (Harris 1979:14)

Market Research

Market research has been recommended by Gruppen (1990:165) as the foremost method of determining the needs, preferences, and use patterns of the library's targeted customers. It was first seriously considered during the latter half of the 1970s. Even then it was being promoted as a means of providing information to assess the needs of both present and potential customers. A greater understanding of the identification of existing information retrieval problems and planning future services means that market research can provide product/service analysis, consumer information, attitude considerations,
motivational analysis, experimentation with controllable variables, and forecasting of future product and service demands. Application of even basic market research techniques facilitates insight into the needs of customers. (Massey 1976:473)

The measuring of attitudes is an important and time-tested means of forecasting. What people believe they will prefer is a reliable indicator of the effectiveness of a product. There is a significant body of research to substantiate the general hypothesis that perceived preferences are not significantly different from actual customer satisfaction. By implementing a library study the library can undertake forecasting and thus be more assured that the customer education methodology selected will appeal to customers. (Rice 1983:88–92)

**Patron Profiling**

The effectiveness of library services depends upon the extent which programme characteristics correspond with the situation of the market and subsequently to what degree this market is willing and able to use the services and resources. (Kunz, Rittel & Schwuchow 1977:9)

Library studies can involve ascertaining, in precise detail, what library skills people possess and the type of library services they prefer. In marketing terms, this is consumer analysis or patron profiling. Sufficient identification, analysis, and co-ordination of the accurate information needs of customers has been described as an essential basis for the planning, implementation, and operation of information systems and networks. (Kunz, Rittel & Schwuchow 1977:9; Gruppen 1990:165–169)

**Library Surveys**
Library customer surveys may deal with “complex communication networks” not easily “subjected to rigorous scientific analysis”. Survey data may direct attention to where library services need to be further developed and improved. (Freedman 1985:69)

A library customer study in the form of a questionnaire or survey is expedient and desirable to ascertain the patterns of customer behaviour in a particular institution. An ever-present variable is the possible bias of the librarian's perception of customer information needs and education requirements and the emphasis upon recognizing a desired pattern of behaviour. This can be overcome by using the skills of other associated professionals to discuss all aspects of survey results. (Harris 1979:13–14)

**Market Segmentation in Library Studies**

A general lack of market segmentation knowledge is a major, fundamental, and very valid difficulty encountered by librarians in the measurement and evaluation of the quality of particular services or functions. Librarians need to be sensitive to both the quantitative and the qualitative influences of library service. (Evans, Borko & Ferguson 1972:102)

**Benefit Segmentation in Library Studies**

Benefit segmentation is the analysis of the benefits individual customers or groups of customers desire in their utilization of the library service. Customers are categorized on the basis of needs and then each segment is contrasted with all other segments on the basis of set characteristics (Massey 1976:475; Zachert 1990:185–189). Massey (1976:475–76) observed that segments are defined by the critical, or the principal benefit, being sought. This facilitates increased
understanding of customer groups because it defines issues from the customer's point of view, not from the point of view of the library as a whole or the librarian.

Benefit segmentation renders additional insight into future behaviours and education needs. This predictive ability offered by the sophisticated approach of library benefit segmentation allows for better understanding of customers and provides a proactive edge. Thus, it has a reputation as a popular technique for the directing of market analysis (Massey 1976:475).

### 2.7.2 Role of Library Surveys and Research

Customer studies are service or product suppliers, in this case librarians, learning about customers. Library surveys provide the opportunity to increase visibility of the library service as some non-library users may be included in any survey. Delbecq, Van den Ven and Gustafson (1975:118) maintained that the direction of research suggested that “organizations making innovations have a heightened awareness of consumer needs”. Similarly, during the later half of the 1970s the Health Science OCLC Customers’ Group in the United States of America re-evaluated their primary goals and responsibilities in line with customer expectations (Heine 1979:58–59). This re-evaluation resulted in a strong move toward customer education. It highlighted the value of examining the characteristics of the market before making decisions about library services, particularly customer education.

Harris (1979:13) observed that studies conducted between the early 1960s and the late 1970s revealed a great deal about library customer behaviour. Conclusions from these studies include the fact that people prefer to use familiar, readily available, possibly inferior sources over
searching for better quality information because of the extra effort required to acquire resources from unfamiliar sources. Supporting Harris’ conclusions, Tiefel (1986:36), almost ten years later, added that library surveys increased visibility of the library service. They facilitated the development of a far greater sense of commonality of purpose between educators and librarians. Library surveys draw attention to the library creating higher visibility, encouraging customer education participation, and therefore benefiting both library and customers.

Clayton (1988:101) observed that many Australian customer surveys, including early university library studies by Meek (1976) and Radford (1983), focused on customer usage success rates. Ginn, Pinkowski and Tylman (1987:119) created a profile of customers to aid education programme planning but only considered one demographic group. This was a good example of segmented needs analysis to determine the self-perceived customer education needs. It did, nevertheless, survey within very narrow demographic parameters.

The processes by which individuals are socialized into the information networks and communication patterns of their profession are not well understood. King (1987:86) noted that research suggested that information seeking and library-use behaviours, as well as customer abilities, develop commonly within disciplines.

Some tertiary library studies considered academic success as a library skills outcome while others measured library usage. These two terms are by no means synonymous but Wells (1995:122) thought that it could probably be assumed that library skills were developed experientially. Early studies by Joyce (1965), Barkey (1965) and Kramer and Kramer (1968) found positive results when
they considered academic results as outcomes against library visit and borrowing statistics to determine the library’s role in academic achievement. May (1986) however found no correlation between borrowing and academic results. Sell (1980) considered customers' perceptions of the benefit of ten library dimensions in terms of contributions to academic goals achievement. The Macarthur study recognised that a correlation between library usage and academic success would not provide a direct cause. It was considered that it could at least suggest an influence.

Previous tertiary library studies focused on resource loan statistics to measure library usage and were misleading because they did not include library-use-only resources wells also distinguished between information needs (recommended reading) and information wants (relevant reading) and noted that pro-library lecturers and their teaching methodology were reflected in student library use behaviour (Wells 1995:123). The Wells (1995:121) study attempted to gain an indication of the significance of the library in relation to the university's mission of academic success. It studied the level of library usage by particular undergraduate subject groups and compared this with academic results. It considered the amount of time spent in the library and the diversity and frequency of resources and services used. An assumption was made that the greater the variety of library use by students, the more likely it becomes that they develop the skills to research and use the library affectively. (Wells 1995:123–124)

2.7.3 Perceptions

Throughout the centuries, there has been considerable public debate about educational questions such as “What are the best ways of developing lifelong learning?” and “What are the best means of library customer education?”. There has also been debate about the factors
and processes which hinder, promote or enhance these. Indeed, “What are the best ways of developing lifelong learning?” and “What are the best means of library customer education?” are serious questions that continue to be debated but for which ready solutions are unlikely ever to be determined. This debate has existed in many quarters as attempts have been made to redefine and restructure the ways in which individuals both establish and develop their knowledge and experience bases through educational processes.

Atkin (1990) argues the case for a consideration of a number of factors including the social and economic changes, recent educational research, developing understandings of intelligence, the demise of authoritarianism in society, greater emphasis on the need for humans' abilities to develop new insights through technology, and research on the functioning of the human brain for greater emphasis on lifelong learning. The lifelong learning movement in education has its roots in attacks on the passive acquisition of knowledge and learning that does not further the ability of the individual to do or to be. Lifelong learning, in a perceptual context, is closely allied to attempts to improve thinking skills (Atkin 1990:195).

In the 1970s and 1980s Stenhouse (1975), Slater (1982), Skilbeck (1984), and many others promoted cognitive process as opposed to product (content acquisition) approaches to education, particularly in relation to curriculum design, development and implementation. Work such as that by Dunn and Dunn (1978), Edwards (1979), Cornett (1983), McCarthy (1987), Herrmann (1990), Van Brummelen (1988), Butler (1989), Edwards (1994), and Splitter and Sharp (1995) has greatly assisted educators to understand the relationships of brain dominance and hemispherity in teaching approaches and learning styles. However, these notions of teaching and learning have
been further complicated in recent times by those understandings which are associated with learning context (Adams 1981), task negotiation (Kemmis, Cole & Suggett 1983), future goals, and personal aspirations.

Not only has the concept of, and strategies or plans for, education been the subject of continual review and modification, but the very nature, purposes, policies and procedures of education have been the subject of political, social, educational, fiscal and community-based scrutiny. Each educational development, initiative or proposal is based on a particular set of values, aspirations and assumptions. These are commonly referred to as world views of personal philosophical perceptions. A perception consists of the ideas or presuppositions, conviction, and commitments that shape a person's outlook on life. Everyone has a world view. Perceptions rarely reflect self-consciously on their basic convictions. All people hold fundamental beliefs that contour every aspects on personal lives through thoughts, work, leisure activities, feelings, values and attitudes (Hoffecker 1988:xi).

Holmes (1987), Schaeffer (1990), Sire (1990) and Jones (1991), have developed a range of frameworks for the identification, analysis and development of perceptions. These frameworks, being philosophical, procedural, paradigmatic and/or presuppositional in nature, provide educators with meaningful tools for designing, planning, implementing and reviewing teaching and learning.

Particular attention must also be paid to the evaluation of contemporary learning theories, for it is in this context that personal perceptions most often manifest themselves in relation to issues of library customer education. Edwards (1989:87) in evaluating contemporary learning theories, added an extra dimension to the
comparison of knowledge as a strategy process as opposed to content acquisition or knowledge as product by proposing the inclusion of knowledge as personal development as a necessary component of educational curricula. There has been a focus on learning as cognitive development and an information processing approach to learning leading to the exclusion of more comprehensive perspectives such as the personal learning schema proposed by Edwards (1989).

It is in relation to the epistemology of knowledge, axiology, ontology, psychology and philosophy that educators express their perceptions. Some educational psychologists have viewed knowledge as being infused from an external source, others viewed knowledge as being devised from internal processes. Edwards (1989) argued for a radical reconceptualization of education. This reconceptualization was based on more holistic perspectives and personal learning considerations that consider perceptions as well as theological dimensions.

The concept of the nature versus nurture issue where the approach of viewing learning as a development of environmental conditioning contrasted with learning as a development of innate internal processes. Consequently, viewing learning as conditioning, social learning, operant conditioning, learning style or information processing terms each value perceptions as key variables.

It is within these contexts that learning and thinking relate to perceptions as considered in this study.

2.8 Conclusion

This chapter provided an overview and background of the issues surrounding lifelong learning, including characteristics and
methodologies, discussed in Chapter 2.3, to provide a knowledge base and a rationale for the review of research presented in Chapter 3.

It also introduced the background and need for research into areas of librarianship. This chapter presents a view of the knowledge that forms the foundation of current knowledge in these areas. Chapter 3 will examine current research that has built upon this foundation to reveal the gaps in research that require further investigation.

Theorists of lifelong learning, tertiary education, and librarianship including Saljo (193), Edwards (1989), and Marton, Dall'Alba and Beaty (1993) tended to be cumulative, but fragmented. Researchers such as Fjallbrandt and Sheridan (1986), and Oberman (1983) dealt with many different aspects of perceptions of lifelong learning and of librarianship but all have dealt with specific student groups within the tertiary arena.

Clarifying the perceived role of the tertiary library in lifelong learning was discussed in detail by Candy, Crebert and OLeary (1994) and declared as hazy and difficult to define and identify in current practice. Existing theories all provide some, if not limited, avenues of direction for the tertiary library but have proven to be limited by their emphasis on measurable theoretical assessments such as learning goal identification, the development of independence and the importance of learning process reflection and integration (Mullins 1993:44). Knowles (1990:169) questioned whether widely accepted education models and theories were still adequate. Changing times mean changing needs in the area of educational theories and models. One thing that has not changed over time is the conceptual frameworks and models of library science that continue to focus on general bibliographic skills rather than broader customer learning needs or andragogy.
The Library College Theory of 1972 (Christ) is one theory of education that is also relevant to librarianship yet it only considered one method of learning in the library environment, that of independent study. The Lifelong Learning Resources System (Knowles 1990) built on this concept but still only dealt with one method of library use, that of library use for self-directed learning skills. This system went further than the Library College Theory because it broke the system down into specific skills (appendix 7) making it considerably clearer. Even with this advancement there was no evident theory providing a balanced integration of cognition and perceptual approaches to lifelong learning.

Australian government reports (2.6), particularly the commissioned report by Candy, Crebert and O'Leary (1994) made recommendations for the future direction of tertiary libraries in the support of the development of lifelong learning skills. Much information is already available on the issue of lifelong learning and tertiary libraries (2.4 and 2.5) but it is generally observations of current practice not necessarily evaluative or directive.

Library customers have been studied since the last century and so there exists a wealth of study methodologies, perceptions and discussions. Chapter 2.7 discussed these methodologies leading up to a consideration of the research in Chapter 3.
Chapter 3
LITERATURE REVIEW OF TOPIC

3.1 Introduction

The previous chapter provided a background and overview of existing literature, including Australian government reports, in the areas, both individual and collective, of library science, lifelong learning, and tertiary library customer education. Specifically, Chapter 2 acted as a basis for further discussion of literature to be discussed in this chapter by presenting research and previous literature that set the standards and created a foundation in the areas being considered. Chapter 3 builds on Chapter 2 to review the literature that reveals the gaps in knowledge and the need for further research.

The following literature review discusses examples of library and lifelong learning studies, most involving segmented customer groups. In some cases the customer segments were key elements in the study. There were, however, no studies specifically considering the validity of segment selection for customer education activities in tertiary settings. There is need for study in this area of customer profiling from market segmentation feeding directly into the planning of customer education services for lifelong learning development.

The literature review will be presented using a quantitative, meta-analysis style with a cumulative analysis of focus and related studies. The use of meta-analysis cumulating in a broader inference procedure review of literature recognizes and responds to the expanding quantity of literature. This provides standardization because it utilizes the selection of prototype studies as representative of similar studies. This should result in enhanced validity of review conclusions. (Greenburg & Folger 1988, Cooper 1989)
The majority of literature published about library customer education only discusses limited aspects of practices. Issues commonly discussed include data collection and analysis of usage perceptions and evaluation; analysis/reconciliation of findings; and policy analysis – shifts of emphasis in collection and services; and quantitative and qualitative recommendations. (Zachert 1987:237)

Literature during the 1970s and 1980s reflected the changes taking place with libraries and adults. Despite the increase in adult participation in higher education, the academic library community had yet to address the differences between demographically different students in terms of teaching role. Adult learning theory has been advocated as a possible solution. Sheridan (1986:160–161) examined the literature on adult education for guidance in the development of new ways of approaching customer education.

A table produced by Zachert (1990:35) illustrated the typical settings for library education services documented in periodical literature (appendix 9). Articles advocating specific education services, determined as “extensions of traditional service” in the library, commonly addressed the needs of target audiences (Zachert 1987:236). Library science articles indicated no clear picture of results obtained from customer education, nor how the introduction of regular organized education activities effected other services offered.

Articles published during the 1980s were interesting reflections on exciting innovations in customer education, breadth of coverage, and flexibility in teaching designs, but there was no in-depth information or discussion about learners as individuals or groups, or market segment strategies. Zachert (1987:235) stated that these areas were “almost absent” from the periodical literature during the preceding
twenty years. Relevant documentation is scarce both before and after the period of time considered by Zachert.

Few studies of library customer information needs have ever been conducted. Studies documented before 1982 provided quantitative results about size, staffing, and services but few proactively researched customer needs (Kobayashi 1982:2–3). Determining the actual perceived needs is the first stage in understanding customers. It also facilitates the creation of appropriate customer education programmes. Gruppen (1990:168) discussed several needs analysis studies that produced rank orderings of customer information source preferences. Gruppen described a “fairly basic” pattern of preferences for information sources commencing with textbooks and journals.

Studies by Stinson and Mueller (1980), Shirk (1986:81–89) and Gruppen (1990) examined customer information preferences. There has been a need for increased research to identify the point in a person's academic career where library customer education becomes most beneficial in the development of skills related to “library usage and critical appraisal” of literature (Williams, Baker & Roberts 1987:107). This current study should determine, amongst other things, the point where students are most receptive to library customer education. This is achieved through determining the perceptions of customers related to library use, library use skills, and integration of the library into campus life.

Customers utilize human and physical library resources, including services, during efforts to learn. Customer education strategies may be developed through insight into the perceptions and information retrieval behaviours of customers. Customers could gain more from their tertiary library experiences if librarians developed an
understanding of the lifelong learning skills perceived as being required by customers. Literature on the theoretics and practicalities of lifelong learning and tertiary library customer education; tertiary library participation in the lifelong learning process; and background, rationales and methodologies of library studies will now be examined.

The remainder of this chapter is divided into the four areas that became clear divisions or foci during the literature searching. These division were, with the exception of the first division (Focus A), each considered from two perspectives, these being the dynamics or physical issues of library use, and the pure perceptual issues of the library use rationale of customers.

3.2 Demographics and Segmentation (Focus A)

The first focus, Focus A, examined literature to determine existing approaches to dividing customers into groups for customer education. It became evident from the literature reviewed in this section that no clear division for segmentation was recommended from the existing literature, some research resulting in no recommendations. From this gap of direction provided by previous research the first part of this study needed to determine the most appropriate grouping of customers for library customer education.

Focus A. Demographics and Segmentation

What are the most logical divisions of customers to facilitate a lifelong learning library education approach and are there identifiable similarities in key areas of customers' backgrounds?

Segmentation by demographics, as defined in 1.5.1, has continued to be examined with consistent numbers of studies being conducted from the late 1970s through to the 1990s. Some studies considered the
customer education needs of only particular demographic segments, usually students preparing for specific professions. One example of this is the organized programmes of library customer education offered to students at the Withington Hospital in the United States of America which were designed and presented per demographically segmented student group (Freedman 1985:76).

Poyer (1977:296) considered a different demographic customer segment to Freedman (1985). However Poyer selected only the subordinate, or the directed library needs of a demographic staff segment. The Medical University of South Carolina, implemented a customer education programme for allied health personnel. The classes were designed to assist staff with duty oriented information retrieval tasks. It was assumed that this type of customer would primarily use the library to obtain information required for others. At no point in the study were the personal, work related library needs of these customers considered.

Examples of demographic segmentation for customer education approach the subject of segmentation differently. Skinner and Marcotte (1982:53–72) conducted a general study to evaluate the success of this type of segmentation for library customer education. They observed that when education programmes considered the needs of customers in accordance with employment roles they were effective and met with considerable approval.

The Texas Medical Center Library is an example of a tertiary education library endeavouring to offer customer education sessions to all demographic segments on site. Some of these seminars were aimed at particular demographic segments within larger groupings this being a prime example of how to best meet customer needs. Segments,
it would seem, although grouped in a way to best fit together for
the majority of education programmes, must be flexible enough to be
dissected for different customer education topics. They recognized the
diverse information management requirements of the customers who
made up their market. They endeavoured to offer programmes that
reflected the broad range of information related customer interests.
(King 1984:77–80)

Market (1989:133–38) also researched the tertiary library customer
education needs of distinct segments including students. The research
was conducted within the field of one academic discipline within
several institutions. The study demonstrated how customer segments
differed in their purpose for using the library but all groups within the
one discipline shared procedural uses. The needs analysis activities of
this study facilitated the creation of an education programme to meet
the needs of these customers. The needs of the libraries considered by
Market (1989) were best met by a demographic segmentation approach
to customer education.

3.2.1 Customer Perception

Customer studies encouraged library management to make policy
changes to reflect the perceptions of customers rather than personnel
(Clayton 1988:100). The University of Cincinnati Libraries, for
example, conducted a customer opinion survey as a communication
medium. Significant findings support Clayton's opinion that
customers were not experiencing the difficulties expected by library

Library customer perceptions, according to studies by Marchant
(1980:151–59), Sell (1980:332), Anderson and Miller (1983), and
Freedman (1985:72,76), were not predicted by library management.
Sell (1980:332) found that the librarians' perceptions of how customers would respond on over half of the items differed from actual responses. Librarians often perceive problems from a different perspective, their concerns not being incorrect but incomplete. Delbecq, Van den Ven and Gustafson (1975:120) considered group techniques for programme planning. They noted that professionals were always sure they knew what their consumers’ problems were but when consumers were asked to indicate their priority concerns, there was a significant difference in concerns identified by them compared to those listed by professionals.

It was concluded that the professionals were perceiving problems from a different perspective, with their list of concerns not incorrect but rather incomplete. Additionally, Clayton (1988) observed that customer studies encourage librarians to make policy changes to reflect customer perceptions.

In Australia, the Working Party on Library Resources of the Australian Committee of Directors and Principals in Advanced Education (ACDP 1986:71), described library managements' knowledge of customer perceptions as limited. This was one of the first major studies in the area and recognized for its success in implementation of recommendations. This report signalled the emergence of a new focus on the education role of librarians and indicated that to serve and educate customers better, research was required. Subsequently they made recommendations including that more research be conducted on student library usage methods and that more information be obtained on tertiary institute library management expectations for levels of library use and customer philosophies on library services. Prior to this, much of the research on Australian libraries was based in statistics,
particularly usage statistics, rather than founded in the perception of customers.

Marshall (1989:20–24) researched the skill of customer searching and determined that, of the formal and informal education incidences considered, “more positive perceptions” of customer searching were, in turn, predictive of higher implementation levels. There was significant preliminary empirical evidence that customer education in the form of training made a difference to the implementation of specific skills.

It is important to recognize personal perceptions and treat customers as individuals, identifying and catering for preferred learning styles in the creation of appropriate customer education programmes (James & Galbraith 1985:20–23). Determining perceived needs began, during the late 1980s and continued into the 1990s, to be perceived by library researchers, including Ginn, Pinkowski and Tylman (1987:119), Gruppen (1990), Levene (1990:25), Breivik (1992) and Bruce (1997), as vital to the better understanding of customers. Each of these researchers analyzed customers' perceptions of their needs, however within narrow parameters, with only one segment being considered.

Early research had shown that academic libraries were used by fewer students than should be using the library primarily because of psychological barriers. Hatchard and Toy (1984a) believed that these psychological barriers, centred around the “inadequate antecedent knowledge” held by new students about libraries and resources. They concluded that students approached their new academic library with “vague, uncertain and often false knowledge” about both the nature and function of tertiary libraries (Hatchard & Toy 1984a:23–28). These psychological barriers however may be broadly based variables ranging from poor library skills or unsatisfactory past experiences,
to non-ergonomical facilities, service or staffing levels, to the geographical location of the library building or the internal structure of the library facilities. Hatchard and Toy (1984b:157–67) and Fjallbrant and Mailey (1984) thought the primary psychological barrier was one of communication between the perceptions of librarians and customers.

Harris (1979:13) studied the planning of customer education programmes and presented two significant findings about customers. Firstly, that customers have ways of doing things, and these should be accommodated in the design of services including customer education; and secondly that customers have ways of doing things that could be improved. Rice (1983:92) stressed that library customer education is considerably more effective when it is presented with physical resources and accompanied by actual use of the library. This strongly supports the modern education methodology of concrete learning experiences. Rice (1983:88) was unable to obtain, from the body of existing literature, a clear indication of what methodologies for library customer education and general library orientation were most attractive to participants.

An attempt to investigate and compare the university student and faculty member perceptions of the principles of lifelong learning was made at two Egyptian universities. Five questions about thirty-eight aspects of lifelong learning were asked of senior students and academic staff to test four hypotheses. Percentage, mean, standard deviation, and the ‘t’ test were utilized to analyze the data resulting in three of four hypotheses. The conclusion drawn indicated a strong support for lifelong learning by both faculty and students. Recommendations involved the implementation of lifelong learning principles, as outlined in Chapter 1.5.1, in the future directions of the university and its libraries. (Salem 1986:1156)
Literature studies by Sheridan (1986:157) revealed that 80 percent of all adult students were attending tertiary institutions because of life role or circumstance changes, over half of whom were making career changes. Fifty-three percent had completed high school and were returning to study after several years away. The Burge (1983) study discovered that 50.3 percent of respondents were enrolled in the tertiary study to improve employment skills and enhance career opportunities. There were 27.3 percent of respondents who thought they learned new skills toward a career movement through tertiary study. The Wilson (1994a) findings found 48 percent of respondents intended to use new qualification for employment movement demonstrating that statistically little has changed over the preceding ten years.

The Sheridan study found that the majority of adult students had been away from formal study for considerable lengths of time. Students' confidence in personal information seeking abilities, along with attitudes can be affected by the length of time away from formal study, previous experiences of formal education and present study patterns. Sheridan (1986:157–158) found that older students often displayed less confidence in their abilities and were more intimidated by new technologies than younger students.

Lindeman noted that writers in the area of adult education thought that adults had a deeper need to be self-directed. Adult independent learners are motivated by internal factors in the search for information. This is a deep desire to discover further information on a topic of interest, a desire that is more than sufficient to “galvanise” them into action (Knowles 1990:31,47).
Focus A responds to challenges set by Bridgland (1983) and Wilson (1994) who found that different customer groups have different needs but it is yet to be determined what were the most accurate groupings of customers for customer education.

3.3 Library Issues (Focus B)

Library Issues, the second focus of the present study, used key Australian studies to identify the issues most prominent at the time this study was initiated. These studies will be discussed in this section.

B. Library

The primary gap in existing literature, in this category, will be addressed further in Chapter 5. Summarizing the present situation and prompting this focus, was the recommendation that research was required into customer library use methodologies and philosophies in order to determine the appropriate skill levels to be obtained and library roles and functions (ACDP 1986:71). It is also promoted by the age of available literature. This became Focus B1:

B1. Library Use

• What personal methodologies are implemented when using libraries and information resources and do these indicate a lifelong learning philosophy (Appendix 1, Appendix 2, & Appendix 3), reflected in a broad view of what constitutes learning (formal, nonformal and informal) and a desire to develop the skills required to learn throughout life?

The primary gap in existing literature, in this category, will be addressed further in Chapter 5. Summarizing the present situation and prompting this focus, was the recommendation that research was required into customers' perceptions of their library use methodologies
and philosophies in order to determine the appropriate skill levels to be obtained and library roles and functions (Marchant 1980; Sell 1980, & Anderson & Miller 1983). It is also promoted by the age of available literature. This became Focus B2:

**B2. Library Use Rationale or Perception**

- What personal feelings and motivations are associated with using libraries and information resources and do these indicate a lifelong learning philosophy?

The Candy, Crebert and O’Leary (1994) study is one of the most recent and far reaching studies involving Australian tertiary libraries. It was commissioned to identify whether and in what ways the content, structure, teaching methodologies and evaluative procedures of Australian undergraduate education, were designed to facilitate the development of lifelong learning enabling and encouraging attributes (Appendix 3) in graduates (HEC Project Brief 1993:2, Candy, Crebert & O’Leary 1994:iii,xi,95). Libraries relate to each of these areas but are not necessarily identified in the documentation of Australian universities.

Two-thirds of the universities studied in the Candy, Crebert and O’Leary (1994:8–10,70) study identified the concept of lifelong learning, either directly or indirectly, as part of their role through mission statements or goals and objectives. Of the 38 Australian universities studied only 14 made direct reference to lifelong learning in documentation indicating the need for research.

The responsibility for encouraging lifelong learning resides at three different but interconnected levels. These are the structure and composition of the curriculum; teaching and assessment of students; and the overall ambience of the institution (Candy,
Crebert & O'Leary 1994:96; Bruce 1997:9). The library can be seen as able to integrate into each of these levels through the four broad categories of librarian responsibilities for lifelong learning. These four broad categories being: working with students; maintaining the collection; working with staff; and working with the community, all supporting the “multifaceted role” of the library. The responsibilities included providing on-the-spot assistance, customer education services, workshops on new technological developments in information storage and retrieval methods; guidance in curriculum design intended to promote self-directed and resource-based learning; courses participation to integrate information literacy with the content and design of the curriculum; orientation programmes; maintained and developed resource collections, and exchanging information and resources with other libraries; and designing electronic databases, computer software packages and course material for specific purposes (Candy, Crebert dO'Leary 1994:171–172). These responsibilities all require an indepth knowledge and understanding of the lifelong learning skills discussed in Chapter 1.5.1, specifically the information literacy skills, needed by customers.

Libraries do have a “multifaceted role” in tertiary education. They have increasingly become involved in various aspects of university life, but still generally have a long way to go. This has ensured that libraries live up to the rhetoric and truly become the ‘hub of the university’ and that librarians are operating at the “cutting edge of technological developments in identifying the need for, locating, accessing evaluating and managing information” (Candy, Crebert & O'Leary 1994:171). The perspective of this identification, while not specifically mentioned in the report had inferences of being from the perspective of librarians not customers.
Tertiary library services and programmes should be dedicated to the achievement of information competence. The lifelong learning skill of information literacy is considered fundamental to the undergraduate curriculum because it encourages student independence and self-motivation (Candy, Crebert & O'Leary 1994:172–173). This is achieved because lifelong learning encourages critical thinking with an appreciation of differing perspectives and developments.

The Wilson (1994a) study, from Curtin University in Western Australia, investigated the provision of information literacy instruction to one demographic group, external students, at a sample institution. The study found that it was not possible to design a generic information skills programme to meet the needs of all external students. The librarians participating in the study found that the most successful lifelong learning programmes were not tailored to disciplines, for example education, but to units of study within disciplines, for example curriculum programming, studied by external students.

The Wilson (1994a) study considered library use confidence, knowledge and skill levels as factors in the acquisition of information literacy skills. The Wilson study did not fully examine the perceptual aspects of the measurement of confidence levels although this was clearly what was being attempted it concluded that information literacy skills increase due to the influence of exposure to the tertiary environment. This had a positive affect on the confidence levels of students (Wilson 1994a). The study was unable to determine whether students were aware of the role information literacy skills played in their development as lifelong learners. It found that it was not possible to identify a set of information literacy skills or requirements which every student should acquire at a predetermined stage of their
academic career and did not substantiate the value of examining perceptions. This is contradictory to more recent studies by Bruce (1997) who suggested that key competencies could be listed for lifelong learning and library skills. Different student segments were considered however, Wilson considering mainly undergraduate students and Bruce considering postgraduate students. This might indicate that different customer segments have different needs. This current study will examine this concept further.

Library customer education can often be reactive rather than proactive as found by the Welborn and Kuehn (1988:137–38) study. The findings of the study provided the foundations for a rationale for the introduction of education programmes.

The particular interest of the researchers during the Welborn and Kuehn (1988) study was to discover the effects of customer education programmes on campus services. The study concluded that the greatest percentage of customers required a clear interest in, and a need to be met through education before they would participate.

3.4 Library Customer Information Retrieval Skills Assessment (Focus C)

C. Skills Assessment

The primary gap in existing literature, in this category, will be addressed further in Chapter 5. Summarizing the present situation and prompting this focus, was that customer groups share procedural uses of libraries, the skills of lifelong learning, found in libraries, and what procedures are shared by different groups however were not described in any great detail in the literature (Coombs & Houghton 1995; Owen 1992; and Market 1989). This became Focus C1:
C1. Skills Assessment and Library Use

• Do customers present similar responses when self-assessing their information skills and their library use and what do these indicate about their lifelong learning abilities?

The primary gap in existing literature, in this category, will be addressed further in Chapter 5. Summarizing the present situation and prompting this focus, was that librarians' perception of customers' skill level have long been considered as “incomplete” (Delbecq, Van den Ven, & Gustafson 1975; Toy 1984b; Fjallbrant & Malley 1984). Literature still does not present a clear indication of what customers prefer (Freedman 1985; Naisbitt 1984). It is also promoted by the age of available literature. This became Focus C2:

C2. Skills Assessment Rationale or Perception

• Do customers expect to develop their information skills and their library use abilities throughout their time at college and do their expectations indicate lifelong learning desires?

During the 1980s the British Library commissioned three studies to determine tertiary information skills training practices (Breivik 1992:8). In Australia, studies were more geographically and institutionally based. The University of Tasmania (Bridgland 1983), for example, studied and supported the need for undergraduate students to appreciate the importance and methods of determining available information on a given topic and then being able to retrieve relevant information in a suitable format.

Coombs and Houghton (1995:260–262) endeavoured to identify the information skills needed by beginning tertiary students as perceived by both students and educators. Through a literature review and a survey they aimed to discover the most appropriate method
for instructing new students in information skills. They considered questions including previous information skill interactions, perceived and necessary ability with information skills, and customer education mode preferences.

The Loyola University Medical Centre study concluded that when customers were trained by librarians the library use rate was higher. This confirmed that librarians have an important role to play in educating customers (Maranda 1989:126). Early customer information retrieval skill needs research was descriptive (Mick, Lindsey & Callahan 1980:348; Bridgland 1983; Freedman 1985:72,76; Harris 1986:14). This is still a major problem with customer information retrieval studies still generally explaining current behaviour, not ideal or desired behaviour (Coombs & Houghton 1995:260–262). This meant that the studies were not able to provide information related to the “design of information products or services”. Information retrieval studies usually indicated the need for introduction (Bruce 1990:224–232; Welborn & Kuehn 1988:137–138), or modification or new approaches (Sheridan 1986:160–161) to customer education programmes.

There is significant preliminary empirical evidence that customer education in the form of training makes a difference to the implementation of specific skills (Mueller & Foreman 1987; Coombs & Houghton 1995:260–262; Robertson 1989). This supports the role of librarians in teaching customers to find their way around a growing mass of information (James & Galbraith 1985; Gruppen 1990). The skills of information retrieval generate more positive perceptions of information retrieval, and in turn, are predictive of higher skill implementation levels (Marshall 1989).
The connection between library customer studies and customer education has a long history. There are publications by researchers, including Fjallbrant and Malley (1984), Lubans (1978), Harris (1979:12–15), Bruce (1990) and Wilson (1994a), indicating that information use and customers' needs are a sound and justifiable basis for training programmes. Lubans' (1978), Progress in Educating the Library User, is a relatively early, yet particularly good, example of a book which indicated that customer behaviour patterns are essential considerations in the design of education programmes.

Tertiary library information retrieval studies have regularly focused on the number of resources borrowed to measure library usage. The statistical results of these studies are now being seen as misleading because they did not, by their nature, include resources used at the library, but not borrowed from the library. Some resources used in the library are not able to be borrowed, including periodicals and reference materials.

Some studies, primarily during the mid to late 1980s, tried to compare academic success with library information retrieval skill levels (Clayton 1988:101). Once again, the variables considered in the studies were only selections of the many variables effecting any comparison between academic success and library information retrieval skills. This analysis is made possible by results of more recent studies that have considered the issues separately. The information retrieval skills and practices of library customers have been studied using surveys to measure the cognitive and psychomotor skills involved in retrieving and appraising literature before and subsequent to customer education (Williams, Baker & Roberts 1987:102; Wells 1995:122; Welborn & Kuehn 1988).
3.4.1 Implications for Customer Education

The connection between customer information retrieval skills evaluated by library customer studies in the planning and implementation of customer education has a long history. One of the primary goals of customer education is the uniting of learners with the information they require through various resources and learning strategies. The goal is to have students utilize library skills to learn throughout life (Collins 1989; King 1987). Many teaching strategies have been created to facilitate this goal. Research by Colaianni (1980) and Collins (1989), although separated by almost ten years, expressed similar opinions on the role of variables in customer education. King (1987) also considered the variables of customer education but from a different perspective. Studies by Joynt, Marshall and McClure (1991), and Buchanan (1985) supported the positive effects of libraries on customer job performance. The library's most ‘generalizing’ function is education under which all other functions of the library are contained. The library must be an education centre where communications and information are means to an educational end not the actual purpose (Christ 1972:75–80).

The volume of library customer education literature relates to the public library sector. Adult education periodicals and monographs discuss many specific techniques not examined by library publications. Few articles specifically concerned students in tertiary libraries. There were, however, library service articles about physically and geographically isolated segments. Many librarians from various disciplines looked to adult education literature for direction in methodology and style of customer education (Sheridan 1986:161).

A personal knowledge of information retrieval skill abilities and positive perceptions of the worth of customer education by students
is important if customer education is to be supported. Customers require a clear interest in, and a need to be met by, education before they participate (Welborn & Kuehn 1988). The analysis of customer education programme effectiveness has often been measured by increased customer attendance (Market 1989:133; Salisbury et.al. 1990:189). This does not, however, reflect increased quality of library use or the development of higher quality lifelong learning skills.

### 3.4.2 Customer Education Methodologies

Customer education methodology has been examined in many different ways by researchers. These may be generalized as two parallel tracks, formal programmes centred on topics and targeting particular customer segments and informal programmes where learning occurred in the context of customers attempting to resolve problems experienced during daily practice (Gruppen 1990:165). Scheduling and methodology of customer education at university libraries has often been studied but often without clear conclusions (Mueller & Foreman 1987:253–56; King 1984:76; Loper 1988).

Welborn and Kuehn (1988:137–39) stated that United States of America and Canadian library survey findings indicated that the quality and quantity of library customer education programmes were developing rapidly. The University of Tennessee was one of few examples of a series of sequential library customer education programmes. Each presentation for students built upon the skills developed during previous sessions.

The comparison of library and information-seeking competencies, behaviours, and perceptions of students in the problem-based and traditional education curricula was the purpose of a study at the Georgia State University College of Education. The study considered
survey data on library use by one year-level, gathered from four different sites with either problem-based or traditional curricula. Significant differences between the curricula groups were identified. The most evident difference was that problem-based curricula students preferred independent learning and frequent library use (Rankin 1989:8,1992:36–43). Methodology was also dealt with by other, earlier researchers including Rice (1983), Mueller and Foreman (1987), Robertson (1989), Renford and Hendrickson (1980), and Marshall (1989). The Gruppen (1990:165–68) study results, for example, indicated that informal continuing education had a greater potential than formal education for improving the library practice of customers. Informal continuing education had the advantage of being more problem-oriented, and in turn, more practical and applied than formal programmes. This was believed to be due to customers' perceived time and need constraints.

Similar concerns over the need for students to become self-directed, independent learners in the United States of America led to the creation of a Framework for Outcomes Assessment, an expectation for more active learning experiences over time producing students skilled in information retrieval. Criteria for information literacy were evaluated, including how many syllabi included library-based assignments; the nature of assignments; the appropriateness for the programme and its students; evidence of thought and creativity; promotion of active learning in assignments; use of primary sources when appropriate and a knowledge of the range of available resources; and the development of increasingly complex research skills (Breivik 1992:6)? The Framework for Outcomes Assessment, derived from the Breivik study, incorporated a variety of customer education approaches to meet the needs of library customers.
The Texas Medical Centre Library initiated customer education sessions during the 1980s. The activities of the Texas Medical Centre Library were initially categorized as bibliographic instruction but soon expanded to become “information management education”. The expansion was initiated by the development of what was defined as “special seminars” designed to address the information needs and interests of customers. The areas of education initiated were considered to be topics that were not included in traditional education programmes. This is an example of an extended programme, a library that studied the needs of customers and went beyond the common programmes to better meet their needs. (King 1984:76)

Bridgland (1983) discussed examples of successful and unsuccessful curricula models for customer education in a tertiary setting and supported the tailoring of a curriculum model for customer education to meet specific demographic groups. Bridgland's (1983) study found that a process/objectives curriculum model of customer education was most beneficial within the Australian tertiary setting.

The Candy, Crebert and O'Leary (1994:128) study asked staff, students and graduates to nominate teaching methodologies that they thought best promoted “outcomes that translated into lifelong learning skills”. Teaching methodologies based on the following were nominated: self-directed and peer-assisted learning; experiential and real-world learning; resource-based and problem-based learning; reflective practice and critical self-awareness; and open learning and alternative modes of delivery. It sought from staff, students and graduates nomination of assessment methods which were most likely to ensure effective lifelong learning practices. Most favoured methods included open-book examinations requiring synthesis of information to test creative thinking; examination questions which drew on analytical
skills to assess lifelong learning abilities; and short, deadlined research projects to assess ability to work under the pressures of the real world. Other popular forms of assessment included assignments including essays, research projects and reports; negotiated learning contracts; and clinical case studies. (Candy, Crebert & O'Leary 1994:150)


There is a tendency for self-directed learners to derive increased benefit from customer education workshops (Williams, Baker & Roberts 1987:102; Loper 1988). Preference for customer education to be integrated into the general curriculum is often a means of tailoring a programme to best meet the needs of a wider audience. Integrating customer education into a busy curriculum can however be difficult (Mueller & Foreman 1987:253–56), it does, however, achieve high success rates with sequential library customer education programmes facilitating skill building (Welborn & Kuehn 1988:137–39).

3.5 Integration of Lifelong Learning Skills into Tertiary Libraries (Focus D)

Integration of Lifelong Learning Skills into Tertiary Libraries

The primary gap in existing literature, in this category, will be addressed further in Chapter 5. Summarizing the present situation and
prompting this focus, was the recommendation that further research was required into customer perceptions of, and preferences for, library customer education methodologies (Rice 1983; Candy, Crebert & O'Leary 1994; Wilson 1994). This became focus D1 and focus D2:

**D1. College, Course and Library Integration and Library Use**

- Do customers feel college subjects integrate with library use and do customers view the library as a lifelong learning facilitator?

**D2. College, Course and Library Integration and Library Use Rationale or Perception**

- Do customer library behaviours and motivations reflect integration of college, course and library and does this reflect a customer view of the library as a lifelong learning facilitator?

Graves and Selig (1986:126) reported that the majority of library customer education examples examined by the University of Tennessee were single sessions or formal semester-long courses. The university library appeared to offer the only example of attempted integration throughout the course structure. Education sessions were placed strategically into general university courses at times when students would have specific information needs. The objectives, constructed from the skills assessment made by the University for the library programme, lacked a lifelong learning focus. They centred on the basic customer skills of information retrieval to complete their formal education.

There was no indication from the two objectives above of any desire to impart skills for the promotion of life-long learning through a self-sufficiency in library utilization. The first objective acknowledged only the desire for students to use the library for specific purposes throughout their training. The second objective implied a desire to use
the library to discover specific knowledge, not the more advantageous
goal of information retrieval and dissemination skill development.

The Higher Education Council (Chubb 1994:4) supported issues as key
recommendations on lifelong learning for the Minister of Employment,
Education and Training. These included that lifelong learning skills
and attitudes form part of the core of all undergraduate courses, clearly
articulated in course aims and objectives. Each university should
develop an explicit policy on developing lifelong learners, including
aims, strategies and resourcing. Policies and practices should be
monitored and regularly evaluated as to how its policies and practices
contribute to the development of lifelong learners (Chubb 1994:4).

It is obvious that considerable learning occurs in tertiary libraries
(Candy, Crebert & O'Leary 1994:150,159) because lifelong learning
extends beyond the formal curriculum into activities, practices, and
services utilized during tertiary education years (Loper 1988). While
a proportion of the population's learning needs are met through the
typical or regular learning environment of the library, an equally
important percentage of the population's learning needs are not
adequately realized (Loper 1988). This indicates the need for research
into the information literacy needs of different student groups who
may have homogeneous customer education needs.

Roles undertaken for customers by librarians becomes more affective
if undertaken with customers (Clayton 1988:103). Librarians need to
prepare strategic plans demonstrating the integral role of libraries
in influencing campus direction and the achievement of objectives.
Customers were self-evidently the best group to identify and prioritize
their own needs (Clayton 1988:99). Customers are most likely to
support proposals ensuing from a genuine involvement in the planning
process. Any proposals resulting from this consultative processes are more likely to receive support from managerial and financial administrators. Naisbitt (1984:159) called these megatrends, the general community trend to participate in decision making throughout society. The megatrend important to customer education is that people whose lives are effected by a particular decision must be a part of the decision making process.

Lifelong learning skills should be noted in course aims and objectives and form part of the core for undergraduate degrees. Lifelong learning skills, called information literacy skills in libraries, include and subsume many generic skills. These are all vital and an overarching set of accomplishments. If these skills were placed in the centre, rather than at the edge of the curriculum they would provide a unifying principle for much of the undergraduate programme content taught and provide foundational skills that would enhance learning throughout the rest of the course (Candy, Crebert & O'Leary 1994:66).

The significance of the library in relation to the university's mission of academic success has often been related to the level of library usage by particular subject groups and compared with academic results (Loper 1988; Wells 1995:123). Variables studied have included the amount of time spent in the library and the diversity or frequency of resources and services used (Wells 1995:123–124). These studies did not consider personal variables including the background of students or their level of interest or predisposition towards developing high level information retrieval skills. The studies were therefore not able to conclude that the greater the volume of variety in library use by students, the more likely that they develop information literacy skills.
3.6 Literature Review Conclusion

Evaluative studies are able to assess the benefits of library customer education and provide background into its historical development and long term effectiveness (Williams, Baker & Roberts 1987:102). There have been detailed reports on tertiary library customer education in the areas of information skills and teaching methodologies for specific customer segments by Sheridan (1986); Market (1989); Novak and Lidstone (1992); Breivik (1993); Bruce (1990;1991); Wilson (1994a;1994b); and Coombs and Houghton (1995). Few studies have considered tertiary libraries consulting all student customer segments simultaneously (Freedman 1985:72.76). No studies prior to this current study have considered the varying customer education needs of segments in Christian tertiary education settings for the development of positive information retrieval skills perceptions leading to lifelong learning skill development.

Skills Assessment

Library use skills and customer group needs are a sound basis for customer education programmes (Wilson 1994a,1994b). Skills assessment studies facilitate the creation of an education programme to meet customer needs (Market 1989:133–38). While customer segments often differ in their purpose for using a library, all customer groups share procedural uses (Market 1989:133–38).

Integration of Lifelong Learning Skills and Tertiary Libraries

Learning how to learn and use information effectively is the most desirable outcome of education (Whitstock 1990:35; Bruce 1997:9). This concept is becoming more widely recognized but in the real terms of making all students take responsibility for their own
continuing learning and development there has been hurdles. There are set challenges facing libraries for the realization of the goals of lifelong learning:

i. To help the learner achieve a degree of happiness and meaning in life.

ii. To help the learner understand themselves, their talents, and limitations and their relationship with other persons.

iii. To help adults recognize and understand the need for lifelong learning.

iv. To provide conditions and opportunities to help the adult advance in the maturation process spiritually, culturally, physically, politically, and vocationally.

v. To provide, where needed, education for survival, in literacy, vocational skills, and health measures. (Bergevin 1967:30–31)

Messerle (1990:180) suggested that because tertiary libraries have always supported the education objectives of their respective institutions they should build upon this foundation and enhance their positions as key players in the field of lifelong learning. It must be concluded that the introduction of an integrated customer education programme into any library has a profound affects on the type of future services offered by the library. Customer expectations increase with the institutionalization of an education programme within the library (Candy, Crebert & O'Leary 1994:150). Customers become aware of the increased opportunities available to them and thus see the role of the library from a new perspective. The library becomes a place for self-directed learning as well as a place to seek information. No longer just a repository, the library is transformed into a centre for active learning (Hubbard & Wilson 1986:22).
Customers utilize library personnel, resources, and services during efforts to learn. Library resources assist individuals through encouragement, support, and information about many learning opportunities. Customers could gain even more if libraries developed an understanding of customers and learning, and librarians could develop improved resources, services and policies. (Neehall & Tough 1983:543).

Relating the work of the library to lifelong learning has the potential to strengthen the library's relationship to institutional objectives. Lifelong learning policies and practices strengthen library relationships with the institution's mission statement. A library promoting lifelong learning provides a strong framework for the consideration and application of new service paradigms that could be linked in different ways to adult learning models (Messerle 1990:180,186). Relating the work of the library to lifelong learning strengthens the library's relationship to institutional objectives. Lifelong learning policies and practices strengthen library relationships with the institution's mission statement. In order for libraries to support lifelong learning principles to the full extent it becomes necessary to restructure the role of the library within the tertiary education system. (Bechelloni 1973:71–94; Stone 1978:241–331; Gann 1985:6)

The library should have an established and constantly updated, clearly-defined mission statement which identifies the specific customer base. Librarians need to achieve this in order to function effectively as service providers (StClaire 1991:100–01). This mission should be based on the needs of customers. Tertiary libraries need to also have a directive form of supporting mechanism connecting philosophies and goals to that of the host organization (Clark 1983:663).
Strong communication links should be established between different levels of education to contribute to the continual growth and minimal disruption between developmental levels of information literacy skills. Sequential and developmental lifelong learning skill continuums may be initiated, implemented and evaluated by all education institutes. Librarians should be more forceful in defining and promoting library aims and objectives, framed in terms of the level, quality and scope of customer learning. Many aims may be distinct from, or even conflict with, those drawn up by other educators in the institution. (Ford 1986:47; Lupton 1993:40–41)

It may be concluded that in librarianship, as in any service-oriented profession, the nature of the service has changed with the needs of customers. Zachert (1990:1) predicted that only by research will the librarians' perception of customer needs be strengthened. Library science involves the “collection and organization of materials, relevant to either independent or institutionalized epistemology and pedagogy”. Only the concept of education exhausts the full theoretical range of the library's traditional functions (Christ 1972:72–73).

Building on the background and overview of existing literature presented in Chapter 2, Chapter 3 discussed the existing research in the areas of library science, lifelong learning, and tertiary library customer education. Specifically, Chapter 3 revealed the gaps in knowledge and the need for further research.

After an introduction (3.1) this chapter was divided into the four areas that represented the literature foci during the literature searching. These divisions were, with the exception of the first division (Focus A), each considered from two perspectives, these being the physical issues of library use, and perceptual issues. Common issues throughout
the literature review were the age of existing data, and the surprising clarity of gaps. Many of these gaps were acknowledged in the recent research of Bruce (1997) who actually verbalized the need for research in many of the focus areas of this current study during the recommendations of her doctoral thesis.

Chapter 4 uses a schema, created using information obtained and discussed in chapters 2 and 3, to analyze college documentation for recognition of lifelong learning principles.
Chapter 4
CHRISTIAN COLLEGE

4.1 Introduction

The study took place at Christian College (CC), a tertiary college offering undergraduate and postgraduate degrees. The researcher is the head librarian with a staff of six and has been on site for four years and serves on all faculty and course co-ordination committees. The case study site was chosen because it serves a diverse customer base representing many age groups and education backgrounds. The Christian, rather than humanistic philosophy, held by the college is extremely facilitative of the lifelong learning philosophy based on strong values of academic freedom and liberalism. It typifies Christian tertiary colleges and the findings might be transferable, externally valid, within similar settings.

4.2 College Foundations

The development of Christian College (CC) was the result of concern over the lack of Christian alternatives in Australian higher education. This led to the decision in 1982 to establish a Christian university in Australia (CHC 1995d:20). The college, initially funded by the Christian Outreach College and Christian supporters and presently self-supporting, is a private higher education institution founded in 1986 to provide a Christian alternative in higher education (CHC 1995a). The college life “actively promotes” the ideals of Christian life (CHC 1995a). Students have the opportunity to undertake studies in a Christian environment and from a Christian philosophical perspective.

The campus is located in Mansfield, approximately ten kilometres southeast of Brisbane city centre. It is part of the Christian Outreach
Centre complex, a multipurpose facility set in more than 40 hectares of landscaped grounds and natural bushland (CHC 1995a). The college is administered by a Council, established under By-Laws adopted in 1986 and incorporated by Letters Patent under the Religious, Educational and Charitable Institutions Acts, 1861–1967 (Queensland). Under the By-Laws, the government of the College is vested in the College Council. Membership of the Council includes representatives of the academic board, college personnel, students, graduates, employers of graduates, the teaching profession, Christian Outreach Centre as the parent body of the College, and the wider community (CHC 1992a:3).

The Christian College's model of academic governance established the Academic Board as the principal academic committee and the major internal decision-making body of the College. Its major roles are to formulate policy and provide advice to the Council on matters concerning the academic programme of the College as a whole (CHC 1992a:3).

Three undergraduate humanities courses are presently offered, the Bachelor of Education – Primary, the Bachelor of Education – Secondary, and the Bachelor of Arts (CHC 1995c). Two theological courses, the Bachelor of Ministries and Diploma of Ministries, are also offered.

Mission

The college's mission is to “prepare men and women to be affective Christian leaders in their communities and in their chosen professions”. The college documentation states that the college is “committed to formal recognition of its academic programmes” and has gained full accreditation of undergraduate and postgraduate
programmes from the Queensland Minister for Education (CHC 1995d:20). The College is recognized throughout the tertiary sector. For example, its principal recently represented Queensland Universities at a meeting of Australian deans with the Federal Education Minister. College courses are highly regarded and ex-students achieve cross-credits at other universities and are often accepted into honours or graduate years at other Australian universities. The college receives no government funding but graduates from the disciplines of education and counselling, for example, regularly receive employment in state schools.

Christian College, as a Christian higher education institution, acknowledges the aims and responsibilities of providing an expanding range of courses and learning experiences, at both undergraduate and postgraduate levels. This is in response to community needs, in addition to serving general societal needs, to satisfy the particular needs of Christian communities and institutions. It is achieved by setting its programmes within the context of a Christian philosophy as a basic philosophical stance (CHC 1992a:4).

A Christian philosophy of education, as held by the Christian College, is derived from consideration of educational questions from a Biblical perspective. A Christian philosophy incorporates Christian metaphysics, that is, ontological and epistemological presuppositions founded upon and reflecting God's revelation of Himself in Christ, in the Scriptures and in creation. This world view provides a framework for philosophical considerations of lifelong learning (CHC 1992a:12).

A Christian philosophy of education is characterised by its adherence to certain central propositions. Differences in interpretation and emphasis produce a diversity of expression of Christian approaches
to education. Teaching courses at the Christian College focus on the development of core knowledge and skills for a lifelong learning foundation. These courses meet all known registration and employment requirements for teachers throughout Australia and New Zealand. (CHC 1995e:6)

Aims

The College has the lifelong learning emphasis of personal growth and development for the whole person (CHC 1995d:4). It not only aims to develop academic skills and abilities, but endeavours to cultivate an appreciation of, and understanding for, the uniqueness and worth of each individual. It also aims to foster an understanding of the ideals of Christian living, sensitises students to the wider issues in society; and provides the basis for further learning and professional development. (CHC 1995f:1)

Staffing

Staffing, a key area of importance to the college, was also a variable that promoted the college's selection for this study. The college, in recruiting staff, uses dual criteria that considers professional criteria about professional qualifications and experience, and personal criteria. The demonstration of a love of learning and commitment to it is one of these criteria. Professional experience and qualifications of staff are considered of prime importance in the pursuit of an affective programme. The college considers the personal growth dimension of courses to be very important. Consequently, staff are recruited, who by virtue of their own personal qualities, can make worthwhile contributions to this personal growth dimension (CHC 1992a:75). Regular college participation and staff attendance at conferences, along with weekly staff academic discussions, called Staff Forums, promotes
lifelong learning of staff. Integration of library personnel in all college and faculty activities facilitates promotion of the library as a lifelong learning agent.

4.3 Document Analysis for Lifelong Learning Principles

Criteria for information literacy were evaluated, including how many syllabi included library-based assignments; the nature of assignments; the appropriateness for the programme and its students; evidence of thought and creativity; promotion of active learning in assignments; use of primary sources when appropriate and a knowledge of the range of available resources; and the development of increasingly complex research skills? (Breivik 1992:6)

Candy, Crebert and O'Leary (1994:96) found from the empirical component of their study that the responsibility for encouraging lifelong learning resided at three different, but interconnected, levels, and so this examination of college documents took their three part format:

i. Structure and composition of the curriculum;
ii. teaching and assessment of students; and
iii. the overall ambience of the institution.

4.3.1 Structure and Composition of the Curriculum

The ideal tertiary curriculum according to Candy, Crebert and O'Leary (1994) involved the:

i. systematic and integrated introduction to a discipline;
ii. comparative or contextualized framework for that discipline;
iii. broadening of student and development of certain generic skills;
iv. allow some freedom of choice and flexibility to meet student needs; and
v. increasing personal responsibility and self-direction opportunities.

The Candy, Crebert and O'Leary (1994) study also identified practices which might work against the possibility of graduates internalising lifelong learning values or developing transferable skills. These included “failing to mention lifelong learning in the mission statement or values which signal the distinctive features and underlying ethos of the institution (xii–xiii).

The Christian College (CC) documentation meets with approval if considered under the above terms of the Candy, Crebert and O'Leary study. It includes and practises the points advised above and realizes that it did not mention lifelong learning, as defined in Chapter 1.5.1, explicitly even though it was inferred. Primarily, documentation “emphasises personal growth and development for the whole person” (CHC 1995d:4). It not only aims to develop academic skills and abilities, but endeavours to cultivate an appreciation of and understanding for the uniqueness and worth of each individual, foster an understanding of Christian living ideals, sensitise students to the wider issues in society, and provide the basis for further learning and professional development (CHC 1995f:1).

This meets the Assumptions on Lifelong Learning Resource System (Appendix 1) including “resources for learning abound in every environment; a primary task of a learning system is to identify these resources and link learners with them effectively” (Knowles 1990:181–182). Characteristics and Features of Lifelong Learning (Appendix 3) included “allows the creation of alternative arrangements of structures for acquiring education”; “exposure to broad areas of knowledge”; and “inter-disciplinary, unity of knowledge”. Emphasis on quality of knowledge besides quantity (Dave 1973).
The Candy, Crebert and O'Leary (1994:xii-xiii) study also identified “viewing the university experience as nothing more than vocational training” as a practice which works against the possibility of graduates internalising lifelong learning values or developing transferable skills. The college's endeavour to provide a basis for further learning prevents this and ensures that lifelong learning values are not subconsciously worked against.

Assumptions on Lifelong Learning Resource System (Appendix 1) included “the purpose of education is to facilitate the development of the competencies required for performance in life situations” (Knowles 1990:181–182). Programmes offered by the college endeavour to contain components complementary to a lifelong learning philosophy dealing with personal and professional growth. The first of these involve continued maturation and the development of personal qualities and interpersonal skills; while the second endeavours to focus on equipping students with a body of professional skills to enable them to function effectively in a professional role. The programme aims to foster the explicit integration of these course components. (CHC 1992a:13)

The Higher Education Council (Chubb 1994) supported Key Recommendations on lifelong learning for the Minister of Employment, Education and Training. Number three was that “lifelong learning skills and attitudes form part of the core of all undergraduate courses, clearly articulated in course aims and objectives.” (Chubb 1994:4) The Candy, Crebert and O'Leary (1994:66) study recommended that lifelong learning skills be noted in the course aims and objectives and form part of the core of undergraduate degrees. At the time of this study this was not evident in any official documentation at the college although this was being
treated as a priority for rectification in light of recent literature and Australian reports.

Many of the principles of lifelong learning, described in 1.5.1 from the lists presented in appendices 1 to 3, are suggested rather than stated in the documents of the college. For example, undergraduate teacher education courses at the college endeavour to equip teachers with a foundation for “career-long professional growth and flexibility in employment” (Herschell 1992b:8). This typified Australian results where two-thirds of the universities studied in the Candy, Crebert and O'Leary (1994:70) study identified the concept of lifelong learning, either directly or indirectly, as part of their role through mission statements or goals and objectives. Similar to the majority of the 38 Australian universities studied by Candy, Crebert & O'Leary (1994:8–10), the College failed to make direct reference to lifelong learning in official documents. Only 14 made reference to the term “lifelong learning’ in formal documents such as mission statements, aims, goals or vision statements. The Candy, Crebert and O'Leary (1994:66) study recommended that lifelong learning skills be noted in the course aims and objectives and form part of the core of undergraduate degrees.

The Candy, Crebert and O'Leary (1994:118) study recommended that foundation courses in higher education include subjects on learning how to learn at university level, information literacy, communication and computer skills along with interdisciplinary subjects. The transferable skills of lifelong learning should be the foundation of any undergraduate degree. The college offers two core subjects across first year which meet these requirements. All first year subjects co-ordinate with these subjects. They are not, in documentation, developed or continued following the first year, but recent faculty and planning meetings have rectified this.
The Higher Education Council supported Key Recommendations on lifelong learning for the Minister of Employment, Education and Training number four was that “each university be encouraged to develop an explicit policy on developing lifelong learners, including aims, strategies and resourcing.” (Chubb 1994:4) During 1996 the Christian College conducted faculty forums to discuss and promote the inclusion of explicit lifelong learning policy inclusions. It was also recommended that these inclusions be transferred to course co-ordination committees and that the College Librarian participate in these planning meetings to advise on the integration of lifelong learning and library skills into all levels of College documentation.

The Candy, Crebert and O'Leary (1994:171–172) study listed library responsibilities for lifelong learning. These came under four broad categories: working with students; maintaining the collection; working with staff; and working with the community. The responsibilities included “giving guidance in curriculum design intended to promote self-directed and resource-based learning; and participating in courses which integrate information literacy with the content and design of the curriculum”. These are all met by the College.

The Higher Education Council supported Key Recommendations on lifelong learning for the Minister of Employment, Education and Training number five was that “each university be encouraged to monitor and evaluate on a regular basis how its policies and practices contribute to the development of lifelong learners”. (Chubb 1994:4) State course accreditation and reaccreditation requirements necessitate continual attention to issues of policy and procedure. Regular college meetings per course are held and usually include specialists from other local tertiary and education department institutions, the employment sector, College Librarian, and faculty. These meetings examine every
aspects of course procedures and policies. Candy, Crebert and O'Leary (1994:xii–xiii) identified practices which militate against the possibility of graduates internalising lifelong learning values or developing personal transferable skills. These included “viewing the library as just a storehouse of books not as full partners in the design and delivery of courses”. The including of the College Librarian in course co-ordination and planning meetings contributes towards preventing the above problems.

The key recommendations from the study (Candy, Crebert & O'Leary 1994:xv), designed to promote the development of lifelong learning skills and attitudes as central to undergraduate education were:

i. lifelong learning skills and attitudes form part of the core of all undergraduate courses, clearly articulated in course aims and objectives;

ii. each university be encouraged to develop an explicit policy on developing lifelong learners, including aims, strategies and resourcing; and

iii. each university be encouraged to monitor and evaluate on a regular basis how its policies and practices contribute to the development of lifelong learners.

The emphasis of undergraduate teacher education at the college is personal and professional development (Herschell 1992a). The emphases of all undergraduate programmes infer a dedication to lifelong learning, particularly, “a comprehensive exposure to and involvement in essential educational understandings, processes, skills, issues, initiatives and experiences for teaching”; a “dual focus on the personal and professional development of the preservice teacher”; and
“development of the student teacher within the context of Christian scholarship and a Christian community of believers”.

The Processes in Lifelong Learning (appendix 2) model proposes that the process of lifelong learning consists of individuals engaging in a series of spiral learning projects involving elements including “identification of human and material resources”. These elements include “guided experiences, for accomplishing the objectives; designing of a plan of strategies for using these resources; executing the plan; and evaluating the extent to which the objectives have been accomplished” (Knowles 1990:183). The offering and assessment of the fourth year internship in the Bachelor of Education is an example of this. It involves the preparation of a professional log by the preservice teacher. This further encourages the independent library skills development. The list of proposed outcomes for the internship (Herschell 1992a) however, fails to either directly or indirectly allude to library and lifelong learning ideals. It also recognizes the Assumptions on Lifelong Learning Resource System (Appendix 1) which included “learning is more efficient if guided by a process structure (eg. learning plan) than by a content structure (eg. course outline)” (Knowles 1990:181–182).

The internship programme was also an example of the Lifelong Learning Resources System where the concept of the postcompulsory education learner and the development of self-directed learning skills is central. The skills met by internship documentation include the ability to “to diagnose personal learning requirements in the light of models of competencies required for performing life roles; and to formulate learning objectives in terms that describe performance outcomes; to identify human, material and experiential resources for accomplishing various learning objectives; to design a plan of
strategies for the affective use of appropriate learning resources; to systematically carry out a learning plan; and to collect evidence of the accomplishment of learning objectives and have it validated through performance” (Knowles 1990:174)

A faculty survey of first year students (CHC 1993b) found that many students thought the best aspects of the college programme were the practical aspects of foundations for later. This meaning the skills of lifelong learning. One student commented that it was “great to learn about personal, academic and spiritual things all at the same time”. This was evidence of many of the Characteristics and Features of Lifelong Learning (Appendix 3) which included: “general and professional fields of education are inter-related and interactive; horizontal integration between social and cultural areas of life, between subjects of study, and between different aspects of development such as physical, moral, and intellectual, during a different stages of life; and vertical articulation between different stages of learning, between different levels and subjects within a particular stage, between the roles assumed by the individual at different stages of life and between different aspects of development over time, such as physical, moral, intellectual” (Dave 1973). A further item was “inter-generational learning, family learning, community learning” (Dave 1973).

4.3.2 Teaching and Assessment of Students

The Candy, Crebert and O'Leary study (1994:xii–xiii) identified practices that work against the possibility of graduates internalising lifelong learning values or developing transferable skills. These included “overloading the curriculum so that students leave with fragmented views of their field rather than a foundation of essential understandings”; and “imposing too much detail at too advanced a
level without proper introduction to concepts and preparation for skills”. To ensure against this, the college has a “unifying conceptual map” to guide teaching-learning processes in all programmes. The three core elements, representing the college's basic value position in relation to the implementation and delivery of course units are integration, responsiveness, and ministry. Integration to provide students with a logical, consistent, coherently structured and co-ordinated set of experiences. This is in the areas of professional and personal growth and through the unifying concept of a Christian philosophy.

Responsiveness to the college's various communities through the provision of educational and professional leadership manifest in teaching approaches, the curriculum, and administration. Ministry permeates the whole of the college's operations, and gives purpose and direction to teaching approaches and organisations. This recognizes the Assumptions on Lifelong Learning Resource System (Appendix 1) that included “learning (even self-directed learning) is enhanced by interaction with other learners” (Knowles 1990:181–182). It also realizes Characteristics and Features of Lifelong Learning (Appendix 3) which includes “flexibility and diversity in content, learning instruments and techniques, time and place of learning” (Dave 1973).

It does not support what the Candy, Crebert and O'Leary (1994:xii–xiii) study identified as practices that work against the possibility of graduates internalising lifelong learning values or developing transferable skills. It does not primarily use “forms of assessment that encourage ‘reproductive’ learning, not critical thinking and lifelong learning”.

132
The Christian College utilized criterion-referenced assessment. It considers the ideals of lifelong learning because it enables some students to take longer to achieve certain course criteria, and to have more than one opportunity to do so without gaining unfair advantage over other students. Assessment is in keeping with the aims and objectives of the course and follows the framework of general lifelong learning assessment criteria. These were understanding of subject matter; mastery of appropriate skills; performance of interpretative and analytical abilities; demonstration of academic initiatives; and achievement of specific unit objectives and completion of overall course requirements. (COC 1995c:1–2)

Assumptions on Lifelong Learning Resource System (Appendix 1) included “learners are highly diverse in their experiential backgrounds, pace of learning, readiness to learn, and styles of learning; in turn, learning programmes need to be highly individualized” (Knowles 1990:181–182). Assessment techniques also follow lifelong learning principles in that the Policy on Applicable Principles of Assessment of the college states that a variety of assessment modes were used in a progressive nature and prompt feedback from teaching staff was encouraged. Of particular lifelong learning note is the section Continuity of Learning and Opportunities for Formative Assessment of the Bachelor and Diploma of Ministry because it is formative in nature and enables students who have not met the set objectives to re-submit assessment, within normal course time requirements, for re-evaluation and possible re-grading. The pursuit, as far as is practicable, of formative rather than summative evaluation, “recognises the desirability of the principle of continuity of learning”. (COC 1995c:2)
Educators should act as facilitators and strive to create diverse and flexible learning environments utilizing a variety of techniques. Students must be encouraged to self-evaluate and distinguish their own preferred learning pattern and learning idiosyncrasies. (Sheridan 1986:162,163). The Candy, Crebert and O'Leary (1994:128) study asked staff, students and graduates to nominate assessment methods which were most likely to ensure affective lifelong learning practices. Most favoured methods included open-book examinations requiring synthesis of information to test creative thinking; examination questions which drew on analytical skills to assess lifelong learning abilities; and short, deadlined research projects to assess ability to work under the pressures of the real world. Other popular forms of assessment included assignments including essays, research projects and reports; negotiated learning contracts; and clinical case studies (Candy, Crebert & O'Leary 1994:150). Characteristics and Features of Lifelong Learning (appendix 3) included “emphasis on self-directed learning”; “emphasis on self-learning, inter-learning, self-evaluation, participatory evaluation of the individual's performance, and cooperative evaluation of group work”; and “individualization of learning and evaluation” (Dave 1973).

All the above were recognized in the College's Assessment Programme Sample (appendix 5) lists the sample from Semester 1 – 1996 of the assessments methods employed and the number of times they were used. Assessment methodology is cyclic with units being offered and practical sessions timetabled. They included: Assignment × 11, Activities Inventory × 1, Book Review(s) × 3, Curriculum Project × 1, Essay × 7, Folio × 6, Final Examination × 8, Field Work × 2, Journal × 2, Micro Teaching × 3, Mid-Semester Test × 5, Micro Teaching × 3, Paper × 3, Plan × 4, Peer Review × 1, Practical Workshop × 1, Reading Log × 1, Research Paper × 3, Seminar × 5, Seminar Paper ×
1, Test × 3, Tutorial Exercise × 2, Term Paper × 11, Unit Plan(s) × 4, Weekly Tests × 1, and Workbook × 2.

Assessment methods not utilized during this semester were: Aural Assignment; Contract; Current Curriculum Programme; Curriculum Report; Case Study/Studies; Debate; Design Brief; Draft Essay; Discussion Paper; Drama Workshop; Elective Assignments; Essay Plan; Field Diary; Field Studies Folio; Group Experiment; Group Presentation; Group Report; Genre Study; Journal Article; Log; Lesson Plan(s); Literature Review; Music Practical; Oral Report; Objective Test; Poster Presentation; Practical Test; Quizz; Report; Resource Folio; Research Plan; Resources Review; Reading Test; Student Folio; Software Review; Teaching Resource; Teaching Strategies; Video Examination; Video Lesson; Workshop; and Wordprocessing.

4.3.3 The Overall Ambience of the Institution

Institute climate is the single most influential factor in shaping whether or not graduates choose to become lifelong learners. This “nebulous construct”, which embodies the “views and values of senior staff”, the “attitudes and practices of academics and support staff”, and the “history and culture of the organization”, “intangibly yet inexorably” influences and forms the orientations of students, determining whether or not the institution “encourages, endorses, enhances and enables” the pursuit of lifelong learning. (Candy, Crebert & O’Leary 1994:181)

Management characteristics of an institute committed to lifelong learning (Candy, Crebert, O’Leary 1994) include:

i. education is a vital link in lifelong learning experiences;

ii. all departments should work together toward developing the skills and competencies of lifelong learning in students;
iii. learning climate and modelling by academic staff should positively influence adoption of lifelong learning skills by students; and
iv. institutional rhetoric and reality must be related.

College policy recognizes the above, it states that it is committed, through the independence and broad membership of the Council, to the principles of academic freedom. Academic freedom is the freedom of the teacher to teach, the student to learn, and the college to be an educational institution. Academic freedom offers the college a defence against indoctrination, dogmatism and politicalization, and thereby guarantees the freedom to be an educational institution (CHC 1992a:5–7). This also supports the Characteristics and Features of Lifelong Learning (Appendix 3) which included “enhancement of educability”; “enhancement of motivation for learning”; and “development of a learning society”. (Dave 1973).

Assumptions on Lifelong Learning Resource System (Appendix 1) included “learning is a process of active inquiry with the initiative residing in the learner” (Knowles 1990:181–182). From the general objectives of college courses, more specific statements of objectives for students were developed. Upon completion of the Bachelor of Arts, for example, students should be able to demonstrate:

i. habits of mind and intellectual capacities for critical and reflective thought;
ii. disciplined intellectual skills in acquiring, processing and evaluating information;
iii. the ability to apply knowledge and understandings to analysis of unfamiliar situations and problems;
iv. commitment to excellence in Christian scholarship, and to learning as a continuing process;
v. the capacity to integrate knowledge from a range of sources within a single framework of meaning. (CHC 1994:3–4).

This protects the college against what Candy, Crebert and O'Leary (1994:xii–xiii) identified as practices which work strongly against the possibility of graduates internalising lifelong learning values, or developing personal transferable skills, particularly “failing to connect learning with the world of practice”.

Assumptions on Lifelong Learning Resource System Model (Appendix 1) included “learning in a world of accelerating change must be a lifelong process” (Knowles 1990:181–182). The general objectives of the Bachelor of Arts may be described in keeping with this assumption. They include to foster reflection upon human experience; to encourage consideration of universal and ultimate questions; to promote understanding of the challenges of the world in which students will live and work; to encourage personal growth and formation; and to foster humane values and character qualities. (CHC 1994:2–3)

This also supports the Knowles (1990) model called the Lifelong Learning Resources System. Central to this model is the concept of the postcompulsory education learner and the development of self-directed learning skills. These skills included the ability to “develop and remain in touch with curiosities”. The above mentioned objective involved the preparation of graduates for a changing world, for personal growth.

Assumptions on the Lifelong Learning Resource System (Appendix 1) included that people who have been taught in traditional schools have generally been conditioned to perceive the role of learner as being dependent on teachers to make decisions for them as to what should be learned, how it should be learned, when it should be learned, and
if it has been learned. They in turn need to be helped to make the transition to becoming self-directed learners (Knowles 1990:181–182).

The Processes in Lifelong Learning (appendix 2) model proposes that the process of lifelong learning consists of individuals engaging in a series of spiral learning projects involving elements including:

i. A broadening and deepening of the skills of self-directed inquiry;

ii. The diagnosis of learning needs; and

iii. Translation of these needs into learning objectives. (Knowles 1990:183).

The course emphasis involves educational theory and practice and curriculum areas approached from a Christian perspective. The course emphasises that the development of both professional and personal qualities is important to successful teaching. It endeavours to prepare teachers for Christian service through its aim of equipping them to “think critically about educational issues from a Christian perspective”. Characteristics and Features of Lifelong Learning (appendix 3) included the “coverage of practically the entire life-span” (Dave 1973). The course also endeavours to provide further general education to equip students for reflective thinking about education (CHC 1995a). Characteristics and Features of Lifelong Learning (Appendix 3) include “creating learning opportunities and using these opportunities”; “understanding and renewal of one's own value system”; and “maintenance and improvement of the quality of individual and collective life through personal, social and professional growth” (Dave 1973).

Candy, Crebert and O'Leary (1994:147,181) thought that universities could do much to develop lifelong learning skills in graduates. These strategies include the need to “recognise and reward curiosity
rather than compliance, critical thinking rather than conformity, deep-level rather than surface-level”, and self-directed learning. Students must be weaned from over-reliance on the opinions of others if they are to become lifelong learners. Reflective practice and critical self-awareness were among practices in tertiary teaching methodologies that promote the values of lifelong learning. Reflective practice is about lifelong learning. This is because these practices involve exposure to situations that equate with real-world experiences. The general and specific objectives of the college support these recommended practices.

4.4 Evaluation of College's Commitment to Lifelong Learning

This college was suitable for this study on the basis of its commitment and definition of academic freedom. The College (1993:2,4) considers academic freedom to be a “fundamental pre-requisite” to fulfilling its mission statement. Academic freedom implies for students a freedom to learn, inquire, question, to make their own judgements, and guarantees that students will not be subjected to any prescription of belief. It believes that a liberal education is founded upon academic freedom. A liberal education means the “stretching of minds and imaginations, the unceasing stimulus to honest inquiry”, and among other things, an exposure to the “frontiers of learning”. “In serving its students, and preparing them for life, a Christian college must teach its students to think, to decide truth for themselves, to form their own values and make their own judgements” (CHC 1993a:2).

The college believes in teaching how to find information and make personal decisions on the validity of information because (1993a:3):

This justification and rationale for the College's real commitment to academic freedom is offered as a response to the criticism that the doctrinal position
of the College in some way inhibits the operation of freedom of thought or speech. As a consequence of this justification, the college seeks to promote open discussion of new, significant, and controversial issues.

The college promotes lifelong learning. For example, the first of a three point outline of the Bachelor of Education programme (1993a:1) involves helping teachers to develop critically reflective thinking abilities by facilitating increased knowledge bases and fostering the attitudes to develop the desired process skills. Several of the general objectives of the programme (1993a:5–6) make particularly relevant inferences to the issues of lifelong learning. Objective four involves the development of critical and analytical faculties, and mastery of communication skills; to provide for personal growth through liberal and Christian studies; and to foster the continued pursuit of excellence in scholarship. Number eight involves sensitising student teachers to the wider issues in Australian society which shape children's experience of schooling; to relate schooling to life roles in work and society; to consider the implications of technological change; and to foster consideration of issues of central importance in schooling within a Christian perspective and the development of positive Christian responses to contemporary society.

Two of the general objectives make specific reference to lifelong learning. Firstly, this occurs under number nine which is to provide a model of excellence in teaching, to encourage student teachers and practising teachers to become independent learners, and to provide opportunities for them to accept increasing responsibilities for their own life-long education and for the education of children. Secondly, number ten sets out the basis for further learning and professional development. One specific objective of the Bachelor of Education
programme is the “ongoing commitment to professional growth and development” (1993a:6). This is achieved in the curriculum through varied assessment which requires use of a variety of resources encouraging broad reading and use of periodicals. Characteristics that are fundamentally lifelong learning in orientation.

The mission statement of the Christian College (1993a:1) lists three areas concerned with lifelong learning issues without specifying lifelong learning. Firstly, to establish and maintain a standard of Christian scholarship, and to develop a commitment to excellence in scholarship amongst staff and students. Secondly, to assist all members of the college community, both staff and students to recognise and acknowledge God's calling upon their lives; and to equip them, through personal and professional development and communication of Christian ideals, to fulfil His purpose for their lives. Finally, to develop a caring institutional climate, based on the life and teachings of Jesus Christ, which provides opportunities for worship, service and Christian growth.

There were many common elements across, Dave (1973), Knowles (1990), Sheridan (1986). The writings of this group culminated in a study by Candy, Crebert and O'Leary (1994:xiii). This list of elements common to institutions committed to the development of graduate lifelong learning skills and attitudes was therefore selected for reflection on the state of Christian College as a promoter of lifelong learning and indeed the position of the library within this area of the college. Does the Christian College:

1. have an explicit policy on developing lifelong learners, including aims, strategies and resourcing;
Policy was not explicit, this was rectified during 1996 following a paper presented by the College Librarian to the faculty and subsequent faculty forums discussing formation of appropriate policies.

ii. nominate the development of lifelong learning skills and attitudes as one of the core objectives of all undergraduate courses, clearly articulated in course aims and objectives;

While not explicit, there was considerable evidence in course outlines and college literature that these skills were valued and indeed central to the curriculum. Endeavours were planned for 1997 that reworded documents so they were more clearly articulated.

iii. provide improved access to mature-aged and ‘non-traditional’ students wishing to begin or resume university studies;

The nature of the college, particularly in the area of ministry courses, encourages participation of these customer groups. A variety of entry types enables students to enrol on a provisional basis or as a fee paying, non-award student, which means customers can undertake studies, or even attend lectures without assessment, in order to learn at their own pace for their own purposes. Completion of assessed subjects enables students to apply for admission as regular students either at the college or other universities.

iv. have in place unambiguous guidelines concerning the recognition of both formal and informal prior learning;

Clear guidelines were in place. In many instances prior studies were accepted for exemption upon completion of a formal term paper presenting knowledge of the subject applied to a Christian context.
v. provide academic staff development to enhance those aspects of curriculum design, review, teaching and assessment which develop the qualities of the lifelong learner;

Staff continuing education is held weekly, one afternoon dedicated to faculty development where there are no lectures scheduled. This session, called the Staff Forum, enables topics to be considered for faculty development. Topics are usually planned some months in advance during Staff Meetings, held for two hours each week. Many issues are raised and dealt with at Staff Meetings. Others, requiring more indepth discussion or analysis, are scheduled for Staff Forums. Some staff forums run overtime into the evening if discussions and interest are strong. Others were scheduled for one or more additional sessions. Additionally, course co-ordination and course evaluation meetings consider also these areas and the development of committee members.

Staff retreats and in-service days provide staff development for all levels of staff as does college participation in specialist conferences such as The Scholarly Conference, a yearly international conference for Christian academics. This is an international event held in Australia every year for the development of Christian academics, particularly in the areas of philosophy, education, and the arts. The college sends many of the faculty to the event one week per year and has also hosted the conference. Faculty are also encouraged, and often sponsored, to more discipline specific conferences and seminars.

vi. establish systems of recognition and reward for teaching practices that develop lifelong learners;

This is not widely evident, but faculty are definitely encouraged in their own learning, see (v) above. Practices found as successful
by faculty are shared with others through the above (v) and this is encouraged by college management.

vii. make use of systems of course development, delivery and assessment that regularly evaluate against the profile of the lifelong learner and the principles for content and structure of undergraduate education, as described in this report;

These are undertaken at Examiners' meetings, Course Co-Ordination meetings, and Course Evaluation meetings, and are implied rather than explicit. Steps are being undertaken to recognize statements that currently imply lifelong learning.

viii. include systems of course accreditation and review which specifically include evaluation of the course's contribution to the development of lifelong learning skills and attitudes;

Once again these were implied and deal with areas covered by the title information literacy rather than lifelong learning as a whole. Queensland accreditation is obtained for all courses and college accreditation committees meet to review and evaluate the content of all courses in line with Queensland requirements. Requirements do not mention lifelong learning and so it has not been discussed at this level.

ix. demonstrate specific support for information literacy programmes;

Information literacy has been the focus during 1996 and has been widely discussed and supported. The most evident points from the Staff Meetings, and Staff Forums where it was discussed included that lecturers are concerned that it would require considerably more work for them and that it would intrude on their lecture times. These issues had been dealt with in literature, and faculty fears were allayed with presentation and discussion of supporting literature.
The college conducts skill workshops, support tutorials, and private assistance during first year for all students. The lecturer who undertakes these subjects is also a librarian and integrates library instruction into these subjects. There is, however, no follow-up or development during subsequent years. Support during these years is student initiated when they approach lecturing, or library personnel for individual or small group assistance.

The inclusion of this lecturer and the College Librarian on coordination, planning, and evaluation committees during 1996 is leading toward integration of information literacy into all programmes, particularly new programmes such as the Masters of Education and the Early Childhood speciality offered from 1997.

x. where appropriate, introduce students to alternative learning strategies and teaching technologies which encourage self-managed learning.

Naturally, this is an actual component of education courses. Much of this is implied rather than explicit, but the nature and philosophy of a Christian approach to teaching results in a college climate that encourages diversity and different approaches to teaching and learning.

4.5 Summary

The College's mission is to “prepare men and women to be effective Christian leaders in their communities and in their chosen professions” (CHC 1995d:20). It may be argued that this implies the need to be a lifelong learner, however, a problem uncovered during analysis of college documentation is that lifelong learning is implicit not explicit. Much of the documentation analyzed implied a deep desire to instil the skills and attitudes of a lifelong learner,
but there is a lack of explicit statements regarding lifelong learning. The philosophy adopted by the college and discussed earlier, however, provides a strong framework for philosophical considerations of lifelong learning.

Lifelong learning is broadly defined, and earlier chapters considered identifiable lifelong learning skills and characteristics. When these were considered the college showed a strong commitment through heavily documented emphasis on personal growth and development for the whole person (CHC 1995d:4), and the provision of the basis for further learning and professional development (CHC 1995f:1), key concerns of lifelong learning.

The Christian College offers common first year subjects designed to improve levels of information literacy, communication and computer skills and are presently looking at ways to improve general literacy and numeracy across the curriculum. The college has documented its commitment to developing in students the skills of how to find information and make personal decisions on the validity of information found (1993a:3), but not on the desire to continue as a lifelong learner.

This chapter was the first stage of data collection. It set a foundation for later consideration of the perceptions of students. The chapter found that while the Christian College recognizes many of the skills and characteristics of lifelong learning it did not explicitly recognize this in documentation. The next chapter builds on this to explain the steps taken to investigate how documentation reflects actual perceptions and practices of students at the college. It considers the details of the current study commencing with method and design, moving on through data collection and analysis, and ending with consideration of the organization and analysis of data.
Chapter 5
METHODOLOGY

5.1 Introduction

Chapter 5 explores both the quantitative and qualitative methods used to study the effect of tertiary libraries on student perceptions of lifelong learning. The present study is described, with an overview of the methods used, the sample, the procedure and the analysis of data.

Any treatment or discussion of methodological issues and decisions associated with the conduct of a research study needs to be comprehensive. One of the key issues that researchers face in the investigation of a particular topic, question or issue in which they are interested, is the identification of the essential focus of the proposed study. This essential focus is the object of the study. It needs to be clarified, defined and articulated if the study is to have its own integrity and to maintain its manageability. Once this focus has been established, there is a host of subsidiary decisions that must be made not only about the study's design, but also its implementation.

Every research methodology or approach has particular strengths and weaknesses. The goal of any study, therefore, is to maximise the methodological strengths while at the same time minimising the weaknesses both of the approaches and the strategies being used. In quantitative studies for example, verification and validation processes and strategies (Burns 1990, Best & Khan 1993) are used to ensure that rigour, consistency, confidence and reliability will be evident attributes of the selected study. However, these processes and strategies do not apply to studies whose approaches involve deeply embedded interactions and processes with qualititative data.
The benefits of quantitative versus qualitative research methodologies have existed for some time as various proponents of positivist, hermeneutic and interpretative paradigms have argued both the advantages and the disadvantages of their approaches. It was during the 1960s when arguments notably started to lean towards field-based approaches to particular kinds of social research. Prior to this, researchers such as Dewey during the early 1900s, Popper and sociologists such as Becker, Schultz, and Weber during the middle of the twentieth century argued the quantitative versus qualitative research approaches.

In recent years, researchers such as Anderson (1990), Burns (1990), and Glesne and Peshkin (1992) extended methodological debates through the publication of research based on experimentation containing both methodologies and previously untried techniques. These debates forced the investigation and justification, through research, of both methods. The debates were also destructive, because they encouraged defensive, rather than broad-minded positions.

A more constructive position on the debate of qualitative versus quantitative would have been more epistemologically defensible, ontologically consistent, functionally productive and non-dualistic. During the 1980s Lincoln and Guba (1985) and Schwandt (1989) found quantitative and qualitative approaches to be essentially incompatible, but most recently, Anderson (1990), Burns (1990), and Glesne and Peshkin (1992) found that qualitative and quantitative approaches were complementary.

5.2 Method and Design

Lists of specific lifelong learning skills and library customer education objectives were extracted from the literature, and manipulated to
encapsulate the key concepts and principles for the case-study. These statements will become the basis for the questionnaire.

One of the few existing theories for tertiary library customer education that is suitable for uniting with a lifelong learning model such as Knowles' (1990) Lifelong Learning Resource System is the Library College Theory. The Library College Theory is relevant to both education and librarianship because it supports the idea of library science operating, both functionally and operationally, through the concept of education. The theory is particularly applicable to the Lifelong Learning Resource System model of adult learning because the theory promotes the library as an important learning mode for independent study.

5.2.1 Document Analysis

Research during 1990s has examined the lifelong learning roles and responsibilities of the tertiary campus more as a whole, and not just from a curriculum perspective. Research presented by Chubb (1994), Candy, Crebert and O'Leary (1994), Bruce (1997), and the Aulich Report (1990) presented tertiary education as playing an integral role to the lifelong learning development process of students. Studies on tertiary library customer education in the areas of information skills and teaching methodologies for specific customer segments, as discussed in Chapter 3.6, set clear foundations and noted the lack of studies considering all tertiary library student customer segments. The recognition of lifelong learning in tertiary campus documents is not widely spread in Australia. The probability for success of the case-study library in participating in the development of lifelong learning skills and philosophy in students depends on the underlying philosophical commitment to lifelong learning of the campus.
An examination of library and institute documented aims and objectives, and policies and procedures should provide insight into the extent to which the theoretical and practical aspects of lifelong learning were realised. The responsibility for encouraging lifelong learning resides at three different but interconnected levels. These are the structure and composition of the curriculum; teaching and assessment of students; and the overall ambience of the institution (Candy, Crebert & O'Leary 1994:96; Bruce 1997:9). These three areas are used as the key criteria for analyzing the case study campus. The context of any specific or implied references to lifelong learning, or the skills and characteristics of lifelong learning as listed in the literature review and appendices, were examined in relation to their ability to integrate with library customer education.

5.2.2 Case Study

Two key Australian studies, Candy, Crebert & O'Leary (1994) and Wilson (1994), identified the need for further study in the area of analyzing the needs of customer groups feeding directly into the planning of customer education for lifelong learning development. These studies demonstrated the gap existing in literature in the areas of lifelong learning and the tertiary library connection as discussed in earlier chapters. These two studies considered lifelong learning and the tertiary library connection from different perspectives, general tertiary student population from a generic skills perspective and customer education needs of a specific tertiary population segment respectively. One thing that kept occurring in the literature was the need to determine customer perceptions in order to plan customer education that will meet needs and desires of customers.

Customer Perception
There were several key areas that arose during the literature review that revealed the need for further study into areas of perception. These research studies may be summarized as:

Table 5.1: Summary of Customer Perception Literature Reviewed

<table>
<thead>
<tr>
<th>Key Area</th>
<th>Recommendation</th>
<th>Bibliographic Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer studies rationale</td>
<td>For library management</td>
<td>Clayton 1988:100</td>
</tr>
<tr>
<td></td>
<td>to make policy changes to reflect customer needs</td>
<td></td>
</tr>
<tr>
<td>Meeting customer needs</td>
<td>Research into customer perceptions needed by library management</td>
<td>Marchant 1980:151–59</td>
</tr>
<tr>
<td>Tertiary student library use methods and philosophies</td>
<td>More research is needed to determine the appropriate skill levels to be obtained in library roles and functions</td>
<td>Sell 1980:332 Anderson &amp; Miller 1983</td>
</tr>
<tr>
<td>Librarians perceive problems differently to library customers</td>
<td>Librarian's concerns for customer's skill level were more incomplete than incorrect</td>
<td>Delbecq, Van den Ven &amp; Gustafson 1975:120</td>
</tr>
<tr>
<td>Customer's perceptions of their library searching ability</td>
<td>Research indicated that positive perceptions by customers predicted higher skill implementation levels</td>
<td>Marshall 1989:20–24</td>
</tr>
<tr>
<td>Customer perceptions forming a customer profile</td>
<td>Required to aid in customer education programme planning</td>
<td>Ginn, Pinkowski &amp; Tylman 1987:119</td>
</tr>
<tr>
<td>Customer education preferences of customers</td>
<td>Literature does not present clear indication of what customers prefer</td>
<td>Freedman 985:72,76</td>
</tr>
<tr>
<td>Librarians’ and customers' perceptions</td>
<td>Communication barrier needs to be researched</td>
<td>Toy 1984b:157–67 Fjallbrant &amp; Malley 1984</td>
</tr>
<tr>
<td>Megatrends – customers supporting customer</td>
<td>Research into areas of customer involvement</td>
<td>Naisbitt 1984:159</td>
</tr>
</tbody>
</table>
Specifically, issues related to customer perceptions on customer education were raised in the literature, prompting the need for this study.

**Customer Education**

The most notable area of omission from existing literature was that none of the studies investigated by the writer considered the varying customer education needs of segments in Christian tertiary education settings for the development of a positive perception towards information retrieval skills leading to lifelong learning skill development:

Table 5.2: Summary of Customer Education Literature Reviewed

<table>
<thead>
<tr>
<th>Key Area</th>
<th>Recommendation</th>
<th>Bibliographic Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer education methodology</td>
<td>Further research was needed to determine methods that students regarded positively</td>
<td>Rice 1983:88 Candy, Crebert &amp; O'Leary 1994 Wilson 1994</td>
</tr>
<tr>
<td>Student skill background variables determine customer education modes needed</td>
<td>Backgrounds may be similar amongst groups of students but research was needed</td>
<td>Coombs &amp; Houghton 1995:260–262</td>
</tr>
<tr>
<td>Customers need an interest in, and a need to be met before participating in customer education</td>
<td>Librarians need to recognize the customer perceived needs of customers for customer education to be successful</td>
<td>Welborn &amp; Kuehn 1988</td>
</tr>
<tr>
<td>Different customer groups have different needs</td>
<td>Research is needed to determine most accurate</td>
<td>Bridgland 1983 Wilson 1994</td>
</tr>
</tbody>
</table>
Skills Assessment

The skills of lifelong learning, found in libraries, were not described in any great detail in the literature:

Table 5.3: Summary of Skills Assessment Literature Reviewed

Motivating further Research

<table>
<thead>
<tr>
<th>Key Area</th>
<th>Recommendation</th>
<th>Bibliographic Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer groups share procedural uses of libraries</td>
<td>Research into what procedures are shared by different groups</td>
<td>Market 1989:133–38</td>
</tr>
<tr>
<td>Previously acquired skills require continual change</td>
<td>Research into whether groups need different skills at different times</td>
<td>Owen 1992:74</td>
</tr>
</tbody>
</table>

The existing literature found that there needed to be an existing interest or need before customers become interested in library customer education. Much of the existing literature recommended further research into the area of grouping or segmentation of customers according to these need and interests levels.

Segmentation of Customer Groups for Library Customer Education

There is both support and opposition to the argument for segmentation in library customer education and one example, the Marshall (1989) study, was unable to reach any conclusion. Studies by Beckett (1990) concluded that segmentation improved customer access. Studies by Freedman (1985) and King (1984) found segmentation to be more effective and popular with customers. There were, however, no studies
specifically considering the validity of segmentation for customer education activities in special tertiary settings. There is a need, as shown in Table 5.4, for study in this area of segment profiling feeding directly into the planning of customer education services for lifelong learning development:

Table 5.4: Focus A – Demographics and Segmentation

<table>
<thead>
<tr>
<th>Literature Motivation and Bibliographic Details</th>
<th>Related Question Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifelong Learning Resource System – iv. Learners are highly diverse in their experiential backgrounds/pace of learning, education; readiness to learn, and styles of learning; in turn, learning programmes need to be highly individualized (Knowles 1990:181–182).</td>
<td>What segments should customers be grouped in to facilitate customer education?</td>
</tr>
<tr>
<td>Characteristics and Features of Lifelong Learning – i. Coverage of practically the entire life-span (Dave 1973). Students' confidence in library skills along with attitudes can be affected by the length of time away from study or library use.</td>
<td>Do different customer groups have homogeneous backgrounds or needs?</td>
</tr>
</tbody>
</table>

The key period in the research of these topics was from the mid-1980s through to the mid-1990s with the more general issues being overlooked in favour of extremely specific topics considered in the late-1990s. There were many questions raised during the literature review (Chapter 3). These questions were cumulated to form major areas for treatment during this research. These questions lead to further questions which form the subsidiary questions of the study.

Chapter 3 concluded with the highlighting of the areas of lifelong learning in tertiary libraries that required further investigation. There were several areas highlighted during this review, each centred on
perceptual, affective aspects of lifelong learning issues related to tertiary libraries, no research centred on the perceptions of all students. These gaps in the literature, under the four main categories just described, formed the basis of the present study.

The first issue raised was the different backgrounds, and some similarities, presented by groups of library customers. The first part of the study was to determine what was the most logical segmentation of customer groups for the rest of the study. The study then determined which way customer education should be directed to meet the needs of these different groups.

The main questions of the study were derived directly from the literature review. When considering the breakdown of the questionnaire it should be noted that each area commenced with the key question that prompted the inclusion of this area into the study. This was followed by findings from the literature review that prompted particular questions. The listed questions were primary questions and many were followed by extension questions.

**Library Issues**

The key questions raised were: what personal methodologies are implemented when using libraries and information resources and do these indicate a lifelong learning philosophy, reflected in a broad view of what constitutes learning (formal, nonformal and informal) and a desire to develop the skills required to learn throughout life?
Table 5.5: Focus B1 – Library Issues – Library Use

<table>
<thead>
<tr>
<th>Literature Motivation and Bibliographic Details</th>
<th>Related Question Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifelong Learning Resource System – v. People who have been taught in traditional schools have on the whole been conditioned to perceive the proper role of learners as being dependent on teachers to make decisions for them as to what should be learned, how it should be learned, when it should be learned, and if it has been learned; they in turn need to be helped to make the transition to becoming self-directed learners (Knowles 1990:181–182).</td>
<td></td>
</tr>
</tbody>
</table>

Early library studies focused on library use issues, and while this trend is slowly moving into areas of perception there are still many gaps. Each of the key areas to be investigated were divided into two parts: the physical part of library use (.1) and the perceptual part (.2) in order to attempt to unite the two issues for the first time.

The key questions raised were: what personal feelings and motivations are associated with using libraries and information resources and do these indicate a lifelong learning philosophy?
Table 5.6: Focus B2 – Library Issues – Library Use Rationale or Perception

<table>
<thead>
<tr>
<th>Literature Motivation and Bibliographic Details</th>
<th>Related Question Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifelong learners enjoy the cognitive processes of locating, evaluating and analysing information sources. Personal satisfaction, being an important motivating force in information seeking behaviour, was the foundation of this set of response options: Some educational psychologists, particularly Knowles (1990:18–20), believe that the major motivational factors driving students to seek information are external; that is, they are imposed by educators as part of an assignment or they are directed to perform certain tasks as a requirement of their course. Wilson (1994a) discovered that a major motivation for use of the library was not direction from lecturers. Characteristics and Features of Lifelong Learning – xiii. exposure to broad areas of knowledge (Dave 1973). It examined the library and information behaviours of customers and asked them to consider their lifelong learning behaviours that related directly to information sources found in libraries. Processes in Lifelong Learning model – proposes that individuals engage in a series of spiral learning projects involving elements including ii. a broadening and deepening of the skills of self-directed inquiry (Knowles 1990:183). This</td>
<td>B2.1: What are your feelings about … B2.2: Motivation for using a library … B2.3: Library use in spare time … B2.4: Reason for using the College Library?</td>
</tr>
</tbody>
</table>
Literature Motivation and Bibliographic Details
statement examined whether the skills of self-directed inquiry increased with years at college or were related to courses.
Characteristics and Features of Lifelong Learning xvi. dynamic approach – assimilation of new developments in knowledge and in means and media of communication from time to time (Dave 1973).

Skills Assessment

The skills assessment part of the survey was motivated by findings of the literature review:

The key questions raised were: do customers present similar responses when self-assessing their information skills and their library use and what do these indicate about their lifelong learning abilities?

Table 5.7: Focus C1 – Skills Assessment – Library Use

<table>
<thead>
<tr>
<th>Literature Motivation and Bibliographic Details</th>
<th>Related Question Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statements were used that presented opposing views on customers' dependence on others for their information needs and their attitudes to this dependence. People become ready to learn when they experience a need to learn a particular thing. It is learned in order to cope more satisfyingly with real-life tasks or problems. Learners see education as a process of developing increased competence and this was acknowledged with this statement (A). For an adult to</td>
<td>C1.1: Do you believe that you … C1.2: The most common problem you presently encounter in obtaining information is …</td>
</tr>
<tr>
<td>Literature Motivation and Bibliographic Details</td>
<td>Related Question Content</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>benefit from a learning experience it must build upon past experiences. Adults want to be independent and self-reliant. Adult learners enjoy the cognitive processes of locating, evaluating and analyzing information sources. This enjoyment and satisfaction found from seeking information are an indication of maturity and independence in information seeking. This personal satisfaction is an important motivating force in personal information seeking behaviour. The Processes in Lifelong Learning (appendix 2) model proposes lifelong learning consists of individuals engaging the library in a series of spiral learning projects involving elements including ii. the diagnosis of learning needs, iii. translation of these needs into learning objectives, and iv. identification of human and material resources, including guided experiences, for accomplishing learning objectives (Knowles 1990:183). Personal knowledge of lifelong learning variables facilitates successful learning episodes. Lifelong learning utilizes the widest variety of learning styles. Data from this statement indicated that respondents agreed that the library connected with lifelong learning because many learning styles integrate with the library. Characteristics and Features of Lifelong Learning – ix. Emphasis on self-directed learning (Dave 1973).</td>
<td>C1.3: The most common problems you presently encounter in using information is … C1.4: Did the assessment help you develop your information skills in which ways … C1.4A: Developing a knowledge of personal information needs… C1.4C: Are learning methods to suit individual learning styles flexible when using a library… C1.5: If you didn't make full use of the library in assessment…</td>
</tr>
</tbody>
</table>
Literature Motivation and Bibliographic Details

Recognizing the unique nature of personal information needs is an important part of adult learning.

Information literacy skills have been listed by Grapper & Styles (1993:102); ALA (1989); and Harrison (1993a). From these lists options for response to statement C7 were formed.

Characteristics and Features of Lifelong Learning – v. vertical articulation:

- between different stages of learning.
- between different levels and subjects within a particular stage.
- between the roles assumed by the individual at different stages of life.
- between different aspects of development over time, such as physical, moral, intellectual (Dave 1973).

The key questions raised were: do customers expect to develop their information skills and their library use abilities throughout their time at college and do their expectations indicate lifelong learning desires?

Table 5.8: Focus C2 – Skills Assessment – Rationale or Perception

<table>
<thead>
<tr>
<th>Literature Motivation and Bibliographic Details</th>
<th>Related Question Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics and Features of Lifelong Learning – xi. individualization of learning and evaluation (Dave 1973).</td>
<td>C2.1: What skills would you expect to develop from the library …</td>
</tr>
</tbody>
</table>

This statement utilized this characteristic to provide the following options for identification of information literacy skills.
Literature Motivation and Bibliographic Details

Customers thought should be developed through the library.

Students who lacked experience in the psychomotor skills of information seeking may fail to overcome elementary barriers to successful information seeking. This may lead to a loss of confidence associated with a reluctance to persist with information seeking. This has been found by previous studies to be a widespread and persistent library problem. This statement examines the importance of developing the physical skills associated with understanding how to use the equipment (terminals, keyboards, etc.).

Lack of confidence amongst students can act as a barrier to affective information seeking behaviour. The next two statements looked at the confidence levels of the students from two different aspects; their level of confidence in asking for assistance when required (C2.3) and their confidence in their independent information seeking skills (C2.4).

Characteristics and Features of Lifelong Learning – xiv. development of a learning society; an enlightened and enlightening society. Also learning to be and learning to become (Dave 1973).

Characteristics and Features of Lifelong Learning – xxi. facilitates smooth change of life roles at different periods in the life-span (Dave 1973). This set of statements were based on the

Related Question Content

C2.2: How important is it to develop the physical skills associated with understanding how to use library equipment associated with the …

C2.3: Personal perceptions of confidence and ability in library use …

C2.4: What skills do you feel becomes valuable for you to develop for use at college and beyond …

C2.5: Think back prior to enrolment at College. Indicate your confidence level with library skills…
A review of the history of educational activities in libraries suggested that librarians have increasingly taken a more active education role beyond bibliographic instruction. Librarians need to diversify their education role to incorporate the development of lifelong learning skills in customers as the need for lifelong learning skills becomes more vital due to, for example, the increasing pace of technological change, and the role of librarians more integrated into tertiary education life. This includes the utilization of technology for information management, the critical appraisal of literature for quality, and the development of efficient techniques for evaluating and processing information. (Moore 1989:26–32)

**Integration with College Life**

Enterprising people, according to Owen (1992:74), will require increasingly high level lifelong learning skills in years to come. Previously acquired knowledge and competencies will increasingly require changes and adjustments. Whitstock (1990:35) stated that “the knowledge we already have is less important than the skill we have to acquire more”. Learning how to learn is generally accepted as the most desirable outcome of education. This concept has become more
firmly entrenched in current education philosophy but in the real terms of making all students take responsibility for their own continuing learning and development there have been hurdles. Librarians should take a leadership role in this endeavour as libraries have the potential to remain one of few constants, available throughout the lifespan of each individual.

The key questions raised were: do customers feel college subjects integrate with library use and do customers view the library as a lifelong learning facilitator?

Table 5.9: Focus D1 – Integration of Lifelong Learning Skills into Tertiary Libraries – College, Course and Library Integration and Library Use

<table>
<thead>
<tr>
<th>Literature Motivation and Bibliographic Details</th>
<th>Related Question Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics and Features of Lifelong Learning ([appendix 3]) which was observed xv. flexibility and diversity in content, learning instruments and techniques, time and place of learning (Dave 1973) all of which may include the tertiary library. Characteristics and Features of Lifelong Learning ([appendix 3]) included xx. adaptive and innovative functions. Emphasis on creativity and innovativeness (Dave 1973). Seeking Skills Throughout the Course Characteristics and Features of Lifelong Learning ([Appendix 3]), specifically xvii. enhancement of educability, and xviii. enhancement of motivation for learning (Dave 1973).</td>
<td>D1.1: Number of subjects requiring library use … D1.2: Subjects require a variety of information sources … D1.3: Subjects require increasingly complex information …</td>
</tr>
<tr>
<td>Literature Motivation and Bibliographic Details</td>
<td>Related Question Content</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Require Library Use Characteristics and Features of Lifelong Learning (Appendix 3) were the basis of this statement requesting that consideration of the x. emphasis on self-learning, inter-learning, self-evaluation, participatory evaluation of the individual’s performance, and co-operation evaluation of group work (Dave 1973). Specifically, this asked a question to draw correlation between assessment (appendix 5) and the library.</td>
<td>D1.4: Did the last piece of assessment work require use of the library …</td>
</tr>
<tr>
<td>Assumptions on Lifelong Learning Resource System (Appendix 1) included viii. learning is more efficient if guided by a process structure (eg. learning plan) than by a content structure (eg. course outline) (Knowles 1990:181–182). This statement utilized this assumption to further examine college assessment.</td>
<td>D1.5: Type of assessment related to lifelong learning methodologies …</td>
</tr>
<tr>
<td>Characteristics and Features of Lifelong Learning (Appendix 3) included xix. creating learning opportunities. Utilizing these opportunities, Dave (1973) tested the personal perception of utilization levels of one of a selection of the many information sources available and found that many respondents thought they were not making full use of the library as a learning opportunity. This statement was based on the Characteristics and Features of Lifelong Learning (Appendix 3) and included xiv. inter-disciplinary, unity of knowledge. Emphasis on quality of knowledge besides quantity (Dave 1973). While indicating</td>
<td>D1.6: Would better library use have improved results …</td>
</tr>
<tr>
<td></td>
<td>D1.7: Do you feel it is the role of the library to help you …</td>
</tr>
</tbody>
</table>
**Literature Motivation and Bibliographic Details**

a broad selection, of perceptions
data focused on the more traditional
information roles of the library. The
selection of lifelong learning/information
literacy skills listed in this statement will
need to be a focus of customer education
attention.

This statement was founded on the
Characteristics and Features of Lifelong
Learning (Appendix 3) specifically iv. horizontal
integration:

- home, neighbourhood, local community,
larger society, world of work, mass
media, recreational, cultural, and
religious;
- between subjects of study; and
- between different aspects of
development such as physical, moral,
and intellectual, during a particular
stage of life (Dave 1973).

The key questions raised were: do customer library behaviours and
motivations reflect integration of college, course and library and does
this reflect a customer view of the library as a lifelong learning
facilitator?

Table 5.10: Focus D2 – Integration of Lifelong Learning Skills into
Tertiary Libraries – College, Course and Library Integration and
Library Use Rationale or Perception

<table>
<thead>
<tr>
<th>Literature Motivation and Bibliographic Details</th>
<th>Related Question Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics and Features of Lifelong Learning (Appendix 3) included viii.</td>
<td>D2.1: Study behaviour at commencement of a new subject …</td>
</tr>
</tbody>
</table>
Literature Motivation and Bibliographic Details

general and professional fields of education are inter-related and interactive (Dave 1973). This statement sought confirmation from customers on the issue of their own behaviour integrating the library into their college routine.

The Processes in Lifelong Learning (appendix 2) model proposes that the process of lifelong learning consists of individuals engaging in a series of spiral learning projects involving elements including vi. designing of a plan of strategies for using these resources (Knowles 1990:183). This statement utilized the model to investigate the standard of lifelong learning behaviour perceived by customers.

The Processes in Lifelong Learning (appendix 2) model proposes that the process of lifelong learning consists of individuals engaging in a series of spiral learning projects involving elements including vi. executing the plan (Knowles 1990:183). This statement examined study behaviour to investigate the level of perceived integration between college life and library use behaviour.

Characteristics and Features of Lifelong Learning (appendix 3) included vi. universal in character (Dave 1973) and formed the basis of this statement.

Education is the fundamental purpose of the library but few libraries realize the full range of customer education. The library's most generalizing function

Related Question Content

D2.2: Study behaviour related to when a piece of assessment is given …

D2.3: Study behaviour – new semester

D2.4: Do you feel the role of the library is …
<table>
<thead>
<tr>
<th>Literature Motivation and Bibliographic Details</th>
<th>Related Question Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>is education under which all other functions are contained. The library must be an education centre where communications and information are means to an educational end not the actual purpose. This concept formed into a series of statements to identify the lifelong learning role of the library in the tertiary setting. Characteristics and Features of Lifelong Learning (appendix 3) included ii. education viewed in its totality encompassing and unifying all stages and forms of education (Dave 1973). This statement endeavoured to determine whether the library was perceived within this characteristic. Characteristics and Features of Lifelong Learning (appendix 3) included xii. inter-generational learning, family learning, community learning (Dave 1973) indicating the role of the library and learning across all areas of life. The competencies of lifelong learning are comprised of the skills for the various life roles (appendix 8) and were listed by Knowles (1990). Characteristics and Features of Lifelong Learning (appendix 3) included iii. inclusion of formal, non-formal, and informal patterns of learning (Dave 1973). Assumptions on Lifelong Learning Resource System (appendix 1) included v. resources for learning abound in every</td>
<td>D2.5: Perceptions of library role on campus … D2.6: The life roles that should be catered for by the College Library D2.7: Perceived roles of the library … D2.8: What do you view as the education role of the library and link learners with them affectively (Knowles 1990:181–182).</td>
</tr>
</tbody>
</table>
Literature Motivation and Bibliographic Details

environment; a primary task of a learning system is to identify these resources

Assumptions on Lifelong Learning Resource System (appendix 1) included v. resources for learning abound in every environment; a primary task of a learning system is to identify these resources and link learners with them effectively (Knowles 1990:181–182). Human resources were students … considered by this statement to determine customer perception of this learning resource and applicability to personal lifelong learning endeavours.

Data Collection and Analysis

A case study of students investigated perceived information and library skill needs. The case study included all potential student library customers and examined, through a questionnaire and the investigation of college documentation the connection between lifelong learning and the library. The resulting information is useful in the development of customer education approaches to meet the actual and self-perceived needs of customers. It also ensures that library customer education programmes are offered in lifelong learning facilitative methodologies, locations and times supported by customers.

A customer study was planned using information obtained during the literature and document searches. The case study, to be conducted using the students of the Christian College, Brisbane, for a blanket, self-selecting sample survey, endeavours to determine the perceptions of library customers regarding the connection between lifelong
learning and libraries. The results of the survey were compared to determine whether perceptions vary per demograph. The study considered several aspects of lifelong learning and their application to customer education. The implications of this were then considered using the assumptions of the Library College Theory and Lifelong Learning Resource System model (appendix 1) as mentioned earlier and defined in Chapter 1.4 and discussed in Chapter 2.1. Variables within the case-study included information-handling capabilities, expectations, needs, and preconceived thoughts.

The technique or approach for data analysis is benefit segmentation, the analysis and categorization of the benefits customers desire from their perceptive point of need, which facilitates the contrasting of customer segments on the basis of set characteristics. A benefit segmentation approach was selected as a data analysis tool because demographic segmentation of customers, based on results of part one focused on the descriptive rather than causal, meaning results were based on the issue of ‘what’ rather than ‘why’. Benefit segmentation, as a characteristic approach, facilitated the comparison of the mean characteristics of segmented demographic groups by group characteristics providing a vehicle for comparison and analysis.

**Inferential and Descriptive Statistics**

Inferential statistics were used during the analysis and presentation of the study. This involved the use of descriptive statistics or observations from data for estimates and predictions, to generalize or produce an overall picture rather than producing a stagnant or shortlived specific summary or description. In this case, inferential statistics, because of their use in reaching conclusions that extend beyond the immediate data alone, were used to infer from the sample data what
the population might think. This facilitates making judgements of the probability that an observed difference between groups is a dependable one, thus the selection of inferential statistics to make inferences from data to more general conditions.

Data Collection and Analysis

Raw data were calculated into percentages for rationalization facilitating comparison. The commonly based figures were used to produce evidence for validation of segmentation to meet the implicit and explicit customer education needs for the lifelong learning skill development of customers.

All quantitative statements made from analysis of quantitative data collected were checked by a local civil engineering consultant with postgraduate mathematical qualifications.

Validity

Internal validity focuses on the extent to which the research measures what it purports to measure. Validity is increased by such means as the clear definition of variables, use of standardized instruments, accepted data collection methods, and triangulation (Judd et al 1991). Definitions of variables should relate clearly to previous research. In a study, such as the present one, where instruments have not previously been available for the investigation of perceptions of all tertiary library customer segments at one campus, new instruments were developed in conjunction with other methods to increase construct validity.

Internal validity also relates to the conclusions that can be drawn about the causal link between the independent and dependent variables. The present study is largely descriptive in focus,
investigating the perceptions of tertiary students from a sample campus.

External validity, or generalizability, is largely dependent upon the samples chosen (Judd et al 1991). To the extent that the sample is representative of the general population, the findings have external validity. If the sample from one particular course at the campus includes all the students in that course it is more likely to be a representative sample. This kind of sampling is extremely difficult. Therefore samples should be made as representative as possible. Self-selecting samples, for this reason, were used in this study because they are accepted as representative. It is also for this reason that as many different aspects related to the objectives as possible were included.

Case Study Design

The quantitative procedure, called meta-analysis, provides standardization in humanities literature research. This utilizes the selection of prototype studies as representative of the recent and historically similar studies.

A disadvantage of this is that the results may be misleading from selective attention paid to set works or highlighting of works to support a particular position. Meta-analysis often results in primary attention being given to the quantity of relation, rather than the quality and provides a questionable weight on the volume of available testings. Additionally, selective attention to evidence inhibits the clear estimation of the strength of a relation and fails to present the reader with sufficient data to instil confidence. This has been referred to as confirmatory bias (Cooper 1989:83).
These disadvantages were reduced by presenting a cumulative analysis of the focus studies and other related testings. The use of meta-analysis cumulating in a broader inference procedure review of literature recognizes and responds to the expanding quantity of literature. This facilitates enhanced validity of conclusions. (Greenburg & Folger 1988, Cooper 1989)

Sampling is cost, labour, and time affective as well as facilitating greater levels of accuracy. Additionally, what gives this form of investigation its greatest advantage is that when the estimates of the population characteristics are generated from the sample results, the precision of the estimates may also be gauged from the sample result itself. (Moser & Kalton 1989)

Attributes, the possession of certain characteristics or views, are quantified through counting how many possess the attribute and how many do not and the proportion or percentage with the attribute provides the description of the population. Alternatively, the actual magnitude of some variable characteristic for each sample member, eg. age, then quantification involves measuring the magnitude of the characteristic in each case. A useful summary measure to describe population in terms of a variable is an average of some form, usually the arithmetic mean. In the case of this investigation, variables have been transformed into attributes by grouping variables. For example, for the instance of age, rather than the exact age (eg. 38), broad groupings becomes presented, eg.28–38. (Moser & Kalton 1989)

Statistics refer to a summary value of an attribute calculated from a sample. Parameter refers to a summary value of the attribute in the population that one is trying to estimate.
The primary objective of a survey is to estimate certain population parameters for example, the proportion of students in a college who visit the library. A sample is selected, the relevant statistic (average or proportion) is calculated, and this statistic is used as an estimate of the desired population parameter. A statement of accuracy or precision must accompany the estimate referring to what is called a 'standard error'. Statements based on the results of this self-selected sample are probability statements. The sample size, because of the highly supportive nature of the group, is expected to be high, thus reducing the standard error rate.

A case study, monographic approach presents two conspicuous disadvantages. Firstly, the lack of representativeness reducing generalization value; and secondly, the lack of rigour in the collection, construction, and analysis of the empirical materials that give rise to the study. This lack of rigour is linked to the problem of bias. Such bias is usually introduced by the subjectivity of the researcher.

The units of inquiry, the target population of the survey, were a self-selecting sample. The target and survey populations were the same. The survey research method presents both advantages and disadvantages. To overcome many of these, two types of questions were included in the questionnaire, multiple choice and ranked questions. Comparable disadvantages such as multiple personal or group interpretations resulting in each question being interpreted differently both from each respondent and the researcher were always possible and expected to be evident to some extent.

**Questionnaires**
The survey population was a self-selecting sample. The survey could be called complete because virtually all the units in the population were covered. (Moser & Kalton 1989)

Survey data were categorized twice demographically according to results of survey Part A, field of study and the year-level of study. Determining market segmentation allows for the planning of customer education activities to meet the needs and expectations of all students by aiming different activities at different groups. It also facilitated the formation of a segment profile indicating the information and education needs and expectations of each market segment.

A survey was chosen as one of the means of collecting data for the case-study. Variables or possible disadvantages within the study include both personal and group information-handling capabilities, altered expectations, interpretations, personal conceptual frameworks, and time available of respondents.

Library surveys feature prominently in literature throughout the history of librarianship dating back to the late 19th century. Freedman (1985:69) provided a timeless rationale for conducting a library survey that considered the need to improve library practices for the benefit of customers and to clarify the purpose of libraries for librarians and administrators.

Survey data is able to direct the library service to where it needs to be developed or improved. A questionnaire, or survey, can expediently ascertain patterns of library customer behaviour, a possible disadvantage being the bias of the librarian's perception of customer information and education requirements and the emphasis upon recognizing a desired pattern of behaviour (Freedman 1985:69). It is one of the characteristics of questionnaires that the survey
questions must always be nondirective. They must never suggest a right answer or any direction of answering. The questions must be adequate and as complete as possible, linguistically comprehensible, and free of internal inconsistencies (Brenner 1985:158–159; Clayton 1995:72–73)

Not all desirable activities may be embodied in every library survey. Concepts identified as advantageous requirements of surveys which determine the basis of studies in any library setting include: an analysis of needs in order that they can be concluded from documentary sources and as they were stated by members of the target group; an investigation into the present level of understanding of information sources and their use; an investigation into the present pattern of use of library resources and services; a study of the normal work behaviour of the target group to discover how far this behaviour allows for information use; where feasible, a study of the use of services offered on an experimental basis; and a study of the efficacy of different methods of user training as preferred by the target group.

**Developing the Survey Instruments**

Utilizing the lists contained in appendices one to three, and additional details obtained from literature reviews about the theoretical and practical applications of lifelong learning and the role of the library, the perceptions of customers was examined to determine:

- The lifelong learning needs to be met or assisted by the sample library.
- The present role of the sample library in the lifelong learning process and the quality of this role performance.
- The future directions for the sample library to improve their lifelong learning role through customer education.
Two major areas were investigated. The study mapped the diversity of the student population in terms of library and information seeking skills acquisition and their attitudes to the acquisition of new information seeking skills. The problems of implementing a self-selected sample of all students to consider lifelong learning skills and attitudes becomes addressed by using a survey (appendix 4). Four objectives were explicated from the literature review to form the questions to be asked of students:

A. Demographic (Focus A)
   - What are the most logical divisions of customers to facilitate a lifelong learning library education approach and are there identifiable similarities in key areas of customers' backgrounds?

B. Library (Focus B)
   B1. Library Use
      - What personal methodologies are implemented when using libraries and information resources and do these indicate a lifelong learning philosophy?
   B2. Library Use Rationale or Perception
      - What personal feelings and motivations are associated with using libraries and information resources and do these indicate a lifelong learning philosophy?

C. Skills Assessment (Focus C)
   C1. Skills Assessment and Library Use
      - Do customers present similar responses when self-assessing their information skills and their library use and what do these indicate about their lifelong learning abilities?
   C2. Skills Assessment Rationale or Perception
• Do customers expect to develop their information skills and their library use abilities throughout their time at college and do their expectations indicate lifelong learning desires?

D. Integration of Lifelong Learning Skills (Focus D)

D1. College, Course and Library Integration and Library Use
• Do customers feel college subjects integrate with library use and do customers view the library as a lifelong learning facilitator?

D2. College, Course and Library Integration and Library Use Rationale or Perception
• Do customer library behaviours and motivations reflect integration of college, course and library and does this reflect a customer view of the library as a lifelong learning facilitator?

These foci served as the four parts of the survey. The foci were areas of gaps in the literature used to serve as components of a new model introduced in Chapter 5.5. These four foci were:

**Part A – Demographics**

This section consisted of a series of demographic questions to break down the attitudinal responses to subsequent sections of the survey. In particular, students were asked to identify which course and year of study they were undertaking. Demographic details including age and background were crucial to isolate specific areas and issues, and for any follow-up recommendations. The study was designed to develop an accurate profile of the student population to aid in the identification of any factors that might inhibit support of library involvement in lifelong learning skill acquisition. A series of demographic questions was developed and placed in Part A for preliminary information. They were straightforward and required less investigation by respondents than later attitudinal statements.
Part A – Demographics consisted of information to enable construction of a customer profile for segmentation comparison. Questions in this first area included information about study and background and presented multiple choice answers for selection, where possible.

The questions in this section started with the option for customers to provide their name should they wish. Questions then sought demographic information for possible use in segmentation including (A1) Course; (A2) Year-level; (A3) Gender; (A4) Age bracket; (A5) Highest education level previously completed; (A6) Most recent occupation before commencing at College; (A7) Time away from formal study; (A8) Time away from library use?

Part B – Library

The second section of the survey instrument considered issues related to the library. The first part of this section (Bl) considered library use including issues of (Bl) frequency of current library use; (B2) expected frequency of graduate library use; (B3) information selection; (B4) information sources; (B5) information format; (B6) information source preferred; and (B7) services/facilities considered most important.

The second part of this section (B2) considered library use rationale or perception including a series of statements which asked for responses on a five point scale related to feelings about library and information (B2.1); (B2.2) reason for library use; (B2.3) use of spare time at the library; (B2.4) rational for library use; (B2.5) library use technique; (B2.6) future library use rationale; and (B2.7) library skill building rational.

Part C – Skills Assessment
The structure of Part C was different. A range of attitudes were presented as a series of statements with respondents required to select the statement that most nearly reflected their own personal attitude. The appropriate number to be written in the box on the right hand side of the page.

This section used a variety of question types to target knowledge and self-evaluated skill levels for specific lifelong learning competencies by measuring the level of information skills respondents had acquired to indicate how far they had progressed towards being independent learners. These measurements could be broken down by the variables determined from Part A results to identify the factors that were desirable to improve students' performance.

It was decided not to attempt any skill or competency testing of customers during the study because it was out of the scope of this case-study. Wilson (1994a) found a solution in educational literature presenting the concept of self-efficacy. Researchers discovered that there is a correlation between adult learners' self-assessment of both their current and future performance and abilities in any specific skills area. This present survey was designed around this premise, with students asked to indicate their level of confidence in their ability to perform certain information seeking tasks using a Likert scale with a range of one to five. In each case, a response of one indicated a complete lack of confidence and a response of five, extremely high confidence.

A series of statements were developed to evaluate students' confidence levels in the three areas of psychomotor, cognitive and affective information seeking skills identified in the literature. The emphasis in the statements were on the methods of locating, understanding and
using information, not on reference tools or resources used during the process. They were formulated in general terms to illustrate the tasks that might be undertaken.

Students were asked, in many instances, to respond to statements three times. They were first asked to estimate their confidence levels in both library based and higher-order cognitive information skills at the time of their enrolment at college; then at the time of survey completion and finally their ideal level at graduation. This provided a picture of student perceived skill level acquisition before enrolment and measured the influence of their college experience on information handling skill levels.

The first part of Section C, C1 considered Skills Assessment and Library Use. A central theme in lifelong learning is the ability to obtain and utilize the information required for all aspects of life. The first part of this section presented multiple choice questions seeking assessment of personal library and information skills. Issues considered were (C1) library use skills assessment; (C2) ability to obtain information; and (C3) ability to use information.

The next question again consisted of a series of statements designed to uncover the attitudes of respondents to library and information skills education. Respondents were asked to indicate their level of agreement on a scale of one to five, with one indicating strong disagreement and five indicating that they strongly agreed with the statements. Respondents were required to write their response on a line at the right hand side of the statement, this method was used, for consistency, throughout the survey instrument. The rationale for a five-point scale was that responses becomes easier to read and it would
avoid coding problems, such as respondents choosing the midpoint between two legitimate responses on the scale. (Wilson 1994a)

The five-point scale, chosen from a review of the Wilson (1994a) study, found that a large scale proved a liability when the data were analysed because it fractured each item response and meant that there were insufficient responses in each category for reliable analysis. A five-point scale becomes more appropriate with more clustered responses in a more meaningful manner.

Statements raised were (C4) issues of library use for assessment; (C5) reasons for reduced library use during assessment; (C6) library customer education preferences; (C7) role of library in skill development; and (C8) areas of library integration.

Part C2 looked specifically at affective skill levels. The statements in this section were designed to measure the students' level of acceptance and understanding of the importance of these skills to personal and academic development and to give some indication of their progress in these areas. Responses followed the same format as in the first part of this section with a Likert scale of five points. In this case a response of one indicated strong disagreement and a response of five indicated strong agreement.

The statements tested the levels of enjoyment and satisfaction gained from information seeking tasks, levels of independence and initiative in information seeking behaviour and attitudes to asking for assistance when required. All these areas had been identified in the literature as being important in the development of the adult independent learner (Knowles 1990:10). Statements expressing opposing viewpoints were included in this series of statements to check response validity.
The second part, (C2) examined Skills Assessment Rationale or Perception. Issues included were (C2.1) skills expected to be developed from the library; (C2.2) importance of psychomotor skills associated with understanding how to use library equipment; (C2.3) assessment of information skills; and (C2.4) predicted skill requirements.

The next set of statements sought confidence levels on a five-point scale, (C2.5) entry library use skills; (C2.6) current library use skills; and (C2.7) future library use skill expectations.

**Part D – College, Course and Library Integration**

Section D1 considered College, Course and Library Integration and Library Use. It sought perceptions on the relationship between three primary areas of college life and lifelong learning. Questions to be considered were: (D1) do customers require library use; (D2) do customers require use of a variety of information resources; (D3) do customers require increasingly complex information seeking skills throughout the course; (D4) did the last piece of assessment work require library use; (D5) type of assessment; (D6) evaluation of library use skills during this assessment; (D7) role of the library; (D8) areas of library integration; and (D9) library skill development expectations.

Part D2 considered College, Course and Library Integration and Library Use Rationale or Perception. The issues considered here involved (D2.1) library use when commencing a new subject; (D2.2) library use when first given a piece of assessment; (D2.3) library use at the beginning of semester; (D2.4) role of the library; (D2.5) role of the library on campus; (D2.6) life role integration of library; (D2.7) service role of the library; (D2.8) education role of the library; and (D2.9) responsibility for information skills training.
5.3 Data Collection Methods

A case study is an empirical inquiry investigating contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin 1989:13). Case studies explore, describe, or explain. There are three conditions, each met by this study, which dictate the selection of a case study as the preferred investigation method. These conditions are: the type of research question posed, the extent of investigator control over the actual behavioural events, and the degree of focus on contemporary rather than historical events. (Yin 1989:4)

This case study location is unique because Australia does not have many Protestant tertiary campuses that are not just designed for ministry training. Yin (1989:39) thought that case study was ideal when the case represented an extreme or unique case. By working on one site it is guaranteed to experience where a particular environment has been encountered. Furthermore, this is what Yin (1989:40) called a “revelatory case” where the situation exists for an investigator with the opportunity to observe and analyze a phenomenon previously inaccessible to investigation. This previously inaccessible phenomenon was on several levels in this case because unlike many studies, the librarian was actually working in the sample library, not an external faculty member; and the library was Christian not secular.

Case study research was chosen for this study. It has the advantages of being able to investigate the process through which development of an activity progresses. It is ideal for examining the factors at work when the environment within which something occurs may be a critical factor. It is ideal for investigations into highly complex situations where the identification of a finite list of factors to survey may be quite inappropriate. The factors may not even be completely
known. Experimental and case study research are means by which causation can be identified with some degree of certainty. A range of intrinsic and extrinsic factors may be taken into account and, if adequately carried out, may be able to offer improved reliability. (Clayton 1995:70)

Case study is ideal when investigating “how and why questions' in situations of some complexity, and in contemporary and real-life occurrences where no control is held over the events being studied. As with any research method, however, there are also disadvantages. These include that almost all case studies have to be undertaken with either a single sample or with a very small group of samples, and so it is considerably more difficult to generalise from the results of a case study. It is also more difficult to claim that findings are applicable to a wide range of organisations. (Clayton 1995:70)

The potential for problems with reliability and objectivity if a researcher's own organization is studied have been noted by researchers including Wilson (1994) and Clayton (1995). The primary problem with the research of other organizations, however, is open and honest access. It has been described by Clayton (1995:70) as an “almost universal experience” that many libraries identified for research decline to participate. Even when access is granted some documents may not be made available to a researcher, and some individuals may refuse to be interviewed or to co-operate. Additionally, the difficulty in gaining access may result in the possibility of researchers being under direct or indirect pressure to sanitise results to make the organization look better. This can vary from such direct pressure as requests to view results before submission or publication, to the indirect pressure of needing to publish interim
reports where criticism of the organisation is sufficiently muted that further access is not jeopardised. (Clayton 1995:70–71)

Case studies are similar to all types of research in that chance plays a part. The researcher may choose, or obtain, an unrepresentative sample of cases, or within a case. Few researchers are in a position to adopt an ‘ethnographic’ approach, living and working within an organisation over a period of years. Additionally, as with all types of research, there is always the temptation to select pieces of evidence which support the argument being advanced. In case study research, a mass of data is collected from which it is inevitable that only a sample can be presented to the reader. (Clayton 1995:71)

Case study research often starts with a set of research questions or hypotheses as a guide. These consider possible questions posed by the researcher or by others that with a certain set of circumstances certain things happened. Yin (1989:70–80) referred to these as part of a “case study protocol’, which include an overview probably in the form of a research proposal; field procedures including access arrangements; case study question preparation; and a guide for the actual report. It demands thorough preparation before the researcher enters the case study institution. (Clayton 1995:71)

Case study research can provide a rich collection of data, full of real-life complexity and ambiguity, in a way that is unique to this type of research. It can provide unmatched insights, answer and raise questions. (Yin 1989:102–103, Guba 1981:87, Clayton 1995:73–75)

Case study research involving survey research means that data, once collected, can be set aside until there is time for its analysis and interpretation. With interviewing each case needs to be written up soon after it is undertaken. The researcher must have portable
communication tools such as a computer, a tape recorder and note book throughout. Data must be checked and rechecked. Notes and documents must be re-read and any tapes re-listen to because human memory can not always be reliable. The most useful way of ensuring the validity of a case and confirming the interpretation built upon it is credible is to submit a draft of the written version of it to participating colleagues within the organisation for comment. (Yin 1989:143–6, Guba 1981:85–86, Clayton 1995:74)

All methodologies have limitations. Clayton (1995:74–75) thought that case study research has the limitations of being difficult to generalise from the findings, and threats to validity and objectivity which must be addressed.

**Single Case Studies**

Case study inquiries are perfectly suited for situations where there is expected to be more variables than data points. They rely on multiple sources of evidence with data needing to converge in a triangulating way, along with a secondary result. Case studies benefit from the prior development of theoretical propositions to guide both collection and analysis of data. (Yin 1989:13)

There are several circumstances where a single-case study is a preferable design choice. One circumstance is the testing of a proposed theory. The proposed theory has a clear set of specific propositions as well as circumstances, for instance a Christian campus, within which the propositions are believed to be true. The theory, according to Yin (1989:38–9), for a single case to be appropriate, needs to be one where there are a clearly stated set of propositions and circumstances within which the propositions are believed to be true. This one site meets all the conditions for testing to confirm a theory. The single
case is appropriate when it can represent “a significant contribution to knowledge and theory-building” (Yin 1989:38–9).

A single case study was appropriate with this study because it facilitates a focus on contemporary events and is ideal for answering how and why questions (Yin 1989:6). Single case studies require careful investigation of the potential case to minimize the chances of misrepresentation and to maximize the access needed to collect the case study evidence. (Yin 1989:41)

**Case Study Data Collection**

Written questioning was chosen as the most appropriate means of data collection. Questionnaires and surveys are very common in empirical library customer research. Written questioning has the advantage of ease of handling; financial advantage; applicability to deriving data from large groups; and less application time when surveying large groups; over other instruments of data collection and is relevant to the situation.

The primary disadvantage, amongst other reasons, with using surveys for data collection is the low return rate because of perceived personal irrelevance. A possible limitation of the study is the element of bias with customers believing they are obliged to reply favourably. This is, however, unlikely because of the climate of the institute.

To overcome personal bias in designing the survey, it was discussed with the assistant librarian and the library team that included student employees from different courses and year-levels. The survey was trialed within the library by personnel. Trial survey respondents were verbally asked for their opinions on the survey and the chosen method
of data collection. Feedback was reviewed and analyzed to determine
the accuracy of questioning style before general distribution.

The only common attribute guaranteed in the survey audience was that
all participants were connected with the campus for over six months.
To avoid the paradox of sampling where a sample is misleading
because it did not represent the population, the survey involved
all customers. The variables of training, education, age, gender,
background, and preconceived concepts were far too broad to attempt
any other sampling method. A random sample would have been
inappropriate. A batch sample was therefore used where participants
were self chosen. To quantify the probability of error in this type of
research, it was assumed that the self-selected sample mirrored or truly
represented the population.

Confidentiality was guaranteed through adherence to Charles Sturt
University and Christian College ethics committee regulations. The
proposal gaining approval from the Charles Sturt University Ethics
Committee during Mary 1996 and reviewed in April 1997. All
research was undertaken whilst enrolled at Charles Sturt University
before transferring to Northern Territory University.

The survey population included full and part-time library customers.
A large-scale distribution of several hundred copies of the survey took
place over one week. Students received the survey during year-level
meetings and were given time during the session to complete the
survey. Because the survey was administered outside the library there
was an opportunity to quantify any non-users.

The survey used a number of open-ended questions. It examined
the market's information needs and how they considered their use
and knowledge of the library could fulfil these needs. The survey
allowed respondents to rank their responses and thus determine explicit, self-perceived, library customer education needs. This type of survey encourages respondents to develop and recognize their own independent learning styles but still develop adaptive, critical, and evaluative approaches to thought. These issues would have to be recognized in the creation of any subsequent library customer education programmes.

5.3.1 Document Survey

Recent studies, particularly the Candy, Crebert and O'Leary (1994) study have provided ample, high quality Australian research and recommendations to serve as a basis for comparison. That study, along with other sources discovered during the literature review provided for the formation of a schema for evaluation of both the campus and its documentation.

5.3.2 Questionnaires

Questionnaires have been widely used in quantitative data collection. They can be distributed to a large number of customers, and have several advantages over the interview method. Written questionnaires can produce a feeling of anonymity not possible in an interview and so encourage honest responses (Burns 1990). They also overcome the possibility of interviewer bias. Research has shown that the way the interviewer asks the question can influence answers (Judd et al 1991). The written questionnaire overcomes this weakness.

Disadvantages of a written questionnaire are that data may be incomplete, the customers can respond to questions in a different order, and, most importantly, they can misinterpret or misunderstand questions. While this can not be corrected in the answering process,
the statistical analysis showed any questions which did not correlate well with similar statements and so these items were dropped.

The major strengths questionnaires are the possibility of collection of data from a large number of customers, the standardization of data collection, and the statistical analysis of the responses. Statistical item analysis enables the ascertainment of which items contribute most to the reliability of the scale being developed.

**Type of Questionnaire**

Questionnaires are often used to develop scales which measure attitudes and beliefs. The Likert scale is the most widely used in social sciences today (Judd et al 1991). Attitudes are of varying intensity and their expression varies according to details of question wording, sequence and affect. A written Likert scale questionnaire is useful in that questions can always be asked in the same way and answers can be given expressing a range of responses. The Likert scale is most able to measure multi-dimensional domains (unlike Thurstone and Guttman questionnaires). The range of agreement-disagreement response permitted may make respondents more comfortable in indicating their position rather than a simple agree-disagree choice forced by Thurstone items (Judd et al 1991). The Likert scale is a more precise and reliable representation of a subject's opinion. Unlike the Thurstone questionnaire it is developed empirically from the responses of the respondents themselves, no relying on “expert” opinions (Burns 1990).

A major goal of the present study was the description of the perceptions of library customers. A quantitative method was chosen as an appropriate means for initial data collection. Using a Likert-type questionnaire enabled the collection of data from a large number
of respondents to facilitate the development and statistical analysis of factors and the comparison of the four groups of students involved.

The use of Likert-type instruments in researching epistemic beliefs has been criticised because students interpret questions differently.

**Validity**

Internal validity focuses on the extent to which the research measures what it purports to measure. Validity is increased by such means as the clear definition of variables, use of standardised instruments, accepted data collection methods, triangulation (Judd et al 1991). Definitions of variables should relate clearly to previous research. In a study, such as the present one, where instruments have not previously been available for the age group under investigation, new instruments must be developed in conjunction with other methods to increase construct validity.

Internal validity also relates to the conclusions that can be drawn about the causal link between the independent and dependent variables. The present study is largely descriptive in focus, investigating the epistemic beliefs of adolescents.

**5.4 Methodological Assumptions**

The assumptions referred to in the sections above provide a set of foundations for the approaches used in the course of this research study. However, there is an additional set of assumptions that relates to this particular methodological approach. Key areas of the methodological approach around which these sets of assumptions have been made relate to both the exploratory nature of the data collection processes and the contextual character of the treatment and the analysis of the data.
The exploratory nature of the data collection process relates directly to the type of qualitative investigation being undertaken and the desire to maintain openness, rather than closure, in the data collection, analysis, and the conclusions drawn from this research. Since this is an interpretative approach, a degree of uncertainty exists in the mind of any researcher about the meanings being generated through the interview stage.

In the data analysis process, openness is maintained in an attempt to seek the commonalities of meaning that are induced from the collected data obtained from each customer as well as from the group to which they belong. The inductive process of identifying and interrelating meaning units in the data is both a cognitive and a meta-cognitive task. Consequently, there has to be an emphasis on rejecting the tendency to make premature judgements about the content and perceptions included in the data. In a sense, an holistic understanding of each customer's contribution as well as the meanings gained from each group's research data must be developed prior to any conclusions being drawn. This is an essential process of indicative research with qualitative data, a follow-up to the quantitative data collection and the final part of the data collection.

In the conclusion stage of the research, especially in its structural dimensions, unique combinations are dependent on the researcher, the respondents and the study topic. For example, the research data used to form a perception are derived from various respondents who have each experienced different aspects of the lifelong learning and library connection.
5.4.1 Quantitative Research

Quantitative methodology assumes that a social reality exists and may be realistically and accurately described and generalized to other contexts. This assumed reality is considered in this methodology to be independent of the knower. It assumes that a problem is definable and measurable, and that the researcher's interpretation truly represents reality. The empiricist nature of a measurable reality has been brought into question and added to the move towards qualitative research methodologies in librarianship and education. Quantitative research with data commonly collected through structured interviews or questionnaires, has often been criticised for reducing complex realities to a number of measurable variables (Lancy 1993).

The primary aim of quantitative research is to either support or refute a claim through the collection of evidence. The strength of this approach is its rigorous controls and systematic methods. It can be called precise because of its reliable measurements. Hypotheses are tested deductively with results statistically analyzed. Quantitative methods are considered especially useful when initial exploratory analysis has already been carried out and the researcher plans to investigate causal relationship between variables. This methodology facilitates collection from a large number of respondents with statistical analysis showing relative strengths of particular factors and possible causal relations.

5.4.2 Qualitative Research

Qualitative methods, rather than treating the research as the empirical testing of an hypotheses, have focused on a more descriptive approach. The participants', rather than the researcher's, own perception is emphasised. Exploratory studies in which the researchers wants to examine the respondents' own perspectives use qualitative research,
often through interviews, allowing the interviewer to enter respondents' view of reality.

Similar to quantitative research methodologies, qualitative research reflects an underlying understanding of reality. It makes no assumptions about the phenomenon under study, but explores the respondents' own perceptions of their world. Qualitative research, therefore, reflects the complexity of life, especially feelings. It results from the epistemological assumption that an absolute understanding of truth is not possible because in any research situation there is considered to be bias due to the perceptions of the reality of the researcher. This bias could influence interpretation regardless of the methodological objective.

A primary attraction of the qualitative approach is its acceptance of multiple forms of understanding. This can lead to deeper levels of meaning through researchers submerging any preconceived ideas of possible results and allowing the respondents to describe their perceptions of reality. This brings new understandings and insights into causal relationships. Qualitative methods facilitate respondents expressing their own views so that, generated from the data, new interpretations may occur.

5.4.3 Qualitative and Quantitative Research

There are underlying epistemological similarities in qualitative and quantitative research. Both methods accept that certainty is not possible, and both present guidelines or rules for increasing the objectivity of the researcher (Phillips 1990). Some believe that the combination of the two methods are desirable, the strengths of one being the weaknesses of the other (Lancy 1993).
Quantitative and qualitative methods are appropriate for different research questions formulated from the literature review. Some of the questions which relate to queries raised by previous research could be affectively addressed by the use of quantitative methods. Other questions may be better addressed by a more exploratory, qualitative approach. These questions relate to the students' perceptions, and the possible developmental paths. To address these issues semi-structured interviews were designed for use with a small sample, and a questionnaire was developed to survey a larger sample.

The present study utilizes both quantitative and qualitative methodologies to explore different aspects of the research question. This was based on the epistemological position that ways of knowing are complementary. Results from a larger sample, in this case being a questionnaire, quantitative methods produce an overview which has some generalizability. Qualitative methods, primarily used in combination with quantitative methodologies in the semi-structured questions for this study, provide a window into the individual respondent's interpretation, or perception of reality.

5.5 The Proposed Model

The hypothesis of the study, as presented in Chapter 1.3, is that respondents' personal perceptions of their lifelong learning skill needs are able to mirror their personal reality. There is currently no model that places learning at the heart of the library services and facilitates examination of issues through the perspective of respondents. This study, through data presented in Chapter 6, suggests, in Chapter 7, a model where the perceptions of personal lifelong learning skills and attitudes are developed in tertiary respondents through library customer education.
The development of a Perceptual Model should result in the development of customer education approaches to meet the self-perceived needs of students. It would also ensure that library customer education programmes can be offered in ways that facilitate the development of lifelong learning skills and that customer education is directed at appropriate segments of respondents.

This Perceptual Model investigates how lifelong learning could be used as a focus for customer education programmes. Literature on library customer education fails to consider the perceptions of respondents (Bruce 1997:157). This study commences at this point because, following the literature review, Chapter 3, four gaps in the literature became obvious. These gaps became the basis for a new model of library customer education and lifelong learning. They have been discussed in Chapter 5.1.2.

5.6 Organization and Analysis of Data

Approximately three hundred and five (305) copies of the survey were distributed during weekly year-level meetings with the support of academic staff. Time was allowed for surveys to be completed but students were free to present these at the library after the year-level meeting, any time during the following two weeks. The focus of data analysis was benefit segmentation because demographic segmentation of respondents, based on results of Part A focused on the descriptive, rather than causal. A characteristic approach was used to compare the mean characteristics of segmented demographic groups by group characteristics. This provided a vehicle for comparison and analysis.

Survey data was categorized twice demographically according to results of survey Part A, field of study and the year-level of study. Determining market segmentation allowed specific direction of
customer education activities to meet the needs and expectations of all students. It also facilitated the formation of a segment profile indicating the information and education needs and expectations of each market segment.

Inferential statistics were used during the analysis and presentation of the study. This involved the use of descriptive observations from data for estimates and predictions, to generalize rather than summarize or describe. Data collected were analyzed according to the study's established aim of determining the perceptions of tertiary respondents in relation to issues of library use and lifelong learning in order to produce a model of library customer education that might better meet the self-perceived needs of respondents. The returned surveys were categorized twice, under primary or best fitting category for demographic segmentation to identify groupings for the Survey Analysis Headings list to facilitate categorical comparisons between segments.

All questions in the survey were designed to focus thinking and encourage thought about information needs and abilities in terms of library use skills and personal information requirements. The first stage of data analysis identified groupings for the Survey Analysis Headings list. This was broken down into year-level and course groupings as these were the clearest division of students within the college according to the data collected from Part A of the questionnaire. The year-level demographic focus were headed:

i. Year One
ii. Year Two
iii. Year Three
iv. Year Four
Course focus areas were not as easily categorized as year-level segmentation. The following categorization was the narrowest division possible to maintain reasonable segment similarities. It considered the primary area of study, and so those few students who were undertaking secondary courses while completing odd units in primary degrees were grouped within the area of the majority of their studies. The course segment groupings considered in the study were:

i. Bachelor of Teaching (Primary)
ii. Bachelor of Teaching (Secondary)
iii. Bachelor of Arts
iv. Bachelor of Ministries
v. Diploma of Ministries

Individual consultation was engaged with college library personnel. The above divisions were confirmed as applicable to meaningful comparisons and a plan for comparison was then constructed. The assigned number of respondents per segment, however, varied in the survey.

Study results were evaluated for practical application using the first stage of the Stetler-Marram three phase model of research utilization. Phase 1, validation, involving the evaluation of the elements documented in the study critique and the results of the literature review to determine that the study had sufficient merit. Phase two of the model becomes an appropriate follow-up activity. It involves comparative evaluation, involving the analysis of the study for its relevance for practical application to the specific setting or respondent population based on previous studies and current study finding.
Upon completion of the data analysis process it was decided whether findings becomes applied via a cognitive or direct path into practice. This becomes phase three, decision making, based on the evaluation of both the scientific and clinical merit of study findings.

Raw data were calculated into percentages for rationalization. The use of percentages facilitates comparison. The commonly based figures were used to produce evidence for validation of segmentation to meet the implicit and explicit customer education needs for the lifelong learning skill development of respondents.

Benefit segmentation methods per focus/question were justified on the basis of greatest deviation. The following example demonstrates that when considering the concept portrayed in Question X (representing Focus X), demographic segmentation by course becomes preferable because of a greater deviation of the responses:

**Question X (Representing Focus X):**

Demographic Segmentation (Year-level) Response Range 30.43 % to 50.43 %  
Deviation = 20.00 %

Demographic Segmentation (Course) Response Range 20.43 % to 50.43 %  
Deviation = 30.00 %

Additionally, different answer preferences were used as further benefit segmentation support. For example, where each year-level segment demonstrated a preference for a different answer choice, but each
course segment selected the same response benefit segmentation support would lead towards year-level segmentation:

Question X (Representing Focus X):

Demographic Segmentation (Year-level) Response Range

Option A × 2 Segments

Option B × 1 Segment

Option F × 2 Segments

Deviation = 3 Options

Demographic Segmentation (Course) Response Range

Option B × 5 Segments

Deviation = 1 Option

In this instance, segments varied more when considered by Year-level segmentation because responses were spread over more than one option as opposed to Course segmentation which indicates only one response most frequently.

5.7 Overview

The present study employed both quantitative and qualitative methods in a longitudinal type design over a twelve month period. The total sample was over 300 students from one tertiary campus and included students aged between 17 and 68 years.
The quantitative research comprised a questionnaire derived from concepts derived from gaps in previous research and contextualized from an analysis of documentation from the sample campus. The final measure used in the questionnaire generally contained scales of five items, evaluating perceptions about personal abilities and needs in relation to issues of lifelong learning. The questionnaire was administered to the total sample and this formed the random sample as students selected whether or not they would take the opportunity to participate.

The data from the questionnaire was categorized into perceptions drawn from the literature and from the students' own perceptions. The results of these perceptions form the basis of the perceptual model of library customer education for lifelong learning.

Chapter 5 has presented tables outlining the gaps in knowledge, primarily:

i. Respondent Perception – (Clayton 1988; Marchant 1980; Sell 1980; Anderson & Miller 1983; ACDP 1986; Delbecq, Van den Ven & Gustafson 1975; Marshall 1989 Ginn, Pinkowski & Tylman 1987; Freedman 1985; Toy 1984b; Fjallbrant & Malley 1984; Naisbitt 1984). Specifically, issues related to respondent perceptions on customer education were raised in the literature, prompting the need for this study.

ii. Customer education – The most notable area of omission from existing literature was that no studies considered the varying customer education needs of segments in Christian tertiary education settings for the development of positive information retrieval skills perceptions leading to lifelong learning skill development. (Rice 1983; Candy, Crebert & O'Leary 1994; Wilson

iii. Skills Assessment – The existing literature found that there needed to be an existing interest or need before respondents benefit from library customer education. The skills of lifelong learning, found in libraries, were not described in any great detail in the literature. (Market 1989; Owen 1992)

iv. Segmentation of Respondent Groups for Library Customer Education – There is both support and opposition to the hypothesis of segmentation for library customer education with much of the existing literature recommending further research into the area of grouping or segmentation of respondents according to needs and interests. (Marshall 1989; Beckett 1990; Freedman 1985; King 1984)

Chapter 6 will present the data and analysis of this data followed by conclusions of the study in Chapter 7.
Chapter 6
DATA ANALYSIS

Both quantitative and qualitative methods were used to obtain data and these are presented in this chapter.

A questionnaire was developed from gaps seen in previous research and re-enforced by the 1997 doctoral thesis by Bruce, and constructed with regard to results of the analysis of college documentation. The development, implementation, and analysis of this questionnaire is considered in detail and begins to uncover the consistencies of differences and similarities of results across respondent segments in regard to their perceptions of issues about lifelong learning and library use.

6.1 Introduction

The questionnaires gathered the desired data and drew attention to the library. Questionnaires implicitly advised respondents that the campus has an active library and that the library personnel are anxious to serve the information needs of all customers. Completion of the survey was optional, although all students were given a copy of the questionnaire. The decision to involve all students was, in itself, a means of systematic customer education designed to acquaint actual and potential respondents with the library.

The questionnaire investigated the possible relationship between the attitude of students to the extent and timing of information skills education and the involvement of the library in the development of these skills. Benefit segmentation principles, the analysis of the benefits respondents desire in their utilization of the library service, were used to analyze results. Part A of the survey identified
homogeneous segments (groups with similar characteristics), interest and resource potential needs, and a population for each segment. Market segmentation was fundamental to the structure of the survey, because any new customer education approaches would be developed to meet the specific needs of the segments. Lifelong learning approaches would be trialed, implemented, and targeted at market segments identified and defined as measurable, accessible, and viable.

The homogeneous groups established from Part A of the survey identified ten segment variables. The first five (1–5) represented tertiary year-level or status and the second set of five (6–10) represented principal academic field of study:

Table 6.1: Selected Study Groups

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Year One</td>
</tr>
<tr>
<td>2)</td>
<td>Year Two</td>
</tr>
<tr>
<td>3)</td>
<td>Year Three</td>
</tr>
<tr>
<td>4)</td>
<td>Year Four</td>
</tr>
<tr>
<td>5)</td>
<td>Postgraduate</td>
</tr>
<tr>
<td>6)</td>
<td>Bachelor of Teaching</td>
</tr>
<tr>
<td>7)</td>
<td>Bachelor of Arts</td>
</tr>
<tr>
<td>8)</td>
<td>Bachelor of Ministries</td>
</tr>
<tr>
<td>9)</td>
<td>Diploma of Ministries</td>
</tr>
<tr>
<td>10)</td>
<td>Bachelor of Education</td>
</tr>
</tbody>
</table>

The study of segment groups determined the validity of different demographic segmentation for categorizing library customer education needs. The validity was demonstrated under the four areas formulated from questions of relevance to the topic:

Table 6.2: Foci

<table>
<thead>
<tr>
<th>A.</th>
<th>Demographic (Focus A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• What are the most logical divisions</td>
</tr>
<tr>
<td></td>
<td>of respondents to facilitate a lifelong</td>
</tr>
</tbody>
</table>
learning library education approach and are there identifiable similarities in key areas of respondents' backgrounds?

B. Library (Focus B)
B1. Library Use
• What personal methodologies are implemented when using libraries and information resources and do these indicate a lifelong learning philosophy?
B2. Library Use Rationale or Perception
• What personal feelings and motivations are associated with using libraries and information resources and do these indicate a lifelong learning philosophy?

C. Skills Assessment (Focus C)
C1. Skills Assessment and Library Use
• Do respondents present similar responses when self-assessing their information skills and their library use and what do these indicate about their lifelong learning abilities?
C2. Skills Assessment Rationale or Perception
• Do respondents expect to develop their information skills and their library use abilities throughout their time at college and do their expectations indicate lifelong learning desires?

D. Integration of Lifelong Learning Skills (Focus D)
D1. College, Course and Library Integration and Library Use
• Do respondents feel college subjects integrate with library use, and do respondents view the library as a lifelong learning facilitator?
D2. College, Course and Library Integration and Library Use Rationale or Perception

• Do respondent library behaviours and motivations reflect integration of college, course and library, and does this reflect a respondent view of the library as a lifelong learning facilitator?

The sample consisted of students in attendance at weekly year-level meetings during the survey week students from the Christian College. Faculty lent support to the project by encouraging students to participate and allowing time for immediate completion of the questionnaire (appendix 4). This resulted in an extremely high response rate with only six surveys returned incomplete. Of the completed questionnaires, eighteen were not able to be included, either because they did not provide details of their major area of study (seven), or because they did not complete details of their year-level of study (eleven). The data of these eighteen questionnaires were not able to be used to test the hypothesis which utilized comparisons between academic course and tertiary year-level.

6.2 Demographic (Focus A)

The first section of this chapter investigates the demographics of respondents to establish whether the sample was representative of the total population. The survey and concept of segmentation was motivated by an assumption of the Lifelong Learning Resource System (appendix 1) which stated that “iv. learners are highly diverse in their experiential backgrounds, pace of learning, readiness to learn, and styles of learning; in turn, learning programmes need to be highly individualized” (Knowles 1990:181–182). The first two questions requested information on course (A1) and year-level (A2) that were
expected to be the areas of segmentation. They produced the following raw numbers to be used for segment content:

Table 6.A1&2: Demographics

<table>
<thead>
<tr>
<th>Segment Number</th>
<th>Segment Title</th>
<th>Number of Participants</th>
<th>Total Number of Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Year One</td>
<td>59 students</td>
<td>59 students</td>
</tr>
<tr>
<td>2)</td>
<td>Year Two</td>
<td>51 students</td>
<td>55 students</td>
</tr>
<tr>
<td>3)</td>
<td>Year Three</td>
<td>45 students</td>
<td>58 students</td>
</tr>
<tr>
<td>4)</td>
<td>Year Four</td>
<td>20 students</td>
<td>23 students</td>
</tr>
<tr>
<td>5)</td>
<td>Postgraduate</td>
<td>26 students</td>
<td>27 students</td>
</tr>
<tr>
<td>6)</td>
<td>Bachelor of Teaching</td>
<td>74 students</td>
<td>75 students</td>
</tr>
<tr>
<td>7)</td>
<td>Bachelor of Arts</td>
<td>6 students</td>
<td>12 students</td>
</tr>
<tr>
<td>8)</td>
<td>Bachelor of Ministries</td>
<td>10 students</td>
<td>17 students</td>
</tr>
<tr>
<td>9)</td>
<td>Diploma of Ministries</td>
<td>55 students</td>
<td>59 students</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td>402 students</td>
<td>444 students</td>
</tr>
</tbody>
</table>

The number of respondents in each segment varied. When considered by year-level status, third year students represented the closest to the respondent mean of 40.2 students per year-level with 22.39% (N=45) of total respondents. At either extreme there were 9.95% (N=20) fourth year representatives and 11.94% (N=24) postgraduate representatives and 30.35% (N=61) first year students and 25.37% (N=51) second year students.

The Bachelor of Education represented 27.86% (N=56) of students and the Bachelor of Teaching 36.82% (N=74) while the Diploma of Ministries had 26.37% (N=53). This compares with 5.97% (N=12) students from the Diploma of Ministries with 2.99% (N=6) students from the Bachelor of Arts course. The average number of respondents per course was 20% (N=40.2) students per course. The Diploma of Ministries was the closest to average.
Statement A3: Gender

Of the 201 completed questionnaires, there were 66.17% (N=133) female (B) and 33.83% (N=68) male (A) respondents.

Second year students (N=51) were the closest gender match with 47.06% (N=24) males (A) and 52.94% (N=27) females (B). Third year (N=45) however presented closer representation of the total student population with 24.44% (N=11) males (A) and 75.56% (N=34) females (B). The greatest deviance occurred in fourth year students with 10% (N=2) males (A) and 90% (N=18) females (B). Postgraduates presented 37.5% (N=9) male (A) and 62.5% (N=15) female (B). First year respondents had 36.07% (N=22) male (A) and 63.93% (N=39) female (B).

Table 6.A3.1: Gender – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Male</td>
<td>22</td>
<td>24</td>
<td>11</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>B.Female</td>
<td>39</td>
<td>27</td>
<td>34</td>
<td>18</td>
<td>15</td>
</tr>
</tbody>
</table>

Course results were not consistent, with Diploma of Ministry courses presenting a closer match of 47.17% (N=25) males (A) and 52.83% (N=28) female (B), Bachelor of Ministry 58.33% (N=7) male (A) and 41.67% (N=5) female (B). Bachelor of Education 30.36% (N=56) male (A) and 69.64% (N=39) female (B) and Bachelor of Teaching 24.32% (N=18) male (A) and 75.68% (N=56) female (B). The greatest deviance occurred in Arts where there was only 16.67% (N=1) male (A) and 83.33% (N=5) female (B) respondents. Division of segments by course typified the total.

Table 6.A3.2: Gender – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Male</td>
<td>18</td>
<td>1</td>
<td>7</td>
<td>25</td>
<td>17</td>
</tr>
</tbody>
</table>
The most frequent response with 66.17% was (B). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 41.66% between the highest and lowest response on the most frequent response (B). Course segmentation also had most frequent response spread over more than one option with one segment selecting (A). All Year-level segments selected the same response (B).

Table 6.A3.3: Gender – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B × 5</td>
<td>90 %</td>
<td>to</td>
<td>52.94 %</td>
<td>Deviation = 37.06 %</td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B × 1</td>
<td>83.33 %</td>
<td>to</td>
<td>41.67 %</td>
<td>Deviation = 41.66 %</td>
</tr>
<tr>
<td></td>
<td>A × 1</td>
<td>41.67 %</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Statement A4: Age Bracket

Data on the age distribution of this sample did not follow the same pattern as that reported by Kelly (1986:17) or Sheridan (1986:156–57), which suggested that the mean age of the student population becomes 34 years, with a mean age for the female population slightly greater at 35 years. Ages for this current case-study ranged from 33.33% (N=67) under 19 years (A) to 13.43% (N=27) students over the age of 40 years (E) with a mean of 29.35% (N=59) 20 to 24 years (B) of age; 30% (N=67) students, the largest section of the sample were under 30. Predictably, age group segments increased with year-level.

Considered per year-level segmentation, first, second and third years selected (A) with 50.85% (N=30), 31.37% (N=16), and 37.78% (N=17) respectively. First and third years then followed this with (B) with 23.73% (N=14) and 31.11% (N=14) respectively. First years
then selected (E) 13.56% (N=8), (D) 11.86% (N=7), and (C) 5.08% (N=3). Third years then selected (C) and (E) with 13.33% (N=6) and (D) with 11.11% (N=5). Second most frequent response for second year respondents was (D) 27.45% (N=14) followed by (E) 15.69% (N=8), (B) 13.73% (N=7), and (C) 5.88% (N=3). Fourth years and postgraduates preferred (B) with 75% (N=15) and 34.62% (N=9) respectively. Fourth years then selected (A) 15% (N=3), (C) and (E) with 5% (N=1), and no response for (D). Postgraduates selected (D) as their second most frequent response with 26.92% (N=7), followed by (C) 19.23% (N=5), (E) 15.38% (N=4), and (A) 3.85% (N=1).

Table 6.A4.1: Age Bracket – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. –19 Yrs</td>
<td>30</td>
<td>16</td>
<td>17</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>B. 20–24 Yrs</td>
<td>14</td>
<td>7</td>
<td>14</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>C. 25–29 Yrs</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>D. 30–39 Yrs</td>
<td>7</td>
<td>14</td>
<td>5</td>
<td>—</td>
<td>7</td>
</tr>
<tr>
<td>E. 40– Yrs</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

The highest percentage of respondents for Bachelor of Teaching and Education students were under 19 years of age (A), 44.59% (N=33) and 44.64% (N=25) then (B) 36.49% (N=27) and 30.36% (N=17) respectively. Bachelor of Teaching respondents then selected (C) 9.46% (N=7), (D) 6.76% (N=5) and (E) 2.7% (N=2). Bachelor of Education then selected (E) 10.71% (N=6), (D) 8.93% (N=5) and (C) 5.36% (N=3).

Students in the Diploma of Ministries were generally older than in other courses, with 34.55% (N=19) between 30 and 39 years of age (D) and 27.27% (N=15) over 40 years of age (E). Diploma of Ministries then selected (B) 16.36% (N=9), (C) 14.55% (N=8) and (A) 9.09% (N=5). Bachelor of Ministries was similar with 40% (N=4)
of respondents being over 40 years of age (E). This was followed by (D) with 30% (N=3), (B) 20% (N=2) and (A) 10% (N=1) while no respondents were in the (C) bracket. Bachelor of Arts respondents were most frequently (B) 66.67% (N=4), and (A) and (D) 16.67% (N=1) with (C) and (E) representing no respondents.

Table 6.A4.2: Age Bracket – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. –19 Yrs</td>
<td>33</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>B. 20–24 Yrs</td>
<td>27</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>C. 25–29 Yrs</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>D. 30–39 Yrs</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>E. 40– Yrs</td>
<td>2</td>
<td>—</td>
<td>4</td>
<td>15</td>
<td>6</td>
</tr>
</tbody>
</table>

The most frequent response with 29.35% was (A). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between four options. Year-level segmentation had most frequent response spread over two options.

Table 6.A4.3: Age Bracket – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

| A × 3 |
| B × 2 |

Deviation = 2 Options

Demographic Segmentation (Course) Response Range

| A × 2 |
| B × 1 |
| D × 1 |
| E × 1 |

Deviation = 4 Options

**Statement A5: Highest education level previously completed**

The implications of this area were clear, with increases in information literacy skills being developed through secondary school the needs of students undertaking the Diploma of Ministries may require
skill development in areas covered at a grade 11 or 12 level. Segmentation, therefore, in some library customer education areas may be recommended on this level.

The majority of students, considered through year-level, had proceeded through educational channels to grade twelve exit standards (B), 59.20% (N=119).

Each year-level selected (B) then (A) with first years 64.41% (N=38) and 11.86% (N=7), second years 50.98% (N=26) and 19.61% (N=10), third years 64.44% (N=29) and 17.78% (N=8), fourth years 80% (N=16) and 15% (N=3), and postgraduates 38.46% (N=10) and 26.92% (N=7).

First years then followed these with (G) 8.47% (N=5), (D) 6.78% (N=4), (C) 5.08% (N=3), (F) 3.39% (N=2), and (E) 1.69% (N=1) with no responses for (H) and (I). Second years then (C) 13.73% (N=7), (G) 7.84% (N=4), (F) 3.92% (N=2), (D), (E) and (I) 1.96% (N=1) with no responses for (H). Third years then selected (C) 6.67% (N=3), (F) 4.44% (N=2), (G) and (I) 2.22% (N=1) with no responses for (D), (E) and (H). Fourth years then responded to (C) with 5% (N=1) and no responses against (D) through (I). Postgraduates then selected (C) 15.38% (N=4), (F) 7.69% (N=2), (E), (G) and (I) 3.85% (N=1) with no response against (D) or (H).

Table 6.A5.1: Highest Education Level – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yr 10</td>
<td>7</td>
<td>10</td>
<td>8</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>B.Yr 12</td>
<td>38</td>
<td>26</td>
<td>29</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>C.TAFE</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Cert.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.Assoc.Dip.</td>
<td>4</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
Considering respondents through course of study presented a similar result with the exception that one group, the Diploma of Ministries, had a small majority of students who had only reached Grade 10 or Junior (A) exit standards 38.18% (N=21) as opposed to 27.27% (N=15) of respondents from the Diploma of Ministries who had completed year 12 (B). This is reflective of the entry criteria and respondent base for each course and the lower entry level accepted as probational for the Diploma of Ministries.

Table 6.A5.2: Highest Education Level – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yr 10</td>
<td>8</td>
<td>—</td>
<td>—</td>
<td>21</td>
<td>6</td>
</tr>
<tr>
<td>B.Yr 12</td>
<td>57</td>
<td>4</td>
<td>2</td>
<td>15</td>
<td>41</td>
</tr>
<tr>
<td>C.TAFE Cert.</td>
<td>4</td>
<td>1</td>
<td>—</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>D.Assoc.Dip.</td>
<td>—</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>E.TAFE Dip. 1</td>
<td>—</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>F.Diploma 1</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>G.Undergrad. 2</td>
<td>—</td>
<td>2</td>
<td>—</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>H.Postgrad.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>I.Other</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Year 9</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>R. Nurse</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

The most frequent response with 59.20% (N=119) was (B). Greatest deviation occurred when responses were considered by Course.
segmentation with most frequent responses divided between three options. Year-level segmentation had most frequent response spread over one option.

Table 6.A5.3: Highest Education Level – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>B × 5</th>
<th>Deviation = 1 Option</th>
</tr>
</thead>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>A × 1</th>
<th>B × 3</th>
<th>B&amp;G × 1</th>
<th>Deviation = 3 Options</th>
</tr>
</thead>
</table>

**Statement A6: Most Recent Occupation Before Commencing at College**

Clarification of education level came from the next question which examined most recent occupation before commencing at College to discover whether education level patterns were truly reflective. There were 43.28% (N=87) of respondents entering the College following other studies (A) as opposed to 34.33% (N=69) who had been in full-time employment (B). Occupation prior to enrolment varied between year-levels but in each instance respondents were primarily engaged in full-time employment (B) or a student (A). Combined these accounted for between 83.05% (N=49) for first year respondents and 85% (N=17) in fourth year down to 70% (N=49) of second year respondents.

Table 6.A6.1: Most Recent Occupation – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th></th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Student</td>
<td>26</td>
<td>13</td>
<td>27</td>
<td>14</td>
<td>7</td>
</tr>
</tbody>
</table>
Results were consistent when considered per course of study, with clear majorities coming from study (A) or full time employment (B), this went from 100% (N=6) Bachelor of Arts respondents and 82.43% (N=61) of Bachelor of Teaching respondents down to 80.36% (N=45) of respondents from the Bachelor of Education. The obvious exception was the Diploma of Ministries with 66.04% (N=35) of respondents in these two categories. These did not represent the majority of respondents from this course with majority of students 56.60% (N=30) engaged in full-time employment (B) and 18.87% (N=10) involved with full-time home duties (C). There were 9.43% (N=5) responded from this group engaged in full-time study (A) prior to enrolment. One respondent from the second year of the Diploma of Ministries did not complete this section, but wrote beneath it that he was an aged pensioner prior to enrolment.

Table 6.A6.2: Most Recent Occupation – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Student</td>
<td>44</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>33</td>
</tr>
<tr>
<td>B.FT</td>
<td>17</td>
<td>3</td>
<td>7</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>Employ.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.Home</td>
<td>2</td>
<td>—</td>
<td>1</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Duties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.PT</td>
<td>10</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Employ.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The most frequent response with 34.33% (N=69) was (B). Greatest deviation occurred when responses were considered by **Course segmentation** with most frequent responses divided between three options. Year-level segmentation had most frequent response spread over two options.

Table 6.A6.3: Most Recent Occupation – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- A × 3
- B × 2

Deviation = 2 Options

Demographic Segmentation (Course) Response Range

- A × 2
- B × 2
- A&B × 1

Deviation = 3 Options

**Statement A7: Time Away from Formal Studies**

Most students had proceeded almost directly from formal studies (A). This represented 66.67% (N=134) of respondents although there were 31.38% (N=16) of second year students and 30.77% (N=8) of Postgraduates who had been away from organized study for over ten years (D) compared with 45.1% (N=23) of respondents from second year and 53.85% (N=14) of Postgraduates who had been away from study for less than three years (A) before commencing their studies.

Table 6.A7.1: Time Away from Studies – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.0–3 Yrs</td>
<td>45</td>
<td>23</td>
<td>34</td>
<td>18</td>
<td>14</td>
</tr>
</tbody>
</table>
Confirming results from earlier questions it would seem that the above discrepancies from the norm would come from the Diploma of Ministries because the majority of respondents from this course 41.82% (N=23) had been away from study for over ten years (D).

Table 6.A7.2: Time Away from Studies – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.0–3 Yrs</td>
<td>61</td>
<td>5</td>
<td>5</td>
<td>17</td>
<td>46</td>
</tr>
<tr>
<td>B.4–6 Yrs</td>
<td>6</td>
<td>—</td>
<td>—</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>C.7–9 Yrs</td>
<td>2</td>
<td>—</td>
<td>2</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>D.10- Yrs</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>23</td>
<td>8</td>
</tr>
</tbody>
</table>

The most frequent response with 66.67% was (A). Greatest deviation occurred when responses were considered by Course segmentation with a total variance of 51.52% between the highest and lowest response on the most frequent responses. Course segmentation had most frequent response spread over more than one option. Year-level segments selected the same responses at different frequencies and with lesser deviation.

Table 6.A7.3: Time Away from Studies – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
\begin{align*}
A & \times 5 & 90 \% & \text{to} & 45.1 \% \\
\text{Deviation} & = & 44.9 \%
\end{align*}
\]

Demographic Segmentation (Course) Response Range

\[
\begin{align*}
A & \times 4 & 82.43 \% & \text{to} & 30.91 \% \\
\text{Deviation} & = & 51.52 \%
\end{align*}
\]

D × 1
Statement A8: Time Away from Library Use

This statement utilized the Characteristics and Features of Lifelong Learning (appendix 3) which included i. Coverage of practically the entire life-span (Dave 1973). If respondents' lifelong learning activities included a heavy reliance on library use then this statement would show the background of students and help provide a starting point for integration of lifelong learning and library concepts in respondent thinking.

Clear majorities of 78.61% (N=158) respondents from all year-levels had utilized libraries over the preceding three years. The only other notable area was the percentage of second year students, 19.61% (N=10) who had been away from library use for over ten years, behind the 70.59% (N=36) of second year respondents who had used a library within the three-year time span.

Table 6.A8.1: Time Away from Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 0–3 Yrs</td>
<td>51</td>
<td>36</td>
<td>36</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>B. 4–6 Yrs</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>C. 7–9 Yrs</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>D. 10+ Yrs</td>
<td>4</td>
<td>10</td>
<td>6</td>
<td>—</td>
<td>6</td>
</tr>
</tbody>
</table>

The situation within course segmentation was consistent with all courses registering a clear use of libraries during the preceding three years. The largest percentage was within the Bachelor of Arts with 100% (N=6) followed by Bachelor of Teaching with 93.24% (N=69) of respondents who have used a library within the shortest time span. This was followed by 83.93% (N=47) of Bachelor of Education respondents and Bachelor of Ministry respondents with 80% (N=8). The Diploma of Ministries, while registering 50.91% (N=28) of
respondents who had used a library regularly, was closely followed by 30.91% (N=17) who had not used a library for at least ten years.

Table 6.A8.2: Time Away from Library Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.0–3 Yrs</td>
<td>69</td>
<td>6</td>
<td>8</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td>B.4–6 Yrs</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>C.7–9 Yrs</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>D.10- Yrs</td>
<td>1</td>
<td>—</td>
<td>2</td>
<td>17</td>
<td>6</td>
</tr>
</tbody>
</table>

The most frequent response with 78.61% was (A). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 49.09% between the highest and lowest response on the most frequent response. All Year-level segments selected the same response.

Table 6.A8.3: Time Away from Library Use – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

A × 5 100 % to 57.69 %
Deviation = 42.31 %

Demographic Segmentation (Course) Response Range

A × 5 100 % to 50.91 %
Deviation = 49.09 %

6.3 Library (Focus B)

Librarians considering the implementation of education programmes must commence with an examination of the earlier library experiences of respondents. Many respondents had experienced some form of library education during their early education years. Part B of the survey examined respondent's Library Use to compile further demographic profiling. The first question in this section examined
length of time respondents had spent away from libraries. This information should help link learning episodes and library use and confirm the lifelong learning and library connection.

6.3.1 Library Use (Statement B1)

Statement B1.1: Frequency of Library Use

Library use habits were considered by the next statement based on an assumption of the Lifelong Learning Resource System (appendix 1) which stated that “vi. people who have been taught in traditional schools have on the whole been conditioned to perceive the proper role of learners as being dependent on teachers to make decisions for them as to what should be learned, how it should be learned, when it should be learned, and if it has been learned; they, in turn, need to be helped to make the transition to becoming self-directed learners” (Knowles 1990:181–182). This acknowledged that all respondents came to the library with different backgrounds.

The amount of library use by students is expected to be higher than for adults who were not studying. Library use rationale may vary but it was hoped that there would have been fewer respondents who used the library only rarely (C). This statement indicated that the majority of respondents considered the library as one of their learning resources through their decision to use it frequently (A) but there were still a considerable number who did not use the library as frequently as would have been hoped. This issue becomes further refined and the relationship between the library and lifelong learning investigated through subsequent statements.

The current use of the library by respondents indicated that 40.3% (N=81) of respondents utilize the library frequently (A) just behind
43.78% (N=88) who only use the library weekly (B). This may not be a clear indication however of usage patterns because time and efficiency variables were not considered within case-study parameters. All year-levels showed a pattern of using a library at least weekly (A) and (B).

It was promising to see that postgraduate respondents had continued patterns of library use consistent with those still studying. There were 38.46% (N=10) of postgraduates who used a library frequently (A) and 34.62% (N=9) who used a library weekly (B). Purposes for library use were examined in a subsequent question.

Table 6.B1.1.1: Frequency of Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1–2 days</td>
<td>24</td>
<td>17</td>
<td>20</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>B.Weekly</td>
<td>31</td>
<td>21</td>
<td>18</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>C.Rarely</td>
<td>4</td>
<td>13</td>
<td>7</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

Results when considered per course of study reflected the same pattern with three of the degree level courses, or 35.82% (N=72) of respondents using the library frequently (A). The exception was the Ministry courses with 30% (N=3) of Bachelor of Ministry respondents and 70% (N=7) using the library weekly. The Diploma of Ministries had 49.09% (N=27) of respondents who only used the library weekly (B) and 40% (N=22) rarely used the library (C). At this point in the questionnaire an apparent need to distinguish respondents per course rather than year-level began to emerge.

Table 6.B1.1.2: Frequency of Library Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1–2 days</td>
<td>43</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>25</td>
</tr>
</tbody>
</table>

221
The most frequent response with 43.78% was (A). Greatest deviation occurred when responses were considered by **Course segmentation** with a total variance of 55.76% between the highest and lowest response on the most frequent response. Course segmentation had most frequent response spread over more than one option. Year-level segments selected the same responses at lower frequencies and with lesser deviation.

**Table 6.B1.1.3: Frequency of Library Use – Percentages/Deviation Results**

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Weekly</td>
<td>28</td>
<td>2</td>
<td>7</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>C.Rarely</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>22</td>
<td>7</td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>Demographic Segmentation (Course)</th>
<th>Response Range</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A × 3</td>
<td>50 % to 33.33 %</td>
<td>16.67 %</td>
</tr>
<tr>
<td>B × 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C × 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Statement B1.2: Expected Graduate Library Use**

Going into this survey respondents had preconceived notions about the relation of the library to their future learning needs. This next statement utilized the Characteristics and Features of Lifelong Learning (appendix 3), “xxii. Understanding and renewal of one's own value system” (Dave 1973) to determine the value placed on libraries as lifelong learning agents.

It endeavoured to determine whether respondents had connected use of the library with continued learning by inquiring about anticipated
frequency of library use after graduation. It becomes expected that through involvement in tertiary education, development of lifelong learning skills would lead to increased self-directed library use. Results indicated that 49.75% (N=100) of students would choose to use a library weekly (B) following graduation. There were 12.44% (N=25) of respondents who would use a library frequently (A) and an alarming 36.32% (N=73) who did not feel they would use a library very often (C). While variables in this area may be considerable and quite substantial and include past experiences and future expectations of lifestyle it seemed disappointing that the College and library experience did not appear to influence students throughout their course.

While still strongest in the same range as third and fourth year students with 56.52% (N=13) respondents feeling they would continue to use a library weekly (B), postgraduates followed the trend of first to third year respondents with the second largest grouping falling into the “rarely” category (C) with 34.78% (N=8). This was, however, slightly lower than the respondent average of 36.32% (N=73). The only year-level noticeably different was fourth year where the second largest category was the “frequent library use” expectation with 35% (N=7) falling behind “weekly” use with 50% (N=10). This may be representative of the stage of the course where students were feeling tired of study and everything associated with it. This may be so because these results were not consistent with the expectations expressed by postgraduates.

Table 6.B1.2.1: Expected Graduate Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1–2 days</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>
Again, results were less consistent when considered per course of study with Bachelor of Teaching, Bachelor of Arts and Bachelor of Education respondents expecting to use a library weekly upon graduation. Bachelor of Arts respondents produced the highest result with 66.67% (N=4), Bachelor of Teaching with 56.76% (N=42) and Bachelor of Education with 46.43% (N=26). Again, the response from Ministries students, both in the Diploma and the Degree courses, was different from other areas with 53.23% (N=62) from these courses expecting to rarely use a library upon graduation (C). Variables such as expected occupation and past experiences may be the influence here as well as current reason for using a library.

Table 6.B1.2.2: Expected Graduate Library Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1–2 days</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>—</td>
<td>12</td>
</tr>
<tr>
<td>B.Weekly</td>
<td>42</td>
<td>4</td>
<td>4</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>C.Rarely</td>
<td>21</td>
<td>1</td>
<td>5</td>
<td>28</td>
<td>18</td>
</tr>
</tbody>
</table>

The most frequent response with 49.75% was (B). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 26.67% between the highest and lowest response on the most frequent response. Course segmentation also had most frequent response spread over more than one option with one segment selecting (C). All Year-level segments selected the same response.

Table 6.B1.2.3: Expected Graduate Library Use – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[ B \times 5 \quad 55.93 \% \quad \text{to} \quad 44.44 \% \]
Deviation = 11.4.9 %

Demographic Segmentation (Course) Response Range

B × 3 66.67 % to 40 %

Deviation = 26.67 %

C × 2

Statement B1.3: Information Sought from Library

Motivated by the assumptions of the Lifelong Learning Resource System (Appendix 1), specifically “iii. The purpose of education is to facilitate the development of the competencies required for performance in life situations” (Knowles 1990:181–182). This statement sought clarification on why information was sought by respondents. It inquired whether the library was used for:

A. Assignments
B. Readings directed to by lecturers
C. Improving results
D. Personal needs
E. Other (Please specify)

The primary information desired by respondents was that required for very specific and immediate needs (A). This was to be expected, to a certain extent because the site is an educational facility. However, there was a large gap between first (A) and second (B) most frequent responses indicating the direct relationship between assessment and the library. This would not tend to indicate a developing lifelong connection with the library. In all year-levels, including Postgraduates, the majority of respondents, 76.12% (N=153) chose Assignment information as their main reason for library use (A). There was no clear pattern developing over year-levels through to Postgraduates that indicated a growing preference for the use of a library for the locating information desired for personal use (D).
This indicated a lack of lifelong learning philosophical development throughout time at college.

Table 6.B1.3.1: Information Sought from Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Assignments</td>
<td>54</td>
<td>24</td>
<td>31</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>B. Lecturers</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>C. Results</td>
<td>23</td>
<td>16</td>
<td>14</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>D. Personal</td>
<td>12</td>
<td>15</td>
<td>11</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>E. Other</td>
<td>1</td>
<td>—</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Research</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Church</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Local Libr.</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Photocopying</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Reading</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

The same pattern occurred when results were considered per course with each of the five segments recording the highest percentage in the area of using libraries for Assignment purposes. There was no consistent or strongly varying percentage recorded in any other category with preferences different per segment.

Table 6.B1.3.2: Information Sought from Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B. Teach</th>
<th>B. Arts</th>
<th>B. Min.</th>
<th>Dip. Min.</th>
<th>B. Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Assignments</td>
<td>53</td>
<td>5</td>
<td>8</td>
<td>45</td>
<td>52</td>
</tr>
<tr>
<td>B. Lecturers</td>
<td>33</td>
<td>3</td>
<td>2</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td>C. Results</td>
<td>19</td>
<td>1</td>
<td>5</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>D. Personal</td>
<td>17</td>
<td>—</td>
<td>3</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>E. Other</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Research</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Church</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Local Libr.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Photocopying</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>
The most frequent response with 76.12% was (A). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a total variance of 49.09% between the highest and lowest response on the most frequent responses. Course segments selected the same responses at different frequencies and with lesser deviation.

Table 6.B1.3.3: Information Sought from Library – Percentages/Deviation Results

<table>
<thead>
<tr>
<th>Demographic Segmentation (Year-level)</th>
<th>Response Range</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A × 5</td>
<td>96.15 % to 47.06 %</td>
<td>49.09 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic Segmentation (Course)</th>
<th>Response Range</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A × 5</td>
<td>92.86 % to 58.11 %</td>
<td>34.75 %</td>
</tr>
</tbody>
</table>

**Statement B1.4: Resource Provision Agency of Information Used**

Respondents were given the opportunity to supply their own response under the title Other. Under the selection choice of Other answers included Local, State, and Public libraries, these were all included under the heading of Public libraries for discussion purposes. The only other response under the option of Other was Conferencing by sharing with others. The primary selection source of the information sought by respondents was considered under the following headings:

A. Your personal collection of documented resources
B. Colleagues' personal collection/s
C. The Christian College Library
D. Other university/college libraries
E. Other (Please Specify)
The selection of additional responses indicated that students were using a variety of sources for information, this in itself indicating a lifelong learning philosophy. The fact that all of these additional sources were also libraries rather than other agencies also promoted a lifelong learning and library connection. It was expected that the College Library (C) becomes the most frequently used source of information because of its convenience but the quite high and evenly spread selection of other information sources indicated a lifelong learning attitude.

Each year-level considered the College Library (C) as a primary source of information. This accounted for 86.07% (N=173). The high response rate in this category was accepted as legitimate because the possibility of choosing this answer out of expectation of others was negated by the anonymous nature of the questionnaire. Respondents were also able to choose more than one information source which meant that other areas, particularly Personal Collections (A), were popular with 53.23% (N=107) utilizing this source. This indicated that searching for information generally involved the facilities that were easiest to access, whereas a lifelong learning response would have indicated a more balanced response with the majority of students selecting each of the provided responses.

Table 6.B1.4.1: Resource Provision Agency for Information Used – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Personal</td>
<td>26</td>
<td>26</td>
<td>25</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>B.Colleague</td>
<td>20</td>
<td>14</td>
<td>12</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>C.College</td>
<td>52</td>
<td>46</td>
<td>37</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>D.Uni.</td>
<td>25</td>
<td>17</td>
<td>25</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>E.Other</td>
<td>13</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Public Libr.</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
The College Library (C) proved most popular across all courses, ranging from 90.54% (N=67) for Bachelor of Teaching and 90% (N=9) of Bachelor of Ministries down to 85.71% (N=48) Bachelor of Education, 83.33% (N=5) Bachelor of Arts, and 80% (N=44) for Diploma of Ministries. There were 16.95% (N=10) Bachelor of Teaching students who, under the heading of Other (E), chose Public Libraries as a source of information.

Table 6.B1.4.2: Resource Provision Agency for Information Used – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Personal</td>
<td>32</td>
<td>5</td>
<td>6</td>
<td>38</td>
<td>36</td>
</tr>
<tr>
<td>B.Colleague</td>
<td>18</td>
<td>3</td>
<td>2</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>C.College</td>
<td>67</td>
<td>5</td>
<td>9</td>
<td>44</td>
<td>48</td>
</tr>
<tr>
<td>D.Uni.</td>
<td>43</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>E.Other</td>
<td>10</td>
<td>—</td>
<td>2</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Public Libr.</td>
<td>10</td>
<td>—</td>
<td>2</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Conferencing</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
</tbody>
</table>

The most frequent response with 86.07% was (C). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 10.54% between the highest and lowest response on the most frequent response. Course segmentation also had most frequent response spread over more than one option with one segment selecting (A&C). All Year-level segments selected the same response (C).

Table 6.B1.4.3: Resource Provision Agency for Information Used – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
C \times 5 \quad 90.2 \% \quad \text{to} \quad \quad 80 \%
\]
Deviation = 10.2 %

Demographic Segmentation (Course) Response Range

C × 4 90.54 % to 80 %

\[ \text{Deviation} = 10.54 \% \]

A&C × 1

**Statement B1.5: Part of Library Collection Preferred for Information Use**

Traditionally, undergraduates primarily prefer the general collection (Wilson 1994a; Candy, Crebert & O'Leary 1994), and results to this statement produced expected results. There appeared no significant increase in the use of periodicals throughout student's time at college. This reflected a need or direction for further customer education and course integration because this is already an area of focus. This statement's data indicated that many students used a variety of collection types in the library, a lifelong learning indicator (Candy, Crebert & O'Leary 1994), but that there was still some way to go in regards to development. Variables about assessment format and requirements could have affected results to some extent with this statement.

The next question related to the part of the collection preferred for information use frequently used by respondents. There were 71.14% (N=143) respondents who frequently used the General Collection (B), 63.68% (N=128) who used Reference (C), 38.31% (N=77) Library Use Only (texts or set reading) (E) and 58.71% (N=118) Overnight Loans (F). The frequent use of periodicals and their articles (A) produced only 28.86% (N=58) support across all year-levels and did not portray any significant increase throughout the time at College. Third 71.11% (N=32), fourth 85% (N=17) and postgraduates 88.46% (N=23) narrowly preferred to frequently use resources recommended by lecturers, these being Overnight Loans (F). First 62.71% (N=37)
and second 80.39% (N=41) year students frequently chose the General Collection (B).

Table 6.B1.5.1: Part of Library Collection Preferred for Information Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Articles</td>
<td>14</td>
<td>10</td>
<td>13</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>B.General</td>
<td>37</td>
<td>41</td>
<td>31</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>C.Reference</td>
<td>30</td>
<td>38</td>
<td>30</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>D.A/V</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>E.Libr.Use.Only</td>
<td>23</td>
<td>15</td>
<td>13</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>F.O/night Ln.21</td>
<td>25</td>
<td>32</td>
<td>17</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>G.Other</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Computers</td>
<td>1</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Own a/v</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Posters</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Public Libr.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Anything</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Weekly loans</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Subject notes</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Preferred part of the library collection for information used tended towards using the General collection, with this being the highest preference for Bachelor of Teaching with 82.43% (N=61), Bachelor of Ministries with 80% (N=8), and Diploma of Ministries with 78.18% (N=43). This was the second most frequently preferred collection for Bachelor of Arts 66.67% (N=4) and Bachelor of Education 69.64% (N=39). The most frequently preferred collection within the library for Bachelor of Education and Bachelor of Arts courses was Reference resources with 71.43% (N=40) and 83.33% (N=5) respectively. Reference resources were also frequently preferred, as second preference, for Bachelor of Ministries 60% (N=6) and Diploma of Ministries 67.27% (N=37). Second preference for Bachelor of Teaching respondents was Overnight Loans with 68.92% (N=51).
This was the third area of preference by Bachelor of Ministries 50% (N=5), Diploma of Ministries 63.64% (N=35), and Bachelor of Education 48.21% (N=27). The percentage of respondents who thought they frequently used periodicals (A) included 21.82% (N=12) for Diploma of Ministries which may be reflective of the course and its prerequisites, through to 28.38% (N=21) for Bachelor of Teaching, 32.14% (N=18) for Bachelor of Education, 40% (N=4) Bachelor of Ministries, and 50% (N=3) Bachelor of Arts. It is a point of concern that the results for Education courses was lower than that of other courses when the increasing evident need for teachers to be up-to-date should be dictating a heavy reliance on periodicals.

Table 6.B1.5.2: Part of Library Collection Preferred for Information Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Articles</td>
<td>21</td>
<td>3</td>
<td>4</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>B.General</td>
<td>61</td>
<td>4</td>
<td>8</td>
<td>43</td>
<td>39</td>
</tr>
<tr>
<td>C.Reference</td>
<td>50</td>
<td>5</td>
<td>6</td>
<td>37</td>
<td>40</td>
</tr>
<tr>
<td>D.A/V</td>
<td>10</td>
<td>—</td>
<td>2</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>E.Libr.Use.Only</td>
<td>—</td>
<td>—</td>
<td>4</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>F.O/nigh Ln.</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>35</td>
<td>27</td>
</tr>
<tr>
<td>G.Other</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Computers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>Own a/v</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Posters</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>10</td>
</tr>
<tr>
<td>Public libr.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Anything</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Weekly loans</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Subject notes</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>10</td>
</tr>
</tbody>
</table>

The most frequent response with 71.14% was (B). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a total variance of 17.68% between the highest and lowest response on the most frequent responses. Year-level segmentation had
most frequent response spread over more than one option. Course segments selected the same responses at different frequencies and with lesser deviation.

Table 6.B1.5.3: Part of Library Collection Preferred for Information Use – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
\begin{align*}
B \times 2 & \quad 80.39 \% \quad \text{to} \quad 62.71 \% \\
\text{Deviation} & = 17.68 \%
\end{align*}
\]

Demographic Segmentation (Course) Response Range

\[
\begin{align*}
B \times 3 & \quad 82.43 \% \quad \text{to} \quad 66.67 \% \\
\text{Deviation} & = 15.76 \%
\end{align*}
\]

Statement B1.6: The source of information preferred

The University of Alabama, Birmingham interviewed randomly selected professionals to identify their information habits and found that information source selection can be affected by a number of variables. This next statement provided five choices for response:

A. My personal collection of documented resources
B. Colleagues' personal collection/s
C. Christian College Library
D. Other university/college libraries
E. Other (Please Specify)

Data indicated that respondents generally preferred the same sources they choose to use (B4). The vast majority of respondents selected (C) with 68.66% (N=138). Considerably numbers selected (D) and (A) with 40.3% (N=81) and 39.8% (N=80) respectively. Next preference was (B) with 19.9% (N=40). Few respondents, 4.48% (N=9), selected (E) and these were generally other libraries or the Internet.
The primary source of information preferred by each year-level segment was (C), the College library, first years with 74.58% (N=44), second years 39.22% (N=36), third years 68.89% (N=31), fourth years 55% (N=11), and postgraduates 61.54% (N=16).

Second and third most frequent responses were generally (D) or (A) with second years selecting these both at the same rate of 39.22% (N=20). First, third and fourth years selected (D) with 49.15% (N=29), 37.78% (N=17), and 40% (N=8) and (A) with 45.76% (N=27), 33.33% (N=15), and 30% (N=6) respectively. Postgraduates selected (A) with 46.15% (N=12) and (D) with 26.92% (N=7).

Table 6.B1.6.1: The Source of Information Preferred – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Personal</td>
<td>27</td>
<td>20</td>
<td>15</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>B. Colleague</td>
<td>12</td>
<td>8</td>
<td>10</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>C. College</td>
<td>44</td>
<td>36</td>
<td>31</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>D. U/C</td>
<td>29</td>
<td>20</td>
<td>17</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>E. Other</td>
<td>6</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Internet</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Variety</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Local</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Public</td>
<td>5</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
</tbody>
</table>

Course segmentation also revealed a preference for (C) with Bachelor of Teaching 75.68% (N=56), Bachelor of Arts 83.33% (N=5), Bachelor of Ministries 60% (N=6), Diploma of Ministries 61.82% (N=34), and Bachelor of Education 66.07% (N=37). Bachelor of Arts also selected (D) at this rate.

Second most frequent responses varied with courses, Bachelors of Teaching and Education selecting (D) with 48.65% (N=36) and 46.43% (N=26) then (A) with 24.32% (N=18) and 44.64% (N=25).
Bachelor of Arts with (B) with 33.33% (N=2) and (A) with 16.67% (N=1). Bachelor of Ministries selected (A) and (D) with 30% (N=3) followed by (B) with 10% (N=1). Diploma of Ministries selected (A) with 60% (N=33) which was only slightly behind their most frequent response, and (D) with 14.55% (N=11).

Table 6.B1.6.2: The Source of Information Preferred – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Personal</td>
<td>18</td>
<td>1</td>
<td>3</td>
<td>33</td>
<td>25</td>
</tr>
<tr>
<td>B.Colleague</td>
<td>13</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>C.College</td>
<td>56</td>
<td>5</td>
<td>6</td>
<td>34</td>
<td>37</td>
</tr>
<tr>
<td>D.U/C</td>
<td>36</td>
<td>5</td>
<td>3</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>E.Other</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Internet</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Variety</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Local</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Public</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

The most frequent response with 68.66% was (C). Greatest deviation occurred when responses were considered by Course segmentation even though it only had a variance of 23.33% between the highest and lowest response on the most frequent response compared with 35.36% for Year-level segmentation. Course segmentation also had most frequent response spread over more than one option with one segment selecting (C&D). All Year-level segments selected the same response and so the deviation of responses was less than for Course segmentation.

Table 6.B1.6.3: The Source of Information Preferred – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

C × 5 74.58 % to 39.22 %
Deviation = 35.36 %

Demographic Segmentation (Course) Response Range
C × 4 83.33 % to 60 %
Deviation = 23.33 %
C&D × 1

Statement B1.7: Services/Facilities Considered most important in finding information

This statement related to B5, and produced a similar result to indicate that respondents were using the resources they thought most comfortable with, primarily the general collection indicated through Book loans (B). Reference resources (C) requiring use of photocopy facilities (I) also received considerable attention as did staff assistance (E). This data indicated a more shallow use of the library as a whole resource, a lifelong learning tactic.

A. Periodical collection
B. Book loans
C. Reference books
D. Reservations of items currently on loan
E. Staff assistance
F. “Current Contents” (new journal) display
G. Computer catalogues
H. “New Acquisitions” (new book) display
I. Photocopying facilities
J. Audio and video tape collection
K. Special loans

Over half of respondents, 53.73% (N=108), selected (B) and (C). Second highest preferences were (I) with 36.82% (N=74) and (E) with 36.32% (N=73). Next was (G) with 28.86% (N=58) and (D) with
18.91% (N=38). The next group of similar responses came with (H) and (K) with 11.94% (N=24) then (F) and (J) with 10.45% (N=21). The lower responses were (A) with 8.46% (N=17) then (L) with .5% (N=1). The only response under (L) Other was Anything.

Responses varied with year-level segmentation. First and second years selected (C) with 52.54% (N=31) and 56.86% (N=29) followed by (B) with 44.07% (N=26) and 49.02% (N=25). Lower responses for first years were (E) 35.59% (N=21), (I) 30.51% (N=18), and (G) with 28.81% (N=17). Second years selected (I) with 41.18% (N=21), (E) with 37.25% (N=19), and (G) with 31.37% (N=16).

Third and fourth years and postgraduates most frequently responded (B) with 68.89% (N=31), 55% (N=11), 57.69% (N=15), then (C) with 64.44% (N=29), 50% (N=10), 34.62% (N=9). Postgraduates also rated (I) at this level. Lower preferences for third years were (I) with 40% (N=18), (E) with 37.78% (N=17), and (G) with 28.89% (N=13). Fourth years selected (E) and (I) with 40% (N=8), then (G) with 30% (N=6) and (D) with 20% (N=4). Postgraduates selected (E) with 30.77% (N=8), (G) with 23.08% (N=6), and (D), (J) and (K) with 15.38% (N=4).

Table 6.B1.7.1: Services/Facilities Considered Most Important in Finding Information – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th></th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Period.</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>B.Loans</td>
<td>26</td>
<td>25</td>
<td>31</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>C.Reference</td>
<td>31</td>
<td>29</td>
<td>29</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>D.Reserve</td>
<td>9</td>
<td>12</td>
<td>9</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>E.Assist</td>
<td>21</td>
<td>19</td>
<td>17</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>F.Contents</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>G.Catalogue</td>
<td>17</td>
<td>16</td>
<td>13</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>H.Acquist.</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
Most frequent responses varied with course segmentation. Bachelor of Teaching had (B) 56.76% (N=42), (C) 48.65% (N=36), (E) 47.3% (N=35), (I) 45.95% (N=34), and (G) 36.49% (N=27). Bachelor of Arts had (B) 100% (N=6), (C) 83.33% (N=5), (G) 66.67% (N=4), (D), (F), (I), and (K) 33.33% (N=2), and (A) with 16.67% (N=1). Bachelor of Ministries had (C) 70% (N=7), (E) 60% (N=6), (G) 40% (N=4), (I) and (D) 30% (N=3), (A), (F), (J) and (K) with 20% (N=2). Diploma of Ministries had (B) and (C) 56.36% (N=31), (I) 34.55% (N=19), (E) 32.73% (N=18), (G) 25.45% (N=14), and (D) 18.18% (N=10). Bachelor of Education had (C) 67.86% (N=38), (B) 60.71% (N=34), (I) 44.64% (N=25), (E) 35.71% (N=20), and (G) with 21.43% (N=12).

Table 6.B1.7.2: Services/Facilities Considered Most Important in Finding Information – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Period</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>B.Loans</td>
<td>42</td>
<td>6</td>
<td>—</td>
<td>31</td>
<td>34</td>
</tr>
<tr>
<td>C.Reference</td>
<td>36</td>
<td>5</td>
<td>7</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>D.Reserve</td>
<td>15</td>
<td>2</td>
<td>3</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>E.Assist</td>
<td>35</td>
<td>—</td>
<td>6</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>F.Contents</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>G.Catalogue</td>
<td>27</td>
<td>4</td>
<td>4</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>H.Acquist</td>
<td>6</td>
<td>—</td>
<td>1</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>I.Photocopy</td>
<td>34</td>
<td>2</td>
<td>3</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>J.A/V</td>
<td>10</td>
<td>—</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>K.Special</td>
<td>11</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>L.Other</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Anything</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
</tbody>
</table>
The most frequent response with 53.73% was (B&C). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over two options.

Table 6.B1.7.3: Services/Facilities Considered Most Important in Finding Information – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
</tbody>
</table>

Deviation = 2 options

Demographic Segmentation (Course) Response Range

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>B&amp;C</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
</tbody>
</table>

Deviation = 3 options

6.3.2 Library Use Rationale or Perception (Statement B2)

Statement B2.1: What are your feelings about the following statements:

Lifelong learners enjoy the cognitive processes of locating, evaluating and analysing information sources. The next statements examined the level of enjoyment and satisfaction students gained from finding information for themselves. Personal satisfaction, being an important motivating force in information seeking behaviour, was the foundation of this set of response options:

Statement B2.1: Format of Information Used

The next question related to the format of information frequently used by respondents. There were 71.14% (N=143) respondents who frequently used the General Collection, 63.68% (N=128) who used
Reference, 38.31% (N=77) Library Use Only (texts or set reading) and 58.71% (N=118) Overnight Loans. The frequent use of periodicals and their articles produced only 28.86% (N=58) support across all year-levels and did not portray any significant increase throughout the time at College. Third 71.11% (N=32), fourth 85% (N=17) and recent graduates 88.46% (N=23) narrowly preferred to frequently use resources recommended by lecturers, these being Overnight Loans. First 62.71% (N=37) and second 80.39% (N=41) year students frequently chose the General Collection.

A. I enjoy searching for information and using it for my own purposes
B. I am comfortable with asking library staff for assistance
C. I derive a lot of satisfaction from finding out things for myself
D. I think looking for information is frustrating and a waste of time
E. I am frustrated that I have to rely on other people to provide the information I need
F. It is the librarian's job to find me the information I need
G. I do not need to learn how to find information for myself
H. Postgraduates need sophisticated library and information seeking skills for their research, undergraduates don't
I. In the future, I will find study easier because I am developing skill to find the information I need
J. The library considers the improvement of the quality of individual and collective life through personal, social, and professional growth?

The positive response received from this statement reflected a lifelong learning attitude. Enjoyment and satisfaction in performing information seeking tasks are an indication of maturity and independence in information seeking (Knowles 1990:30). This result supported the results of the Wilson (1994a) survey where tertiary students agreed that information seeking and analysis were enjoyable exercises. Many
of the respondents elected (B), (I), (C), and (A) with 63.18% (N=127), 52.24% (N=105), 53.23% (N=107), and 49.25% (N=99) respectively. There were 36.82% (N=74) who selected (J), 17.91% (N=36) who selected (D) and 18.41% (N=37) who selected (E). Only 11.44% (N=23) selected (F), 10.95% (N=22) selected (G) and 6.97% (N=14) selected (H).

First year respondents selected (I) 71.19% (N=45), (B) 69.49% (N=42), and (A) with 62.71% (N=41). Each other year-level segment selected (B) as their most frequent response. Second, third, fourth year and postgraduates selected (B) with 56.86% (N=29), 66.67% (N=30), 60% (N=12), and 53.85% (N=14). Second and third responses varied with year-level segments. Second years selected (I) 49.02% (N=26) and (C) 35.29% (N=25). Third years selected (C) 57.78% (N=26) and (A) 40% (N=18). Fourth years selected (A) 45% (N=9) and (J) 35% (N=8). Postgraduates with (A) 50% (N=13), and (C) 46.15% (N=12).

Table 6.B2.1: Feelings about Provided Statements – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Enjoy</td>
<td>41</td>
<td>18</td>
<td>18</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>B.Comfort.</td>
<td>42</td>
<td>29</td>
<td>30</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>C.Satisfact.</td>
<td>37</td>
<td>25</td>
<td>26</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>D.Frustrat.</td>
<td>10</td>
<td>9</td>
<td>13</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>E.Others</td>
<td>8</td>
<td>11</td>
<td>14</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>F.Librari.</td>
<td>5</td>
<td>6</td>
<td>9</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>G.Do not</td>
<td>1</td>
<td>5</td>
<td>9</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>H.Postgrad.</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>I.Future</td>
<td>45</td>
<td>26</td>
<td>17</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>J.Quality</td>
<td>28</td>
<td>18</td>
<td>13</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

Four of the course segments selected (B) as their most frequent response with 60.81% (N=45) Bachelor of Teaching, 100% (N=6) Bachelor of Arts, 58.18% (N=32) Diploma of Ministries, and 64.29%
Bachelor of Education. (B) was the second most frequent response with (C) by Bachelor of Ministries with 80% (N=8), the most frequent response for this course was (A) with 90% (N=9) and their third response (I) 60% (N=6).

Second most frequent response for Bachelor of Teaching, Bachelor of Arts, and Diploma of Ministries was (C) with 58.11% (N=43), 66.67% (N=4), and 49.09% (N=27) respectively. Bachelor of Art and Diploma of Ministries also selected (A) at this rate. Bachelor of Arts also selected (I) at this level. Bachelor of Education selected (A) with 58.93% (N=33) then (I) with 57.14% (N=32).

Third most frequent response for Bachelor of Teaching and Diploma of Ministries was (I) with 37.84% (N=37) and 47.27% (N=26). Bachelor of Arts selected (J) with 50% (N=3) as their third most frequent response.

Table 6.B2.2: Feelings about Provided Statements – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Enjoy</td>
<td>28</td>
<td>4</td>
<td>9</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>B.Comfort.</td>
<td>45</td>
<td>6</td>
<td>8</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>C.Satisfact.</td>
<td>43</td>
<td>4</td>
<td>8</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>D.Frustrat.</td>
<td>11</td>
<td>1</td>
<td>—</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>E.Others</td>
<td>16</td>
<td>1</td>
<td>—</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>F.Librari.</td>
<td>10</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>G.Do not</td>
<td>11</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>H.Postgrad.</td>
<td>6</td>
<td>—</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>I.Future</td>
<td>37</td>
<td>4</td>
<td>6</td>
<td>26</td>
<td>32</td>
</tr>
<tr>
<td>J.Quality</td>
<td>34</td>
<td>3</td>
<td>5</td>
<td>11</td>
<td>21</td>
</tr>
</tbody>
</table>

The most frequent response with 63.18% was (B). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 41.82% between the highest and lowest response
on the most frequent response (B). Both segments had most frequent response spread over more than one option. Year-level segments also had four segments who selected (B).

Table 6.B2.3: Feelings about Provided Statements – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>Segment</th>
<th>Range</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B × 4</td>
<td>71.19% to 53.85%</td>
<td>17.34%</td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>Segment</th>
<th>Range</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B × 4</td>
<td>100% to 58.18%</td>
<td>41.82%</td>
</tr>
</tbody>
</table>

Statement B2.2: Library Use Motivation

Some educational psychologists, particularly Knowles (1990:18–20), believe that the major motivational factors driving students to seek information are external; that is, they are imposed by educators as part of an assignment or they are directed to perform certain tasks as a requirement of their course. Wilson (1994a) discovered that a major motivation for use of the library was not direction from lecturers. The overall response suggested that most students do not feel this a particularly important motivational factor. Use of Library for Assignments – examined whether the major motivation to use the library came from the need to complete assignments. This was a stronger motivational factor than direction from lecturers. Results from this statement (B2.2) were consistent with that of the Wilson (1994a) study.

The data collected indicated this to be the primary cause of library use (A) and while this is a lifelong learning and library
connection indicator it was followed with (C) by many respondents which indicated that many respondents were acknowledging internal motivations, an event stronger indicator.

The rationale behind people visiting libraries was found in Penland's (1979:170–179) causation statistics for lifelong learning were: Event planned 22.7%, Human planned 29%, Self-planned 25.3%, and Group planned 14.6%. Motivation for library use is an area that can connect the library with lifelong learning philosophies through determining reasons for learning. The questionnaire asked respondents which of the four provided motivational forces would describe why they use a library. These were:

A. Event planned – Library use because of events
B. Human planned – Library use because of other people
C. Self-planned – Library use because of personal choice
D. Group planned – Library use because of group influences

Respondents could indicate more than one response in each category and there were instances of this. In each year-level, library use was perceived as dictated by events, meaning that 90.05% (N=181) of respondents used the library because of outside circumstantial influences (A). There were 40.8% (N=82) who thought that their library use was partially or fully self-motivated (C). Peer issues only accounted for 4.48% (N=9) across each year-level with no recording for postgraduates (D). There were very few, only 2.49% (N=5), respondents who thought their library use was at the direction of others (B). No first or fourth year respondents thought this was relevant to them.
Table 6.B2.2.1: Library Use Motivation – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Event</td>
<td>55</td>
<td>48</td>
<td>38</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>B.Human</td>
<td>—</td>
<td>2</td>
<td>2</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>C.Self</td>
<td>20</td>
<td>18</td>
<td>17</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>D.Group</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>—</td>
</tr>
</tbody>
</table>

Results were consistent in this area with highest results, across all courses, being registered for Event Motivated (A) followed by Self Initiated (C).

Table 6.B2.2.2: Library Use Motivation – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Event</td>
<td>68</td>
<td>4</td>
<td>9</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>B. Human</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>C.Self</td>
<td>30</td>
<td>4</td>
<td>5</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>D.Group</td>
<td>3</td>
<td>—</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

The most frequent response with 90.05\% was (A). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 25.22\% between the highest and lowest response on the most frequent response. Course segmentation also had most frequent response spread over more than one option with one segment selecting (A&C). All Year-level segments selected the same response.

Table 6.B2.2.3: Library Use Motivation – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[ \text{A} \times 5 \ 94.12 \% \ \text{to} \ 84.44 \% \]

Deviation = 9.68 \%

Demographic Segmentation (Course) Response Range

\[ \text{A} \times 4 \ 91.89 \% \ \text{to} \ 66.67 \% \]

Deviation = 25.22 \%
Statement B2.3: Library Use in Spare Time: If you have spare time and visit the library what do you do

This next statement utilized the Characteristics and Features of Lifelong Learning (appendix 3), specifically “xiii. Exposure to broad areas of knowledge” (Dave 1973). It examined the library and information behaviours of respondents and asked them to consider their lifelong learning behaviours that related directly to information sources found in libraries.

A. Browse to see what is new
B. Browse the new journals
C. Read a journal or newspaper
D. Look for friends to talk with
E. Browse through the catalogue to become familiar with resources
F. Other (Please specify)

This statement endeavoured to indicate a growing inclination toward library use for lifelong learning throughout the time at College thus indicating an increasing acceptance of the library as a learning resource. Data identified this as not strongly being the case, with (D) the most popular across all year-levels with a total of 32.84% (N=66), followed closely with 28.36% (N=57) for (F) which was Other. The selection of (F) by many respondents indicated that there were many reasons for using the library during spare time. This would, however, indicate that the library was implicitly considered a social and cultural centre, key lifelong learning pursuits.

Under the title Other came several different divisions. Under Personal Reading also came Reading for Enjoyment, Reading for Pleasure,
Look for a Subject of Interest. Nil also included Don't Visit Library in Spare Time. Assignments included Assignment Research (N=1), Only if Looking for Something Specific (N=), Only Use if Necessary (N=1), Check for Relevant Books for Assignments (N=1), Read for Interest a Book that Relates to a Subject and Further Research (N=1). Personal included Read novel (N=1), Read Interesting Books (N=1), Personal Literature (N=1), Personal Reflection (N=1), Read Poetry Section (N=1), Look for Books for Son (N=1). Browse included Browse for Teaching Resources (N=1). Most popular added responses under the option (F) Other was Nil with 5.97% (N=12), Study with 7.46% (N=15), and Assignments with 5.97% (N=12). This was followed by (C) with 23.88% (N=48), (A) with 22.89% (N=46), (E) with 12.44% (N=25), and (B) with 6.97% (N=14) of the total respondents.

First, third, and fourth year respondents selected (D) as the most popular response with 38.98% (N=23), 35.56% (N=16), and 70% (N=14) respectively. First and third year respondents selected (F), Other as second most popular response with 32.2% (N=19) and 31.11% (N=14) respectively while fourth year selected (C) with 35% (N=7). (C) was also the second most popular response for second year respondents with 25.49% (N=13). The most popular response for second years was (F), Other, with 27.45% (N=14), this was also the most popular response for postgraduates with 38.46% (N=10). Second most popular response for second years was (C) with 25.49% (N=13) and for postgraduates was (D) with 23.08% (N=6).

Table 6.B2.3.1: Frequency of Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. New</td>
<td>14</td>
<td>12</td>
<td>10</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>B. Browse</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>C. Read</td>
<td>13</td>
<td>13</td>
<td>10</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>
Considered per course segmentation there was less consistency. Bachelor of Teaching respondents preferred (D) with 52.7% (N=39), followed by (A) with 22.97% (N=17) and (C) with 21.62% (N=16). Bachelor of Arts and Ministries selected (C) with 66.67% (N=4) and 30% (N=3) respectively. Second most popular for Arts was (F) Other with 50% (N=3) and (E) with 20% (N=2). Diploma of Ministries and Bachelor of Education preferred (F) Other with 43.64% (N=24) and 41.07% (N=23) respectively. Considering these optional replies 20% (N=11) of the Ministry respondents stated Nil while 17.86% (N=10) and 14.29% (N=8) of Bachelor of Education respondents stated Study and Assignments respectively.

Table 6.B2.3.2: Frequency of Library Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. New</td>
<td>17</td>
<td>1</td>
<td>—</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>B.Browse</td>
<td>3</td>
<td>—</td>
<td>1</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>C. Read</td>
<td>16</td>
<td>4</td>
<td>3</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>D.Friends</td>
<td>39</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>E.Catalogue</td>
<td>8</td>
<td>—</td>
<td>2</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>
The most frequent response with 32.84% was (D). Greatest deviation occurred when responses were considered by **Course segmentation** with most frequent responses divided between three options. Year-level segmentation had most frequent response spread over two options.

Table 6.B2.3.3: Frequency of Library Use – Percentages/Deviation

Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th></th>
<th>F × 2</th>
<th>D × 3</th>
</tr>
</thead>
</table>

Deviation = 2 Options

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th></th>
<th>F × 2</th>
<th>C × 2</th>
<th>D × 1</th>
</tr>
</thead>
</table>

Deviation = 3 Options

**Statement B2.4: Reason for Using the College Library**

This statement followed on from (B2.4) to determine how students viewed the library and whether this correlated to an explicit or implicit connection being drawn toward the library and its connection to lifelong learning. It supported statement (B2.2) and reflected external
motivations for library use, (A), (D) and (G), however, these were positive, strong learning-based motives.

The Processes in Lifelong Learning (Appendix 2) model proposes that individuals engage in a series of spiral learning projects involving elements including “i. A broadening and deepening of the skills of self-directed inquiry” (Knowles 1990:183). This statement examined whether the skills of self-directed inquiry increased with years at college, or were related to courses.

Reasons for library use were considered in the next question. Respondents were asked why they used the College Library. In addition to seven responses to select that enabled multiple responses, respondents could suggest other reasons for their library use. The primary additional responses were task oriented with “assignments” listed by 3.98% (N=8) and photocopying added by 1.49% (N=3) respondents and these could have legitimately come under one of the other headings that were:

A. Improve results
B. Get the minimum information required to pass
C. Meet friends
D. Further knowledge in a particular subject
E. Fill in time
F. Find information of personal interest
G. Study
H. Other (Please specify)

Highest preferences varied per year-level however, for all year-levels except the postgraduates section A, D, and G were most popular. First and third year students thought that they used the library primarily
to study, with 66.1% (N=39) first and 48.89% (N=22) third years. This was the second preference by second year respondents with 52.94% (N=27) slightly behind their first choice of Improving Results with 54.9% (N=28). The second preference for first and third year students was to Improve Results. First year students had 59.32% (N=35) and third year students had 44.44% (N=20). Fourth year students chose Improvement of Results as their first preference with 65% (N=13) followed by 55% (N=ll) wishing to Further a Particular Subject Area and 45% (N=9) to Study. The changing needs of Postgraduates produced responses that varied from all other years. Furthering Knowledge in a Specific Subject was the top response with 65.38% (N=17) and 57.69% (N=15) wishing to Improve Results. Postgraduates provided the highest result for the use of the library for Personal Interest with 42.31% (N=ll). It was hoped that a pattern of increasing choice of the library as a venue for finding information of Personal Interest and while there was an apparent slight increase throughout students' course duration. First year had 27.12% (N=16), second year had 27.45% (N=14), third year the exception with 22.22% (N=10), and fourth year with 35% (N=7).

Table 6.B2.4.1: Reason for Using the College Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Improve</td>
<td>35</td>
<td>28</td>
<td>20</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>B. Pass</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>C. Meet</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>D. Further</td>
<td>32</td>
<td>25</td>
<td>19</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>E. Fill</td>
<td>18</td>
<td>4</td>
<td>7</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>F. Personal</td>
<td>16</td>
<td>14</td>
<td>10</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>G. Study</td>
<td>39</td>
<td>27</td>
<td>22</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>H. Other</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Assignments</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Photocopy</td>
<td>—</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>—</td>
</tr>
</tbody>
</table>
Considering results per course showed similarities between Bachelors of Teaching and Ministries with 59.46% (N=44) and 80% (N=8) using the library to Improve Results. Bachelors of Art and Education both preferred to use the library to study with 83.33% (N=5) and 50% (N=28). Diploma of Ministries again demonstrated a different preference with 65.45% (N=36) wanting to Further Knowledge in a Particular Area.

Table 6.B2.4.2: Reason for Using the College Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Improve</td>
<td>44</td>
<td>3</td>
<td>8</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>B.Pass</td>
<td>17</td>
<td>—</td>
<td>1</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>C.Meet</td>
<td>9</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>D.Further</td>
<td>32</td>
<td>4</td>
<td>7</td>
<td>36</td>
<td>25</td>
</tr>
<tr>
<td>E.Fill</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>F.Personal</td>
<td>17</td>
<td>1</td>
<td>3</td>
<td>22</td>
<td>15</td>
</tr>
<tr>
<td>G.Study</td>
<td>43</td>
<td>5</td>
<td>6</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td>H.Other</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Assignments</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Photocopy</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

The most frequent response was (A&G). Greatest deviation occurred when responses were considered by Course segmentation with a total variance of 71.48% between the highest and lowest response on the most frequent responses. Course segmentation had most frequent response spread over more than one option. Year-level segments selected the same responses at different frequencies and with lesser deviation.

Table 6.B2.4.3: Reason for Using the College Library – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

$A \times 2 \ 65\% \ \text{to} \ 44.44\%$
Statement B2.5: Plan for Using the Library

This statement, similar to B2.2, and B2.4, examined issues of library use rationale in relation to motivation forces. The lifelong learning quality of these library behaviour routines was the issue with this statement. It was hoped that lifelong learning maturity becomes seen to be developing by increased responses to (A) with increased tertiary year-level, unfortunately this was not the case. Statement options were (A) maturing lifelong learning library skills, (B) elementary lifelong learning library skills:

A. Self-direction, thinking specifically for this piece of assessment and set a unique mental plan of action
B. Refer back to previous experiences and follow the same plan as you always do to find the information required
C. Other (Please specify)

The majority of respondents, 45.77% (N=92) selected (A), followed by 44.28% (N=89) who selected (B).

Year-level segmentation did not produce a clear picture with results close in every segment. First years, third years, and postgraduates preferred (B) with 38.98% (N=23), 51.11% (N=23), and 57.69%
(N=15) respectively. The second preference (B) being 37.29% (N=22), 42.22% (N=19), and 46.15% (N=12) respectively.

Second and fourth year respondents selected (A) with 56.86% (N=29) and 50% (N=10) respectively. This was followed by (B) for these groups with 39.22% (N=20) and 40% (N=8) respectively. The most frequently requested form of Other response (C) was Staff Assistance with 5.88% (N=3) second year responses and 2.99% (N=6) overall.

Table 6.B2.5.1: Plan for Using the Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Self</td>
<td>22</td>
<td>29</td>
<td>19</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>B. Refer</td>
<td>23</td>
<td>20</td>
<td>23</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>C. Other</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Staff Assist.</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Computer</td>
<td>1</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Combined</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Responses varied when considered per course segment with Bachelor of Teaching and Bachelor of Ministries being the only courses to prefer response (B) with 50% (N=37) and 40% (N=4) respectively. Second most popular preferences for these two courses were close with 45.95% (N=34) and 30% (N=3) respectively for (A).

Bachelor of Arts, Diploma of Ministries, and Bachelor of Education all narrowly preferred (A) with 50% (N=3), 43.64% (N=24), and 51.79% (N=29) respectively. This was followed by (B) with 30% (N=2), 32.73% (N=18), and 48.21% (N=27) respectively. Staff assistance, noted as an additional response (C) was listed by Bachelor of Teaching 1.35% (N=1), Diploma of Ministries 3.64% (N=2), and Bachelor of Education 5.36% (N=3).
Table 6.B2.5.2: Plan for Using the Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Self</td>
<td>34</td>
<td>3</td>
<td>3</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>B.Refer</td>
<td>37</td>
<td>2</td>
<td>4</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>C.Other</td>
<td>1</td>
<td>1</td>
<td>—</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Staff Assist.</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Computer</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Combined</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

The most frequent response with 45.77% was (A). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a total variance of 25.57% between the highest and lowest response on the most frequent responses. Year-level segmentation had most frequent response spread over more than one option. Course segments selected the same responses at different frequencies and with lesser deviation.

Table 6.B2.5.3: Plan for Using the Library – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- A × 2 56.86 % to 50 %
  Deviation = 6.86 %
  38.98 %
  Deviation = 18.71 %
  Total Deviation = 25.57 %

Demographic Segmentation (Course) Response Range

- A × 3 51.79 % to 43.64 %
  Deviation = 8.15 %
  40 %
  Deviation = 10 %
  Total Deviation = 18.15 %
Statement B2.6: When you finish this course do you think you will use a library to?

The data for this statement indicated that under the title Other comments included: Nil included Won't Use a Library Again (N=1), Rarely (N=1), Doubt will use a library again (N=2), and Probably Won't (N=1). This, however, reflected that a small percentage of respondents either did not consider themselves as lifelong learners or did not connect the library with lifelong learning. Other responses reflected the various aspects of lifelong learning related to library usage. These options were:

A. Maintain skills
B. Further or continued study
C. Meet friends
D. Encourage your students to grow into readers
E. Fill in time
F. Further your knowledge in a particular subject
G. Find information of personal interest
H. Other (Please specify)

The most frequently selected response was (F) with 56.22% (N=113) closely followed by (B) with 54.73% (N=110). A small gap was followed by third to fifth most popular responses, (G) with 37.31% (N=75), (D) with 31.84% (N=64), and (A) with 27.36% (N=55). Following a larger gap came (E) with 6.97% (N=14), (C) with 5.47% (N=11), and 4.48% (N=9) with Other (H). Nil was the most common answer under (H) with 3.98% (N=8).

Results for first year respondents varied from other year-level segments. The most frequent response for first years was (B) with
66.1% (N=39). Each other year-level demonstrated a preference for (E) ranging from 65.38% (N=17) for postgraduates, 60% (N=12) for fourth years, 53.33% (N=24) for third years, and 50.98% (N=26) for second years. (E) was the second highest preference for first years with 57.63% (N=34). Fourth years also selected (B) at 60% (N=12). (B) was the second highest preference by second and third years and postgraduates at 43.14% (N=22), 51.11% (N=23), and 53.85% (N=14) respectively. (C) was the second highest preference for fourth years with 50% (N=10). First and third years and postgraduates selected (G) as third highest preference with 45.76% (N=27), 40% (N=18), and 38.46% (N=10) respectively. Second years selected (A) as their third preference with 27.45% (N=14) while fourth years selected (G) with 35% (N=7).

These responses and preferences demonstrated that the importance of libraries is realized more as years at tertiary study proceed. Recognition of lifelong learning resources is developed through exposure to tertiary studies and libraries.

Table 6.B2.6.1: Library Use Following Graduation – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain</td>
<td>20</td>
<td>14</td>
<td>8</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Further</td>
<td>39</td>
<td>22</td>
<td>23</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Friends</td>
<td>2</td>
<td>—</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Encourage</td>
<td>21</td>
<td>11</td>
<td>15</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Fill</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Further</td>
<td>34</td>
<td>26</td>
<td>24</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>Personal</td>
<td>27</td>
<td>13</td>
<td>18</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Nil</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Familiarization with teaching resources</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
Results varied with course segmentation with Bachelors of Teaching and Education and Diploma of Ministries preferring (F) with 54.05% (N=40), 62.5% (N=35) and 54.55% (N=30) respectively. This was second preference for Bachelor of Ministries with 50% (N=5) with (B) as their highest preference with 60% (N=6). Bachelor of Arts students preferred (B) with 100% (N=6) followed by (G) with 66.67% (N=4) and (F) with 50% (N=3). Second preference for Bachelors of Teaching and Education and Diploma of Ministries were the same with each of these three courses selecting (B) with 52.7% (N=39), 53.57% (N=30), and 52.73% (N=29) respectively. Third preferences varied from (A) and (G) with 30% (N=3) from Bachelor of Ministries, (D) with 39.19% (N=29) Bachelor of Teaching, and (G) with 38.18% (N=21) Diploma of Ministries and 51.79% (N=29) Bachelor of Education.

Table 6.B2.6.2: Library Use Following Graduation – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Maintain</td>
<td>18</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>B.Further</td>
<td>39</td>
<td>6</td>
<td>6</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>C.Friends</td>
<td>5</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>D.Encourage</td>
<td>29</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>24</td>
</tr>
<tr>
<td>E.Fill</td>
<td>4</td>
<td>2</td>
<td>—</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>F.Further</td>
<td>40</td>
<td>3</td>
<td>5</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>G.Personal</td>
<td>18</td>
<td>4</td>
<td>3</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td>H.Other</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Nil</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Familiarization with teaching resources</td>
<td>—  —</td>
<td>—  —</td>
<td>—  —</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

The third ranked-response question of the first survey, designed to support the first ranked-response question, considered preferences for specific information sources. Results validated question one results with the most preferred information source being personal collections. Results indicated that the greatest deviation occurred through
demographic segmentation, specifically because of the diversity of support levels for the library as the preferred source of information.

The library service is an attempt by the College to provide students with access to information resources. Students have been dependent on the librarian for both retrieval and supply of needed materials and had no opportunities to explore topics for themselves. In the main, this is still true for most of them. It is a matter of debate whether students are aware of the role information seeking skills play in their development as adult independent learners, or whether they are aware of the library services offered to them.

The most frequent response with 56.22% was (F). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between two options. Year-level segmentation had most frequent response also spread over two options. Year-level segmentation demonstrated less deviation because it had four segments select the same option most frequently.

Table 6.B2.6.3: Library use Following Graduation – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>Segment</th>
<th>Range</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B × 1</td>
<td>66.1% to 43.14%</td>
<td>22.96%</td>
</tr>
<tr>
<td>E × 4</td>
<td>100% to 52.7%</td>
<td>47.3%</td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>Segment</th>
<th>Range</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B × 2</td>
<td>100% to 52.7%</td>
<td>47.3%</td>
</tr>
<tr>
<td>F × 3</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
Statement B2.7: Libraries should cater for student's

This next statement was related to the Characteristics and Features of Lifelong Learning (Appendix 3) which included “xvi. Dynamic approach – assimilation of new developments in knowledge and in means and media of communication from time to time” (Dave 1973). It discovered that respondents felt the library was a participant in the acquisition and development of lifelong learning skills. The response for option (E) was disappointing because it reflected that a percentage of respondents viewed the library as only a lifelong learning support mechanism, rather than a key player.

A. Acquisition of information seeking skills
B. Renewal of information seeking skills
C. Upgrading of information seeking skills
D. Development of information seeking skills
E. Provision of resources only
F. Other (Please specify)

There were 46.77% (N=94) of respondents selected (C) closely followed by (D) with 44.28% (N=89), (A) with 38.81% (N=78), (B) with 35.82% (N=72), and (E) with 33.83% (N=68). No respondents chose (F) Other.

When considered by year segmentation, first and fourth years and postgraduates selected (C) with 57.63% (N=34), 55% (N=11), and 46.15% (N=12) respectively. First and fourth years selected (A) as their second highest preference with 49.15% (N=29) and 50% (N=10) and (D) as their third with 47.46% (N=28) and 40% (N=8). First years also selected (B) as the third most frequent response with 47.46% (N=28) while this was the fourth highest response for fourth years.
Second years selected (D) with 45.1% (N=23) and third years selected (E) with 46.67% (N=21) as their highest responses. Second years selected (C) as their second most frequent response with 39.22% (N=23) and (A) as third with 33.33% (N=17) while third years were (D) 42.22% (N=19) and (C) 37.78% (N=17). Postgraduates selected (B), (D), and (E) with 42.31% (N=11) as second most frequent response followed by (A) with 30.77% (N=8).

Table 6.B2.7.1: Skills Libraries Should Cater For – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Acquisit.</td>
<td>29</td>
<td>17</td>
<td>14</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>B.Renewal</td>
<td>28</td>
<td>13</td>
<td>13</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>C.Upgrading</td>
<td>34</td>
<td>20</td>
<td>17</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>D.Develop.</td>
<td>28</td>
<td>23</td>
<td>19</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>E.Provision</td>
<td>14</td>
<td>16</td>
<td>21</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>F.Other</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

When considered per course segment results varied. Bachelors of Teaching and Education selected (C) with 41.89% (N=31) and 62.5% (N=35) respectively. Bachelor of Teaching also selected (E) at this rate. Second and third most frequent responses for these two courses were (D) at 39.19% (N=29) and 55.36% (N=31) and (A) at 35.14% (N=26) and 44.64% (N=25) respectively.

Bachelors of Arts and Ministry and Diploma of Ministries selected (D) as the most frequent response with 83.33% (N=5), 60% (N=6), and 50.91% (N=28). Bachelor of Arts selected (A), (B), and (E) as their second most frequent response with 33.33% (N=2) and (C) as third with 16.67% (N=1). Bachelor of Ministries selected (B) and (E) with 30% (N=3) followed by (A) and (C) with 20% (N=2). Diploma of Ministries selected (C) with 45.45% (N=25) second followed by (A) with 41.82% (N=23).
Table 6.B2.7.2: Skills Libraries Should Cater For – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Acquisit.</td>
<td>26</td>
<td>2</td>
<td>2</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>B.Renewal</td>
<td>22</td>
<td>2</td>
<td>3</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>C.Upgrading</td>
<td>31</td>
<td>1</td>
<td>2</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>D.Develop.</td>
<td>29</td>
<td>5</td>
<td>6</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>E.Provision</td>
<td>31</td>
<td>2</td>
<td>3</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>F.Other</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

The most frequent response with 46.77% was (C). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between three options. Year-level segmentation had most frequent response also spread over three options. Year-level segmentation demonstrated less deviation because it had three segments select the same option most frequently.

Table 6.B2.7.3: Skills Libraries Should Cater For – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>Demographic Segmentation (Year-level) Response Range</th>
<th>57.63 % to 37.78 %</th>
<th>37.78 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>C × 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deviation = 19.85 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deviation = 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Options</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>Demographic Segmentation (Course) Response Range</th>
<th>62.5 % to 16.67 %</th>
<th>16.67 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>C × 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deviation = 45.83 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D × 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deviation = 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Options</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.4 Skills Assessment (Focus C)

6.4.1 Skills Assessment and Library Use (Statement C1)

Statement C1.1: Do you believe you:

Statements were used that presented opposing views on respondents' dependence on others for their information needs and their attitudes to this dependence. In requesting the perceptions of respondents for this series of statements, respondents were asked to cross out the statements which were not personally applicable.

Data reflected honest responses and indicated that many respondents were aware of the contribution of the library to their further learning and how a better knowledge and skill base would facilitate this but that in reality, and somewhat expectedly, many would not willingly invest the time in their future learning experiences.

Statement C1.1A: Use the library to the full extent?

Results to this statement were clear with 61.19% (N=123) of respondents electing (B) with only 19.9% (N=40) choosing (A).

Each year-level selected (B) with ranges from 50% (N=13) postgraduates through 52.94% (N=27) second years, 55% (N=11) fourth years, 66.67% (N=30) third years to 71.19% (N=42) first years. Responses to (A) ranged from 15.56% (N=7) third years through 16.95% (N=10) first years, 19.23% (N=5) postgraduates, 20% (N=5) fourth years, and 25.49% (N=13) second years.

Table 6.C1.1A.1: Perceptions on Library Use Quantity – Raw numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>10</td>
<td>13</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

263
Each course segment also selected (B) ranging from 50% (N=5) Bachelor of Ministries, 50.91% (N=28) Diploma of Ministries, 66.07% (N=37) Bachelor of Education, 66.67% (N=4) Bachelor of Arts, to 83.05% (N=49) Bachelor of Teaching. Responses to (A) ranged from 17.86% (N=10) Bachelor of Education, through 20.34% (N=12) Bachelor of Teaching, 21.82% (N=12) Diploma of Ministries, 33.33% (N=2) Bachelor of Arts, to 40% (N=4) Bachelor of Ministries.

The most frequent response with 61.19% was (B). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 33.05% between the highest and lowest response on the most frequent response (B). All Year-level segments selected the same response (B) with a smaller percentage deviation.

Statement C1.1B: Know how to use the library properly?
Results to this statement were closer with 41.29% (N=83) selecting (A) and 39.8% (N=80) selecting (B).

Fourth years divided their responses evenly between (A) and (B) with 40% (N=8). First and second years responded with (B) 47.46% (N=28) and 41.18% (N=21) then (A) 40.68% (N=24) and 37.25% (N=19). Third years and postgraduates selected (A) 46.67% (N=21) and 42.31% (N=11) then (B) 35.56% (N=16) and 26.92% (N=7).

Table 6.C1.1B.1: Perceptions on Library Use Quality – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>24</td>
<td>19</td>
<td>21</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>B.No</td>
<td>28</td>
<td>21</td>
<td>16</td>
<td>8</td>
<td>7</td>
</tr>
</tbody>
</table>

Bachelor of Teaching, and Bachelor of Ministries selected (A) 44.59% (N=33) and 70% (N=7) then (B) with 37.84% (N=28) and 20% (N=2). Bachelor of Arts, Diploma of Ministries, and Bachelor of Education most frequently responded with (B) 66.67% (N=4), 40% (N=22), and 42.86% (N=24) then (A) 33.33% (N=2), 32.73% (N=18), and 41.07% (N=23).

Table 6.C1.1B.2: Perceptions on Library Use Quality – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>33</td>
<td>2</td>
<td>7</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>B.No</td>
<td>28</td>
<td>4</td>
<td>2</td>
<td>22</td>
<td>24</td>
</tr>
</tbody>
</table>

The most frequent response with 41.29% was (A). Greatest deviation occurred when responses were considered by Year-level segmentation with most frequent responses divided between three options. Course segmentation had most frequent response spread only over two options.
Table 6.C1.1B.3: Perceptions on Library Use Quality Percentages/ Deviation Results

Demographic Segmentation (Year-level) Response Range
- A × 2
- B × 2
- A&B × 1

Deviation = 3

Demographic Segmentation (Course) Response Range
- A × 2
- B × 3

Deviation = 2

Statement C1.1C: Benefit from library customer education?

Preference with this statement was clearer with 55.22% (N=111) of respondents selecting (A) and 25.87% (N=52) selecting (B).

Each year-level selected (A) ranging from 42.22% (N=19) third years, 53.85% (N=14) postgraduates, 58.82% (N=30) second years, 60% (N=12) fourth years, to 61.02% (N=36) first years. Responses to (B) ranged from 15.38% (N=4) postgraduates, 19.61% (N=10) second years, 20% (N=4) fourth years, 27.12% (N=16) first years, to 40% (N=18) third years.

Table 6.C1.1C.1: Perceptions on Benefit of Customer education – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>36</td>
<td>30</td>
<td>19</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>B.No</td>
<td>16</td>
<td>10</td>
<td>18</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Each course selected (A) ranging from 51.35% (N=38) Bachelor of Teaching, 52.73% (N=29) Diploma of Ministries, 58.93% (N=33) Bachelor of Education, 60% (N=6) Bachelor of Ministries, to 83.33%
Bachelor of Arts. Responses to (B) ranged from 16.67% (N=1) Bachelor of Arts, 20% (N=11) Diploma of Ministries, 25% (N=14) Bachelor of Education, 30% (N=3) Bachelor of Ministries, to 31.08% (N=23) Bachelor of Teaching.

Table 6.C1.1C.2: Perceptions on Benefit of Customer education – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Yes</td>
<td>38</td>
<td>5</td>
<td>6</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>B. No</td>
<td>23</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>14</td>
</tr>
</tbody>
</table>

The most frequent response with 52.22% was (A). Greatest deviation occurred when responses were considered by **Course segmentation** with a variance of 31.98% between the highest and lowest response on the most frequent response (A). All Year-level segments selected the same response (A) with a lesser variance.

Table 6.C1.1C.3: Perceptions on Benefit of Customer education – Percentages/Deviation Results

| Demographic Segmentation (Year-level) Response Range | A × 5 61.02 % to 42.22 % | Deviation = 18.80 % |
| Demographic Segmentation (Course) Response Range    | A × 5 83.33 % to 51.35 % | Deviation = 31.98 % |

**Statement C1.1D: Would attend a voluntary library customer education session?**

Results with this statement were close with 41.29% (N=83) choosing (B) and 39.3% (N=79) choosing (A).

First and second years selected (A) 44.07% (N=26) and 49.02% (N=25) then (B) with 42.37% (N=25) and 29.41% (N=15). Third,
fourth years and postgraduates selected (B) with 49.89% (N=22), 50% (N=10), and 42.31% (N=11) then (A) with 33.33% (N=15), 30% (N=6), and 26.92% (N=7).

Table 6.C1.1D.1: Expected Attendance at Customer education Sessions – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>26</td>
<td>25</td>
<td>15</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>B.No</td>
<td>25</td>
<td>15</td>
<td>22</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>

Bachelors of Teaching, Arts, Ministries, and Education each selected (B) with 41.89% (N=31), 66.67% (N=4), 60% (N=6), and 44.64% (N=25) followed by (A) with 40.54% (N=30), 16.67% (N=1), 30% (N=3), and 39.29% (N=22). Diploma of Ministries selected (A) 41.82% (N=23) then (B) 30.91% (N=17).

Table 6.C1.1D.2: Expected Attendance at Customer education Sessions – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>30</td>
<td>1</td>
<td>3</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>B.No</td>
<td>31</td>
<td>4</td>
<td>6</td>
<td>17</td>
<td>25</td>
</tr>
</tbody>
</table>

The most frequent response with 41.29% was (B). Greatest deviation occurred when responses were considered by Year-level segmentation because although with the most frequent response there was only a variance of 7.69% between the highest and lowest response on the most frequent response, responses were spread more widely over different options. Year-level segmentation had most frequent response spread over more than one option with three segments selecting (B) and two selecting (A). Course segments selected (B) most frequently with only one segment selecting a different response (A). Course segmentation, therefore, proved more consistent, and therefore, presented less deviation in results.
Table 6.C1.1D.3: Expected Attendance at Customer education Sessions – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>B × 3 50 % to 29.41 %</th>
<th>Deviation = 20.59 %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A × 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>B × 4 60% to 30.91%</th>
<th>Deviation = 29.09 %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A × 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Statement C1.2:** The most common problem you presently encounter in obtaining information is:

People can become ready to learn when they experience a need to learn a particular thing. It is learned in order to cope more satisfyingly with real-life tasks or problems. Learners see education as a process of developing increased competence and this was acknowledged with this statement (A). For an adult to benefit from a learning experience it often must build upon past experiences. It is important that the learning experience be problem- or task-oriented, becoming increasingly self-directed. Results were evenly spread with general cost-of-living issues receiving attention along with issues of knowledge. Previous experiences and current needs are reflected through responses.

A broad selection of responses was provided under the option “Other”. They generally involved issues of resources not being available. These were: Quantity included Availability (N=1), Information already taken (N=2), Lack of sufficient texts (N=1), Book being used by someone else (N=1), Book not on shelf (N=1), Availability of resources (N=4), No information (N=1), Theft (N=1), Not enough texts (N=1), and Resources not there (N=1). Provided response options were:
A. Knowing how to find the information needed  
B. Using library catalogues  
C. Using journal indexes  
D. Cost of photocopying articles  
E. Time involved in finding information  
F. Other (Please Specify)  

There were 45.27% (N=91) of respondents selected (D) ahead of 35.32% (N=71) who selected (A) and 33.83% (N=68) who selected (E). This was then followed by 23.38% (N=47) who selected (C) and 17.91% (N=36) who selected (B). There were 15.42% (N=31) who selected (F) Other, of these 13.93% (N=28) noted issues related to the Quantity of resources held.

(D) was the most frequent response by first, third and fourth years and postgraduates with 42.37% (N=25), 48.89% (N=22), 45% (N=9), and 46.15% (N=12) respectively. (D) was the second most frequent response of second years with 45.1% (N=23), their highest response was (A) with 49.02% (N=25) while their third was (E) with 29.41% (N=15). (E) was the second most frequent response by first and third years with 33.9% (N=20) and 40% (N=18) followed by (A) with 32.2% (N=19) and 26.67% (N=12) respectively. Fourth years and postgraduates selected (A) and (E) at the same rate with 35% (N=7) and 30.77% (N=8). Their third preferences varied, fourth years selected (C) with 30% (N=6) and postgraduates selected (B) and (F) with 19.23% (N=5). (F), as the choice for Other additional responses resulted with all five responses related to the issue of quantity of resources in the library.
Table 6.C1.2.1: Most Common Problem with Obtaining Information – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Knowing</td>
<td>19</td>
<td>25</td>
<td>12</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>B.Catalogue</td>
<td>14</td>
<td>9</td>
<td>6</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>C. Index</td>
<td>18</td>
<td>13</td>
<td>7</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>D.Cost</td>
<td>25</td>
<td>23</td>
<td>22</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>E.Time</td>
<td>20</td>
<td>15</td>
<td>18</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>F.Other</td>
<td>8</td>
<td>5</td>
<td>11</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Quantity</td>
<td>6</td>
<td>5</td>
<td>10</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Laziness</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Computer</td>
<td>1</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Each course demonstrated preferences toward (A) or (D). Bachelors of Teaching, Arts, Ministry, and Education selected (D) as their most frequent response with 55.41% (N=41), 50% (N=3), 40% (N=4), and 44.64% (N=25) respectively. Bachelors of Art and Education also selected (E) at the same rate. Diploma of Ministries selected (A) with 45.45% (N=25) and (D) as their second preference with 32.73% (N=18) followed by (E) with 30.91% (N=17). Bachelors of Teaching and Education selected (A) as their second preference with 33.78% (N=25) and 33.93% (N=19) followed by (C) with 31.08% (N=23) and 26.79% (N=15) respectively. Bachelor of Education also selected (B). Lower preferences for Bachelors of Art and Ministry included (A), (C), and (F) at 16.67% (N=1) for Arts and (E) and (F) for Ministries at 20% (N=2) and (A) at 10% (N=1). Neither of these two courses had any respondents to (B) and Ministries did not respond to (C).

Table 6.C1.2.2: Most Common Problem with Obtaining Information – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Knowing</td>
<td>25</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td>19</td>
</tr>
</tbody>
</table>
The most frequent response with 45.27% was (D). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between three options. Year-level segmentation had most frequent response spread over two options.

Table 6.C1.2.3: Most Common Problem with Obtaining Information Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[ D \times 4 \]
\[ A \times 1 \]

Deviation = 2
Options

Demographic Segmentation (Course) Response Range

\[ D \times 3 \]
\[ D&E \times 1 \]
\[ A \times 1 \]

Deviation = 3
Options

Statement C1.3: The most common problems you presently encounter in using information is:

Some adults have a desire to be independent and self-reliant. Adult learners enjoy the cognitive processes of locating, evaluating and analysing information sources. This enjoyment and satisfaction
found from seeking information are an indication of maturity and independence in information seeking. This personal satisfaction is an important motivating force in personal information seeking behaviour. The strength of this motivation was tested and indicated through the data gathered from this statement. Data indicated that students were motivated to get the most out of their library searches.

Under the option Other responses again included issues of quantity and availability: Quantity included Finding Available Resources (N=2), Missing Books (N=1), The Availability and Current Value (N=1), Book Not on Shelf (N=1), Resources not Held (N=1), Stolen Books (N=1), and Not enough resources (N=2).

A. Finding the best information in the book/journal
B. Using library catalogues
C. Selecting the most appropriate resource
D. Finding the resource in the library
E. Other (Please specify)

The most frequent response was (A) 43.78% (N=88), (C) with 37.31% (N=75) closely followed by (D) with 34.33% (N=69). After a gap there came (B) with 10.95% (N=22) and (E) with 6.97% (N=14). The most frequently added note under (E) Other came Quantity of Library Resources with 4.48% (N=9).

Opinions varied slightly with year-level segmentation. First, second and fourth year, and postgraduates selected (A) with 50.85% (N=30), 47.06% (N=24), 40% (N=8), and 53.85% (N=14) respectively. Second and third most frequent responses for first and second years were (C) with 45.76% (N=27) and 29.41% (N=15) followed by (D) with 33.9% (N=20) and 25.49% (N=13) respectively. Third years selected (C) and
(D) at the same rate, 42.22% (N=19) followed by (A) with 26.67% (N=12), then (B) and (E) at the much lower rate of 8.89% (N=4). Second most frequent response for fourth years was (C) at 30% (N=6) followed by (D) at 25% (N=5). This was the reverse for postgraduates with (D) at 46.15% (N=12) followed by (C) at 30.77% (N=8).

Table 6.C1.3.1: Most Common Problem with Using Information – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Inform.</td>
<td>30</td>
<td>24</td>
<td>12</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>B.Using</td>
<td>6</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>C.Selecting</td>
<td>27</td>
<td>15</td>
<td>19</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>D.Finding</td>
<td>20</td>
<td>13</td>
<td>19</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>E.Other</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Quantity</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Computer</td>
<td>1</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>CD-Rom</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Time Involv.</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Each course with the exception of Bachelor of Education selected (A) as the most frequent response, Bachelor of Teaching with 43.24% (N=32), Bachelor of Arts with 50% (N=3), Diploma of Ministries with 49.09% (N=27), and Bachelor of Ministries with 50% (N=5). Bachelor of Ministries also selected (C) at this rate. (C) was the highest preference for Bachelor of Education respondents with 44.64% (N=25), and second highest for Diploma of Ministries with 34.55% (N=19). Diploma of Ministries also selected (D) at this frequency. (D) was the second highest preference for Bachelors of Teachings, Arts, Ministry, and Education with 33.78% (N=25), 33.33% (N=2), 10% (N=1), and 39.29% (N=22) respectively. Third preference for Bachelor of Teaching was (C) with 32.43% (N=24), (B) for Diploma of Ministries with 18.18% (N=10), and (A) for Bachelor of Education with 37.5% (N=21).
Table 6.C1.3.2: Most Common Problem with Using Information – Raw numbers by Course Segmentation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Inform.</td>
<td>32</td>
<td>3</td>
<td>5</td>
<td>27</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>B.Using</td>
<td>7</td>
<td>—</td>
<td>—</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>C.Selecting</td>
<td>24</td>
<td>2</td>
<td>5</td>
<td>19</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>D.Finding</td>
<td>25</td>
<td>2</td>
<td>1</td>
<td>19</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>E.Other</td>
<td>7</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>5</td>
</tr>
<tr>
<td>Quantity</td>
<td>6</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>Computer</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Cd-Rom</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Time Involv.</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
</tbody>
</table>

The most frequent response with 43.78% was (A). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over two options.

Table 6.C1.3.3: Most Common Problem with Using Information – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- A × 4
- C&D × 1

Deviation = 2 Options

Demographic Segmentation (Course) Response Range

- A × 3
- A&C × 1
- C × 1

Deviation = 3 Options

Statement C1.4: Did using the library for this assessment help you develop your information skills in any of the following ways:
The Processes in Lifelong Learning (appendix 2) model proposes that the
process of lifelong learning consists of individuals engaging in
a series of spiral learning projects involving elements including “ii.
The diagnosis of learning needs”, “iii. Translation of these needs into
learning objectives”, and “iv. Identification of human and material
resources, including guided experiences, for accomplishing learning
objectives” (Knowles 1990:183). This areas were considered in the
next series of statements where students were asked to “On a 1 to 5
scale with 1 being seldom and 5 being frequently, please rank each
of the following statements:”

Statement C1.4A: Developing a knowledge of my personal
information needs, interests, concerns and abilities

Personal knowledge of lifelong learning variables facilitates successful
learning episodes. Perceptions varied, with many respondents feeling
that they agreed, but not strongly that this was an area of importance
to them.

The most popular response overall was 33.83% (N=68) who selected
the middle option, (C). Either side were smaller percentages with
12.94% (N=26) selecting (B), and 14.43% (N=29) selecting (4).
Second highest preference was (A) with 16.42% (N=33).

When considered per year-level 45.1% (N=23) second years, through
33.33% (N=15) third years, 30.77% (N=8) postgraduates, 28.81%
(N=17) first years, and 25% (N=5) fourth years selected (C).

Second highest preferences for first years was (A) with 18.64% (N=11),
second years selected (D) and (E) with 11.76% (N=6), third years (A)
with 22.22% (N=10), fourth years with (A) and (D) with 15%, and
postgraduates with (A) and (D) with 19.23% (N=5).
Table 6.C1.4A.1: Developing a knowledge of personal information needs, interests, concerns and abilities – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>11</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>B.2</td>
<td>9</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>17</td>
<td>23</td>
<td>15</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>D.4</td>
<td>9</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>E.5</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Results when considered by course segmentation produced a different result with Bachelor of Teaching and Diploma of Ministries preferring (C) with 43.24% (N=32) and 36.36% (N=20) respectively. Bachelor of Arts and Bachelor of Education preferred (A) with 50% (N=3) and 25% (N=14) respectively. Other selections by Bachelor of Education students were very close with 21.43% (N=12) selecting (C), 19.64% (N=11) selecting (D), and 16.07% (N=9) selecting (B). Bachelor of Ministries respondents selected (D) with 40% (N=4), followed by (B) and (C) with 20% (N=2).

Table 6.C1.4A.2: Developing a knowledge of personal information needs, interests, concerns and abilities – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>9</td>
<td>3</td>
<td>0</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>B.2</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>C.3</td>
<td>32</td>
<td>2</td>
<td>2</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>D.4</td>
<td>8</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>E.5</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

The most frequent response with 33.83% was (C). Greatest deviation occurred when responses were considered by Course segmentation with a variance of three options as opposed to one option selected by all Year-level segments who selected the same response (C).
Table 6.C1.4A.3: Developing a knowledge of personal information needs, interests, concerns and abilities – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[ C \times 5 \]

Deviation = 1
Option

Demographic Segmentation (Course) Response Range

\[ C \times 2 \]
\[ A \times 2 \]
\[ C \times 1 \]

Deviation = 3
Options

Statement C1.4B: Realizing how to learn through using a library because learning is experiential when I use the library

Libraries have been considered central to lifelong learning and to tertiary institutions. Data from this statement indicated that respondents generally supported the notion.

The majority of students selected (C) with 33.83% (N=68) followed by (B) with 20.9% (N=42). Considered per year-level (C) was also the most popular result ranging from 37.25% (N=19) second years, 34.62% (N=9) postgraduates, 33.9% (N=20) first years, 31.11% (N=14) second years, and 30% (N=6) fourth years. The second most popular response by first years was closely (B) with 28.81% (N=17). Second year respondents' second most popular response was (B) with 17.65% (N=9) closely followed by 15.69% (N=8). The second most popular response by third years was (B) with 22.22% (N=10) closely followed by (D) with 20% (N=9). Fourth year respondents chose (B) with 15% (N=3) closely followed by (A) and (D) with 10% (N=2). No fourth years selected (E). Postgraduates selected (A) with 26.92% (N=7) as the second most popular response.
Table 6.C1.4B.1: Realizing how to Learn Through Using a Library Because Learning is Experiential when using a Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>6</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>B.2</td>
<td>17</td>
<td>9</td>
<td>9</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>20</td>
<td>19</td>
<td>14</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>D.4</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>E.5</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Each course segment preferred (C), Bachelor of Ministries by a narrow margin but also selecting (B) with 30% (N=3) followed by (E) with 20% (N=2). Bachelor of Arts also selected (A) with 33.33% (N=2). Bachelor of Teaching at 37.84% (N=28), Diploma of Ministries with 34.55% (N=19), and Bachelor of Education by a narrower margin with 28.57% (N=16) followed by (B) with 25% (N=14).

Table 6.C1.4B.2: Realizing how to Learn Through Using a Library Because Learning is Experiential when using a Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>B.2</td>
<td>14</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>C.3</td>
<td>28</td>
<td>2</td>
<td>3</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>D.4</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>E.5</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

The most frequent response with 33.83% was (C). Greatest deviation occurred when responses were considered by Course segmentation with a variance of three options as opposed to one option selected by all Year-level segments who selected the same response (C).
Table 6.C1.4B.3: Realizing how to Learn Through Using a Library Because Learning is Experiential when using a Library – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[ C \times 5 \]

Deviation = 1
Option

Demographic Segmentation (Course) Response Range

\[ C \times 3 \]

\[ C\&A \times 1 \]

\[ C\&B \times 1 \]

Deviation = 3
Options

Statement C1.4C: Learning methods to suit my individual learning style are flexible when using a library

Lifelong learning utilizes the widest variety of learning styles. Data from this statement indicated that respondents agreed that the library connected with lifelong learning because many learning styles integrate with the library.

The majority of students selected (C) with 47.76% (N=96) clearly ahead of (B) with 17.41% (N=35).

Considered per year-level, each year selected (C) as the most popular response ranging from 50.85% (N=30) first years, 50% (N=13) postgraduates, 49.02% (N=25) second years, 44.44% (N=20) third years, and 40% (N=8) fourth years. Second most popular response by third years, first years, and second years was (B) with 22.22% (N=10), 20.34% (N=12), and 15.69% (N=8) respectively. Fourth years and postgraduates selected (A) as their second most frequent response with 15% (N=3) and 23.08% (N=6) respectively. No fourth years responded with a (B) or (E).
Table 6.C1.4C.1: Learning methods to suit my individual learning style are flexible when using a library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>B.2</td>
<td>12</td>
<td>8</td>
<td>10</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>C.3</td>
<td>30</td>
<td>25</td>
<td>20</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>D.4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>E.5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Results per course segment were just as decisive with all courses scoring (C) most frequently. Bachelor of Arts at 83.33% (N=5), Bachelor of Teaching 52.7% (N=39), Diploma of Ministries 45.45% (N=25), Bachelor of Education 41.07% (N=23), and Bachelor of Ministries 40% (N=4). Bachelors of Teaching, Arts, and Education all reflected (B) as the second most frequent response with 14.86% (N=11), 16.67% (N=1), and 23.21% (N=13) respectively. Diploma of Ministries recorded (B) and (A) at the same frequency with 14.55% (N=8) while Bachelor of Ministries recorded (A) as second most frequent response with 30% (N=3) closely followed by (B) with 20% (N=2).

Table 6.C1.4C.2: Learning methods to suit my individual learning style are flexible when using a library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>B.2</td>
<td>11</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>C.3</td>
<td>39</td>
<td>5</td>
<td>4</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>D.4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>E.5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

The most frequent response with 47.76% was (C). Greatest deviation occurred when responses were considered by Course segmentation.
with a variance of 43.33% between the highest and lowest response on
the most frequent response (C). All Year-level segments selected the
same response (C) at a lesser deviance.

Table 6.C1.4C.3: Learning methods to suit my individual learning style
are flexible when using a library – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

C × 5 50.85 % to 40 %
Deviation = 10.85 %

Demographic Segmentation (Course) Response Range

C × 5 83.33 % to 40 %
Deviation = 43.33 %

Statement C1.4D: Clear aims and objectives underpinning
programmes and targeting specific learning outcomes that help me
develop information literacy skills

Information literacy should be integrated into the tertiary curriculum
and should be acknowledged in aims and objectives. This, of the four
statements in this section, received the most positive results with the
majority of respondents agreeing, as per the earlier C4 statements.
However, for this statement the second most frequent response was
stronger agreement (D) where it was lesser agreement (B) with earlier
responses.

The most frequent response was (C) with 36.82% (N=74) followed by
(D) with 18.41% (N=37) and (B) with 15.92% (N=32).

Each year-level segment most frequently chose (C) ranging from
45.1% (N=23) second years, through 45% (N=9) fourth years, 34.62%
(N=9) postgraduates, 32.3% (N=19) first years, and 31.11% (N=14)
third years. Second and third most frequent responses were close
within year-levels but varied with year-level. First and fourth years
with (B) at 23.73% (N=14) and 10% (N=2) and (D) at 20.34% (N=12) and 5% (N=1) respectively. No fourth years and minimal first years responded with a (A) or (E). Second and third years and postgraduates responded (D) at 17.68% (N=9), 22.22% (N=10) and 19.23% (N=5) then (B) 11.76% (N=2), 17.78% (N=8), and 15.38% (N=4) respectively. Postgraduates also selected (A) as the second most frequent response with 19.23% (N=5).

Table 6.C1.4D.1: Clear Aims and Objectives Underpinning programmes and Targeting Specific Learning Outcomes that help Develop Information Literacy Skills – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>B.2</td>
<td>14</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>19</td>
<td>23</td>
<td>14</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>D.4</td>
<td>12</td>
<td>9</td>
<td>10</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>E.5</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

When considered per course results varied with Bachelor of Teaching, Diploma of Ministries, and Bachelor of Education the only courses that most frequently selected (C) for this question with 51.35% (N=38), 29.09% (N=16), and 33.93% (N=19) respectively. Diploma of Ministries and Bachelor of Education chose (D) as second most frequent response with 20% (N=11) and 25% (N=14) respectively while Bachelor of Teaching chose (B) with 13.51% (N=10) and then (D) with 10.81% (N=8).

Bachelor of Arts chose (D) with 33.33% (N=2) closely followed by all other options with 16.67% (N=1). Bachelor of Ministries chose (B) with 50% (N=5) followed by (D) with 20% (N=2). No Bachelor of Ministries respondents chose (E).
Table 6.C1.4D.2: Clear Aims and Objectives Underpinning programmes and Targeting Specific Learning Outcomes that help Develop Information Literacy Skills – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>B.2</td>
<td>10</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>C.3</td>
<td>38</td>
<td>1</td>
<td>1</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>D.4</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>E.5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

The most frequent response with 36.82% was (C). Greatest deviation occurred when responses were considered by **Course segmentation** with a variance of two options selected as opposed to Year-level segmentation which consistently chose (C).

Table 6.C1.4D.3: Clear Aims and Objectives Underpinning programmes and Targeting Specific Learning Outcomes that help Develop Information Literacy Skills – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- C × 5
  - Deviation = 1
  - Option

Demographic Segmentation (Course) Response Range

- C × 3
- D × 2
  - Deviation = 2
  - Options

**Statement C1.5:** If you did not choose to make full use of the library for your last piece of assessment, why did you not use the library?

This statement examined issues of library use and study behaviour. It was motivated by the Characteristics and Features of Lifelong
Learning (appendix 3) which included “ix. Emphasis on self-directed learning” (Dave 1973).

Data from this statement indicated an unwillingness to search widely and probably a general inclination towards recommended resources (B), reflecting a certain degree of lifelong learning immaturity.

Under the title Other concerns were mainly expressed regarding quantity of resources. This was the second most frequent response. Similar items have been grouped together. Nil also included Didn't Need To (N=3). Quantity here under Other included Lack of Resources (N=5), Material Not Available (N=1), No information available (N=2), and Not Enough Resources on Topic (N=7). Recommended included Overnight loans and reserved library use only (N=1). Provided options were:

A. Complexity of library services and procedures
B. Inadequate access to resources because someone always beats me to the best resources
C. It would have taken me too much time to find information
D. Not motivated to use the library
E. Too much information in the library, I did not know where to begin
F. Other

The most frequent response was (B) with 37.31% (N=75), followed by (F) with 20.9% (N=42), (C) with 15.92% (N=32), (D) with 9.45% (N=32), (A) with 8.96 (N=18), and (E) with 7.46% (N=15). Other (F) was the second most frequent response, of this opportunity to reply, two responses were most obvious, Own Resources with a total of 5.97% (N=12), and Quantity of Library Resources Held with 7.46% (N=15).
Each year-level, with the exception of first years, chose (B) most frequently. Third years at 53.33% (N=24), postgraduates at 38.46% (N=10), fourth years at 35% (N=7), and second years at 33.33% (N=17). First years selected (B) as their second most frequent response with 28.81% (N=17), (F) was their most frequent response with 30.51% (N=18). Second most frequent response for second, third and fourth years was (C) with 19.61% (N=10), 20% (N=9), and 25% (N=5) respectively. Postgraduates resulted with (F) as their second highest response with 26.92% (N=7).

Considering responses under (F) Other, first and second years, and postgraduates noted Own Resources consistently with 8.47% (N=5), 7.84% (N=4), and 7.69% (N=2) respectively and Quantity of Library Resource Held at 6.78% (N=4), 3.92% (N=2), and 7.69% (N=2) respectively. Third years also noted this response highly with 15.56% (N=7).

Table 6.C1.5.1: Reason for Non-Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Complex</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>B. Access</td>
<td>17</td>
<td>17</td>
<td>24</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>C. Time</td>
<td>6</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>D. Motivate</td>
<td>6</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>E. Quantity</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>F. Other</td>
<td>18</td>
<td>7</td>
<td>8</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Nil</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Own Resources</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Not required</td>
<td>—</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Quantity</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Other Libr.</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Recommended</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>More Staff</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>
Course segmentation presented similar results with Bachelor of Teaching, Diploma of Ministries, and Bachelor of Education selecting (B) with 44.59% (N=33), 30.91% (N=17), and 35.71% (N=20). Diploma of Ministries and Bachelor of Education had (F) as their second highest preference with 23.64% (N=13) and 26.79% (N=15) respectively. Under (F) Other, the most common responses by Diploma of Ministries and Bachelor of Education respondents were again Own Resources and Quantity of Library Resources. Bachelor of Teaching respondents listed (C) secondly with 17.57% (N=13). Bachelors of Arts and Ministries courses produced results scattered over two areas. Arts with 50% (N=3) for (B) and also for (F). All of the Arts respondents who chose (F) Other noted Own Resources. Bachelor of Ministries respondents selected (B) and (D) at 20% (N=2).

Table 6.C1.5.2: Reason for Non-Library Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Complex</td>
<td>9</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>B.Access</td>
<td>33</td>
<td>3</td>
<td>2</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>C.Time</td>
<td>13</td>
<td>—</td>
<td>—</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>D.Motivate</td>
<td>5</td>
<td>—</td>
<td>2</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>E.Quantity</td>
<td>6</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>F.Other</td>
<td>10</td>
<td>3</td>
<td>1</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Nil</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>Own</td>
<td>—</td>
<td>2</td>
<td>—</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Resources</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Not Required</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Quantity</td>
<td>6</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Other Libr.</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Recommended</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>More Staff</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

The most frequent response with 37.31% was (B). Greatest deviation occurred when responses were considered by Course segmentation.
with a variance of 24.59% between the highest and lowest response on the most frequent response (B). Course segmentation had most frequent response spread over more than one option. Year-level segments selected (B) less frequently with a lesser deviance.

Table 6.C1.5.3: Reason for Non-Library Use – Percentages/Deviation

Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>B × 4</th>
<th>53.33 % to 33.33 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation = 20 %</td>
<td></td>
</tr>
</tbody>
</table>

| F × 1 |

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>B × 3</th>
<th>44.59 % to 20 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation = 24.59 %</td>
<td></td>
</tr>
</tbody>
</table>

| B&F × 1 |

| B&D × 1 |

Statement C1.6: What form of library education do you believe would best suit your needs?

Recognizing the unique nature of personal information needs is an important part of adult learning. The data collected with this statement indicated that respondents generally recognized that their skill development needs may not be the same as the needs of other respondents (C,D&E). Responses that involved group (B&F) or classroom (A) activities were least popular. Few additional responses were received under the option Other (G), most responses came under the provided options:

A. Individual subject education programmes
B. General library workshops
C. “Self-help” library education packages
D. “How to” type leaflets
E. Individual assistance as needed
F. Library re-orientation programmes
G. Other (Please Specify)

The most popular response here was (E) with 41.29% (N=83), followed by (C) with 30.85% (N=62) and (D) with 30.35% (N=61), and (B) with 24.38% (N=49). Lower responses were (A) with 15.92% (N=32), (F) with 9.95% (N=20), and (G) with 3.48% (N=7). Responses here under (G) Other included 1.49% (N=3) who chose Computer issues, 2% (N=2) who chose CD-Rom issues, and .5% (N=1) who thought that there was no answer to meet their needs.

First, third, and fourth years and postgraduates selected (E) most frequently with 54.24% (N=32), 44.44% (N=20), 40% (N=8), and 34.62% (N=9) respectively. Third, fourth years and postgraduates followed this up with (C) 33.33% (N=15), 25% (N=5), and 30.77% (N=8). Third selections varied, third years with (D) 26.67% (N=12), fourth years with (B) and (D) with 20% (N=4), and postgraduates with (A) and (B) with 19.23% (N=5). Second and third most frequent responses for first years were (D) 40.68% (N=24) and (C) 32.2% (N=19).

Second years most frequently selected (B) and (D) with 33.33% (N=17) then (C) 29.41% (N=15) and (E) with 27.45% (N=14).

Table 6.C1.6.1: Preferred Customer education Format – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Indiv.</td>
<td>9</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>B. General</td>
<td>12</td>
<td>17</td>
<td>11</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>C. Packages</td>
<td>19</td>
<td>15</td>
<td>15</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>D. Leaflets</td>
<td>24</td>
<td>17</td>
<td>12</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Bachelor of Teaching most frequently preferred (C) 36.49% (N=27) followed by (E) 35.14% (N=26) and (D) with 27.03% (N=20).

Bachelor of Arts, Bachelor of Ministries, Diploma of Ministries, and Bachelor of Education each preferred (E) with 83.33% (N=5), 40% (N=4), 38.18% (N=21), and 48.21% (N=27). Second most frequent responses for Bachelor of Arts and Diploma of Ministries was (D) with 66.67% (N=4) and 30.91% (N=17). Bachelor of Arts then responded with 16.67% (N=1) to (B), (C), and (F) while Diploma of Ministries selected (B) and (C) with 29.09% (N=16) as their third most frequent response.

Bachelor of Ministries selected (C) as their second most frequent response with 30% (N=3) followed by (B) and (D) with 20% (N=2). Bachelor of Education respondents selected (D) 32.14% (N=18) as their second most frequent response followed by (B) and (C) with 26.79% (N=15).

Table 6.C1.6.2: Preferred Customer education Format – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Individ.</td>
<td>14</td>
<td>—</td>
<td>1</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>B.General</td>
<td>15</td>
<td>1</td>
<td>2</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>C.Packages</td>
<td>27</td>
<td>1</td>
<td>3</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>D.Leaflets</td>
<td>20</td>
<td>4</td>
<td>2</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>E.Individ.</td>
<td>26</td>
<td>5</td>
<td>4</td>
<td>21</td>
<td>27</td>
</tr>
</tbody>
</table>


The most frequent response with 41.29% was (E). Greatest deviation occurred when responses were considered by **Course segmentation** with a variance of 45.15% between the highest and lowest response on the most frequent response (E). Course segmentation had most frequent response spread over more than one option with one segment selecting (C). Four Year-level segments selected the same response (E) while one segment split their response between (B) and (D).

Table 6.C1.6.3: Preferred Customer education Format – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
\begin{align*}
E & \times 4 \quad 54.24 \% \quad \text{to} \quad 27.45 \% \\
\text{Deviation} & = 26.79 \%
\end{align*}
\]

Demographic Segmentation (Course) Response Range

\[
\begin{align*}
E & \times 4 \quad 83.33 \% \quad \text{to} \quad 35.14 \% \\
\text{Deviation} & = 48.19 \%
\end{align*}
\]

**Statement C1.7: Do you feel it is important for you to:**

Information literacy skills have been listed by Grapper & Styles (1993:102); ALA (1989); and Harrison (1993a). From these lists options for response to statement C7 were formed:

A. Understand nature of information society

B. Develop the information skills/knowing need – finding – evaluation – etc.
C. Develop high level communication skills through library use  
D. Be bibliographic literate  
E. Have a knowledge of information sources  
F. Develop media literacy  

Information literacy is the title given to the library connection to lifelong learning. Respondents demonstrated support and an understanding of the value of information literacy skill possession. Data collected indicated that the list of information literacy skills provided were all supported with fairly close ranging responses. Statement (E) was the only result to score more than 50% with 52.24% (N=105). All other options also scored highly with (B) 46.27% (N=93), (A) and (D) with 35.32 (N=71), (F) with 33.83% (N=68) and (C) with 30.35% (N=61).

Each year-level segment selected (E) ranging from 43.14% (N=22) second years, 45% (N=9) fourth years, 46.15% (N=12) postgraduates, 46.67% (N=21) third years, and 69.49% (N=41) first years. Fourth years selected (D) at this rate and second years also selected (B) at this rate. (B) was the second most frequent response for each other year-level segment, 66.1% (N=39) first years, 33.33% (N=15) third years, 40% (N=8) fourth years, and 34.62% (N=9) postgraduates. Second years selected (D) as their second most frequent response with 33.33% (N=17).

Third most frequent response was (A) for first, second, third and fourth years and postgraduates with 47.46% (N=28), 27.45% (N=14), 31.11% (N=14), 35% (N=7), and 30.77% (N=8) respectively. Third and fourth years also selected (F) at this rate while fourth years also selected (C) and postgraduates selected (D) at the same rate.
Table 6.C1.7.1: Perceptions of Important Issues – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Society</td>
<td>28</td>
<td>14</td>
<td>14</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>B. Skills</td>
<td>39</td>
<td>22</td>
<td>15</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>C. Commun.</td>
<td>25</td>
<td>12</td>
<td>12</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>D. Biblio</td>
<td>24</td>
<td>17</td>
<td>13</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>E. Knowledge</td>
<td>41</td>
<td>22</td>
<td>21</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>F. Media</td>
<td>26</td>
<td>12</td>
<td>14</td>
<td>7</td>
<td>9</td>
</tr>
</tbody>
</table>

Bachelor of Teaching, Bachelor of Ministries, Diploma of Ministries, and Bachelor of Education each selected (E) with 54.05% (N=40), 60% (N=6), 49.09% (N=27), and 53.57% (N=30). Bachelor of Ministries also responded to (B) at this rate while this was the second most frequent response by Bachelor of Teaching 45.95% (N=34), Diploma of Ministries 45.45% (N=25), and Bachelor of Education 41.07% (N=23). (A) was the second most frequent response for Bachelor of Ministries 50% (N=5) and the third most frequent response by Bachelor of Teaching 37.84% (N=28), and Bachelor of Education 39.29% (N=22). Third most frequent response by Diploma of Ministries was (D) 38.18% (N=21).

Bachelor of Arts respondents most frequently responded with (B) and (F) 83.33% (N=5), (E) 33.33% (N=2), then (A) and (C) with 16.67% (N=1).

Table 6.C1.7.2: Perceptions of Important Issues – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B. Teach</th>
<th>B. Arts</th>
<th>B. Min.</th>
<th>Dip. Min.</th>
<th>B. Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Society</td>
<td>28</td>
<td>1</td>
<td>5</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>B. Skills</td>
<td>34</td>
<td>5</td>
<td>6</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>C. Commun.</td>
<td>23</td>
<td>1</td>
<td>3</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>D. Biblio</td>
<td>27</td>
<td>—</td>
<td>3</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>E. Knowledge</td>
<td>40</td>
<td>2</td>
<td>6</td>
<td>27</td>
<td>30</td>
</tr>
</tbody>
</table>
The most frequent response with 52.24% was (E). Greatest deviation occurred when responses were considered by **Course segmentation** with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over one option.

### Table 6.C1.7.3: Perceptions of Important Issues Percentages/Deviation

**Results**

**Demographic Segmentation (Year-level) Response Range**

- E × 5  
  Deviation = 1  
  Option

**Demographic Segmentation (Course) Response Range**

- B × 1  
- B&E × 1  
- E × 3  
  Deviation = 3  
  Options

**Statement C1.8: The areas of development our library should integrate with are:**

One of the Characteristics and Features of Lifelong Learning (appendix 3) was “v. Vertical articulation: * Between different stages of learning. * Between different levels and subjects within a particular stage. * Between the roles assumed by the individual at different stages of life. * Between different aspects of development over time, such as physical, moral, intellectual” (Dave 1973). This statement sought opinions on the extent of library integration with three aspects of life:

A. Physical Skills of Information Gathering  
B. Moral
C. Intellectual

Data from this statement produced results that were predictable considering the tertiary level of the institution. There were 66.67% (N=134) of the total population selected (C), 53.73% (N=108) selected (B) and 40.3% (N=81) selected (A).

Each year-level selected (C) as the most frequent response ranging from 71.19% (N=42) first years, through 69.23% (N=18) postgraduates, 66.67% (N=30) third years, 62.75% (N=32) second years, and 60% (N=12) fourth years. Second most frequent response across all year-levels was (B) with percentages ranging from 64.44% (N=29) third years, through 55.93% (N=33) first years, 53.85% (N=14) postgraduates, 47.06% (N=24) second years, and 40% (N=8) fourth years. (A), across all year-levels rated third with 46.67% (N=21) third years, 46.15% (N=12) postgraduates, 40.68% (N=24) first years, 35% (N=7) fourth years, and 33.33% (N=17) second years.

Table 6.C1.8.1: Developmental Areas of Library Integration – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Physical</td>
<td>24</td>
<td>17</td>
<td>21</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>B. Moral</td>
<td>33</td>
<td>24</td>
<td>29</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>C. Intellect</td>
<td>42</td>
<td>32</td>
<td>30</td>
<td>12</td>
<td>18</td>
</tr>
</tbody>
</table>

Results were similar when considered per course segmentation with all courses selecting (C). Percentages ranged from 100% (N=6) Bachelor of Arts, 70% (N=52) Bachelor of Teaching, 66.07% (N=37) Bachelor of Education, and 60% (N=33) and (N=6) Diploma and Bachelor of Ministries respectively. Bachelor of Ministries also selected (B) at this same rate. Second highest ratings were (B) with 58.11% (N=43) Bachelor of Teaching, 55.36% (N=31) Bachelor of Education, 47.27% (N=26) Diploma of Ministries, and 33.33% (N=2) Bachelor of Arts.
Bachelor of Arts did not respond to (A) at all and with (B) and (C) being at the same rate for Bachelor of Ministries, (A) became their second highest with 40% (N=4). Bachelor of Teaching, Diploma of Ministries, and Bachelor of Education all rated (A) third with 51.35% (N=38), 41.07% (N=23), and 29.09% (N=16) respectively.

Table 6.C1.8.2: Developmental Areas of Library Integration – Raw Humbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Physical</td>
<td>38</td>
<td>—</td>
<td>4</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>B.Moral</td>
<td>43</td>
<td>2</td>
<td>6</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>C.Intellect</td>
<td>52</td>
<td>6</td>
<td>6</td>
<td>33</td>
<td>37</td>
</tr>
</tbody>
</table>

The most frequent response with 66.67% was (C). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 40% between the highest and lowest response on the most frequent response (C). All Year-level segments selected the same response (A) but with a lesser deviation.

Table 6.C1.8.3: Developmental Areas of Library – Integration Percentages/Deviation Results

<table>
<thead>
<tr>
<th>Demographic Segmentation (Year-level) Response Range</th>
<th>C × 5</th>
<th>71.19 % to 60 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation = 24.75 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic Segmentation (Course) Response Range</th>
<th>C × 5</th>
<th>100 % to 60 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation = 40 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.4.2 Skills Assessment Rationale or Perception (Statement C2)

The next section of the survey dealt with personal perceptions and evaluations of interconnected lifelong learning and library skills. It was motivated by the Processes in Lifelong Learning (appendix 2) model. This model proposes that the process of lifelong learning consists of
individuals engaging in a series of spiral learning projects involving elements including “vii. Evaluating the extent to which the objectives have been accomplished” (Knowles 1990:183).

**Statement C2.1: What skills would you expect to develop from the library?**

Characteristics and Features of Lifelong Learning (appendix 3) included “xi. Individualization of learning and evaluation” (Dave 1973). This statement utilized this characteristic to provide the following options for identification of information literacy skills respondents thought should be developed through the library:

A. Ability to locate and use information  
B. Preparation to use present-day technology  
C. Equal access to the marketplace of ideas and information  
D. The ability to communicate affectively  
E. Preparation to live in a multicultural world  
F. The desire to become lifelong learners  
G. Assist respondents explore all potential courses of inquiry  
H. Sensitivity to learners' need for self-esteem, autonomy, reassurance, and competence

Lifelong learning (F) finished high on the list of priorities selected by respondents. The most frequent response, however, was the most fundamental option, (A) which considered the basic skill of library use again indicating a strong interest in the immediate rather than interest in the development of more advanced skills to serve for a lifetime. The majority of respondents elected (A) with 68.16% (N=137). Next highest percentages were (B) 51.24% (N=103), (F) 41.79% (N=83), (C) 41.29% (N=83), then (D) and (G) with 33.83% (N=68). Lowest
percentages were recorded for (H) 31.34% (N=63) and (E) 29.35% (N=59).

Each year-level segment selected (A), then (B). First years with 81.36% (N=48) and 55.93% (N=33), second years with 58.82% (N=30), 49.02% (N=25), third years with 71.11% (N=32) and 48.89% (N=22), fourth years with 50% (N=10) and 40% (N=8), and postgraduates with 65.38% (N=17) and 57.69% (N=15).

Third most frequent responses were (C) for first, second years and postgraduates with 50.85% (N=30), 39.22% (N=20), and 46.15% (N=12). Postgraduates also selected (F) at this rate. Third and fourth years selected (F) with 44.44% (N=20) and 35% (N=7).

Table 6.C2.1: Skills Expected to be Developed by Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Ability</td>
<td>48</td>
<td>30</td>
<td>32</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>B.Prepare</td>
<td>33</td>
<td>25</td>
<td>22</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>C.Access</td>
<td>30</td>
<td>20</td>
<td>15</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>D.Communn.</td>
<td>19</td>
<td>18</td>
<td>15</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>E.Prepare</td>
<td>18</td>
<td>14</td>
<td>12</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>F.Desire</td>
<td>27</td>
<td>18</td>
<td>20</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>G.Assist</td>
<td>20</td>
<td>18</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>H.Sensitive</td>
<td>21</td>
<td>14</td>
<td>13</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Each course segment also selected (A) ranging from 63.64% (N=35) Diploma of Ministries through 66.22% (N=49) Bachelor of Teaching, 70% (N=7) Bachelor of Ministries, 73.21% (N=41) Bachelor of Education, and 83.33% (N=5) Bachelor of Arts. Bachelor of Teaching, Bachelor of Arts, Diploma of Ministries, and Bachelor of Education each selected (B) as second most frequent response with 52.7% (N=39), 33.33% (N=2), 52.73% (N=29), and 51.79% (N=29). Bachelor of Arts also selected (C) and (F) at this rate. Third most frequent
response for Bachelor of Teaching, and Diploma of Ministries was (C) with 37.84% (N=28) and 49.09% (N=27), Bachelor of Arts was (G) with 16.67% (N=1) and Bachelor of Education was (F) with 44.64% (N=25).

Bachelor of Ministries selected (C) and (G) as second most frequent response with 50% (N=5) and (B) and (F) with 40% (N=4).

Table 6.C2.2: Skills Expected to be Developed by Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Ability</td>
<td>49</td>
<td>5</td>
<td>7</td>
<td>35</td>
<td>41</td>
</tr>
<tr>
<td>B.Prepare</td>
<td>39</td>
<td>2</td>
<td>4</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>C.Access</td>
<td>28</td>
<td>2</td>
<td>5</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>D.Commun.</td>
<td>26</td>
<td>—</td>
<td>2</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>E.Prepare</td>
<td>26</td>
<td>—</td>
<td>2</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>F.Desire</td>
<td>26</td>
<td>2</td>
<td>4</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>G.Assist</td>
<td>27</td>
<td>1</td>
<td>5</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>H.Sensitive</td>
<td>25</td>
<td>—</td>
<td>2</td>
<td>16</td>
<td>20</td>
</tr>
</tbody>
</table>

The most frequent response with 68.16% was (A). Greatest deviation occurred when responses were considered by Year-level segmentation with a variance of 31.36% between the highest and lowest response on the most frequent response. All Year-level segments selected the same response, also (A), at a lesser deviation.

Table 6.C2.3: Skills Expected to be Developed by Library Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

A × 5 81.36 % to 50 %
Deviation = 31.36 %

Demographic Segmentation (Course) Response Range

A × 5 83.33 % to 63.64 %
Deviation = 19.69 %
Statement C2.2: How important is it to develop the physical skills associated with understanding how to use library equipment associated with the:

Students who lacked experience in the psychomotor skills of information seeking may fail to overcome elementary barriers to successful information seeking. This may lead to a loss of confidence and a reluctance to persist with information seeking. This has been found by previous studies to be a widespread and persistent library problem. But data from this statement indicates that students consider it important to obtain the skills necessary to use the physical information seeking instruments in the library. This indicated that students already possessed the motivation to use library equipment confidently providing an adequate starting point for further development.

This statement examine the importance of developing the physical skills associated with understanding how to use the equipment (terminals, keyboards, etc.) associated with:

A. The online library catalogue
B. The CD-ROM networks

There were 45.77% (N=92) of those who responded to this question selected (B) CD-Rom and 40.3% (N=81) who selected (A) Catalogue.

First and second years and postgraduates preferred (B) with 59.32% (N=35), 35.29% (N=18), and 38.46% (N=10) respectively followed by (A) with 45.76% (N=27), 29.41% (N=15), and 30.77% (N=8). Third and fourth years were the reverse of this with (A) at 53.33% (N=24) and 35% (N=7) followed by (B) with 51.11% (N=23) and 30% (N=6) respectively.
Table 6.C2.2.1: Physical Skills in Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Catalogue</td>
<td>27</td>
<td>15</td>
<td>24</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>B.CD-Rom</td>
<td>35</td>
<td>18</td>
<td>23</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>

Results varied with courses, Bachelors of Teaching and Education and Diploma of Ministries demonstrated a preference toward (B) with 47.3% (N=35), 53.57% (N=30), and 32.73% (N=18) with (A) at 47.3% (N=29), 48.21% (N=27) and 27.27% (N=15) respectively. Bachelor of Arts recorded 100% (N=6) (A) and 83.33% (N=5) (B) while Bachelor of Ministries recorded 40% (N=4) for both (A) and (B).

Table 6.C2.2.2: Physical Skills in Library Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Catalogue</td>
<td>29</td>
<td>6</td>
<td>4</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>B.CD-Rom</td>
<td>35</td>
<td>5</td>
<td>4</td>
<td>18</td>
<td>30</td>
</tr>
</tbody>
</table>

The most frequent response with 45.77% was (B). Greatest deviation occurred when responses were considered by Course segmentation and although there was only a variance of 20.84% between the highest and lowest response on the most frequent response (B) when Year-level segmentation had 24.03% (B). Course segmentation had most frequent response spread over more than one option with two other segments selected. Year-level segments selected only one other response.

Table 6.C2.2.3: Physical Skills in Library Use – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range
Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>Option</th>
<th>Response Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>B × 3</td>
<td>A × 2</td>
</tr>
</tbody>
</table>

Deviation = 2

Options

Statement C2.3: Personal Perceptions of Confidence and Ability

Lack of confidence amongst students can act as a barrier to affective information seeking behaviour. The next two statements looked at the confidence levels of the students from two different aspects; their level of confidence in asking for assistance when required (C2.3) and their confidence in their independent information seeking skills (C2.4). The respondents appeared confident about approaching library staff if they needed help, in contrast to the findings of earlier studies. This may indicate the success of library policies and procedures and the atmosphere of the college.

A. Diagnose my personal information requirements
B. Formulate my objectives in using the library
C. Identify human, material and experiential resources for accomplishing various learning objectives
D. Develop a strategy for affective use of resources
E. Systematically carry out a learning plan
F. Self evaluate my use of the library

Respondents identified with many of these feelings and elected more than one response. The most frequent responses were (A) with 57.71%
(N=116), (F) with 51.74% (N=104), (B) with 50.75% (N=102), and (D) with 50.25% (N=101). Not far behind these responses were (C) with 44.78% (N=90) and (E) with 42.29% (N=85).

Responses were spread closely throughout each of the six options with many respondents selecting more than one response. First years favouring (A) 69.49% (N=41), (B) and (F) 59.32% (N=35), and (D) 52.54% (N=31). Second years also preferring (A) 52.94% (N=27), then (D) and (F) 50.98% (N=26) and (B) 45.1% (N=23). Third years selecting (D) 53.33% (N=24), (A) and (F) 51.11% (N=23) then (B) 48.89% (N=22). Fourth years spreading their results between (A) and (D) with 50% (N=10) then (B), (C), (E), and (F) with 45% (N=9). Postgraduates selecting (A) 57.69% (N=15), (B) 50% (N=13), then (E) and (F) 42.31%

Table 6.C2.3.1: Feelings about Personal Abilities – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th></th>
<th>Year 1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Diagnose</td>
<td>41</td>
<td>27</td>
<td>23</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>B. Formulate</td>
<td>35</td>
<td>23</td>
<td>22</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>C. Identify</td>
<td>29</td>
<td>22</td>
<td>20</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>D. Develop</td>
<td>31</td>
<td>26</td>
<td>24</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>E. Plan</td>
<td>28</td>
<td>22</td>
<td>15</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>F. Evaluate</td>
<td>35</td>
<td>26</td>
<td>23</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

Results, considered by course segmentation were also mixed and close within courses. Bachelor of Teaching selecting (D) and (F) 59.46% (N=44) (A) 58.11% (N=43), then (B) with 56.76% (N=42). Bachelor of Arts preferring (A) 83.33% (N=5), (B) and (F) with 66.67% (N=4) and (D) with 50% (N=3). Bachelor of Ministries also selecting (A) 90% (N=9), then (C) and (F) with 70% (N=7) and (B) and (D) with 60% (N=6). Diploma of Ministries again selecting (A) 54.55% (N=30), then (B) 47.27% (N=26) and (D) 40% (N=22). Bachelor of
Education preferred (F) 53.57% (N=30), (A) 51.79% (N=29), and (D)
46.43% (N=26).

Table 6.C2.3.2: Feelings about Personal Abilities – Raw Numbers by
Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Diagnose</td>
<td>43</td>
<td>5</td>
<td>9</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>B.Formulate</td>
<td>42</td>
<td>4</td>
<td>6</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>C.Identify</td>
<td>40</td>
<td>2</td>
<td>7</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>D.Develop</td>
<td>44</td>
<td>3</td>
<td>6</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>E.Plan</td>
<td>40</td>
<td>2</td>
<td>4</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>F.Evaluate</td>
<td>44</td>
<td>4</td>
<td>7</td>
<td>19</td>
<td>30</td>
</tr>
</tbody>
</table>

The most frequent response with 57.71% was (A). Greatest deviation
occurred when responses were considered by **Course segmentation**
with a variance of 35.45% between the highest and lowest response on
the most frequent response (A). Both segments presented three options
as their most frequent responses. Year-level segments also selected (A)
most frequently but with a lesser deviation.

Table 6.C2.3.3: Feelings about Personal Abilities – Percentages/
Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>D</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A × 3</td>
<td>69.49 %</td>
</tr>
<tr>
<td></td>
<td>to</td>
</tr>
<tr>
<td>50 %</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deviation = 19.49 %</td>
</tr>
<tr>
<td>A&amp;D × 1</td>
<td></td>
</tr>
<tr>
<td>D × 1</td>
<td></td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>D</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A × 3</td>
<td>90 %</td>
</tr>
<tr>
<td></td>
<td>to</td>
</tr>
<tr>
<td>51.79 %</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Deviation = 38.21 %</td>
</tr>
<tr>
<td>D&amp;F × 1</td>
<td></td>
</tr>
<tr>
<td>F × 1</td>
<td></td>
</tr>
</tbody>
</table>

**Statement C2.4:** What skills do you feel becomes valuable for you
to develop to use at college and beyond. The skills of knowing:
The lifelong learning and library skills desired by respondents was the next issue of consideration. It was motivated by the Characteristics and Features of Lifelong Learning (Appendix 3) included xiv. Development of a learning society; an enlightened and enlightening society. Also learning to be and learning to become (Dave 1973). The specific areas under consideration were:

A. What information is available
B. How to evaluate the information I find
C. How to use the information
D. How to affectively deal with information

Data from this statement indicated the emphasis on immediate and elementary needs, a foundational lifelong learning skill. More advanced, but equally essential information literacy skills noted in (B), (C), and (D) all received strong support but at a lower rate. This indicated that a firm foundation of elementary skills and motivations existed upon which to build.

There was 61.19% (N=123) of respondents who selected (A). All other responses rated highly with percentages that were very close, (B) 49.75% (N=100), (D) 48.76% (N=98), and 47.76% (N=96).

Each year-level selected (A) most frequently ranging from 72.88% (N=43) first years, 65.38% (N=17) postgraduates, 60% (N=27) third years, 52.94% (N=27) second years, and 45% (N=9) fourth years. Lower preferences also received high response rates indicating that many respondents indicated all four options. First years selected (C) 66.1% (N=39), (B) 64.41% (N=38), then (D) 55.93% (N=33). Second years selected (B) 45.1% (N=23), (D) 43.14% (N=23), and (C) 33.33% (N=17). Third years preferred (D) 51.11% (N=23), (C) 43.14% (N=22), and (B) 44.44% (N=20). Fourth years selected (B)
and (D) with 40% (N=8) and (C) with 35% (N=7) while postgraduates selected (C) and (D) with 46.15% (N=12) then (B) 42.31% (N=11).

Table 6.C2.4.1: Skills of Knowing to be Developed – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Inform</td>
<td>43</td>
<td>27</td>
<td>27</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>B.Evaluate</td>
<td>38</td>
<td>23</td>
<td>20</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>C.Use</td>
<td>39</td>
<td>17</td>
<td>21</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>D.Affective</td>
<td>33</td>
<td>22</td>
<td>23</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

Responses considered per course segment demonstrated a preference for (A), Bachelor of Teaching with 56.76% (N=42), Bachelor of Arts with 83.33% (N=5), Diploma of Ministries with 60% (N=33), and Bachelor of Education with 67.86% (N=38). Bachelor of Arts also selected (B) at this rate. Bachelor of Ministries selected (B) with 80% (N=8).

Lower preferences varied with courses. Bachelor of Teaching selecting (C) and (D) with 47.3% (N=35) and (B) with 45.95% (N=34). Bachelor of Arts also selecting (D), 50% (N=3) then (C) 33.33% (N=2). Bachelor of Ministries selecting (C) 70% (N=7) then (A) and (D) with 60% (N=6). Diploma of Ministries with (D) 47.27% (N=26), (B) 43.64% (N=24), and (C) 40% (N=22). Bachelor of Education selecting (C) 53.57% (N=30), (B) 51.79% (N=29), and (D) 50% (N=28).

Table 6.C2.4.2: Skills of Knowing to be Developed – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Inform</td>
<td>42</td>
<td>5</td>
<td>6</td>
<td>33</td>
<td>38</td>
</tr>
<tr>
<td>B.Evaluate</td>
<td>34</td>
<td>5</td>
<td>8</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>C.Use</td>
<td>35</td>
<td>2</td>
<td>7</td>
<td>22</td>
<td>30</td>
</tr>
</tbody>
</table>
Table 6.C2.4.3: Skills of Knowing to be Developed – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range
- A × 5

Deviation = 1 Option

Demographic Segmentation (Course) Response Range
- A × 3
- A&B × 1
- B × 1

Deviation = 3 Options

Statement C2.5: Please think back to just prior to your enrolment at Collage. Please Indicate your level of confidence with reference to the following with 1 being not at all confident and 5 being very confident:

These next set of statements indicate Characteristics and Features of Lifelong Learning (appendix 3), specifically “xxi. Facilitates smooth change of life roles at different periods in the life-span” (Dave 1973).

Statement C2.5A.1: Familiarity with library procedures

Respondents were highly confident (E) with their level of familiarity with standard library procedures entering into their current studies. The majority of respondents selected (E) with 39.3% (N=79). All other
responses were spread fairly evenly over the other four responses with (A) and (D) receiving 14.93% (N=30), (C) receiving 13.43% (N=27) and (B) receiving 8.46% (N=17).

Most frequent response per year-level segments was (E) ranging from 55% (N=11) fourth years, 50.85% (N=30) first years, 40% (N=18) third years, 26.92% (N=7) postgraduates, and 25.49% (N=13) Second Years. Postgraduates also rated (A) at this level. Second preferences varied. First years selected (D) with 22.03% (N=13), second years selected (A) with 21.57% (N=11), third and fourth years selected (C) with 15.56% (N=7) and 15% (N=3), and postgraduates selected (B) with 15.38% (N=4). Third preferences were (A) for first and third years at 10.17% (N=6) and 13.33% (N=6), (C) for second years and postgraduates at 19.61% (N=10) and 11.54% (N=3). Postgraduates also selected (D) at this level. (D) was also the third most frequent response for fourth years with 10% (N=2) along with (B).

Table 6.C2.5A.1: Familiarity with Library Procedures – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>6</td>
<td>11</td>
<td>6</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>B.2</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>4</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>D.4</td>
<td>13</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>E.5</td>
<td>30</td>
<td>13</td>
<td>18</td>
<td>11</td>
<td>7</td>
</tr>
</tbody>
</table>

Course segments each selected (E) with ranges from 50% (N=3) Bachelor of Arts, 48.21% (N=27) Bachelor of Education, 43.24% (N=32) Bachelor of Teaching, 30% (N=3) Bachelor of Ministries, and 25.45% (N=14) Diploma of Ministries. Second most frequent response for Diploma of Ministries was (A) with 21.82% (N=12), for Bachelor of Education it was (D) with 16.07% (N=9), Bachelor of Teaching it was (C) with 17.57% (N=13). Third preferences for these courses also
varied with (A) and (D) at 10.81% (N=8) for Bachelor of Teaching, (D) at 16.36% (N=9) for Diploma of Ministries, and (A) for Bachelor of Education at 14.29% (N=8). Bachelor of Arts selected (D) as second highest preference with 33.33% (N=2) followed by (C) with 16.67% (N=1) while Bachelor of Ministries selected (A), (B), and (D) as lower preferences with 20% (N=2).

Table 6.C2.5A.2: Familiarity with Library Procedures – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dipl.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>C.3</td>
<td>13</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>E.5</td>
<td>32</td>
<td>3</td>
<td>3</td>
<td>14</td>
<td>27</td>
</tr>
</tbody>
</table>

The most frequent response with 39.3% was (E). Greatest deviation occurred when responses were considered by Year-level segmentation with a variance of 29.51% between the highest and lowest response on the most frequent response (E). All Year-level segments selected the same response (E) but with lesser deviation.

Table 6.C2.5A.3: Familiarity with Library Procedures – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
E \times 5 \ 55\% \ to \ 25.49\% \\
\text{Deviation} = 29.51\%
\]

Demographic Segmentation (Course) Response Range

\[
E \times 5 \ 50.33\% \ to \ 25.45\% \\
\text{Deviation} = 24.55\%
\]

Statement C2.5B: Familiar with library services

Respondents were not quite as confident when considering levels of familiarity with standard library services. This may be because the
services offered by different libraries may be perceived to vary to some extent. The slight highest response by respondents was (C) with 24.38% (N=49), this was followed by (A) with 20.9% (N=42), (B) with 16.42% (N=33), (E) with 15.92% (N=32), and (D) with 13.43% (N=27).

Highest preferences for first, second and third years were (C) with 25.42% (N=15), 29.41% (N=15, and 24.44% (N=11) respectively. Second and third years followed this with (A) at 25.49% (N=13) and 22.22% (N=10) respectively, third preferences were (B) for second years at 13.73% (N=7) and (D) for third years at 17.78% (N=8).

Most frequent response from fourth years was (E) with 40% (N=8) followed by (C) with 20% (N=4) then (B) with 15% (N=3). For postgraduates it was (A) with 30.77% (N=8) followed by (B) with 26.92% (N=7) followed by (C) with 15.38% (N=4). First years selected (D) as their second preference with 18.64% (N=11) followed by all other options, (A), (B) and (E) with 16.95% (N=10).

Table 6.C2.5B.1: Familiarity with Library Services – Raw Numbers by year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>10</td>
<td>13</td>
<td>10</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>B.2</td>
<td>10</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>C.3</td>
<td>15</td>
<td>15</td>
<td>11</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>E.5</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

Preferences were more diverse when considered by course segmentation. Bachelors of Teaching and Education selected (C) with 24.32% (N=18) and 26.79% (N=15) followed by (A) with 20.27% (N=15) and 21.43% (N=12). Third preferences for these two courses were each split two ways, Bachelor of Teaching with (B) and (E)
with 16.22% (N=12) and Bachelor of Education with (B) and (D) on 16.07% (N=9). Diploma of Ministries preferred (A) 23.64% (N=13), then (C) 21.82% (N=12) and (B) 16.36% (N=9). Bachelor of Arts selected (E) 50% (N=3), (C) 33.33% (N=2), and (B) 16.67% (N=1). There was no responses by this group against (A) and (D). Bachelor of Ministries spread their responses over (A), (B), (C) and (E) with 20% (N=2) and (D) with 10% (N=1).

Table 6.C2.5B.2: Familiarity with Library Services – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>15</td>
<td>0</td>
<td>2</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>B.2</td>
<td>12</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>C.3</td>
<td>18</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>E.5</td>
<td>12</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

The most frequent response with 24.38% was (C). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between four options. Year-level segmentation had most frequent response spread only over two options.

Table 6.C2.5B.3: Familiarity with Library Services – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>C × 3</th>
<th>A × 1</th>
<th>E × 1</th>
</tr>
</thead>
</table>

Deviation = 3
Options

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>C × 2</th>
<th>A × 1</th>
</tr>
</thead>
</table>
Statement C2.5C: Familiar with the types of library resources

Students perceived library resources to be generally standard across various types of libraries and thought confident that they were familiar with the types of resources held by a library. The majority of students were generally, when considering types of library resources, thought confident (C) with 28.36% (N=57), closely followed by (E) with 20.4% (N=41), (A) with 17.91%, (D) with 16.92% (N=34), and (B) with 7.46% (N=15).

Year segments one, two, and three selected (C) with 30.51% (N=18), 35.29% (N=18), and 24.44% (N=11). Fourth year selected (E) with 45% (N=9) followed by (C) and (D) with 20% (N=4) then (B) with 5% (N=1) while resulting with no responses for (A). Postgraduates selected (A) with 30.77% (N=8) followed by (C) at 23.08% (N=6) and (B) and (E) with 15.38% (N=4).

Second and third preferences for first, second, and third years varied with first years selecting (E) 22.03% (N=13) then (A) and (D) with 18.64% (N=11). Second years selected (A) with 21.57% (N=11) and (D) with 13.73% (N=7). Third years selected (D) and (E) with 22.22% (N=10) and (A) with 13.33% (N=6).

Table 6.C2.5C.1: Familiarity with Library Resource Types – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>11</td>
<td>11</td>
<td>6</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>B.2</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>
Responses varied with course segmentation. Bachelor of Teaching respondents selected (D) and (E) with 24.32% (N=18), (C) with 20.27% (N=15) and (A) with 13.51% (N=10). Bachelor of Arts selected (C) with 50% (N=3), (E) with 33.33% (N=2), and (D) with 16.67% (N=1). Bachelor of Ministries selected (A) and (C) with 30% (N=3), (E) with 20% (N=2), and (A) with 10% (N=1). Diploma of Ministries and Bachelor of Education selected (C) with 30.91% (N=17), and 33.93% (N=19). Bachelor of Ministries also selected (A) at this rate while Diploma of Ministries and Bachelor of Education selected (A) as their second preferences with 21.82% (N=12) and 19.64% (N=11). Bachelor of Education also rated (E) at this level while (E) was the third most frequent response for Diploma and Bachelor of Ministries with 14.55% (N=8) and 10% (N=2). Third response for Bachelor of Education was (D) with 16.07% (N=9).

Table 6.C2.5C.2: Familiarity with Library Resource Types – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>10</td>
<td>0</td>
<td>3</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>C.3</td>
<td>15</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>D.4</td>
<td>18</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>E.5</td>
<td>18</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>11</td>
</tr>
</tbody>
</table>

The most frequent response with 28.36% was (C). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 19.09% between the highest and lowest response on the most frequent response (C). Course segmentation also had most frequent response spread over more than one option. Year-level
segments also selected three responses with lesser deviation of the root frequent response (C).

Table 6.C2.5C.3: Familiarity with Library Resource Types Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>Response Range</th>
<th>Percent</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>C × 3</td>
<td>35.29 %</td>
<td>to 20 %</td>
</tr>
<tr>
<td>Deviation = 15.29 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E × 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>Response Range</th>
<th>Percent</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>C × 3</td>
<td>50 %</td>
<td>to 20.27 %</td>
</tr>
<tr>
<td>Deviation = 29.73 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;C × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D&amp;E × 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Statement C2.5D: I could search a library catalogue and find the things I need

Students thought that library catalogues were generally standard across various libraries by stating they were generally confident that they could use a catalogue to find information they required. The majority of respondents were confident (C) with 25.87% (N=52) followed by (E) with 19.9% <N=40), (A) and (D) with 15.42% (N=31), and (B) with 14.43% (N=29).

Results varied with year-levels but were close within each segment. First years frequently selected (C) 28.81% (N=17), closely followed by (E) 23.73% (N=14), and (D) 22.03% (N=13). Second years also selected (C) as their most frequent response, 35.29% (N=18) then (A) at 23.53% (N=12) followed by (B), (D), and (E) at 9.8% (N=5). Third and fourth years selected (E) at 22.22% (N=10) and 35% (N=7) as their most frequent response then (C) at 20% (N=9) and 20% (N=4). Fourth years also selected (B) at this rate. This being the third most
frequent response of third years, 17.78% (N=8). Third most frequent response for fourth years was (D) at 15% (N=3). Postgraduates most frequently selected (B), 26.92% (N=7), (A) 23.08% (N=6), then (C) and (E) at 15.38% (N=4).

Table 6.C2.5D.1: Ability to Search Library Catalogue – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>7</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>B.2</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>C.3</td>
<td>17</td>
<td>18</td>
<td>9</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>13</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>E.5</td>
<td>14</td>
<td>5</td>
<td>10</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>

Bachelor of Teaching and Diploma of Ministries selected (C) as their most frequent response with 25.68% (N=19) and 29.09% (N=16) while Bachelor of Arts selected (D) 50% (N=3) and Bachelor of Education selected (E) 23.21% (N=13). Bachelor of Ministries selected (C) and (E) with 30% (N=3). Minor preferences also varied with Bachelor of Teaching selected (E) 20.27% (N=15) and (B) 18.92% (N=14). Bachelor of Arts selected (C) 33.33% (N=2) and (A) 16.67% (N=1) with no responses for (A) or (B). Bachelor of Ministries selected (B) 20% (N=2) and (A) 10% (N=1) with no response for (D). Diploma of Ministries selected (A) 23.64% (N=13) and (E) 14.55% (N=8). Bachelor of Education selected (C) 21.43% (N=12) and (D) 19.64% (N=11).

Table 6.C2.5D.2: Ability to Search Library Catalogue – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>9</td>
<td>0</td>
<td>1</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>B.2</td>
<td>14</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>C.3</td>
<td>19</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>3</td>
<td>0</td>
<td>6</td>
<td>11</td>
</tr>
</tbody>
</table>
The most frequent response with 25.87% was (C). Greatest deviation occurred when responses were considered by **Year-level segmentation** with most frequent responses divided between four options. Course segmentation had most frequent response spread only over three options.

The most frequent response with 25.87% was (C). Greatest deviation occurred when responses were considered by **Year-level segmentation** with most frequent responses divided between four options. Course segmentation had most frequent response spread only over three options.

Table 6.C2.5D.3: Ability to Search Library Catalogue – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- C × 2
- B × 1
- B&E × 1
- E × 1

Deviation = 4 Options

Demographic Segmentation (Course) Response Range

- C × 3
- B × 1
- C&E × 1

Deviation = 3 Options

**Statement C2.5E: I understood how to use periodical indexes**

The use of periodicals, a more advanced use of library resources, indicates a more mature level of information literacy. Data indicated a complete lack of confidence (A) in this knowledge and skill area. This shows that motivation to develop in this area must be developed through proactive customer education. Promotion of periodicals must be integrated into curriculum areas.

Responses from this question were more spread with the majority selecting (A) with 37.81% (N=76) then (C) with 21.39% (N=43).
Following a further gap came (B) with 13.43% (N=27), (E) with 11.94% (N=24), and (D) with 6.47% (N=13).

First and second years and postgraduates most frequently selected (A), with 38.98% (N=23), 43.14% (N=22), and 50% (N=13). Third years selected (C) with 31.11% (N=14) and fourth years selected both (A) and (C) at the same rate, 30% (N=6).

First years then selected (E) 16.95% (N=10), then (C) 15.25% (N=9). Second years selected (C) 19.61% (N=10) followed by (B) 13.73% (N=7). Third years selected (A) 26.67% (N=12) then (B) 13.33% (N=6). Fourth years selected (B) and (E) at the same rate, 15% (N=3) but did not select (D) at all. Postgraduates selected (B) and (C), 15.38% (N=4) followed by (E) 7.69% (N=2).

Table 6.C2.5E.1: Understanding of Periodical Indexes – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>23</td>
<td>22</td>
<td>12</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>9</td>
<td>10</td>
<td>14</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>E.5</td>
<td>10</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Bachelor of Teaching, Diploma of Ministries, and Bachelor of Education selected (A) with 39.19% (N=29), 40% (N=22), and 37.5% (N=21). These were followed (C) with 22.97% (N=17), 16.36% (N=9), and 25% (N=14) respectively. Bachelor of Teaching and Diploma of Ministries then selected (B) with 17.57% (N=13) and 14.55% (N=8) while Bachelor of Education selected (D) and (E) at 12.5% (N=7).

Bachelor of Arts selected (A) and (B) most frequently with 33.33% (N=2) followed by (C) and (E) with 16.67% (N=1), no respondents
selected (B). Bachelor of Ministries selected (A), (B), (C) and (E) at 20% (N=2) and (D) with 10% (N=1).

Table 6.C2.5E.2: Understanding of Periodical Indexes – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>29</td>
<td>2</td>
<td>2</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>B.2</td>
<td>13</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>17</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>D.4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>E.5</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

The most frequent response with 37.81% was (A). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a variance of 11.02% between the highest and lowest response on the most frequent response (A). Year-level segmentation also had most frequent response spread over more than one option. Course segments were also spread three ways with (A) demonstrating a lesser deviation.

Table 6.C2.5E.3: Understanding of Periodical Indexes Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- A × 3 50 % to 26.67 %
  - Deviation = 23.33 %
- A&C × 1
- C × 1

Demographic Segmentation (Course) Response Range

- A × 3 40 % to 20 %
  - Deviation = 20 %
- A&B × 1
- A,B,C&E × 1

**Statement C2.5F: I understood how to use library technology**

An understanding of library technology, a lifelong learning skill of selecting a variety of information sources, indicates a more mature
level of information literacy. Data indicated a complete lack of confidence (A) in this knowledge and skill area. This shows that motivation to develop in this area must be developed through library customer education. Promotion of periodicals must be integrated into curriculum areas.

This statement was clearly selected as (A) with 47.26% (N=95) then a sizeable gap down to (C) with 17.91% (N=36), (B) with 10.95% (N=22), (E) with 8.96% (N=18), and (D) with 5.97% (N=12).

Each year-level selected (A) most frequently ranging from 35.59% (N=21) first years, 48.89% (N=22) third years, 50.98% (N=26) second years, 55% (N=11) fourth years, and 57.69% (N=15) postgraduates. Second highest preferences were, across each year-level segment, (C) with 13.33% (N=6) third years, 15.38% (N=4) postgraduates, 19.61% (N=10) second years, 20% (N=4) fourth years, and 20.34% (N=12) first years. Third years also selected (B) at this level. This was followed by (E) by first years with 15.25% (N=9), third years with 8.89% (N=4), and fourth years with 10% (N=2). Second years and postgraduates selected (B) with 11.76% (N=6) and 7.69% (N=2). Postgraduates also selected (D) at this rate.

Table 6.C2.5F.1: Understanding of Library Technology – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>21</td>
<td>26</td>
<td>22</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>C.3</td>
<td>12</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>E.5</td>
<td>9</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Bachelors of Teaching and Education, and Diploma of Ministries selected (A) 55.41% (N=41), 45.45% (N=25), 44.64% (N=25)
followed by (C) 13.51% (N=10), 21.82% (N=12), and 21.43% (N=12), then (B) with 10.81% (N=8), 7.27% (N=4), and 10.71% (N=6).

Bachelor of Arts respondents selected (D) with 33.33% (N=2) followed by (A), (B), (C), and (E) with 16.67% (N=1). Bachelor of Ministries selected (A) and (B) with 30% (N=3), (E) with 20% (N=2), (C) with 10% (N=1), and no response for (D).

Table 6.C2.5F.2: Understanding of Library Technology – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>41</td>
<td>1</td>
<td>3</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>B.2</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>C.3</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>D.4</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>E.5</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

The most frequent response with 46.77% was (C). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over one option.

Table 6.C2.5F.3: Understanding of Library Technology Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- $A \times 5 \ 57.69 \% \ \text{to} \ 35.59 \%$
  - Deviation = 22.1 %

Demographic Segmentation (Course) Response Range

- $A \times 3\ 55.41 \% \ \text{to} \ 16.67 \%$
  - Deviation = 38.74 %

- $A&B \times 1$
- $D \times 1$

Statement C2.5G: I was familiar with different types of printed reference tools, such as dictionaries and encyclopaedias
Unlike use of the periodical collection, use of reference resources is widely included in basic library use instruction from an early age. There have generally been more reference resources written specifically for juveniles to introduce dictionaries and encyclopaedias. These may be reasons for a more confident response from respondents. Confidence levels with this statement indicate that a small variety of resources were used but that this did need to be expanded.

Results were close with this statement, the majority selected (C) with 24.88% (N=50), very closely followed by (E) with 24.38% (N=49). All other statements received similar responses with (A) 15.42% (N=31), (B) 14.43% (N=29), and (D) with 11.94% (N=24).

Years one, three, and four selected (E) with 27.12% (N=16), 31.11% (N=14), and 35% (N=7). Fourth years also selected (C) at this rate. First and third years then selected (C) with 20.34% (N=12) and 15.56% (N=7) then (A) with 16.95% (N=10) and 13.33% (N=6). Third years also selected (B) at 15.56% (N=7) and (D) at 13.33% (N=6).

Second years demonstrated a clear preference toward (C) with 35.29% (N=18) followed by (B) with 15.69% (N=8) and (A) and (E) with 13.73% (N=7). Second preference by fourth year respondents was (B) with 10% (N=2) followed by (A) and (D) with 5% (N=1). Postgraduate preferences varied from other year-level segments with (A) as most frequent response with 26.92% (N=7) followed by (C) with 23.08% (N=6) and (E) with 19.23% (N=5).

Table 6.C2.5G.1: Familiarity with Types of Printed Reference – Tools Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>10</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>B.2</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Most frequent response by Diploma of Ministries was (C) with 32.73% (N=18), for Bachelor of Education it was (E) with 26.79% (N=20). Bachelor of Teaching selected both (C) and (E) with 27.03% (N=20). Second most frequent responses varied and were generally considerably lower. Bachelor of Teaching selected (B) with 14.86% (N=11) followed by (A) with 13.51% (N=10). Diploma of Ministries selected (E) with 16.36% (N=9) then (A) and (B) with 12.73% (N=7). Bachelor of Education selected (A) with 23.21% (N=13) followed by (C) with 19.64% (N=11).

Bachelor of Arts respondents selected (B) and (E) with 50% (N=3) and no responses for (A), (C) or (D). Bachelor of Ministries selected (D) with 40% (N=4) followed by (E) with 20% (N=2) then (A), (B) and (C) with 10% (N=1).

Table 6.C2.5G.2: Familiarity with Types of Printed Reference – Tools Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>B.2</td>
<td>11</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>C.3</td>
<td>20</td>
<td>0</td>
<td>1</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>D.4</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>E.5</td>
<td>20</td>
<td>3</td>
<td>2</td>
<td>9</td>
<td>15</td>
</tr>
</tbody>
</table>

The most frequent response with 24.88% was (C). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between five options. Year-level segmentation had most frequent response spread only over four options.
Table 6.C2.5G.3: Familiarity with Types of Printed Reference – Tools

Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>Options</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A × 1</td>
<td>4</td>
</tr>
<tr>
<td>C × 1</td>
<td></td>
</tr>
<tr>
<td>C&amp;E × 1</td>
<td></td>
</tr>
<tr>
<td>E × 2</td>
<td></td>
</tr>
</tbody>
</table>

Options

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>Options</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B&amp;E × 1</td>
<td>5</td>
</tr>
<tr>
<td>C × 1</td>
<td></td>
</tr>
<tr>
<td>C&amp;E × 1</td>
<td></td>
</tr>
<tr>
<td>D × 1</td>
<td></td>
</tr>
<tr>
<td>E × 1</td>
<td></td>
</tr>
</tbody>
</table>

Options

Statement C2.5H: I could locate both current and historical information on any topic that interests me

Motivation, confidence and use of a library to locate information for a specific purpose are lifelong learning characteristics. The majority of students selected (C), general confidence with 27.36% (N=55), 16.92% (N=34) of respondents selected (A), (B), and (D), followed by (E) with 12.94% (N=26). This demonstrated that few students entered college with high levels of confidence in their ability to locate specific information using a variety of sources. These skills will need to be developed during college years and can best be developed through integration into the curriculum.

Years one, two, three and four preferred (C) with 32.3% (N=19), 25.49% (N=13), 28.89% (N=13), and 30% (N=6). Second years also selected (A) at this same rate while (A) was the sole highest response from postgraduates with 26.92% (N=7).
Second and third most frequent responses varied between (B) and (D). First years selected (D) 18.64% (N=11) then (B) 16.95% (N=10). Second years selected (B) 15.69% (N=8) then (D) 11.76% (N=6). Third years selected (D) 22.22% (N=10) then (B) and (A) 13.33% (N=6). Postgraduates selected (B) 23.08% (N=6) and (D) 19.23% (N=5). The exception was fourth years with (E) 25% (N=5) and (B) 20% (N=4).

Table 6.C2.5H.1: Ability to Locate Current and Historical Information – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>7</td>
<td>13</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>B.2</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>C.3</td>
<td>19</td>
<td>13</td>
<td>13</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>6</td>
<td>10</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>E.5</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Bachelors of Teaching, Education, Arts, and Ministry most frequently selected (C) with 28.38% (N=21), 26.79% (N=15), 50% (N=3), and 30% (N=3). Bachelor of Ministries also selected (E) at this rate. Bachelors of Teaching and Arts selected (D) as their second most frequent response with 20.27% (N=15) and 33.33% (N=2) respectively. Bachelor of Teaching then selected (B) 20.27% (N=14), while Bachelor of Arts selected (E) 16.67% (N=1).

Diploma of Ministries selected (A) 25.45% (N=14) followed by (C) 23.64% (N=13) then (B) 14.55% (N=8). Lower preferences for Bachelor of Education were (B) 19.64% (N=11) then (A) and (D) 17.86% (N=10). Lower preference for Bachelor of Ministries were (A) 20% (N=2) and (B) 10% (N=1).
Table 6.C2.5H.2: Ability to Locate Current and Historical Information – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>B.2</td>
<td>14</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>C.3</td>
<td>21</td>
<td>3</td>
<td>3</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>D.4</td>
<td>15</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>E.5</td>
<td>10</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

The most frequent response with 27.36% was (C). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 23.21% between the highest and lowest response on the most frequent response. Course segmentation had most frequent response spread over more than one option. Year-level segments produced the same response spread with the most frequent result demonstrating a lesser deviation.

Table 6.C2.5H.3: Ability to Locate Current and Historical Information – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- C × 3 32.3 % to 15.38 %
  Deviation = 16.92 %
- A × 1
- A&C × 1

Demographic Segmentation (Course) Response Range

- C × 3 50 % to 23.64 %
  Deviation = 26.36 %
- C&E × 1
- A × 1

Statement C2.5I: Given a list of references, I could tell which becomes most useful

Analysis of the quality of references is a more advanced information literacy skill. The majority of students selected (C) with 33.83%
(N=68) demonstrating general confidence, closely followed by (A) with 17.91% (N=36), (B) with 14.93% (N=30), (D) with 14.43% (N=29), and (E) with 9.95% (N=20). Less frequent responses indicated that many students were not at all confident in their ability (A) and the minority of students were highly confident (E). This area will require considerable attention because it is an essential skill required following graduation in order to maintain professional knowledge.

Most frequent response for first, second, third, and fourth years was (C) 40.68% (N=24), 35.29% (N=18), 26.67% (N=12), and 45% (N=9). Postgraduates preferred (A) with 26.92% (N=7) followed by (B) 23.08% (N=6) and (C) 19.23% (N=5). Lower preferences for other years varied. First years selected (D) 18.64% (N=11) and (B) 16.95% (N=10). Second years selected (A) 27.45% (N=14), and (D) 11.76% (N=6) while third years selected (B) and (E) 17.78% (N=8) followed by (A) and (D) 13.33% (N=6). Fourth years selected (A) and (E) 15% (N=3) then (D) 10% (N=2).

Table 6.C2.5I.1: Ability to Assess Quality of References – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>6</td>
<td>14</td>
<td>6</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>B.2</td>
<td>10</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>C.3</td>
<td>24</td>
<td>18</td>
<td>12</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>E.5</td>
<td>5</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Each course segment selected (C) most frequently. Bachelors of Teaching, Arts, Ministry, and Education, and Diploma of Ministries selected (C) at different rates, 29.73% (N=22), 66.67% (N=4), 40% (N=4), 35.71% (N=20), and 32.73% (N=18).
Second preference for Bachelor of Teaching and Diploma of Ministries was (A) with 20.27% (N=15) and 20% (N=11), followed by (D) with 20.27% (N=14) and 16.36% (N=9) respectively.

Bachelor of Education selected (B) 19.64% (N=11) as their second preference followed by (E) 16.07% (N=9). Bachelor of Ministries selected (A) and (B) as their second preference with 20% (N=2) followed by (D) with 10% (N=1). The only lower preference for Bachelor of Arts was (D) and (E) with 16.67% (N=1).

Table 6.C2.5I.2: Ability to Assess Quality of References – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>15</td>
<td>0</td>
<td>2</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>B.2</td>
<td>11</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>C.3</td>
<td>22</td>
<td>4</td>
<td>4</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>D.4</td>
<td>14</td>
<td>1</td>
<td>1</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>E.5</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

The most frequent response with 33.83% was (C). Greatest deviation occurred when responses were considered by **Year-level segmentation** with most frequent responses divided between two options. Course segmentation had most frequent response spread only over one option.

Table 6.C2.5I.3: Ability to Assess Quality of References – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
\text{C} \times 4 \\
\text{A} \times 1
\]

Deviation = 2
Options

Demographic Segmentation (Course) Response Range

\[
\text{C} \times 5
\]

Deviation = 1
Option
Statement C2.5J: I could take information from various sources and apply it to solve a new problem

Use of a variety of sources to find information and solve a problem is a lifelong learning characteristic. The majority of respondents were confident in their ability selecting (C) with 35.82% (N=72). All others options received results that were similar with (A) 16.92% (N=34), (D) 14.93% (N=30), (B) 12.94% (N=26), and (E) 10.45% (N=10.45) not providing any firm basic for further analysis. It is hoped that this confidence level would increase during college years.

Years one, two, three, and four selected (C) with 42.37% (N=25), 41.18% (N=21), 33.33% (N=15), and 35% (N=7). Postgraduates selected (A) as their most frequent response with 34.62% (N=9) followed by (B) 23.08% (N=6) then (C) and (D) with 15.38% (N=4).

Lower preferences varied with year-level segmentation. First years selected (D) 18.64% (N=11) then (B) 10.17% (N=8). Second years selected (A) 19.61% (N=10) then (B) 11.76% (N=6). Third years selected (D) 17.78% (N=8) then (A) 15.56% (N=7). Fourth years selected (E) 20% (N=4) and (D) 15% (N=3).

Table 6.C2.5J.1: Ability to Access and Apply Information – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th></th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>6</td>
<td>10</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>B.2</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>C.3</td>
<td>25</td>
<td>21</td>
<td>15</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>E.5</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Bachelors of Teaching, Ministries, Education and Diploma of Ministries selected (C) as most frequent response with 39.19% (N=29),
30% (N=3), 37.5% (N=21) and 32.73% (N=18). Bachelor of Ministries also selected (B) at this rate. Bachelor of Arts most frequently selected (D) 50% (N=3) followed by (E) 33.33% (N=2), then 16.67% (N=1).

Second most frequent responses for Diploma and Bachelor of Ministries and Bachelor of Education was (A) with 18.18% (N=10), 20% (N=2) and 17.86% (N=10) respectively. Third highest response for Diploma of Ministries was (B) with 14.55% (N=8), Bachelor of Ministries (E) with 10% (N=1), and for Bachelor of Education it was (D) with 16.07% (N=9).

Second highest response from Bachelor of Teaching respondents was (D) 17.57% (N=13) then (A) 16.22% (N=12).

Table 6.C2.5J.2: Ability to Access and Apply Information – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>12</td>
<td>0</td>
<td>2</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>B.2</td>
<td>8</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>C.3</td>
<td>29</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>D.4</td>
<td>13</td>
<td>3</td>
<td>0</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>E.5</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

The most frequent response with 35.82% was (C). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over two options.

Table 6.C2.5J.3: Ability to Access and Apply Information – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

A × 1
Statement C2.6: Now at this stage of your course, please show whether you feel your levels of confidence have changed:

This set of statements were based on the Characteristics and Features of Lifelong Learning (appendix 3) which included “vii. allows the creation of alternative arrangements of structures for acquiring education” (Dave 1973).

Statement C2.6A: I am familiar with library procedures eg. borrowing

Respondents were highly confident (E) with their level of familiarity with standard library procedures during current studies. Impressively this was at a rate some twenty per cent higher than the perception of abilities entering into the campus (C2.5A). Lower responses varied from C2.5A in a positive way with considerably fewer responses for (B) and particularly for (A). This indicated developing confidence and movement towards confidence levels highly conducive to lifelong learning.

The clear majority of respondents selected (E) with 54.23% (N=109). Second and third most popular responses were (D) and (C) and received 16.42% (N=33) and 13.43% (N=27) respectively. This went down to 4.98% (N=10) for (B) and 1.99% (N=4) for (A).
Each year-level selected (E) with ranges from 65% (N=13) fourth years, down through 64.44% (N=29) third years, 62.71% (N=37) first years, 46.15% (N=12) postgraduates, down to 35.29% (N=18). Second and third most frequent responses were generally shared between (C) and (D) with second years selecting both at the same rate of 23.53% (N=12). Second years followed this with (B) with 3.92% (N=2). First years selected (D) 16.95% (N=10) also followed by (B) with 6.78% (N=4). Third years and postgraduates selected (D) 11.11% (N=5), 23.08% (N=6) then (C) 8.89% (N=4), 15.38% (N=4) while fourth years selected (C) 25% (N=5). There was no response for (A), (B), and (D) by fourth years or (A) for third years or postgraduates.

Table 6.C2.6A.1: Familiarity with Library Procedures – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>C.3</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>10</td>
<td>12</td>
<td>5</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>E.5</td>
<td>37</td>
<td>18</td>
<td>29</td>
<td>13</td>
<td>12</td>
</tr>
</tbody>
</table>

Each course segment selected (E) as their most frequent response ranging from 70% (N=7) Bachelor of Ministries, through 59.46% (N=44) Bachelor of Teaching, 58.93% (N=33) Bachelor of Education, 50% (N=3) Bachelor of Arts, to 40% (N=22) Diploma of Ministries. Second highest responses for all bachelor courses, Bachelors of Teaching, Arts, Ministry, and Education was (D) with 17.57% (N=13), 33.33% (N=2), 20% (N=2), and 12.5% (N=7). Second highest response for Diploma of Ministries was (C) with 21.82% (N=12), their third highest response was (D) with 16.36% (N=9). (C) was the third highest response for Bachelors of Teaching, Arts, and Education with 12.16% (N=9), 16.67% (N=1), and 8.93% (N=5). Bachelor of
Education respondents also selected (B) at this rate. There was no response by Bachelors of Teaching, Arts, or Ministry for (A), no response by Bachelors of Arts, or Ministry for (B) and no response by Bachelor of Ministries for (C).

Table 6.C2.6A.2: Familiarity with Library Procedures – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>B.2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>C.3</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>D.4</td>
<td>13</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>E.5</td>
<td>44</td>
<td>3</td>
<td>7</td>
<td>22</td>
<td>33</td>
</tr>
</tbody>
</table>

The most frequent response with 54.23% was (E). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 30% between the highest and lowest response on the most frequent response (E). All Year-level segments selected the same response (E) but with slightly lesser deviation.

Table 6.C2.6A.3: Familiarity with Library Procedures – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
E \times 5 \text{ 65 % to 35.29 %}
\]

Deviation = 29.71 %

Demographic Segmentation (Course) Response Range

\[
E \times 5 \text{ 70 % to 40 %}
\]

Deviation = 30 %

**Statement C2.6B: I am familiar with the services offered by libraries eg. interlibrary loans**

Respondents were not quite as confident when considering levels of familiarity with standard library services. Data, however, indicated a
slight increase in the highest response by respondents (C), again as in (C2.5B). Lower responses, while negatively followed by (A) and (B) in (C2.5B), were this time more positively followed by (E) and (D). This indicating that higher confidence levels are developing during time at college.

Responses for this statement were close with (C), (E), then (D) on 27.86% (N=56), 25.87% (N=52), and 21.89% (N=44) respectively. This was followed by (B) 9.45% (N=19) and (A) 5.97% (N=12).

Highest responses varied but were mainly within (C), (D), and (E). First years selected (C) and (E) 28.81% (N=17), (D) 18.64% (N=11) and (B) 18.6% (N=7). Second years selected (C) with 29.41% (N=15), (D) with 27.45% (N=14), then (E) with 13.73% (N=7). Third years selected (E) with 31.11% (N=14), (D) 24.44% (N=11), then (C) 22.22% (N=10). Fourth years also selected (E), with 40% (N=8) followed by (C) with 35% (N=7) followed by (A), (B), and (D) with 5% (N=1). Postgraduates selected (C) and (D) with 26.92% (N=7) followed by (E) 23.08% (N=6) and (B) with .38% (N=4). Postgraduates did not register anything for (A).

Table 6.C2.6B.1: Familiarity with the Services Offered by Libraries – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>17</td>
<td>15</td>
<td>10</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>14</td>
<td>11</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>E.5</td>
<td>17</td>
<td>7</td>
<td>14</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

Bachelors of Teaching, Arts, and Ministry selected (E) as their most frequent response with 31.08% (N=23), 50% (N=3), and 40% (N=4). Each of these three courses were followed by (C), with 24.32%
(N=18), 33.33% (N=2), and 20% (N=2). Bachelor of Ministries also selected (D) at this rate followed by (A) with 10% (N=1). Bachelors of Teaching and Arts selected (D) as their third most frequent response with 22.97% (N=17) and 16.67% (N=1).

Diploma of Ministries and Bachelor of Education selected (C) as their most frequent response with 30.91% (N=17) and 33.93% (N=19). (C) and (D) were second and third most frequent responses by these two courses. Diploma of Ministries selected (D) with 20% (N=11) and (E) 18.18% (N=10). Bachelor of Education selected (E) 21.43% (N=12) then (D) with 19.64% (N=11).

Table 6.C2.6B.2: Familiarity with the Services Offered by Libraries – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>C.3</td>
<td>18</td>
<td>2</td>
<td>2</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>D.4</td>
<td>17</td>
<td>1</td>
<td>2</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>E.5</td>
<td>23</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>12</td>
</tr>
</tbody>
</table>

The most frequent response with 27.86% was (C). Greatest deviation occurred when responses were considered by Year-level segmentation with most frequent responses divided between four options. Course segmentation had most frequent response spread only over three options.

Table 6.C2.6B.3: Familiarity with the Services Offered by Libraries – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- C × 1
- C&D × 1
- C&E × 1
Statement C2.6C: I am familiar with the types of resources held by libraries, eg. videos

Data indicated substantial increases in the information literacy skills confidence in the area of knowledge of a variety of sources for required information. The most frequent response moved from (C) confident (C2.5C), to (E) highly confident and at a rate of more than ten per cent higher. Lower responses were varied in (C2.5C) but data from (C2.6C) reflected more confident responses with lower responses reflecting confidence. Considerably lower percentages were evident for the two lowest responses (B) and (A) receiving less that ten per cent. This indicates the positive affect of tertiary library interaction on this lifelong learning skill.

The majority of respondents selected (E) with 34.83% (N=70). Second and third responses were close, (C) and (D) with 22.89% (N=46) and 20.4% (N=41). Fourth and fifth responses, (B) and (A), were more removed with 8.46% (N=17) and 5.47% (N=11).

First, third, fourth years and postgraduates selected (E) as their most frequent response with 33.9% (N=20), 40% (N=18), 45% (N=9), and 46.15% (N=12) while second years selected (C) 27.45% (N=14). Second and third most frequent responses varied between year-level
segments. First years selected (C) 25.42% (N=15) then (D) 22.03% (N=13) while second years selected (D) 25.49% (N=13) and (E) 21.57% (N=11). Third years selected (D) 22.22% (N=10) and (C) with 15.56% (N=7) and fourth years selected (C) 30% (N=6) and (B) with 10% (N=2). Postgraduates selected (B) with 19.23% (N=5) followed by (C) and (D) with 15.38% (N=4).

Table 6.C2.6C.1: Familiarity with the Types of Resources held by Libraries – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>C.3</td>
<td>15</td>
<td>14</td>
<td>7</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>13</td>
<td>13</td>
<td>10</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>E.5</td>
<td>20</td>
<td>11</td>
<td>18</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>

Bachelors of Teaching and Ministries selected the same three preferences with (E) 45.95% (N=34) and 40% (N=4), then (C) 21.62% (N=16) and 30% (N=3), and 16.22% (N=12) and 20% (N=2). Bachelor of Arts respondents selected (C), (D) and (E) at the same rate of 33.33% (N=2) but did not respond to (A) or (B). Bachelor of Ministries also did not respond to (A) or (B).

Diploma of Ministries selected (C) and (E) as their most frequent response with 25.45% (N=14) followed by (D) with 14.55% (N=8) and (B) 10.91% (N=6). Bachelor of Education respondents selected (E) 28.57% (N=16) then (D) 25% (N=14) and (C) with 19.64% (N=11).

Table 6.C2.6C.2: Familiarity with the Types of Resources held by Libraries – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
The most frequent response with 34.83% was (E). Greatest deviation occurred when responses were considered by **Course segmentation** with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over two options.

Table 6.C2.6C.3: Familiarity with the Types of Resources held by Libraries – Percentages/Deviation Results

<table>
<thead>
<tr>
<th>Demographic Segmentation (Year-level) Response Range</th>
<th>Options</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>C × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E × 4</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic Segmentation (Course) Response Range</th>
<th>Options</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;E × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C,D&amp;E × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E × 3</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Statement C2.6D: I can search a library catalogue and find the things I need**

Data indicated that student perceptions of the information literacy skills had improved during their time at college. The majority of respondents in (C2.5D) were confident (C), this increased to highly confident (E) in (C2.6D) with an increased rate. Lower responses were scattered between high and low confidence levels in (C2.5D) but were
generally high in (C2.6D) with the lowest two responses, those of low confidence levels (B) and (A) each receiving less than ten per cent. This reflected the increase in information literacy skills throughout time at college.

The most popular response was (E) with 30.85% (N=62) followed by (C) with 25.37% (N=51), and (D) with 21.39% (N=43). The lower responses were (B) with 8.46% (N=17) and (A) with 4.98% (N=10).

First, third and fourth year respondents selected (E) with 35.59% (N=21), 33.33% (N=15), and 45% (N=9) respectively followed by (C) with 27.12% (N=16), 33.33% (N=10), and 25% (N=5). Third years also selected (D) at this rate. (D) was the third choice for first and fourth years with 22.03% (N=13) and 10% (N=2) respectively. Fourth years also selected (B) at this rate.

Second years selected (C) 29.41% (N=15), (E) 21.57% (N=11), and (D) with 19.61% (N=10). Postgraduates selected (D) with 30.77% (N=8), (E) 23.08% (N=6) then (C) 19.23% (N=5).

Table 6.C2.6D.1: Ability to Search a Library Catalogue and Find the Things Needed – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>C.3</td>
<td>16</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>D.4</td>
<td>13</td>
<td>10</td>
<td>10</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>E.5</td>
<td>21</td>
<td>11</td>
<td>15</td>
<td>9</td>
<td>6</td>
</tr>
</tbody>
</table>

Results varied with course segmentation. Bachelor of Teaching selected (E) 37.84% (N=28), (C) 21.62% (N=16), and (D) 20.27% (N=15). Diploma of Ministries selected (C) 29.09% (N=16), (E) 21.82% (N=12) then (D) 18.18% (N=10). Bachelor of Education also
selected (C) as their most frequent response with 28.57% (N=16), they also selected (E) at this rate. They followed this with (D) 21.43% (N=12).

Bachelor of Arts selected (D) with 66.67% (N=4) followed by (C) and (E) with 16.67% (N=1). Bachelor of Ministries selected (E) with 50% (N=5) and (C) and (D) with 20% (N=2). Neither of these two courses selected either (A) or (B).

Table 6.C2.6D.2: Ability to Search a Library Catalogue and Find the Things Needed – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>C.3</td>
<td>16</td>
<td>1</td>
<td>2</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>D.4</td>
<td>15</td>
<td>4</td>
<td>2</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>E.5</td>
<td>28</td>
<td>1</td>
<td>5</td>
<td>12</td>
<td>16</td>
</tr>
</tbody>
</table>

The most frequent response with 30.85% was (E). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between four options. Year-level segmentation had most frequent response spread only over three options.

Table 6.C2.6D.3: Ability to Search a Library Catalogue and Find the Things Needed – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- C × 1
- D × 1
- E × 3

Deviation = 3 Options
Statement C2.6E: I understand how to use periodical indexes

The use of periodicals, a more advanced use of library resources, indicates a more mature level of information literacy. Data indicated a growing level of confidence increasing from a lack of confidence (A) registered in (C2.5E) prior to enrolment up to confident (C) in this knowledge and skill area during studies. This shows developing motivation and confidence in this area developed through marketing and customer education at college. Lower responses from this question indicated a lack of confidence that would need to be developed further.

The most popular response was (C) with 25.87% (N=52). Other responses were all very close with (A) 17.41% (N=35), then (B) 16.92% (N=34), (E) 15.92% (N=32), and (D) 14.93% (N=30).

Second, third and fourth years respondents selected (C) as their most frequent response with 25.49% (N=13), 31.11% (N=14), and 45% (N=9). Their second responses varied. Second years with (A) and (B) 25.39% (N=10) and (E) 15.69% (N=8). Third years with (D) 22.22% (N=10) and (E) 13.33% (N=6). Fourth years with (A) 20% (N=4) and (E) 15% (N=3).

First years selected (B) as their most frequent response with 22.03% (N=13) followed by (C) and (E) with 20.34% (N=12) and (A) 16.95% (N=10). Postgraduates selected (A) and (D) with 23.08% (N=6) followed by (B) with 19.23% (N=5) and (C) with 15.38% (N=4).
Table 6.C2.6E.1: Understanding of how to use Periodical Indexes – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>B.2</td>
<td>13</td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>C.3</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>9</td>
<td>4</td>
<td>10</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>E.5</td>
<td>12</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Bachelors of Teaching, Ministry, and Education selected (C) most frequently with 27.03% (N=20), 40% (N=4), and 28.57% (N=16). Bachelors of Teaching and Education then selected (B) and (D) with 17.57% (N=13) and 19.64% (N=11). This was followed by (A) with 14.86% (N=11) and 14.29% (N=8). Bachelor of Teachings also selected (E) at this rate. Second most frequent response by Bachelor of Ministries was (E) with 20% (N=2) followed by (A), (B), and (D) with 10% (N=1).

Bachelor of Arts selected (D) and (E) as most frequent response with 33.33% (N=2) followed by (A) and (B) with 16.67% (N=1) with no response for (C). Diploma of Ministries selected (A) 25.45% (N=14) followed by (C) with 21.82% (N=3) then (E) 18.18% (N=10).

Table 6.C2.6E.2: Understanding of how to use Periodical Indexes – Raw numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>B.2</td>
<td>13</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>C.3</td>
<td>20</td>
<td>0</td>
<td>4</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>D.4</td>
<td>13</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>E.5</td>
<td>11</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>

The most frequent response with 25.87% was (C). Greatest deviation occurred when responses were considered by **Course segmentation** with a variance of 40% between the highest and lowest response on
the most frequent response (C), selected by three Course segments. Course segmentation also had most frequent response spread over more than one option with segments selecting (A) and (D&E). Three Year-level segments selected (C) with lesser deviation and segments selecting (B) and (A&D).

Table 6.C2.6E.3: Understanding of how to use Periodical Indexes – Percentages/Deviation Results

<table>
<thead>
<tr>
<th>Demographic Segmentation (Year-level) Response Range</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C × 3</td>
<td>45 %</td>
<td>to</td>
</tr>
<tr>
<td></td>
<td>15.38 %</td>
<td>Deviation = 29.62 %</td>
</tr>
<tr>
<td>B × 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;D × 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic Segmentation (Course) Response Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>C × 3</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Deviation</td>
</tr>
<tr>
<td>A × 1</td>
</tr>
<tr>
<td>D&amp;E × 1</td>
</tr>
</tbody>
</table>

**Statement C2.6F: I understand how to use library technology eg. CD-ROM**

A lifelong learning skill of selecting to use a variety of information sources, understanding library technology, indicates a more mature level of information literacy. Data indicated a growing level of confidence in information technologies by the greatly reduced percentage of students selecting (A) in this knowledge and skill area. This shows that motivation to develop in this area is being developed through marketing and customer education but still needs to be developed further because the percentage of respondents selecting (C) increased only slightly.

The first two responses were close with (A) then (C) at 26.87% (N=54) and 25.37% (N=51). The lower three responses were closer
with (B) 14.43% (N=29), (D) 12.44% (N=25), and (E) 11.94% (N=24).

First and second years selected (C) with 23.73% (N=14) and 35.29% (N=18) followed by (A) with 20.34% (N=12) and 35.29% (N=11). First years also selected (E) at this rate. Third most frequent response for first years was (D) with 16.95% (N=10) while it was (B) for second years with 13.73% (N=7).

Third and fourth years and postgraduates selected (A) with 37.78% (N=17), 30% (N=6) and 30.77% (N=8) respectively. Fourth years also selected (C) at this rate. Third years selected (B) and (C) 15.56% (N=7) followed by (D) with 11.11% (N=5) as second and third most frequent responses. Fourth years selected (E) 15% (N=3) followed by (B) 10% (N=2) as lower preferences. Postgraduates selected (C) 23.081 (N=6) followed by (B) 19.23% (N=5) as lower preferences.

**Table 6.C2.6F.1: Understanding of how to use Library Technology – Raw Numbers by Year-level Segmentation**

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>12</td>
<td>11</td>
<td>17</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>B.2</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>C.3</td>
<td>14</td>
<td>18</td>
<td>7</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>D.4</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>E.5</td>
<td>12</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

Bachelors of Teaching and Education selected (A) 29.73% (N=22) and 26.79% (N=15) followed by (C) with 24.32% (N=18) and 21.43% (N=12) then (B) with 14.86% (N=11) and 19.64% (N=11). Bachelor of Teaching also selected (E) at this rate.

Diploma of Ministries preferred (C) with 34.55% (N=19) then (A) 27.27% (N=15) and (B) and (D) 9.09% (N=5). Bachelor of Arts
selected (D) with 50% (N=3) then (B), (C) and (E) with 16.67% (N=1). Bachelor of Ministries selected (D) with 30% (N=3), then (A) and (E) with 20% (N=2) and (B) and (C) with 10% (N=1).

Table 6.C2.6F.2: Understanding of how to use Periodical Indexes – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>22</td>
<td>0</td>
<td>2</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>B.2</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>C.3</td>
<td>18</td>
<td>1</td>
<td>1</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>D.4</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>E.5</td>
<td>11</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

The most frequent response with 26.87% was (A). Greatest deviation occurred when responses were considered by **Course segmentation** with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over two options.

Table 6.C2.6F.3: Understanding of how to use Periodical Indexes – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

$\text{A } \times 3$

$\text{C } \times 2$

Deviation = 2 options

Demographic Segmentation (Course) Response Range

$\text{A } \times 2$

$\text{C } \times 1$

$\text{D } \times 2$

Deviation = 3 options

**Statement C2.6G:** I am familiar with different types of printed reference tools, such as dictionaries and encyclopaedias
Respondents perceived confidence (C) in their ability to use lower-level library resources prior to enrolment (C2.5G) this increased to high levels of confidence (E) during studies. Results were not as close as experienced in (C2.5G). Options reflecting higher confidence levels received higher response percentages indicating the level of growth since commencing at college.

The majority of respondents selected (E) with 35.32% (N=71) then (C) with 25.37% (N=51). Lower responses were (D) with 15.92% (N=32), (B) with 11.44% (N=23) and (A) with 2.99% (N=6).

First, third, fourth years and postgraduates all selected (E) as their most frequent response with 38.98% (N=23), 35.56% (N=16), 50% (N=10), and 38.46% (N=10) respectively. Second years selected (C) 31.37% (N=16) as their most frequent response.

Third, fourth years and postgraduates selected (C) as second most frequent response with 26.67% (N=12), 25% (N=5) and 26.92% (N=7) respectively. Third years then selected (D) with 15.56% (N=7), fourth years selected (B) 10% (N=2) and postgraduates selected (B) with 15.38% (N=4).

First years selected (D) 22.03% (N=13) as their second most frequent response followed by (C) 18.64% (N=11). Second years selected (E) 23.53% (N=12) then (D) 19.61% (N=10).

Table 6.C2.6G.1: Familiarity with Different Types of Printed Reference Tools – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>B.2</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>11</td>
<td>16</td>
<td>12</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>
Bachelors of Teaching, Arts, Ministry, and Education all elected (E) as their most frequent response with 41.89% (N=31), 50% (N=3), 50% (N=5), and 35.71% (N=20). Bachelor of Arts also noted (D) at this frequency while the most frequent response by Diploma of Ministries was (C) with 29.09% (N=16).

Second and third most frequent response by Bachelors of Teaching and Arts was (C) 27.03% (N=20) and 30% (N=3) and (D) 14.86% (N=11) and 10% (N=1). Diploma of Ministries elected (E) with 21.82% (N=12) as second most frequent response followed by (D) 16.36% (N=9). Bachelor of Education also selected (C) as second most frequent response with 21.43% (N=12) and then (B) with 17.86% (N=10).

Table 6.C2.6G.2: Familiarity with Different Types of Printed Reference Tools – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>B.2</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>C.3</td>
<td>20</td>
<td>0</td>
<td>3</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>3</td>
<td>1</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>E.5</td>
<td>31</td>
<td>3</td>
<td>5</td>
<td>12</td>
<td>20</td>
</tr>
</tbody>
</table>

The most frequent response with 35.32% was (E). Greatest deviation occurred when responses were considered by **Course segmentation** with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over two options.
Table 6.C2.6G.3: Familiarity with Different Types of Printed Reference Tools – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>4</td>
</tr>
</tbody>
</table>

Deviation = 2 options

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>D&amp;E</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>3</td>
</tr>
</tbody>
</table>

Deviation = 3 options

Statement C2.6H: I can locate both current and historical information on any topic that interests me

Motivation, confidence and use of a library to locate information for a specific purpose is a lifelong learning characteristic. The majority of students again selected (C), general confidence as they had with (C2.5H) and at only a slightly higher rate indicating the need for attention through customer education. Lower-level responses indicated higher confidence (D) and (E) than the levels respondents possessed (A) and (B) when they entered the course (C2.5H).

The first three preferences were close with (C) 30.35% (N=61), (D) 24.38% (N=49), and (E) 20.9% (N=20.9). Lower preferences were (B) 11.94% (N=24) and (A) 3.48% (N=7).

First, second years and postgraduates selected (C) as their most frequent response with 32.2% (N=19), 41.18% (N=21), and 30.77% (N=8). First and second years followed this with (D) at 27.12% (N=16) and 19.61% (N=10) then (E) with 16.95% (N=10) and 17.65%
(N=9). First years also selected (B) at this rate. Postgraduates selected (E) 23.08% (N=6) then 19.23% (N=5).

Third and fourth years selected (D) with 26.67% (N=12) and 30% (N=6), fourth year respondents selecting (E) at this same rate. Third years selected (E) as the second most frequent response with 24.44% (N=12) followed by (E) with 22.22% (N=11). Fourth years selected (B) and (C) at 15% (N=3) with no respondents for (A).

Table 6.C2.6H.1: Ability to Locate Both Current and Historical Information on any Topic of Interest – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>B.2</td>
<td>10</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>19</td>
<td>21</td>
<td>10</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>D.4</td>
<td>16</td>
<td>10</td>
<td>12</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>E.5</td>
<td>10</td>
<td>9</td>
<td>11</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Bachelor of Teaching respondents selected (E) 31.08% (N=23), (C) 28.38% (N=21), and (D) 22.97% (N=17). Bachelor of Arts selected (D) 50% (N=3), (C) 33.33% (N=2) then (E) 16.67% (N=1) and Bachelor of Ministries (C) 40% (N=4), (D) 30% (N=3) and (E) 20% (N=2) Neither Bachelors of Arts nor Ministries respondents selected (A) or (B). Diploma of Ministries selected (C) with 47.27% (N=23), (E) with 16.36% (N=9) then (D) with 12.73% (N=7). Bachelor of Education students selected (D) 33.93% (N=19), (B) 21.43% (N=12) and (C) 17.86% (N=10).
Table 6.C2.6H.2: Ability to Locate Both Current and Historical Information on any Topic of Interest – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>B.2</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>C.3</td>
<td>21</td>
<td>2</td>
<td>4</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>D.4</td>
<td>17</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>E.5</td>
<td>23</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

The most frequent response with 30.35% was (C). Greatest deviation occurred when responses were considered by **Course segmentation** although most frequent responses divided between three options with both segment groups. Course segmentation had most frequent response spread over three options but had one option with three segments selecting it. Year-level segmentation was spread more thinly.

Table 6.C2.6H.3: Ability to Locate Both Current and Historical Information on any Topic of Interest – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- C × 3
- D × 1
- D&E × 1

Deviation = 3 options

Demographic Segmentation (Course) Response Range

- C × 2
- D × 2
- E × 1

Deviation = 3 options

**Statement C2.6I:** Given a list of references, I can tell which becomes most useful
Analysis of the quality of references is a more advanced information literacy skill. The majority of students selected (C) demonstrating general confidence. However, this was at a slightly lower rate than perceptions of skills held when commencing at college (C2.5I). The difference was that lower preferences demonstrated increased confidence with some tertiary experience (D) and (E) at fairly high rates, close to the highest response (C) indicating an overall increase. Customer education to increase confidence is required in this area. This area will require considerable attention because it is an essential skills required following graduation in order to maintain professional knowledge.

The top two preferences were (C) 31.34% (N=63) and (D) 28.36% (N=57). The next two preferences were close with (E) at 16.92% (N=34) and (B) at 11.44% (N=23). This was followed by (A) with 2.99% (N=6).

First and second years and postgraduates selected (C) with 33.9% (N=20), 37.25% (N=19), and 38.46% (N=10) followed by (D) with 27.12% (N=16), 25.49% (N=13) and 23.08% (N=6) then (E) with 20.34% (N=12), 9.8% (N=5), and 15.38% (N=4) respectively. Second years also selected (B) at this level as did postgraduates.

Third and fourth years selected (D) with 31.11% (N=14) and 40% (N=8) respectively. This years then selected (E) 22.22% (N=10) and (C) with 20% (N=9) while fourth years selected (D) 25% (N=5) then (E) 15% (N=3). Fourth years and postgraduates did not provides any responses against (A).
Table 6.C2.6I.1: Given a List of References, Ability to Tell which becomes most useful – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>C.3</td>
<td>20</td>
<td>19</td>
<td>9</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>D.4</td>
<td>16</td>
<td>13</td>
<td>14</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>E.5</td>
<td>12</td>
<td>5</td>
<td>10</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Bachelors of Teaching and Arts most frequently responded with (D) 36.49% (N=27) and 50% (N=3). Bachelor of Teaching respondents followed this with (C) 25.68% (N=19) and (E) 18.92% (N=14). Bachelor of Arts respondents followed this up with (E) 33.33% (N=2) and (C) 16.67%.

Bachelor of Ministries, Diploma of Ministries and Bachelor of Education respondents selected (C) with 60% (N=6), 38.18% (N=21), and 28.57% (N=16). This was followed by (D) with 20% (N=2), 20% (N=11), and 25% (N=14) then (E) with 10% (N=1), 10.91% (N=6), and 19.64% (N=11). Diploma of Ministries respondents also selected (B) at this rate. Bachelors of Arts and Ministries respondents did not reply to (A) or (B).

Table 6.C2.6I.2: Given a List of References, Ability to Tell which becomes most useful – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>C.3</td>
<td>19</td>
<td>1</td>
<td>6</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>D.4</td>
<td>27</td>
<td>3</td>
<td>2</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>E.5</td>
<td>14</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>11</td>
</tr>
</tbody>
</table>

The most frequent response with 31.34% was (C). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 31.43% (C) and 13.51% (D) between the highest
and lowest response on the most frequent responses. Year-level segments selected the same two responses, but both with lesser deviation.

Table 6.C2.6I.3: Given a List of References, Ability to Tell which becomes most useful – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
\begin{align*}
C \times 3 & \quad 38.46 \% \quad \text{to} \quad 20 \% \\
D \times 2 & \quad 40 \% \quad \text{to} \quad 23.08 \%
\end{align*}
\]

Deviation = 18.46 %

Deviation = 16.92 %

Demographic Segmentation (Course) Response Range

\[
\begin{align*}
C \times 3 & \quad 60 \% \quad \text{to} \quad 16.67 \%

D \times 2 & \quad 50 \% \quad \text{to} \quad 20 \%
\end{align*}
\]

Deviation = 43.33 %

Deviation = 30 %

Statement C2.6J: I can take information from various sources and apply it to solve a new problem

Use of a variety of sources to find information and solve a problem is a lifelong learning characteristic. The majority of respondents were confident in their ability going into college (C) this level of confidence was reduced but still within this same level of confidence (C). As with (C2.6I) lower responses reflected substantially increased confidence producing an overall increase in response from (C2.5J).

The top two preferences were (C) 30.35\% (N=61) and (D) 27.36\% (N=55). These were followed by (E) 17.41\% (N=35) and (B) 14.93\% (N=30). Very few people, 2\% (N=2), selected (A).

First, second and fourth year respondents selected (C) with 33.9\% (N=20), 37.25\% (N=19), and 35\% (N=7) followed by (D) with 28.81\% (N=17), 27.45\% (N=14), and 20\% (N=4) then (E) with
16.95% (N=10), 11.76% (N=6), and 15% (N=3). Fourth years also selected (B) as their second most frequent response with 20% (N=4).

Third years selected (E) 28.89% (N=13), (D) 26.67% (N=12), then (C) with 24.44% (N=11). Postgraduates selected (B) 34.62% (N=9), followed by (D) 30.77% (N=8) and (C) 15.38% (N=4). Third and fourth years and postgraduates did not respond to (A).

Table 6.C2.6J.1: Ability to take Information from Various Sources and Apply it to Solve a New Problem – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>C.3</td>
<td>20</td>
<td>19</td>
<td>11</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>17</td>
<td>14</td>
<td>12</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>E.5</td>
<td>10</td>
<td>6</td>
<td>13</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Bachelor of Teaching selected (D) 35.14% (N=26) followed by (C) 22.97% (N=17) and (E) 21.62% (N=16). Diploma and Bachelor of Ministries and Bachelor of Education selected (C) with 32.73% (N=18), 60% (N=6), and 37.5% (N=21) followed by (D) with 20% (N=11), 20% (N=2) and 21.43% (N=12). Diploma of Ministries and Bachelor of Education then selected (B) with 18.18% (N=10) and 17.86% (N=10). Bachelor of Ministries then selected (E) with 10% (N=1). Bachelor of Arts selected (D) 66.67% (N=4) and (E) 33.33% (N=2). Bachelors of Teaching, Arts, and Ministry had no respondents for (A). Bachelors of Arts and Ministry had no respondents for (B), and Bachelor of Arts for (C).
Table 6.C2.6J.2: Ability to take Information from Various Sources and Apply it to Solve a New Problem – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>B.2</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>C.3</td>
<td>17</td>
<td>0</td>
<td>6</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>D.4</td>
<td>26</td>
<td>4</td>
<td>2</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>E.5</td>
<td>16</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>9</td>
</tr>
</tbody>
</table>

The most frequent response with 30.35% was (C). Greatest deviation occurred when responses were considered by Year-level segmentation with most frequent responses divided between three options. Course segmentation had most frequent response spread only over two options.

Table 6.C2.6J.3: Ability to take Information from Various Sources and Apply it to Solve a New Problem – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

| B × 1 |
| C × 3 |
| E × 1 |

Deviation = 3 options

Demographic Segmentation (Course) Response Range

| C × 3 |
| D × 2 |

Deviation = 2 options

Statement C2.7: By the end of your College studies, please show how you would like your confidence levels to have changed:
Assumptions on Lifelong Learning Resource System Model (appendix 1) included “i. learning in a world of accelerating change must be a lifelong process”. (Knowles 1990:181–182)

Statement C2.7A: Desire to be more familiar with library procedures eg. borrowing

Pleasingly respondents thought highly confident (E) with their level of familiarity with standard library procedures during current studies. This was at a rate slightly higher than the perception of abilities during current studies (C2.6A). Lower responses varied slightly from C2.6A in a positive way with even fewer responses for (B) and particularly for (A). This indicated a satisfaction with current skill levels but the desire to be even more confident as a lifelong learner.

A clear majority selected (E) with 58.71% (N=118). Preferences two and three were (D) and (C) with 16.42% (N=33) and 10.95% (N=22). The final preferences were (A) and (B) with 2.99% (N=6) and 1.49% (N=3).

Each year-level segment selected (E) as the most frequent response. First years with 71.19% (N=42), second years 60.78% (N=31), third years 55.56% (N=25), fourth years 50% (N=10) and postgraduates 38.46% (N=10).

Second and third most frequent responses for most year-levels were (D) with first years 8.47% (N=5), second years 17.65% (N=9), third years 24.44% (N=11), and postgraduates 30.77% (N=8) and (E) with first years 6.78% (N=4), second years 9.8% (N=5), third years 6.67% (N=3) and postgraduates 19.23% (N=5).
Fourth year second and third most frequent responses varied with (C) 25% (N=5) and (A) and (B) with 5% (N=1). Second year and postgraduates had no response for (A) and second and third years had no response against (B).

Table 6.C2.7A.1: Desire to be more Familiar with Library Procedures – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>D.4</td>
<td>5</td>
<td>9</td>
<td>11</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>E.5</td>
<td>42</td>
<td>31</td>
<td>25</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Each course segment selected (E) as the most frequent response with 64.86% (N=48) Bachelor of Teaching, 83.33% (N=5) Bachelor of Arts, 60% (N=6) Bachelor of Ministries, 45.45% (N=25) Diploma of Ministries, and 60.71% (N=34) Bachelor of Education.

Second and third most frequent responses for Bachelor of Teaching were different from our course segments with respondents selecting (C) 13.51% (N=10) and (D) 10.81% (N=8).

Bachelor of Arts, Bachelor of Ministry, Diploma of Ministry, and Bachelor of Education each selected (D) as their second most frequent response with 16.67% (N=1), 20% (N=2), 21.81% (N=12), and 17.86% (N=10) respectively.

Third most frequent response for Bachelor and Diploma of Ministries was (C) with 10% (N=1) and 14.55% (N=8). Bachelor of Education respondents selected (A) with 8.93% (N=5). Bachelor of Teaching, Arts, and Ministries each had no response against (A). Bachelor of
Arts and Ministries had no response against (B) and Bachelor of Arts against (C).

Table 6.C2.7A.2: Desire to be more Familiar with Library Procedures – Raw Busbars by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>D.4</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>E.5</td>
<td>48</td>
<td>5</td>
<td>6</td>
<td>25</td>
<td>34</td>
</tr>
</tbody>
</table>

The most frequent response with 58.71% was (E). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 41.66% between the highest and lowest response on the most frequent response (E). All Year-level segments selected the same response, (E) but with a lesser deviation.

Table 6.C2.7A.3: Desire to be more Familiar with Library Procedures – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
E \times 5 \quad 71.19 \% \quad \text{to} \quad 38.46 \%
\]

Deviation = 32.73 %

Demographic Segmentation (Course) Response Range

\[
E \times 5 \quad 83.33 \% \quad \text{to} \quad 45.45 \%
\]

Deviation = 37.88 %

Statement C2.7B: I would like to be more familiar with the services offered by libraries eg. interlibrary loans

Data indicated that respondents desired to further increase their level of familiarity with library services, indicated through a higher response rate (E) where (C) was the most frequent response received for
(C2.6B). This indicating a high motivation to develop familiarity with library services during time at college and a considerable increase from the responses of (C2.5B) and (C2.6B).

Over half of respondents selected (E) with 55.22% (N=111). The second preference was (D) with 21.89% (N=44) then (C) with 11.44% (N=23). Final preferences went to (B) 2% (N=2) and (A) with 1.49% (N=3).

First to fourth years most frequently selected (E) ranging from 64.41% (N=38) first years, 58.82% (N=30) second years, 53.33% (N=24) third years, to 50% (N=10). Postgraduates selected (D) most frequently with 38.46% (N=10) followed by (E) 34.62% (N=9) and (C) 15.38% (N=4). First, second and third years selected (D) as their second most frequent response with 15.25% (N=9), 21.57% (N=11), and 24.44% (N=11) followed by (C) with 10.17% (N=6), 7.84% (N=4), and 11.11% (N=5) respectively. Fourth years selected (C) 20% (N=4) as their second most frequent response then (D) 15% (N=3).

Response rates were highest for first years steadily decreasing towards postgraduates. This indicates that respondents thought more confident and familiar with library services as they progressed throughout their studies.

Table 6.C2.7B.1: Desire to be more Familiar with Library Services – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>9</td>
<td>11</td>
<td>11</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>E.5</td>
<td>38</td>
<td>30</td>
<td>24</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>
Each course segment selected (E), (D) then (C). Bachelor of Teaching with 64.86% (N=48), 14.86% (N=ll), and 12.16% (N=9). Bachelor of Arts with 50% (N=3), 33.33% (N=2), and 16.67% (N=1). Bachelor of Ministries with 40% (N=4), 30% (N=3), 20% (N=2). Diploma of Ministries 41.82% (N=23), 27.27% (N=15), and 12.73% (N=7). Bachelor of Education 58.93% (N=33), 25% (N=14), and 5.36% (N=3).

Table 6.C2.7B.2: Desire to be more Familiar with the Services Offered by Libraries – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>D.4</td>
<td>11</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>E.5</td>
<td>48</td>
<td>3</td>
<td>4</td>
<td>23</td>
<td>33</td>
</tr>
</tbody>
</table>

The most frequent response with 55.22% was (E). Greatest deviation occurred when responses were considered by Year-level segmentation, with most frequent responses divided between two options with 29.79% selecting (E). Year-level segments were spread over two options. Course segmentation had most frequent response spread only over one option with lesser deviation.

Table 6.C2.7B.3: Desire to be more Familiar with the Services Offered by Libraries – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- E × 4 64.41 % to 34.62 %
  Deviation = 29.79 %

- D × 1

Demographic Segmentation (Course) Response Range

- E × 5 64.86 % to 40 %
  Deviation = 24.86 %
Statement C2.7C: I would like to be more familiar with the types of resources held by libraries eg. videos and kits

Data indicated slightly higher increases in the information literacy skills confidence in the area of knowledge of a variety of sources for required information. The most frequent response continued to be (E) highly confident and at a slightly higher rate than for (C2.6C). This indicates that respondents are satisfied that they are developing through the library to the levels they perceive as necessary for the future learning. Lower responses were similar as data from (C2.6C) but with slightly higher responses for (C) and (D) reflecting a desire for slightly higher level skills for their lifelong learning. Even lower percentages than received for (C2.6C) were evident for the two lowest responses (B) and (A) receiving less that ten per cent. This indicates the positive affect of tertiary library interaction on this lifelong learning skill.

A clear majority of respondents selected (E) with 58.21% (N=117) followed by (D) 18.41% (N=37) and (C) 12.44 (N=25). Lower preferences went with (A) 1.49% (N=3) and (B) with .5% (N=1).

Again, percentages decreased with years at college, each year-level however selecting (E). This indicated increased perceived confidence and familiarity with library resources. Percentages decreased from first year with 62.71% (N=37), second years with 60.78% (N=31), third years with 57.78% (N=26), fourth years with 50% (N=10), and postgraduates with 50% (N=13).

First, second, third years and postgraduates selected (D) as their second preference with 15.25% (N=9), 17.65% (N=9), 26.67% (N=12) and 26.92% (N=7) followed by (C) with 13.56% (N=8), 9.8% (N=5),
4.44% (N=2), and 11.54% (N=3). Fourth years selected (C) 35% (N=7) then (A) with 5% (N=1).

Table 6.C2.7C.1: Desire to be more Familiar with the Types of Library Resources – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>D.4</td>
<td>9</td>
<td>9</td>
<td>12</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>E.5</td>
<td>37</td>
<td>31</td>
<td>26</td>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>

Each course segment selected (E) with ranges from 70.27% (N=52) Bachelor of Teaching, 57.14% (N=32) Bachelor of Education, 50% (N=3) Bachelor of Arts, and 49.09% (N=27) Diploma of Ministries. Diploma of Ministries 30% (N=3) who also selected (C) and (D) at the same rate.

Diploma of Ministries and Bachelor of Education selected (D) as their second most frequent response with 21.82% (N=12) and 26.79% (N=15) followed by (C) with 12.73% (N=7) and 5.36% (N=3). Bachelor of Education also selected (A) at this rate.

Bachelors of Teaching and Arts selected (C) with 13.51% (N=10) and 33.33% (N=2) followed by (D) with 8.11% (N=6) and 16.67% (N=1). Each course segment recorded no response for either or both (A) and (B).

Table 6.C2.7C.2: Desire to be more Familiar with the Types of Resources held by Libraries – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>B.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 6.C2.7C.3: Desire to be more Familiar with the Types of Resources held by Libraries – Percentages/ Deviation Results

Demographic Segmentation (Year-level) Response Range

E × 5 62.71 % to 50 %
Deviation = 12.71 %

Demographic Segmentation (Course) Response Range

E × 4 70.27 % to 30 %
Deviation = 40.27 %

C,D&E × 1

Statement C2.7D: I would like to be able to search a library catalogue and find the things I need

Data indicated that student perceptions of the high value of information literacy skills and while this particular information literacy skill had improved during time at college they hoped it would improve more. The majority of respondents in (C2.6D) were highly confident (E) in (C2.6D) an increased rate was very evident in (C2.7D). Lower responses were generally high in (C2.6D) with the lowest two responses, those of low confidence levels (B) and (A) each receiving
less than ten per cent, this was even lower in (C.7.D). This reflected the increase in information literacy skills throughout time at college but a strong desire for even higher confidence and skill levels.

Over half of the respondents selected (E), 55.22% (N=111). Second and third preferences were close with (D) 19.4% (N=39) and (C) 13.93% (N=28). Only 2% (N=2) selected (A) and (B).

Confidence levels and perceptions of needs for improvement decreased with increased tertiary year-level. Each year-level segment selected (E) most frequently. First years with 67.8% (N=40), second years with 60.78% (N=31), third years with 51.11% (N=23), fourth years with 40% (N=8), and postgraduates with 34.62% (N=9). Postgraduates also selected (D) at this rate. First, second and third years selected (D) as their second most frequent response with 13.56% (N=8), 15.69% (N=8) and 28.09% (N=13), followed by (C) with 10.17% (N=6), 11.76% (N=6), and 8.89% (N=4).

Fourth years selected (C) as their second most frequent response with 35% (N=7) followed by (A) and (D) with 5% (N=1). Postgraduates selected (C) with 19.23% (N=5) followed by (B) with 3.85% (N=1).

Second, third and fourth years and postgraduates each produced a nil response for either (A), (B) or both.

Table 6.C2.7.D.1: Desire to be able to Search a Library Catalogue and find the things needed – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>D.4</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
Year 1st Yr 2nd Yr 3rd Yr 4th Yr P.G.
E.5 40 31 23 8 9

Each course segment selected (E) ranging from 66.67% (N=4) Bachelor of Arts, 60.81% (N=45) Bachelor of Teaching, 57.14% (N=32) Bachelor of Education, 50% (N=5) Bachelor of Ministries, and Diploma of Ministries 47.27% (N=26).

Bachelor of Teaching then selected (C) 16.22% (N=12) and (D) 13.51% (N=10). Each other course segment selected (D) with 33.33% (N=2) Bachelor of Arts, 30% (N=3) Bachelor of Ministries, 20% (N=8) Diploma of Ministries, and 23.21% (N=6) Bachelor of Education. Bachelor and Diploma of Ministries, and Bachelor of Education each selected (C) as their third most frequent response with 10% (N=1), 14.55% (N=8), and 10.71% (N=6) respectively.

Each course segment produced a nil response against either or both (A) and (B) with Bachelor of Arts also producing such a response against (C).

Table 6.C2.7D.2: Desire to be able to Search a Library Catalogue and find the things needed – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>C.3</td>
<td>12</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>D.4</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>E.5</td>
<td>45</td>
<td>4</td>
<td>5</td>
<td>26</td>
<td>32</td>
</tr>
</tbody>
</table>

The most frequent response with 55.22% was (E). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a variance of 33.18% between the highest and lowest response on the most frequent response (E). All Course segments selected the same response (E) but with lower deviance, 19.4%.
Table 6.C2.7D.3: Desire to be able to Search a Library Catalogue and find the things needed – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

E × 5 67.8 % to 34.62 %
Deviation = 33.18 %

Demographic Segmentation (Course) Response Range

E × 5 66.67 % to 47.27 %
Deviation = 19.4 %

Statement C2.7E: I would like a better understanding of how to use periodical indexes

The use of periodicals, a more advanced use of library resources, indicates a more mature level of information literacy. Data indicated a growing level of confidence increasing from a lack of confidence (A) registered in (C2.5E) prior to enrolment up to confident (C) in this knowledge and skill area during studies. This progressed through to (E) indicating that respondents would like to be highly confident in this skill area by the time they leave college. This shows developing motivation and confidence in this area developed through marketing and customer education at college. Lower responses from this question in (C2.6E) indicated a lack of confidence that would need to be developed further. These lower responses indicated that respondents thought that confidence in this area was extremely important to their learning lives.

The majority of respondents selected (E) 53.23% (N=107). This was followed by (D) and (C) with 19.4% (N=39) and 13.03% (N=28) respectively. Few selected (A) and (B) with 2.99% (N=6) and 1.99% (N=4) respectively.

Each year-level, with the exception of postgraduates preferred (E). Response rates generally decreased with years at college with the
exception of third and fourth years which although close with 48.89% (N=22) and 50% (N=10) were reversed in order. This demonstrated that respondents thought they were gaining confidence throughout their tertiary experiences. First year response was 61.02% (N=36), second years 60.78% (N=31) and postgraduates 30.77% (N=8) their second response with 34.62% (N=8) for (D) being their most frequent response.

Second most frequent response for first, second and third years was (D) with 15.25% (N=9), 13.73% (N=7), and 28.89% (N=13) respectively. Second years also selected (C) at this rate. First and second years and postgraduates selected (C) as their third most frequent response with 8.47% (N=5), 11.11% (N=5), and 19.23% (N=5). First years also selected (A) at this rate. Fourth years selected (C) as their second most frequent response 30% (N=6) and (A) and (D) with 5% (N=1).

Table 6.C2.7E.1: Desire for a better Understanding of how to use Periodical Indexes – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>C.3</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>D.4</td>
<td>9</td>
<td>7</td>
<td>13</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>E.5</td>
<td>36</td>
<td>31</td>
<td>22</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

Each course segment selected (E) as their most frequent response with ranges from 40% (N=4) Bachelor of Ministries through to 58.93% (N=33) Bachelor of Education with 45.45% (N=25) Diploma of Ministries, 50% (N=3) Bachelor of Arts, and 56.76% (N=42) Bachelor of Teaching.
Second most frequent response for Bachelor of Ministries, Diploma of Ministries and Bachelor of Education was (D) 30% (N=3), 23.64% (N=13) and 21.43% (N=12) followed by (C) 1% (N=1), 10.91% (N=6) and 10.71% (N=6). Bachelor of Ministries also selected (A) at this rate.

Bachelor of Teaching selected (C) as second most frequent response with 18.92% (N=14) followed by (D) with 13.51% (N=10). Bachelor of Arts selected (A), (C), and (D) with 16.67% (N=1).

Table 6.C2.7E.2: Desire for a better Understanding of how to use Periodical Indexes – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>C.3</td>
<td>14</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>D.4</td>
<td>10</td>
<td>1</td>
<td>3</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>E.5</td>
<td>42</td>
<td>3</td>
<td>4</td>
<td>25</td>
<td>33</td>
</tr>
</tbody>
</table>

The most frequent response with 53.23% was (E). Greatest deviation occurred when responses were considered by Year-level segmentation with a variance of 30.25% between the highest and lowest response on the most frequent response (E). Year-level segmentation also had most frequent response spread over more than one option with one segment selecting (D). All Year-level segments selected the same response (E), with a lesser deviation.

Table 6.C2.7E.3: Desire for a better Understanding of how to use Periodical Indexes – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

E × 4 61.02 % to 30.77 %

Deviation = 30.25 %
Demographic Segmentation (Course) Response Range

\[ E \times 5 \ \text{58.93\%} \ \text{to} \ \text{40\%} \]

Deviation = 18.93\%

**Statement C2.7F: I would like a better understanding of how to use library technology, eg. CD-ROM**

An understanding of library technology, a lifelong learning skill of selecting to use a variety of information sources, indicates a more mature level of information literacy. Data indicated the students desired a substantial increase in their level of confidence in information technologies with the most frequent response rising from (C) confident to (E) highly confident. This shows that motivation to develop in this area is being developed through marketing and customer education but still needs to be developed to meet expectations.

The majority of respondents to this statement selected (E) with 60.2\% (N=121). This was followed by (D) 16.92\% and (C) 11.44\% (N=23). Lower results were (B) and (A) with 2\% (N=2) and 1.49\% (N=3).

Results decreased with year-level segments, again the difference between third and fourth year was slight but this could be due that this was the final year for different courses. Each year-level selected (E) ranging down from 71.19\% (N=42) first years, 64.71\% (N=33) second years, 55.56\% (N=25) third years, 55\% (N=11) fourth years, and 38.46\% (N=10).

First, second, third years and postgraduates selected (D) second most frequently with 16.95\% (N=10), 13.73\% (N=7), 20\% (N=9), and 30.77\% (N=8) followed by (C) with 3.39\% (N=2), 9.8\% (N=5), 13.33\% (N=6), and 15.38\% (N=4) respectively. First years also selected (A) at 3.39\% (N=2).
Fourth years selected (C) as their second most frequently selected response with 30% (N=6) followed by (A) with 5% (N=1). Fourth years did not respond against (D). Each year-level segment provided a nil response against either or both (A) and (B).

Table 6.C2.7F.1: Desire for a better Understanding of how to use Library Technology – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>C.3</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>E.5</td>
<td>42</td>
<td>33</td>
<td>25</td>
<td>11</td>
<td>10</td>
</tr>
</tbody>
</table>

Each course segment selected (E) with percentages from 50% (N=5) Bachelor of Ministries, 50.91% (N=28) Diploma of Ministries, 62.16% (N=46) Bachelor of Teaching, 66.67% (N=4) Bachelor of Arts, to 67.86% (N=38) Bachelor of Education.

Bachelor of Teaching selected (C) as their second most frequent response with 17.57% (N=13) followed by (D) with 10.81% (N=8). Bachelor of Arts, Bachelor of Ministries, Diploma of Ministries, and Bachelor of Education each selected (D) as their second most frequent response with 33.33% (N=2), 20% (N=2), 21.82% (N=12), and 17.86% (N=10). Bachelor of Ministries, Diploma of Ministries and Bachelor of Education each selected (C) as their third most frequent response with 10% (N=1), 10.91% (N=6), and 5.36% (N=3). Bachelor of Ministries also selected (A) at this rate. Bachelor of Arts respondents made no response against (C) and each course had a nil response against either or both of (A) and (B).
Table 6.C2.7F.2: Desire for a better Understanding of how to use Library Technology – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>C.3</td>
<td>13</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>D.4</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>B.5</td>
<td>46</td>
<td>4</td>
<td>5</td>
<td>28</td>
<td>38</td>
</tr>
</tbody>
</table>

The most frequent response with 60.2% was (E). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a variance of 32.73% between the highest and lowest response on the most frequent response. All Course segments selected the same response (E) but with a lower deviance.

Table 6.C2.7F.3: Desire for a better Understanding of how to use Library Technology – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- E × 5 71.19 % to 38.46 %
- Deviation = 32.73 %

Demographic Segmentation (Course) Response Range

- E × 5 67.86 % to 50 %
- Deviation = 17.86 %

**Statement C2.7G: I would like to be more familiar with different types of printed reference tools, such as dictionaries and encyclopaedias**

Respondents perceived high confidence (E) in their ability to use lower-level library resources during their studies (C2.6G). This was an increase in the level of confidence (C) students perceived they possessed upon entries studies (C2.5G). The perceived importance of this skill was reflected by data revealing that around 20 % more respondents wanted to even further increase their levels of confidence by the time they finished college.
Slightly over half, 53.23% (N=107) selected (E). Second and third were closer with (D) at 21.39% (N=43) and (C) at 10.95% (N=22). Finally (B) with 3.48% (N=7) and (A) with 1.49% (N=3).

Each year-level segment selected (E) with percentages decreasing with the number of years at college. First years 66.1% (N=39), second years 56.86% (N=29), third years 46.67% (N=21), fourth years 40% (N=8), and postgraduates 38.46% (N=10).

First, second, third years and postgraduates selected (D) as their second most frequent response with 15.25% (N=9), 19.61% (N=10), 28.89% (N=13) and 34.62% (N=9) followed by (C) with 6.78% (N=4), 9.8% (N=5), 8.89% (N=4) and 11.54% (N=3). Fourth years selected (C) with 30% (N=6) followed by (D) with 10% (N=2).

Table 6.C2.7G.1: Desire to be more Familiar with Different Types of Printed Reference Tools – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>C.3</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>D.4</td>
<td>9</td>
<td>10</td>
<td>13</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>E.5</td>
<td>39</td>
<td>29</td>
<td>21</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

Each course segment selected (E), Bachelor of Teaching with 60.81% (M=45), Bachelor of Arts with 66.67% (N=4), Bachelor of Ministries with 40% (N=4), Diploma of Ministries with 43.64% (N=24), and Bachelor of Education with 53.57% (N=30).

Bachelor of Ministries, Diploma of Ministries, and Bachelor of Education each selected (D) as second most frequent response with 30% (N=3), 27.27% (N=15), and 26.79% (N=15) followed by (C) with 10% (N=1), 9.09% (N=5), and 5.36% (N=3) respectively. Bachelor of
Ministries also selected (A) at this rate of third most frequent response while Bachelor of Education also selected (B).

Bachelor of Arts selected (C) and (D) at the same rate of 16.67% (N=1). Bachelor of Teaching selected (C) with 16.22% (N=12) followed by (D) with 12.16% (N=9).

Table 6.C2.7G.2: Desire to be more Familiar with Different Types of Printed Reference Tools – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>C.3</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>D.4</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>E.5</td>
<td>45</td>
<td>4</td>
<td>4</td>
<td>24</td>
<td>30</td>
</tr>
</tbody>
</table>

The most frequent response with 53.23% was (E). Greatest deviation occurred when responses were considered by Year-level segmentation with a variance of 27.64% between the highest and lowest response on the most frequent response. All Course segments selected the same response (E) but at a lower deviance.

Table 6.C2.7G.3: Desire to be more Familiar with Different Types of Printed Reference Tools – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[ E \times 5 \quad 66.1\% \text{ to } 38.46\% \]
\[ \text{Deviation} = 27.64\% \]

Demographic Segmentation (Course) Response Range

\[ E \times 5 \quad 66.67\% \text{ to } 40\% \]
\[ \text{Deviation} = 26.67\% \]

Statement C2.7H: I would like to be able to more easily locate both current and historical information on any topic that interested me

372
Motivation, confidence and use of a library to locate information for a specific purpose are lifelong learning characteristics. The majority of students selected (C), general confidence, when they were asked to describe their current level of ability with this skill (C2.6H). Respondents perceived this to be a valuable lifelong learning skill by indicating they wished to develop it to a highly confident level (E) by the time they leave college.

Just over half, 53.23% (N=107), selected (E) followed by (D) with 22.39% (N=45) and (C) with 12.94% (N=26). Only 2% (N=2) selected (A) or (B).

Each course segment selected (E) most frequently with 66.1% (N=39) first years, 58.82% (N=30) second years, 44.44% (N=20) third years, 35% (N=7) fourth years, and 42.31% (N=11) postgraduates. Fourth years also selected (C) at this rate. Second most frequent response was (D) with 16.95% (N=10) first years, 19.61% (N=10) second years, 33.33% (N=15) third years, 10% (N=2) fourth years, and 30.77% (N=8) postgraduates.

Third most frequent response for most year-levels was (C) with 8.47% (N=5) first years, 9.8% (N=5) second years, 11.11% (N=5) third years, and 15.38% (N=4) postgraduates. Fourth years selected (A) with 5% (N=1).

Table 6.C2.7H.1: Desire to more easily locate both current and historical information on any topic of interest – raw numbers by year-level segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>
Each course segment selected (E) most frequently with 59.46% (N=44) Bachelor of Teaching, 50% (N=3) Bachelor of Arts, 50% (N=5) Bachelor of Ministries, 45.45% (N=25) Diploma of Ministries, and 53.57% (N=30) Bachelor of Education.

Second most frequent response for each course was (D). Bachelor of Teaching had 16.22% (N=12), Bachelor of Arts had 33.33% (N=2), Bachelor of Ministries had 30% (N=3), Diploma of Ministries had 25.45% (N=14), and Bachelor of Education had 25% (N=14).

Each course also selected the same response for the third most frequent response with Bachelor of Teaching with 14.86% (N=11), Bachelor of Arts with 16.67% (N=1), Bachelor of Ministries with 10% (N=1), Diploma of Ministries with 10.91% (N=6), and Bachelor of Education with 12.5% (N=7).

Table 6.C2.7H.2: Desire to more easily Locate both Current and Historical Information on any Topic that of Interest – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>B.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>C.3</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>D.4</td>
<td>12</td>
<td>2</td>
<td>3</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>E.5</td>
<td>44</td>
<td>3</td>
<td>5</td>
<td>25</td>
<td>30</td>
</tr>
</tbody>
</table>

The most frequent response with 53.23% was (E). Greatest deviation occurred when responses were considered by Year-level segmentation with a variance of 31.1% between the highest and lowest response on
the most frequent response (E). All Course segments selected the same response (E) but at a lower deviance.

Table 6.C2.7H.3: Desire to more easily Locate both Current and Historical Information on any Topic of Interest – Percentages/ Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
E \times 5 \quad 66.1\% \quad \text{to} \quad 35\% \\
\text{Deviation} = 31.1\%
\]

Demographic Segmentation (Course) Response Range

\[
E \times 5 \quad 59.46\% \quad \text{to} \quad 45.45\% \\
\text{Deviation} = 14.01\%
\]

Statement C2.7I: Given a list of references, I would like to be able to tell more easily which becomes most useful for my purposes

Analysis of the quality of references is a more advanced information literacy skill. The majority of students selected (C) demonstrating general confidence when asked to assess their present level of skill but increased to highly confident (E) to describe the level they wish to achieve during their time at college.

There were 54.23% (N=109) respondents who selected (E) then 20.9% (N=42) who selected (D) and 12.94% (N=26) who selected (C). Only 2% (N=2) selected (B) and 1.49% (N=3) selected (A).

Year-level segments for this statement selected each (E) with decreasing percentages with first years having the highest percentage, 66.1% (N=39) through second years with 60.78% (N=31), third years with 51.11% (N=23), fourth years with 35% (N=7), to postgraduates with 34.62% (N=9). Fourth years also selected (C) at this rate.

Second and third preferences were generally (C) and (D). First years selected (C) 13.56% (N=8) then (D) 10.17% (N=6). Second, third
years and postgraduates selected (D) 21.57% (N=11), 33.33% (N=15), and 30.77% (N=8) followed by (C) with 5.88% (N=3), 4.44% (N=2) and 23.08% (N=6) respectively. Fourth years selected (D) 10% (N=2) then (A) with 5% (N=1).

Table 6.C2.7I.1: Given a List of References, desired ability to more easily Tell which becomes most useful – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>D.4</td>
<td>6</td>
<td>11</td>
<td>15</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>E.5</td>
<td>39</td>
<td>31</td>
<td>23</td>
<td>7</td>
<td>9</td>
</tr>
</tbody>
</table>

Each course selected (E) most frequently, Bachelor of Teaching with 63.51% (N=47), Bachelor of Arts with 50% (N=3), Bachelor of Ministries with 40% (N=4), Diploma of Ministries with 40% (N=22), and Bachelor of Education with 58.93% (N=33).

Bachelor of Teaching, Bachelor of Ministries, Diploma of Ministries, and Bachelor of Education each selected (D) as their second most frequent response with 14.86% (N=11), 30% (N=3), 25.45% (N=14), and 23.21% (N=13) followed by (C) with 12.16% (N=9), 20% (N=2), 16.36% (N=9), and 7.14% (N=4). Bachelor of Arts respondents selected (C) 33.33% (N=2) then (D) 16.67% (N=1). Each course had a nil response for (A) and/or (B).

Table 6.C2.7I.2: Given a List of References, desired ability to more easily Tell which becomes most useful – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

376
Table 6.C2.7I.3: Given a List of References, desired ability to more easily Tell which becomes most useful – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
E \times 5 \quad 66.1\% \quad \text{to} \quad 34.62\% \\
\text{Deviation} = 31.48\%
\]

Demographic Segmentation (Course) Response Range

\[
E \times 5 \quad 63.51\% \quad \text{to} \quad 40\% \\
\text{Deviation} = 23.51\%
\]

Statement C2.7J: I would like to be able to obtain more information from various sources and apply it to solve a new problem

Use of a variety of sources to find information and solve a problem is a lifelong learning characteristic. The majority of respondents were confident (C) in their ability during their time at college and hoped to increase this level to highly confident (E) by the time they leave college, reduced but still within this same level of confidence (C). This reflected the high regard placed on the more advanced information literacy skills.

The majority of respondents selected (E) 56.22% (N=113). There were 19.9% (N=40) respondents who selected (D) and 12.44% (N=25) who
selected (C). Only 2% (N=2) selected (B) and 1.49% (N=3) selected (A).

Results decreased with years at college, with first and second year results very similar. The most frequent response was (E), first years with 64.41% (N=38), second years with 64.71% (N=33), third years with 53.33% (N=24), and fourth years with 45% (N=9). Postgraduates selected (D) most frequently with 38.46% (N=10) followed by (E) with 34.62% (N=9) and (C) with 15.38% (N=4).

Second most frequent response by first, second, and third year respondents was 15.25% (N=9), 15.69% (N=8), and 24.44% (N=11) was (D) followed by (C) with 10.17% (N=6), 7.84% (N=4), and 11.11% (N=5) respectively. Fourth years selected (C) as their second most frequent response with 30% (N=6) followed by (D) with 10% (N=2).

Table 6.C2.7J.1: Desired Ability to Obtain more Information from Various Sources and apply it to Solve a New Problem – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C.3</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>9</td>
<td>8</td>
<td>11</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>E.5</td>
<td>38</td>
<td>33</td>
<td>24</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

Course segments selected (E) as their most frequent response, Bachelor of Teaching with 64.86% (N=48), Bachelor of Arts with 50% (N=3), Bachelor of Ministries with 40% (N=4), Diploma of Ministries with 43.641 (N=24), and Bachelor of Education with 60.71% (N=34). Second most frequent response was (D) with Bachelor of Teaching 13.51% (N=10), Bachelor of Arts 33.33%
Bachelor of Ministries (N=2), Bachelor of Ministries 30% (N=3), Diploma of Ministries 23.64% (N=13) and Bachelor of Education 21.43% (N=12). Bachelor of Teaching also selected (C) at this rate while this was the third most frequent response for Bachelor of Arts with 16.67% (N=1), Bachelor of Ministries with 20% (N=2), Diploma of Ministries with 14.55% (N=8), and Bachelor of Education with 7.14% (N=4).

Table 6.C2.7J.2: Desired Ability to Obtain more Information from Various Sources and apply it to Solve a New Problem – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>B.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>C.3</td>
<td>10</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>D.4</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>E.5</td>
<td>48</td>
<td>3</td>
<td>4</td>
<td>24</td>
<td>34</td>
</tr>
</tbody>
</table>

The most frequent response with 56.22% was (E). Greatest deviation occurred when responses were considered by Course segmentation because even with a variance of only 19.71% between the highest and lowest response on the most frequent response as opposed to 24.86% deviation for Course segmentation (E). All Course segmentation selected the same response (E). Year-level segmentation deviated between two different responses.

Table 6.C2.7J.3: Desired ability to Obtain more Information from Various Sources and apply it to Solve a New Problem – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

E \times 4 64.71 \% to 34.62 \%

Deviation = 30.09 \%

D \times 1

Demographic Segmentation (Course) Response Range

E \times 5 64.86 \% to 40 \%
6.5 Course Integration (Focus D)

6.5.1 College, Course and Library Integration and Library Use
(Statement D1)

Characteristics and Features of Lifelong Learning (appendix 3) included “xxiii. maintenance and improvement of the quality of individual and collective life through personal, social and professional growth. Emphasis on the quality and efficiency of life, besides longevity-pave 1973). These statements examined the issues of libraries and assessment as prioritized by Breivik (1992).

Statement D1.1: Number of Subjects Requiring Library Use

This statement was based on one of the Characteristics and Features of Lifelong Learning (appendix 3) which was observed “xv. flexibility and diversity in content, learning instruments and techniques, time and place of learning” (Dave 1973) all of which may include the tertiary library. This statement did not indicate library use was implicit in this regard.

The most basic level of library integration into the main curricula is the necessity for students to use the library during the course of each subject studied. This was acknowledged by just one half of the respondents, indicating that even at this basic level of integration both implicit and explicit integration and evidence of integration are required.

There were 52.24% (N=105) of respondents who thought that (A) All of their subjects required library use while 38.81% (N=78) thought that this only accounted for (B) Most subjects.
First year students were the only group who thought that only (B) Most of their subjects with 54.24% (N=32) followed by (A) with 42.37% (N=25). Interestingly first year respondents recorded the lowest percentage for (C) with 3.39% (N=2) outside of fourth year respondents who did not record for (C).

Table 6.D1.1: Number of Subjects Requiring Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.All</td>
<td>25</td>
<td>29</td>
<td>22</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>B.Most</td>
<td>32</td>
<td>13</td>
<td>20</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>C.A couple</td>
<td>2</td>
<td>8</td>
<td>2</td>
<td>—</td>
<td>3</td>
</tr>
</tbody>
</table>

The clearest result considered by course segmentation was the Bachelor of Teaching course with 66.22% (N=49) believing that (A) All of their subjects required library use and 28.38% (N=21) who thought that (B) Most of their subjects required library use. This group did not register anything for (C) that only a Couple of their subjects required library use.

Bachelor of Education and Diploma of Ministries thought that All of their subjects required library use (A) with 51.79% (N=29) and 41.82% (N=23) respectively. Both of these courses recorded (B) highly, behind (A), with 46.43% (N=26) and 34.55% (N=19) respectively. Diploma of Ministries recorded 21.82% (N=12) for (C) and Bachelor of Education only recorded 3.57% (N=2).

Bachelors of Ministries and Arts recorded (B) as the most popular response with 50% (N=5) and 83.33% (N=5). This was a close result for Bachelor of Ministries however with 30% (N=3) feeling that (A) All of their subjects required library use. The low response for Bachelor of Arts students selecting (A), 16.67% (N=1), could be due
to the nature of the course with dramatic art electives that required performance and workshops.

Table 6.D1.2: Number of Subjects Requiring Library Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1.A11</td>
<td>49</td>
<td>1</td>
<td>3</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>B.Most</td>
<td>21</td>
<td>5</td>
<td>5</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>C.A couple</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>12</td>
<td>2</td>
</tr>
</tbody>
</table>

The most frequent response with 52.24% was (A). Greatest deviation occurred when responses were considered by Course segmentation with a total variance of 49.55% between the highest and lowest response on the most frequent responses. Course segmentation had most frequent response spread over more than one option. Year-level segments selected the same responses at different frequencies and with lesser deviation.

Table 6.D1.3: Number of Subjects Requiring Library Use Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

A × 4 70 % to 42.37 %
Deviation = 27.63 %

B × 1

Demographic Segmentation (Course) Response Range

A × 3 66.22 % to 16.67 %
Deviation = 49.55 %

B × 2

Statement D1.2: Subjects Require a Variety of Information Sources

Characteristics and Features of Lifelong Learning (appendix 3) included “xx. adaptive and innovative functions. Emphasis on creativity and innovativeness” (Dave 1973). This statement was based
on this characteristic. Data indicating that students were encouraged or provided the opportunity to explore a variety of information sources throughout the different subjects they were studying.

The majority of respondents, 67.66% (N=136), thought that (A) subject required a variety of information sources. There were 35.32% (N=71) who thought that (B), subjects required a variety of information sources.

Each year-level thought that (A), subjects required a variety of information sources. This ranged from 79.66% (N=47) first years, through 70% (N=14) fourth years, 66.67% (N=30) third years, 60.78% (N=31) second years, down to 53.85% (N=14) postgraduates. The most concise response came from the third and fourth years with only 26.67% (N=12) and 25% (N=5) of respondents. First years had 38.98% (N=23) provide a negative response. The closest result came from postgraduates with 46.15% (N=12) providing a negative response.

Table 6.1.2.1: Subjects Require a Variety of Information Sources
Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>47</td>
<td>31</td>
<td>30</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>B.No</td>
<td>23</td>
<td>19</td>
<td>12</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

Each subject, when considered by course, was thought to require a variety of information sources. The only area of concern was the Diploma of Ministries where of recorded answers, (N=27) agreed (A) and half disagreed (B), there was one respondent from this segment who did not respond to this question.

The four remaining courses all returned a positive response with Bachelor of Ministries respondents all perceiving the answer to be (A),
a positive reply. All other courses were very similar in percentages with Bachelor of Teaching 66.22% (N=49), Bachelor of Arts 66.67% (N=4), and Bachelor of Education 67.86% (N=38).

Table 6.D1.2.2: Subjects Require a Variety of Information Sources – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course Segment</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Yes</td>
<td>49</td>
<td>4</td>
<td>9</td>
<td>27</td>
<td>38</td>
</tr>
<tr>
<td>B. No</td>
<td>20</td>
<td>2</td>
<td>—</td>
<td>27</td>
<td>18</td>
</tr>
</tbody>
</table>

The most frequent response with 67.66% was (A). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 40.91% between the highest and lowest response on the most frequent response. Course segmentation also had most frequent response spread over more than one option with one segment selecting (A&B). All Year-level segments selected the same response.

Table 6.D1.2.3: Subjects Require a Variety of Information Sources Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

A × 5 79.66 % to 53.85 %
Deviation = 25.81 %

Demographic Segmentation (Course) Response Range

A × 4 90 % to 49.09 %
Deviation = 40.91 %

A&B × 1

Statement D1.3: Subjects Require Increasingly Complex Information Seeking Skills Throughout the Course

Characteristics and Features of Lifelong Learning (appendix 3), specifically “xvii. Enhancement of educability,” and “xviii. Enhancement of motivation for learning” (Dave 1973), were the broad basis of this next statement.
This statement proved disappointing with only 44.28% (N=89) respondents feeling that their subjects increased in complexity throughout their years at the college (A) compared with 52.74% (N=106) who selected (B), the negative response.

Considered per year-level results were close for first, second, and fourth year respondents with 47.46% (N=28) to 50.85% (N=30), 50.98% (N=26) to 47.06% (N=24), and 55% (N=11) to 40% (N=8) positive to negative, respectively. There were some non-respondents in each year-level. Of these three year-levels, first years were the only segment who demonstrated a slight lean toward a negative response. Third year and postgraduates also expressed a negative response but by greater percentages, 33.33% (N=15) to 60% (N=27), and 34.62% (N=9) to 65.38% (N=17) positive to negative, respectively.

Table 6.D1.3.1: Subjects Require Increasingly Complex Information Seeking Skills Throughout the Course – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>28</td>
<td>26</td>
<td>15</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>B.No</td>
<td>30</td>
<td>24</td>
<td>27</td>
<td>8</td>
<td>17</td>
</tr>
</tbody>
</table>

There was more discrepancy between course segments where clearer opinions were stated. The exception to this was the Bachelor of Education with 51.79% (N=29) Yes (A) to 48.21% (N=27) No (B). The Bachelor of Education and the Bachelor of Arts were the only courses to record positive responses. Bachelor of Arts recorded 83.33% (N=5) Yes (A) to 16.67% (N=1) No (B). Bachelor of Teaching, Bachelor of Ministries, and Diploma of Ministries all recorded negative responses of 56.76% (N=42), 60% (N=6), and 54.55% (N=30) respectively.
Table 6.D1.3.2: Subjects Require Increasingly Complex Information Seeking Skills Throughout the Course – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Yes</td>
<td>28</td>
<td>5</td>
<td>3</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td>B. No</td>
<td>42</td>
<td>1</td>
<td>6</td>
<td>30</td>
<td>27</td>
</tr>
</tbody>
</table>

The most frequent response with 44.28% was (B). Greatest deviation occurred when responses were considered by Course segmentation with a total variance of 36.99% between the highest and lowest response on the most frequent responses. Course segmentation had most frequent response spread over more than one option. Year-level segments selected the same responses at different frequencies and with lesser deviation.

Table 6.D1.3.3: Subjects Require Increasingly Complex Information Seeking Skills Throughout the Course – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th></th>
<th>A × 2 55 % to 50.98 %</th>
<th>Deviation = 4.02 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>B × 3</td>
<td>65.38 % to 50.85 %</td>
<td>Deviation = 14.53 %</td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th></th>
<th>A × 2 83.33 % to 51.79 %</th>
<th>Deviation = 31.54 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>B × 3</td>
<td>60 % to 54.55 %</td>
<td>Deviation = 5.45 %</td>
</tr>
</tbody>
</table>

Statement D1.4: Did the Last Piece of Assessment Work Submitted Require Library Use

Characteristics and Features of Lifelong Learning (appendix 3) were the basis of this statement requesting that considered the “x. Emphasis on self-learning, inter-learning, self-evaluation, participatory evaluation
of the individual's performance, and co-operation evaluation of group work” (Dave 1973). Specifically, this asked a question to draw correlation between assessment (Appendix 5) and the library. Optional responses were:

A. Yes, for study only
B. Yes, to work with colleagues
C. Yes, to use resources
D. No
E. No, but I used the library to obtain extra information

Data indicated that assessment generally required basic library use, an information literacy skill upon which to develop more advanced individual search motivation skills.

The majority, 69.15% (N=139) of assessment work was perceived to have (C), required use of library resources. This was followed by (A), for study only with 26.37% (N=53), then (E) with 12.94% (N=26), (D) with 8.46% (N=17), and (B) with 6.47% (N=13).

Response (C) was most frequent per year-level ranging from 84.62% (N=22) for postgraduates, through 73.33% (N=33) third years, 66.1% (N=39) first years, 65% (N=13) fourth years, and 62.75% (N=32) second years. This was followed in all year-levels by (A) ranging from 35.56% (N=16) third years, through 30.77% (N=8) postgraduates, 25.49% (N=15) second years, 22.03% (N=13) first years, and 15% (N=3) fourth years. Fourth year respondents also rated (D) and (E) with 15% (N=3). Third most popular response for all year-levels was (E) ranging from 23.08% (N=6) postgraduates, through 17.65% (N=9) second years, 15% (N=3) fourth years, 8.89% (N=4) third years, and 6.78% (N=4) first years.
Segmentation per course produced the same result with (C) proving most popular ranging from 83.78% (N=62) Bachelor of Teaching, through 72.73% (H-40) Diploma of Ministries, 70% (N=7) Bachelor of Ministries, 69.64% (N=39) Bachelor of Education, and 66.67% (N=4) Bachelor of Arts. This was again followed by (A) ranging from 30.91% (N=17) Diploma of Ministries, through 26.79% (N=15) Bachelor of Education, 24.32% (N=18) Bachelor of Teaching, 20% (N=2) Bachelor of Ministries, 16.67% (N=1) Bachelor of Arts. Bachelor of Arts students also rated (E) at this level.

Minor preferences varied with Bachelor of Teaching rating (B) the third most popular result with 8.11% (N=6). Diploma of Ministries and Bachelor of Education results were similar to year-level segmentation with (E) at 25.45% (N=14) and 12.5% (N=7) respectively.
with a variance of 21.87% between the highest and lowest response on the most frequent response (C). All Year-level segments selected the same response (C) at a lesser deviation.

Table 6.D1.4.3: Did the Last Piece of Assessment Work Submitted Require Library Use – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>C × 5 84.62 %</th>
<th>to</th>
<th>62.75 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation = 21.87 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>C × 5 83.78 %</th>
<th>to</th>
<th>66.67 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation = 17.11 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Statement D1.5: Type of assessment

Assumptions on Lifelong Learning Resource System (appendix 1) included “viii. Learning is more efficient if guided by a process structure (eg. learning plan) than by a content structure (eg. course outline)” (Knowles 1990:181–182). This statement utilized this assumption to further examine college assessment.

This statement was based on the Lifelong Learning Assessment Methodologies of Candy, Crebert, and O'Leary (1994), as contained in the Christian College assessment schedule (Appendix 5):

A. Open book exam
B. Deadlined research project
C. Essay
D. Clinical case study
E. Negotiated learning contract
F. Report
G. Other (Please specify)
The title Other (G) was included Seminar representing the answer Seminar of Perception for Psychology from Textbook (N=1). Under Teach Plan was included Overview (N=1), Unit Plan (N=1), Folio (N=3), Unit Plan (N=1), Year Plan (N=1), and Maths Programme (N=1).

Data identified, through this statement and (Appendix 5), that the variety desired for lifelong learning facilitative assessment may not exist to the ideal levels. Little variety was shown overall with responses to the next statement with 65.67% (N=132) selecting (C) Essay, followed by (B) Research with 20.9% (N=42).

Each year-level selected (C) as the description of their current assessment piece ranging from 78.43% (N=40) second years, 71.19% (N=42) first years, 69.23% (N=18) postgraduates, 55.56% (N=40) second years, and 35% (N=7) fourth years. Fourth year produced the same percentage response for the two most common responses. This was followed by (B), Research, by first and second year, postgraduates, and fourth year with 22.03% (N=13), 19.61% (N=10), 26.92% (N=7), and 35% (N=7) respectively. Third year respondents listed (B) as their third response with 11.11% (N=5). Their second response was (D) Case Study with 15.56% (N=5).

First year respondents also listed (F) Report highly at 8.47% (N=5). Third year respondents' third most popular response was split two ways between (B) and (G), Other, all responses here being Teaching Plans, 11.11% (N=5).

Table 6.D1.5.1: Type of Assessment – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Open</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>B.Research</td>
<td>13</td>
<td>10</td>
<td>5</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>
Essay (C) was most popular per course segment ranging from 80% (N=44) Diploma of Ministries, 70% (N=7) Bachelor of Ministries, 66.67% (N=4) Bachelor of Arts, 62.5% (N=35) Bachelor of Education, and 55.41% (N=41) Bachelor of Teaching. This was again followed by (B) with 32.14% (N=18) Bachelor of Education, 30% (N=3) Bachelor of Ministries, 17.57% (N=13) Bachelor of Teaching, 16.67% (N=1) Bachelor of Arts, and 12.73% (N=7) Diploma of Ministries. Bachelor of Arts also had 12.73% (N=1) respondent select (G) Other, a Seminar. Bachelor of Teaching respondents also selected (G) Other highly listing Teaching Plans, 9.46% (N=7).

Table 6.D1.5.2: Type of Assessment – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Open</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>B.Research</td>
<td>13</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>C.Essay</td>
<td>41</td>
<td>4</td>
<td>7</td>
<td>44</td>
<td>35</td>
</tr>
<tr>
<td>D.Case Study</td>
<td>10</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>E.Contract</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>F.Report</td>
<td>1</td>
<td>—</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>G.Other</td>
<td>7</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Seminar</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Teaching Plan</td>
<td>7</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>
The most frequent response with 65.67% was (C). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a variance of 43.43% between the highest and lowest response on the most frequent response (C). All Year-level segments selected the same response (C) at a lesser deviation.

Table 6.D1.5.3: Type of Assessment – Percentages/Deviation Results

<table>
<thead>
<tr>
<th>Demographic Segmentation (Year-level) Response Range</th>
<th>78.43% to 35%</th>
</tr>
</thead>
<tbody>
<tr>
<td>35% Deviation = 43.43%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic Segmentation (Course) Response Range</th>
<th>80% to 55.41%</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.41% Deviation = 24.59%</td>
<td></td>
</tr>
</tbody>
</table>

**Statement D1.6: Would better Library Use Have Improved Results**

Characteristics and Features of Lifelong Learning (**appendix 3**) included “xix. Creating learning opportunities. Utilizing these opportunities”. (Dave 1973). This statement tested the personal perception of utilization levels of one of a selection of the many information sources available and found that many respondents thought they were not making full use of the library as a learning opportunity.

There were 55.22% (N=111) of respondents who thought that (A) better library use would have improved their results while 17.91% (N=36) (B) disagreed and 19.9% (N=40) were (C) unsure.

Each year-level segment selected (A) from 73.08% (N=19) postgraduates, through 60.78% (N=31) second years, 50% (N=10) fourth years, 49.15% (N=29) first years, and 48.89% (N=22) third years. The lowest percentage for each year-level was (B) with 22.03% (N=13) first years, 20% (N=9) third years, 17.65% (N=9) second
years, 15% (N=3) fourth years, and 7.69% (N=2) postgraduates. The response of uncertainty, (C), rated higher than (B) the negative response with first and second years and postgraduates with 23.73% (N=14), 19.61% (N=10), and 15.38% (N=4) respectively. Third and fourth years provided the same results for (B) and for (C) with 20% (N=9) and 15% (N=3) respectively.

Table 6.D1.6.1: Becomesetter Library Use Have Improved Results – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>29</td>
<td>31</td>
<td>22</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>B.No</td>
<td>13</td>
<td>9</td>
<td>9</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>C.Unsure</td>
<td>14</td>
<td>10</td>
<td>9</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Results were similar when compared per course segmentation with 60.71% (N=34) Bachelor of Education, 56.36% (N=31), 52.7% (N=39) Bachelor of Teaching, and 50% (N=5) Bachelor of Ministries answering in the affirmative. Bachelor of Arts was the exception with the most popular response being (C) with 50% (N=3) and (A) receiving 33.33% (N=2). Second most popular answers varied when considered per course segmentation. Bachelors of Teaching and Ministries produced the same response for (B) and (C) with 18.92% (N=14) and 20% (N=2) respectively. Diploma of Ministries, and Bachelor of Education produced close results slightly favouring (C) with 20% (N=11) and 17.86% (N=10) compared to 18.18% (N=10) and 16.07% (N=9) respectively for (B) responses.

Table 6.D1.6.2: Would better Library Use Have Improved Results – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Yes</td>
<td>39</td>
<td>2</td>
<td>5</td>
<td>31</td>
<td>34</td>
</tr>
<tr>
<td>B.No</td>
<td>14</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>C.Unsure</td>
<td>14</td>
<td>3</td>
<td>2</td>
<td>11</td>
<td>10</td>
</tr>
</tbody>
</table>
The most frequent response with 55.22% was (A). Greatest deviation occurred when responses were considered by Course segmentation even though, with a lesser variance of only 10.71% between the highest and lowest response on the most frequent response, Course segmentation also had most frequent response spread over more than one option with one segment selecting (C). All Year-level segments selected the same response (A) and while this was at a greater deviance than the four Course segments who selected (A), less deviance was evident because each Year-level selected the same response.

Table 6.D1.6.3: Would better Library Use Have Improved Results – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

| A × 5 | 73.08% to 48.89% | Deviation = 24.19% |

Demographic Segmentation (Course) Response Range

| A × 4 | 60.71% to 33.33% | Deviation = 27.38% |

C × 1

**Statement D1.7: Do you feel it is the role of the library to help you:**

A. Understand the nature of information society
B. Develop information skills/knowing need-finding-evaluation-etc.
C. Develop high level communication skills
D. Be bibliographic literacy
E. Have knowledge of information sources
F. Develop media literacy

This statement was based on the Characteristics and Features of Lifelong Learning (appendix 3) included “xiv. Inter-disciplinary,
unity of knowledge. Emphasis on quality of knowledge besides quantity” (Dave 1973). Data, while indicating a broad selection, of perceptions focused on the more traditional information roles of the library. The selection of lifelong learning/information literacy skills listed in this statement will need to be a focus of customer education attention.

The highest response for this statement was (B) with 48.26% (N=97) followed by (E) with 44.78% (N=90). The second group of responses were (D) with 34.33% (N=69), (A) with 29.85% (N=60), (F) with 27.86% (N=56), and (C) with 21.89% (N=44).

First, second, fourth years and postgraduates selected (B) with 62.71% (N=37), 45.1% (N=23), 35% (N=7), and 42.31% (N=11). Fourth years also selected (D) and (E) at this rate. (E) then (D) were the second and third most frequent response by first years 57.63% (N=34) and 38.98% (N=23), second years 37.25% (N=19) 31.37% (N=16), and postgraduates 34.62% (N=9) and 30.77% (N=8). Postgraduates also selected (F) at this rate.

Second most frequent response from fourth year was (A) 25% (N=5) then (F) with 20% (N=4). Third years selected (E) 46.67% (N=21) then (B) 42.22% (N=19) and (D) 33.33% (N=15).

Table 6.D1.7.1: Perceptions of Role of Library in Skill Development – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Society</td>
<td>21</td>
<td>14</td>
<td>13</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>B.Skills</td>
<td>37</td>
<td>23</td>
<td>19</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>C.Commun.</td>
<td>12</td>
<td>9</td>
<td>14</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>D.Biblio</td>
<td>23</td>
<td>16</td>
<td>15</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>E.Source</td>
<td>34</td>
<td>19</td>
<td>21</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>F.Media</td>
<td>19</td>
<td>11</td>
<td>14</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>
Each course segment selected either (B) or (E) most frequently. Bachelor of Teaching (E) 47.3% (N=35) then (B) 44.59% (N=33) and (A) and (D) 33.78% (N=25). Bachelor of Arts (B) 83.33% (N=5), (C) and (E) 33.33% (N=2), then (D) and (F) 16.67% (N=1). Bachelor of Ministries (B) and (E) 60% (N=6), (A) 50% (N=5), and (D) and (F) with 30% (N=3). Diploma of Ministries (B) 45.45% (N=25), (D) and (E) 36.36% (N=20), and (A) 21.82% (N=12). Bachelor of Education with (B) 50% (N=28), (E) 48.21% (N=27), and (D) 35.71% (N=20).

Table 6.D1.7.2: Perceptions of Role of Library in Skill Development – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Society</td>
<td>25</td>
<td>—</td>
<td>5</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>B.Skills</td>
<td>33</td>
<td>5</td>
<td>6</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>C.Commun.</td>
<td>21</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>D.Biblio</td>
<td>25</td>
<td>1</td>
<td>3</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>E.Source</td>
<td>35</td>
<td>2</td>
<td>6</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>F.Media</td>
<td>23</td>
<td>1</td>
<td>3</td>
<td>11</td>
<td>18</td>
</tr>
</tbody>
</table>

The most frequent response with 48.26% was (B). Greatest deviation occurred when responses were considered by **Year-level segmentation** with most frequent responses divided between three options. Course segmentation had most frequent response spread only over two options.

Table 6.D1.7.3: Perceptions of Role of Library in Skill Development – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- B × 3
- B,D&E × 1
- E × 1

Deviation = 3 options

Demographic Segmentation (Course) Response Range
**Statement D1.8: Areas of Life and Library Integration**

This statement was founded on the Characteristics and Features of Lifelong Learning (appendix 3) specifically “iv. Horizontal integration: * Home, neighbourhood, local community, larger society, world of work, mass media, recreational, cultural, and religious. * Between subjects of study. * Between different aspects of development such as physical, moral, and intellectual, during a particular stage of life” (Dave 1973). It inquired about perceptions of library integration with areas of life including:

A. Home  
B. Local community  
C. Larger society  
D. Employment  
E. Study  
F. Recreational  
G. Cultural  
H. Spiritual  
I. Other

The nature of exposure to libraries and the variable of survey location may have influenced responses from this statement. However, the closely spread responses against all other options reflected the growing acceptance of libraries as a lifelong learning agent.

The most frequently selected response was (E) Study with 64.18% (N=129), followed by (H) Spiritual with 49.75% (N=100), then closely
by (G) 45.77% (N=92), (C) 44.28% (N=89), (B) 39.3% (N=79), (D) 36.82% (N=74), (F) 32.84% (N=66) and (A) 31.84% (N=64).

Only 4.98% (N=10) chose (I) Other and these were (N=6) third years, (N=2). There were 13.33% (N=6) third years, 7.69% (N=2) postgraduates, and 3.39% (N=2) first years. Of these, 1.99% (N=4) total, 4.44% (N=2) third years, 7.69% (N=2) postgraduates noted All of the Above. There were 8.89% (N=4) third years who noted Other University Libraries.

When considered per year-level (E) was the most popular choice per year-level, with the exception of second years who narrowly preferred (H) with 52.94% (N=27) with 49.02% (N=25) selecting (E). The year-levels that selected (E) most frequently showed percentages ranging from 71.11% (N=32) third years, 69.49% (N=41) first years, 69.23% (N=18) postgraduates, and 65% (N=13) fourth years. Second most frequent responses varied considerably between year-level. First and third years narrowly selected (G) with 50.85% (N=30) and 48.89% (N=22) respectively with (H) as their third most frequent response with 49.15% (N=29) and 44.44% (N=20) respectively. Third years also selected (C) at this rate. (C) was also the third most frequent response by second years with 37.25% (N=19). Second most frequent response by fourth years was (H), Spiritual, with 60% (N=12) and then (C) and (G) with 55% (N=11). Postgraduates selected (A) and (B) as their second most frequent responses with 57.69% (N=15) followed by (C) with 53.85% (N=14).

Table 6.D1.8.1: Library Integration with Life – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Home</td>
<td>17</td>
<td>15</td>
<td>10</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>B.Community</td>
<td>24</td>
<td>13</td>
<td>19</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Year</td>
<td>1st Yr</td>
<td>2nd Yr</td>
<td>3rd Yr</td>
<td>4th Yr</td>
<td>P.G.</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>C.Society</td>
<td>25</td>
<td>19</td>
<td>20</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>D.Employ.</td>
<td>22</td>
<td>15</td>
<td>17</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>E.Study</td>
<td>41</td>
<td>25</td>
<td>32</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>F.Recreat.</td>
<td>20</td>
<td>15</td>
<td>15</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>G.Cultural</td>
<td>30</td>
<td>17</td>
<td>22</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>H.Spiritual</td>
<td>29</td>
<td>27</td>
<td>20</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>I.Other</td>
<td>2</td>
<td>—</td>
<td>6</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>All</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Aust.</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Content</td>
<td>—</td>
<td>—</td>
<td>4</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Other Uni.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Considered per course segment, each course with the exception of Diploma of Ministries selected (E) with ranges from 100% (N=6) for Bachelor of Arts, 71.62% (N=53) for Bachelor of Teaching, and 64.29% (N=36) for Bachelor of Education. Bachelor of Ministries selected (E) at 50% (N=5) but also selected (A) and (H) at this rate. (E) was second highest preference for Diploma of Ministries at 52.73% (N=29), their highest preference was (H) at 54.55% (N=30). Their third highest response came from (C) at 38.18% (N=21).

Second highest response for course segments varied. Bachelor of Teaching recorded 54.05% (N=40) for (H) and 51.35% (N=38) for (C) and (D). Bachelor of Education recorded (G) as second highest response with 57.14% (N=32) followed by (H) with 44.64% (N=25). Bachelor of Arts produced the same number of responses for (B), (C), (D), and (G) with 50% (N=3) at second highest followed by (F) and (H) with 33.33% (N=2). Bachelor of Ministries produced the same rate of response for (G) and (H) as second highest preference at 40% (N=4) followed by (B), (C), and (D) with 30% (N=3).
Table 6.D1.8.2: Library Integration with Life – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Home</td>
<td>24</td>
<td>1</td>
<td>5</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>B. Community</td>
<td>34</td>
<td>3</td>
<td>3</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>C. Society</td>
<td>38</td>
<td>3</td>
<td>3</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>D. Employ.</td>
<td>38</td>
<td>3</td>
<td>3</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>E. Study</td>
<td>53</td>
<td>6</td>
<td>5</td>
<td>29</td>
<td>36</td>
</tr>
<tr>
<td>F. Recreat.</td>
<td>31</td>
<td>2</td>
<td>4</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>G. Cultural</td>
<td>36</td>
<td>3</td>
<td>4</td>
<td>19</td>
<td>32</td>
</tr>
<tr>
<td>H. Spiritual</td>
<td>40</td>
<td>2</td>
<td>5</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>I. Other</td>
<td>1</td>
<td>—</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>All</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Australian content</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Other</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>4</td>
</tr>
</tbody>
</table>

The most frequent response with 64.18% was (E). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 35.71% between the highest and lowest response on the most frequent response (E). Course segmentation had most frequent response spread over more than one option with one segment selecting (H). Year-level segments selected the same responses but with (E) at a much lesser deviation.

Table 6.D1.8.3: Library Integration with Life – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[ E \times 4 \ 71.11\% \text{ to } 49.02\% \]

Deviation = 22.09%

Demographic Segmentation (Course) Response Range

\[ E \times 3 \ 100\% \text{ to } 52.73\% \]

Deviation = 47.27%

400
6.5.2 College, Course and Library Integration and Library Use

Rationale or Perception (Statement D2)

Characteristics and Features of Lifelong Learning (appendix 3) included “xv. Unifying and organizing principle for all education” (Dave 1973). This series of statements identified perceptions of the level of integration between the three primary areas of college life.

Statement D2.1: Study Behaviour – New Subjects

Characteristics and Features of Lifelong Learning (appendix 3) included “viii. General and professional fields of education are inter-related and interactive” (Dave 1973). This statement sought confirmation from respondents on the issue of their own behaviour integrating the library into their college routine.

The next question sought details of library use methodology by asking what was done upon commencement of a new subject. Multiple selections were once again permitted. Additional responses were catered for by the option Other (G). Under the title of Other, many responses were Nil or Nothing Until Assessment Lists are Provided, and Wait Until Last Minute for the purposes of this case-study these were combined. The other options were:

A. Rush to the library to beat others to the recommended books
B. Rush to the library to beat others to the best books to be found from the library catalogue
C. Collate a bibliography of resources that will be useful
D. Refer to the list you have been developing of resources that are useful to this subject
E. Refer to the CD-Rom or periodical indexes to find the most up-to-date information

F. Rely on the list of recommended resources provided by the lecturer

G. Other (Please specify)

Results did not reflect self-direction with the highest preference per year-level being for (F) Recommended Resources Provided by Lecturers 51.24% (N=103). Second frequently used information sources by first and second year respondents with 28.81% (N=17) and 27.45 (N=14) respectively, was (D) List Personally Developed. This was promising because it showed an inclination toward lifelong learning skills. Referring to an Index (E) would also be considered a lifelong learning skill but this ranked lowly, across each year-level with 8.46% (N=17). Selection (C), Collating a Personal Bibliography, another lifelong learning skill, proved consistently better across the year-levels with 25.37% (N=51).

Again it would have been hoped that preferences toward lifelong learning skill would have developed through the year-levels however this was not the case. Statements C, D, and E were lifelong learning skill based. The percentages of these statements as preferred sources were 25.37% (N=51), 26.87% (N=54), and 8.46% (N=17) respectively. This relatively low percentages reflect a low preference for self-directed information searching. The less self directed means of statements A, B, and F were preferred and resulted in the higher percentages of 21.89% (N=44), 20.4% (N=41), and 51.24% (N=103) respectively.

Table 6.D2.1: Study Behaviour – New Subjects – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Recommend</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Year</td>
<td>1st Yr</td>
<td>2nd Yr</td>
<td>3rd Yr</td>
<td>4th Yr</td>
<td>P.G.</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>B.Catalogue</td>
<td>8</td>
<td>12</td>
<td>9</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>C.Biblio.</td>
<td>15</td>
<td>12</td>
<td>10</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>D.List</td>
<td>17</td>
<td>14</td>
<td>10</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>E.Index</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>F.Lecturer</td>
<td>27</td>
<td>30</td>
<td>21</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>G.Other</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Nil</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Buy books</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Library</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>catalogue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Browse Libr.</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Own knowledge</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Find the books that others miss</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Other uni.</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

All course divisions recorded most highly in the area of almost complete reliance on lecturers (F). This ranged from 30% (N=3) for Bachelor of Ministries through to 56.76% (N=42) for Bachelor of Teaching. Diploma of Ministries recorded 47.27% (N=26), Bachelor of Arts with 50% (N=3) and Bachelor of Education with 51.79% (N=29). This was also reflected by the second choice of the Bachelor of Teaching students with 28.38% (N=21) students selecting (A) which was heading straight for recommended books. Second most preferred area for Bachelor of Education and Diploma of Ministry respondents was (D), the information literacy skill of developing ongoing bibliographies, with 33.93% (N=19) and 34.55% (N=19) respectively.
Table 6.D2.2: Study Behaviour – New Subjects – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Recommend</td>
<td>—</td>
<td>3</td>
<td>8</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>B.Catalogue</td>
<td>20</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>C.Biblio.</td>
<td>20</td>
<td>—</td>
<td>2</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>D.List</td>
<td>13</td>
<td>—</td>
<td>3</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>E.Index</td>
<td>4</td>
<td>—</td>
<td>1</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>F.Lecturer</td>
<td>42</td>
<td>3</td>
<td>3</td>
<td>26</td>
<td>29</td>
</tr>
<tr>
<td>G.Other</td>
<td>5</td>
<td>2</td>
<td>—</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Nil</td>
<td>4</td>
<td>2</td>
<td></td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Buy books</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Library</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>catalogue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Browse Libr.</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Own</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find the</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>books that</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>othersmiss</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other uni.</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

The most frequent response with 51.24% was (F). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 20.76% between the highest and lowest response on the most frequent response. Course segmentation also had most frequent response spread over more than one option with one segment selecting (A,D&F). All Year-level segments selected the same response (F).

Table 6.D2.3: Study Behaviour – New Subjects – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[ F \times 5 \ 65 \% \ \text{to} \ 45.76 \% \]

Deviation = 19.24 %

Demographic Segmentation (Course) Response Range
Statement D2.2: Study Behaviour – Assessment – When first given a piece of assessment do you:

The Processes in Lifelong Learning (appendix 2) model proposes that the process of lifelong learning consists of individuals engaging in a series of spiral learning projects involving elements including “v. Designing of a plan of strategies for using these resources” (Knowles 1990:183). This statement utilized the model to investigate the standard of lifelong learning behaviour perceived by respondents.

For this question the option of Other received responses which included under the umbrella of Nil, Wait Until the Last Minute, and Wait for the Assignment Titles. Browse included Use library Catalogue (N=1), Have a Look Around (N=1), and Browse Library on Topic (N=1).

A. Rush to the library to beat others to the recommended books
B. Rush to the library to beat others to the best books to be found from the library catalogue
C. Collate a bibliography of resources that will be useful
D. Refer to the list you have been developing of resources that are useful to this subject
E. Refer to the CD-Rom or periodical indexes to find the most up-to-date information
F. Rely on the list of recommended resources provided by the lecturer
G. Other (Please Specify)

This question endeavoured to support the answer to the previous question. Statistically, it showed some comparisons, the most popular

\[ F \times 4 \times 56.76\% \quad \text{to} \quad 30\% \]
Deviation = 20.76\%
category being (F) Relying on Recommended Resources with a total of 40.8% (N=82). (B), Using Library Catalogues was the second preference over all with 28.36% (N=57); (C), Collating a Personal Bibliography with 26.37% (N=53); and (A), Rushing to Recommended Books with 21.39% (N=43). Preferences one and four, (F) and (A) respectively, were highly controlled library experiences which demonstrated little lifelong learning skills. The second and third preferences, (B) and (C), were however lifelong learning skills.

All year-levels with the exception of first year students recorded (F), Lecturer Recommended Resources, as the highest preference with Postgraduates recording 53.85% (N=14), Second Year respondents recording 45.1% (N=23), Third and Fourth Year recording 40% (N=18) and (N=8) respectively. This was recorded as the second highest percentage by first year respondents at 32.2% (N=19) along with (C), A Personal Bibliography followed by (A) with 22.03% (N=13). Second and fourth year students recorded (B) as their second priority with 33.33% (N=17) and 25% (N=5). Second years then ranked (A) with 21.57% (N=11) and (C) with 19.61% (N=10) while fourth years ranked (C) with 30% (N=6) followed by (A) with 15% (N=3). Third year's second highest preference was (A) and (C) with 21.57% (N=11) followed by (B) with 17.65% (N=9). Postgraduates recorded slightly differences preferences with (C) at 26.92% (N=7) followed by (B) at 23.08% (N=6) and (A) at 19.23% (N=5).

Table 6.D2.2.1: Frequency of Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Recommend</td>
<td>13</td>
<td>11</td>
<td>11</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>B.Catalogue</td>
<td>20</td>
<td>17</td>
<td>9</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>C.Biblio</td>
<td>19</td>
<td>10</td>
<td>11</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>D.List</td>
<td>16</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>
Considered by course the Bachelor of Arts demonstrated a preference towards (B) Using the Library Catalogue with 50% (N=3), a lifelong learning information literacy skill. Each of the other courses demonstrated a preference for more dependent means by the majority choosing (F) Recommended Resources with Bachelor of Teaching 40.54% (N=30), Bachelor of Ministries 40% (N=4), Diploma of Ministries 45.45 (N=25), and Bachelor of Education 37.5% (N=21). Further responses varied between courses. Bachelor of Teaching respondents selected as second most popular response the lifelong learning preference (B) Using Library Catalogues with 31.08% (N=23), followed by a non-lifelong learning preference (A) Recommended Resources with 28.38% (N=21). Bachelor of Ministry respondents selected (A) as their second most popular response with 30% (N=3) followed by (C) a Personal Bibliography, (F), and (G) Other with the answer browse all with 33.33% (N=2). Similarly, Bachelor of Ministries respondents selected (A) next with 30% (N=3), followed by (C), and (D) A Personal List with 20% (N=2). Diploma of Ministries selected (C) and (D) with 27.27% (N=15) then (B) with 20% (N=11). Bachelor of Education respondents, for their second preference, chose (C) with 33.93% (N=19), then (B) with 28.57% (N=16), and (D) with 25% (N=14).

Table 6.D2.2.2: Frequency of Library Use – Raw Numbers by Course

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.Index</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>F.Recommend</td>
<td>23</td>
<td>18</td>
<td>8</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>G.Other</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Nil</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Browse</td>
<td>2</td>
<td>—</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

consideration by course the Bachelor of Arts demonstrated a preference towards (B) Using the Library Catalogue with 50% (N=3), a lifelong learning information literacy skill. Each of the other courses demonstrated a preference for more dependent means by the majority choosing (F) Recommended Resources with Bachelor of Teaching 40.54% (N=30), Bachelor of Ministries 40% (N=4), Diploma of Ministries 45.45 (N=25), and Bachelor of Education 37.5% (N=21). Further responses varied between courses. Bachelor of Teaching respondents selected as second most popular response the lifelong learning preference (B) Using Library Catalogues with 31.08% (N=23), followed by a non-lifelong learning preference (A) Recommended Resources with 28.38% (N=21). Bachelor of Ministry respondents selected (A) as their second most popular response with 30% (N=3) followed by (C) a Personal Bibliography, (F), and (G) Other with the answer browse all with 33.33% (N=2). Similarly, Bachelor of Ministries respondents selected (A) next with 30% (N=3), followed by (C), and (D) A Personal List with 20% (N=2). Diploma of Ministries selected (C) and (D) with 27.27% (N=15) then (B) with 20% (N=11). Bachelor of Education respondents, for their second preference, chose (C) with 33.93% (N=19), then (B) with 28.57% (N=16), and (D) with 25% (N=14).

Table 6.D2.2.2: Frequency of Library Use – Raw Numbers by Course

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Recommend</td>
<td>—</td>
<td>3</td>
<td>9</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>B.Catalogue</td>
<td>23</td>
<td>3</td>
<td>1</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>
The most frequent response with 40.87% was (F). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a total variance of 21.65% between the highest and lowest response on the most frequent responses. Year-level segmentation had most frequent response spread over more than one option. Course segments selected the same responses at different frequencies and with lesser deviation.

Table 6.D2.2.3: Frequency of Library Use – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th></th>
<th>F × 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>53.85%</td>
<td>to</td>
</tr>
<tr>
<td>Deviation</td>
<td>32.2%</td>
<td>21.65%</td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th></th>
<th>F × 4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>45.45%</td>
<td>to</td>
</tr>
<tr>
<td>Deviation</td>
<td>33.33%</td>
<td>12.12%</td>
</tr>
</tbody>
</table>

**Statement D2.3: Study Behaviour – New Semester:** When you enter the library at the beginning of semester what do you do

The Processes in Lifelong Learning (**appendix 2**) model proposes that the process of lifelong learning consists of individuals engaging in a series of spiral learning projects involving elements including “vi. executing the plan” (Knowles 1990:183). This statement examined study behaviour to investigate the level of perceived integration
between college life and library use behaviour. The library use behaviours considered were:

A. Rush to the library to beat others to the recommended books or texts for the subject
B. Browse through the library to see what is new
C. Browse through the best books to be found from the library catalogue for each subject
D. Collate a bibliography of resources that will be useful
E. Develop a list of resources that are useful to each subject
F. Refer to periodical indexes to find the most up-to-date information for each subject
G. Other (Please specify)

Data indicated a casual start to each semester with respondents waiting until they knew exactly what becomes required by each subject prior to commencing any real form of further reading.

The highest percentage of respondents, 36.82% (N=74), selected (B), Browsing the Library to See What is New. This was followed by Other with 16.92% (N=34). Under the title (G) Other, Wait for Assignment Topic included topic such as Don't use library at beginning of semester (N=2). After this came, (C), Browsing for subject resources, 21.89% (N=44), (E), Developing a List of Resources 9.45% (N=19), (D) with 8.46% (N=17), and (A) with 7.46% (N=15).

(B), Browsing the Library was the most popular choice by each year including postgraduates with ranges from 50% (N=10) of fourth years through 45.76% (N=27) first years, 31.37% (N=16) second years, 30.77% (N=8) postgraduates, down to 28.89% (N=13) third years. Third years had the same number of respondents selected other
responses with 28.89% (N=13). Second most popular responses across the board was (C), Browsing through Books on College Subjects with a range from 26.92% (N=7) postgraduates, 25.49% (N=13) second years, 25% (N=5) fourth years, 22.03% (N=13) first years, and 13.33% (N=6) third years. Third years also had 13.33% (N=6) who selected the Other response of Nil. Third preferences were considerably lower preferences and varied from 15.69% (N=8) second years selecting (E), 15% (N=3) four years selecting (A), 13.56% (N=8) first years selecting (E), down to 11.54% (N=3) postgraduates selecting (E), (F), and (G), and 11.11% (N=5) third years selected (E).

Table 6.D2.3.1: Frequency of Library Use – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Recommend</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>B.Browse</td>
<td>27</td>
<td>16</td>
<td>13</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>C.Catalogue</td>
<td>13</td>
<td>13</td>
<td>6</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>D.Biblio</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>E.List</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>F.Index</td>
<td>—</td>
<td>2</td>
<td>2</td>
<td>—</td>
<td>3</td>
</tr>
<tr>
<td>G.Other</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nil</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Personal</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Reading</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Wait for</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>Assign.Topic</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Quiet Time</td>
<td>4</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Study</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Look at</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>notice board</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Talk with</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>friends</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

When considered by Course Segmentation (B) again proved most popular with 66.67% (N=4) of Arts respondents down to 37.5%
(N=21) Bachelor of Education, 36.49% (N=27) Bachelor of Teaching, 34.55% (N=19) Diploma of Ministries, down to 30% (N=3) Bachelor of Ministries. Diploma of Ministries and Bachelor of Education were closely followed by 30.9% (N=17) and 25% (N=14) who selected (C). Second most popular for Bachelor of Teaching, although not as close statistically as the second most popular preference for B.Ed, and Dip.M., were (C) and (G) with 14.86% (N=11).

Table 6.D2.3.2: Frequency of Library Use – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Recommende</td>
<td>1</td>
<td>—</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>B.Browse</td>
<td>27</td>
<td>4</td>
<td>3</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>C.Catalogue</td>
<td>11</td>
<td>—</td>
<td>2</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>D.Biblio</td>
<td>2</td>
<td>—</td>
<td>2</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>E.List</td>
<td>5</td>
<td>—</td>
<td>2</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>F.Index</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>G.Other</td>
<td>11</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Nil</td>
<td>5</td>
<td>—</td>
<td>—</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Personal</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wait for</td>
<td>5</td>
<td>1</td>
<td>—</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Assign.Topic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quiet Time</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>4</td>
</tr>
<tr>
<td>Study</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Look at</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>notice board</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talk with</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The most frequent response with 36.82% was (B). Greatest deviation occurred when responses were considered by **Course segmentation** with a variance of 36.67% between the highest and lowest response on the most frequent response (B). All Year-level segments selected the same response, (B) with a lesser deviance.
Table 6.D2.3.3: Frequency of Library Use – Percentages/Deviation

Results

Demographic Segmentation (Year-level) Response Range

\[ B \times 5 \quad 50\% \quad \text{to} \quad 28.89\% \]
Deviations = 21.11%

Demographic Segmentation (Course) Response Range

\[ B \times 5 \quad 66.67\% \quad \text{to} \quad 30\% \]
Deviations = 36.67%

Statement D2.4: Do you feel the role of the library is:

Characteristics and Features of Lifelong Learning (appendix 3) included “vi. Universal in character” (Dave 1973) and formed the basis of this statement.

Education is the fundamental purpose of the library but few libraries realize the full range of customer education. The library's most generalizing function is education under which all other functions are contained. The library must be an education centre where communications and information are means to an educational end, not the actual purpose. This concept formed into a series of statements to identify the lifelong learning role of the library in the tertiary setting:

A. A broadening and deepening of the skills of self-directed inquiry
B. The diagnosis of information and learning needs
C. Translation of these needs into learning objectives
D. Identification of resources, including guided experiences, for accomplishing the objectives
E. Designing of a plan of strategies for using these resources
F. Executing the plan
G. Evaluating the extent to which the objectives have been accomplished
Data indicated that the general learning role of the library was perceived to be self-directed inquiry although other options received fairly even responses indicating growing recognition of the lifelong learning role of the library.

Just over half of the respondents, 50.75% (N=102) selected (A). This was followed by (D) with 44.28% (N=89), then (B) with 32.84% (N=66), (C) with 27.36% (N=55), and (E) with 25.37% (N=51). Final preferences were (G) with 19.4% (N=39) and (F) with 18.91% (N=38).

Four year-level segments selected (A) most frequently, first years with 61.02% (N=36), second years with 47.06% (N=24), third years with 48.89% (N=22), and postgraduates with 53.85% (N=14) followed by (D) with 50.85% (N=30), 39.22% (N=20), 44.44% (N=20), and 38.46% (N=10) respectively. First, second years and postgraduates followed this with (B) with 38.98% (N=23), 25.49% (N=13), and 34.63% (N=9). Postgraduates also rated (C) at this level while first and second years rated this fourth with 35.59% (N=21) and 21.57% (N=11). Third and fourth most frequent responses for third year segment was (E) 33.33% (N=15) and (B) 31.11% (N=14).

Fourth years selected (D) 45% (N=9), (B) 35% (N=7), (A) and (G) 30% (N=6), and (E) and (F) 25% (N=5).

Table 6.D2.4.1: Perceptions on Role of the Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Skills</td>
<td>36</td>
<td>24</td>
<td>22</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>B.Needs</td>
<td>23</td>
<td>13</td>
<td>14</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>C.Objective</td>
<td>21</td>
<td>11</td>
<td>10</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>D.Identify</td>
<td>30</td>
<td>20</td>
<td>20</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>E.Design</td>
<td>19</td>
<td>8</td>
<td>15</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>
Bachelor of Teaching, Bachelor of Arts, Bachelor of Ministries, and Diploma of Ministries each selected (A) with 52.7% (N=39), 100% (N=6), 60% (N=6), and 52.73% (N=29). Bachelor of Teaching then selected (D) 44.59% (N=33), (E) 41.89% (N=31), and (B) 33.78% (N=25). Bachelor of Arts then selected (B) 33.33% (N=2) and (C), (D), (E) and (G) with 16.67% (N=1) with no response against (F). Bachelor of Ministries then selected (D) 50% (N=5), (B) 30% (N=3), (C), (F) and (G) with 20% (N=2). Diploma of Ministries then selected (D) 41.82% (N=23), (B) 38.18% (N=21) and (C) 32.73% (N=18).

The most frequent response of Bachelor of Education was (D) with 48.21% (N=27), then (A) 48.21% (N=22), (E) 28.57% (N=16), and (B) 26.79% (N=15).

Table 6.D2.4.2: Perceptions on Role of the Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Skills</td>
<td>39</td>
<td>6</td>
<td>6</td>
<td>29</td>
<td>22</td>
</tr>
<tr>
<td>B.Needs</td>
<td>25</td>
<td>2</td>
<td>3</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>C.Objective</td>
<td>20</td>
<td>1</td>
<td>2</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>D.Identify</td>
<td>33</td>
<td>1</td>
<td>5</td>
<td>23</td>
<td>27</td>
</tr>
<tr>
<td>E.Design</td>
<td>31</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>F.Execute</td>
<td>16</td>
<td>—</td>
<td>2</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>G.Evaluate</td>
<td>19</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

The most frequent response with 50.75% was (A). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 47.3% between the highest and lowest response on the most frequent response (A). Course segmentation also had most frequent response spread over more than one option with one segment selecting (D). Year-level segments were also spread over (A) and (D).
at the same rate as per Course segmentation although with a lesser deviation.

Table 6.D2.4.3: Perceptions on Role of the Library – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range
A × 4 61.02 % to 30 %
Deviation = 31.02 %

D × 1

Demographic Segmentation (Course) Response Range
A × 4 100 % to 39.29 %
Deviation = 60.71 %

D × 1

Statement D2.5: Perceptions of Library Role on Campus

Characteristics and Features of Lifelong Learning (appendix 3) included “ii. Education viewed in its totality encompassing and unifying all stages and forms of education” (Dave 1973). This statement endeavoured to determine whether the library was perceived within this characteristic.

Cropley and Dave's (1978) major characteristics to define a policy for lifelong learning organization of education systems involved Democratization – development of different types of intelligence, interests and motivations; and Flexibility – diverse education technologies, media, techniques, lesson timing and content – eg. which subject do you associate a visit to the library – maths, language, art.

Statement response options utilized these characteristics:

A. Designing information products and services
B. Diagnosing users' information needs
C. Evaluating, synthesising, structuring and packaging information
D. Educating users to access and use information
E. Participating in programmes targeted at developing literacy skills
F. Access to information
G. Improvement of library services to meet changing needs
H. Contributions of information technology and productivity
I. Library policy, planning, and advisory activities

Again, data indicated that the respondent perception of the library on campus generated around the tradition library role of information access facilitator (F) and (G). It was pleasing to discover that customer education (D) rated so highly (third) further indicating the developing respondent perceptual connection between lifelong learning and the library. Over half of the respondents, 51.74% (N=104) selected (F), followed by (G) with 46.77% (N=94), then (D) with 44.78% (N=90), (B) with 38.81% (N=78) and (A) with 37.31% (N=75). This was followed by (H) with 32.34% (N=65), (C) with 31.84% (N=64), (I) with 28.36% (N=57) and (E) with 27.36% (N=55).

First, third years and postgraduates selected (F) with 61.02% (N=36), 51.11% (N=23), and 57.69% (N=15). Second and third most frequent response for first years and postgraduates was (G) with 55.93% (N=33) and 42.31% (N=11) then (D) 49.15% (N=29) and 38.46% (N=10). First years also selected (B) at this rate while postgraduates also selected (C). Third years selected (D) 46.67% (N=21) then (G) 42.22% (N=19).

Second years selected (D) 49.02% (N=25), (F) and (G) 45.1% (N=23), and (A) 43.14% (N=22). Fourth years selected (G) 40% (N=8) then (F) and (I) with 35% (N=7) and (B) and (E) with 30% (N=6).

Table 6.D2.5.1: Perception on Role of College Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Design</td>
<td>23</td>
<td>22</td>
<td>17</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>
Year  | 1st Yr | 2nd Yr | 3rd Yr | 4th Yr | P.G.
--- | --- | --- | --- | --- | ---
B.Diagnose  | 29 | 20 | 14 | 6 | 9
C.Evaluate  | 21 | 13 | 16 | 4 | 10
D.Educate  | 29 | 25 | 21 | 5 | 10
E.Partic.  | 16 | 12 | 12 | 6 | 9
F.Access  | 36 | 23 | 23 | 7 | 15
G.Improve  | 33 | 23 | 19 | 8 | 11
H.Contrib.  | 21 | 16 | 16 | 5 | 7
I.Library  | 20 | 11 | 11 | 7 | 8

Each Bachelor degree course selected (F) ranging from 48.21% (N=27) Bachelor of Education, 50% (N=37) Bachelor of Teaching, 60% (N=6) Bachelor of Ministries to 100% (N=6) Bachelor of Arts. Bachelors of Teaching, Arts, and Education selected (G) as their second most frequent response with 44.59% (N=33), 33.33% (N=2), and 46.43% (N=26). Bachelors of Teaching and Arts also selected (D) at this rate. Third choice for Bachelor of Teaching was (A) with 39.19% (N=30) for Bachelor of Education it was (D) with 42.86% (N=24). Second most frequent response for Bachelor of Ministries was (B) 50% (N=5) and (D) and (G) with 40% (N=4). Bachelor of Arts made no response for (A), (B), (C), (E), (H), and (I).

Diploma of Ministries selected (G) 52.73% (N=29), then (F) 50.91% (N=28), and (D) 49.09% (N=27).

Table 6.D2.5.2: Perception on Role of College Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Design</td>
<td>30</td>
<td>—</td>
<td>4</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>B.Diagnose</td>
<td>29</td>
<td>—</td>
<td>5</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>C.Evaluate</td>
<td>26</td>
<td>—</td>
<td>2</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>D.Educate</td>
<td>33</td>
<td>2</td>
<td>4</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>E.Partic.</td>
<td>22</td>
<td>—</td>
<td>1</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>F.Access</td>
<td>37</td>
<td>6</td>
<td>6</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>G.Improve</td>
<td>33</td>
<td>2</td>
<td>4</td>
<td>29</td>
<td>26</td>
</tr>
</tbody>
</table>
The most frequent response with 51.74% was (F). Greatest deviation occurred when responses were considered by Year-level segmentation with most frequent responses divided between three options. Course segmentation had most frequent response spread only over two options.

Table 6.D2.5.3: Perception on Role of College Library Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

\[
\begin{align*}
D & \times 1 \\
F & \times 3 \\
G & \times 1
\end{align*}
\]

Deviation = 3 options

Demographic Segmentation (Course) Response Range

\[
\begin{align*}
F & \times 4 \\
G & \times 1
\end{align*}
\]

Deviation = 2 options

Statement D2.6: The life roles that should be catered for by our library are those of:

Characteristics and Features of Lifelong Learning (appendix 3) included “xii. Inter-generational learning, family learning, community learning” (Dave 1973) indicating the role of the library and learning across all areas of life. The competencies of lifelong learning are comprised of the skills for the various life roles (appendix 8) and were listed by Knowles (1990). This list was used as the foundation of the response options for this statement.
Data indicated that responses centred around traditional library roles and those that reflected the philosophy of the college. There were 69.65% (N=140) respondents who selected (A). Behind this there was a clear gap before most of the other, close options, (B) and (F) with 39.8% (N=80), (E) with 38.31% (N=77), (G) with 33.83% (N=68), (D) with 33.33% (N=67), and (C) with 31.84 (N=64). Only 4.48% (N=9) respondents selected (H) Other responses.

Each year-level selected (A) as their most frequent response rating from 84.75% (N=50) first years, 70% (N=14) fourth years, 65.38% (N=17) postgraduates, 62.75% (N=32) second years, and 60% (N=27) third years. First and fourth years, and postgraduates selected (B) as their second highest selection with 54.24% (N=32), 45% (N=9), and 42.31% (N=11) respectively. Second and third years selected (E) as the second most popular response with 41.18% (N=21) and 33.33% (N=15) respectively. Fourth years also selected (F) at the same rate. (F) was the third most frequent response for first, second, third years and postgraduates with 49.15% (N=29), 35.29% (N=18), 31.11% (N=14), and 38.46% (N-10) respectively. Third years also selected (G) at this rate while fourth years selected (C) and (E) at 40% (N=8).

Table 6.D2.6.1: Life Roles Library Should Cater For – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Learner</td>
<td>50</td>
<td>32</td>
<td>27</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>B.Self</td>
<td>32</td>
<td>16</td>
<td>12</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>C.Friend</td>
<td>22</td>
<td>14</td>
<td>13</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>D.Citizen</td>
<td>23</td>
<td>16</td>
<td>13</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>E.Family</td>
<td>24</td>
<td>21</td>
<td>15</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>F.Worker</td>
<td>29</td>
<td>18</td>
<td>14</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>G.Leisure</td>
<td>24</td>
<td>14</td>
<td>14</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>H.Other</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Pastoral</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>
Considered by course segmentation, preference was shown toward (A) with percentages ranging from 83.33% (N=5) Bachelor of Arts, 78.57% (N=44) Bachelor of Education, 70% (N=7) Bachelor of Ministries, 68.92% (N=51) Bachelor of Teaching, and 60% (N=33) Diploma of Ministries. Second and third highest responses varied with course segmentation. Bachelor of Teaching recorded 40.54% (N=30) for (F) and 37.84% (N=28) for (C) and (E). Bachelor of Arts recorded 66.67% (N=4) for (B), (C), and (F) and 50% (N=3) for (D) and (G). Bachelor of Ministries record 50% (N-5) for (D) and (G) and 40% (N=4) for (C), (E), and (F). Diploma of Ministries recorded 36.36% (N=20) for (E) and 32.73% (N=18) for (B). Bachelor of Education recorded 46.43% (N=26) for (B) and (F) and 42.86% (N-24) for (E).

Table 6.D2.6.2: Life Roles Library Should Cater For – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Learner</td>
<td>51</td>
<td>5</td>
<td>7</td>
<td>33</td>
<td>44</td>
</tr>
<tr>
<td>B.Self</td>
<td>25</td>
<td>4</td>
<td>7</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>C.Friend</td>
<td>28</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>D.Citizen</td>
<td>26</td>
<td>3</td>
<td>5</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>E.Family</td>
<td>28</td>
<td>2</td>
<td>4</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>F.Worker</td>
<td>30</td>
<td>4</td>
<td>4</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>G.Leisure</td>
<td>25</td>
<td>3</td>
<td>5</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>H. Other</td>
<td>3</td>
<td>—</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Pastoral</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Teacher</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>All</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>AV</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>
The most frequent response with 69.65% was (A). Greatest deviation occurred when responses were considered by **Year-level segmentation** with a variance of 24.75% between the highest and lowest response on the most frequent response (A). All Course segments selected the same response (A) but with a slightly lesser deviation.

Table 6.D2.6.3: Life Roles Library Should Cater For Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

A × 5 84.75 % to 60 %

Deviation = 24.75 %

Demographic Segmentation (Course) Response Range

A × 5 83.33 % to 60 %

Deviation = 23.33 %

**Statement D2.7: What do you believe are the roles of the library:**

Characteristics and Features of Lifelong Learning (appendix 3) included “iii. Inclusion of formal, non-formal, and informal patterns of learning” (Dave 1973). This statement provided response options that utilized these characteristics to determine perceptions of library roles in this regard:

A. Working with respondents
B. Working with staff
C. Working with community
D. Customer education – various kinds
E. Maintaining collection
F. Education in information technology
G. On-spot assistance
H. Guidance in self-directed and resource-based learning
I. Orientation
J. Design of specific features to meet needs

K. Resources

Data indicated that responses were thinly spread with all responses receiving sufficient interest to show their support as a recognized component of library service. No responses recorded more than 50%. Highest responses were (K) 47.76% (N=96), (A) 42.28% (N=87), (G) 41.29% (N=83), (E) 38.81% (N=78), (H) 36.82% (N=74), and (B) 34.33% (N=69). The lower group of responses were (C) 28.86% (N=58), (J) 25.87% (N=52), (F) 25.37% (N=51), (D) 23.88% (N=48), and (I) 22.39% (N=45).

Responses varied with year-level segment, first, third and fourth years most frequently responding with (K) 54.24% (N=32), 51.11% (N=23), and 45% (N=9). First years then chose (H) 50.85% (N=30), and (E) 49.15% (N=29). Third years chose (G) 42.22% (N=19) and (A) 40% (N=18) as their second and third most frequent responses. Fourth years next chose (B) and (E) with 35% (N=7) then (A), (D), and (G) 30% (N=6).

Second years and postgraduates selected (A) with 47.06% (N=24) and 53.85% (N=14). Second years then chose (G) 43.14% (N=22) and (K) 39.22% (N=20) while postgraduates chose (K) 46.15% (N=12) and (G) 42.31% (N=11).

Table 6.D2.7.1: Perceptions on Role of Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Respondent</td>
<td>25</td>
<td>24</td>
<td>18</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>B.Staff</td>
<td>22</td>
<td>17</td>
<td>15</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>C.Community</td>
<td>19</td>
<td>11</td>
<td>15</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>D.Education</td>
<td>14</td>
<td>12</td>
<td>9</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
Bachelor of Teaching and Diploma of Ministries selected (A) 51.35% (N=38) then 52.73% (N=29). Bachelor of Teaching then selected (K) 47.3% (N=35) and (G) 44.59% (N=33). Diploma of Ministries then selected (G) 50.91% (N=28) and (K) with 42.64% (N=24). Bachelor of Arts and Education most frequently selected (K) with 66.67% (N=4) and 51.79% (N=29). Bachelor of Arts then selected (H) 50% (N=3) and (B) and (C) with 33.33% (N=2) with nil responses against (D), (G), (I) and (J). Bachelor of Education selected (E) 44.64% (N=25) and (H) 39.29% (N=22) as second and third most frequent responses. Bachelor of Ministries selected (E) with 60% (N=6), (A), (H), and (K) with 40% (N=4) then (B), (C), and (J) with 30% (N=3).

Table 6.D2.7.2: Perceptions on Role of Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.Maintain</td>
<td>29</td>
<td>19</td>
<td>15</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>F.Inform</td>
<td>19</td>
<td>9</td>
<td>11</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>G.On-spot</td>
<td>25</td>
<td>22</td>
<td>19</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>H.Guidance</td>
<td>30</td>
<td>16</td>
<td>15</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>I.Orient</td>
<td>13</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>J.Design</td>
<td>19</td>
<td>12</td>
<td>10</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>K.Resource</td>
<td>32</td>
<td>20</td>
<td>23</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>

Bachelor of Teaching and Diploma of Ministries selected (A) 51.35% (N=38) then 52.73% (N=29). Bachelor of Teaching then selected (K) 47.3% (N=35) and (G) 44.59% (N=33). Diploma of Ministries then selected (G) 50.91% (N=28) and (K) with 42.64% (N=24). Bachelor of Arts and Education most frequently selected (K) with 66.67% (N=4) and 51.79% (N=29). Bachelor of Arts then selected (H) 50% (N=3) and (B) and (C) with 33.33% (N=2) with nil responses against (D), (G), (I) and (J). Bachelor of Education selected (E) 44.64% (N=25) and (H) 39.29% (N=22) as second and third most frequent responses. Bachelor of Ministries selected (E) with 60% (N=6), (A), (H), and (K) with 40% (N=4) then (B), (C), and (J) with 30% (N=3).
The most frequent response with 47.76% was (K). Greatest deviation occurred when responses were considered by Course segmentation with most frequent responses divided between three options. Year-level segmentation had most frequent response spread only over two options.

Table 6.D2.7.3: Perceptions on Role of Library – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

- A × 2
- K × 3

Deviation = 2 options

Demographic Segmentation (Course) Response Range

- A × 2
- E × 1
- K × 2

Deviation = 3 options

Statement D2.8: What do you view as the education role of the library?

Assumptions on Lifelong Learning Resource System (appendix 1) included “v. Resources for learning abound in every environment; a primary task of a learning system is to identify these resources and link learners with them affectively” (Knowles 1990:181–182). The role of the library as a physical resource was considered by this statement to determine respondent perception of this learning resource and applicability to personal lifelong learning endeavours in regard to:

A. Library orientation for new respondents

B. Library re-orientation
C. Education in using the library
D. Education in using information
E. Other (Please Specify)

Interestingly, in contrast to other statements, the responses to this question that would have indicated traditional library roles (A) and (B) scored lower response rates than the stronger lifelong learning responses of (C) and (D). Particularly response (D), which indicates the strong correlation between lifelong learning and the library. The highest responses came with (C) and (D) with 46.77% (N=94). The second highest response was (A) 39.8% (N=80) followed by (B) 27.36% (N=55). Only 2% (N=2) selected (E) Other.

First, third and fourth year segments selected (D) most frequently with 61.02% (N=36), 46.67% (N=21), 30% (N=6) followed by (C) with 57.63% (N=34), 44.44% (N=20), and 35% (N=5). Fourth years also selected (A) at 30% and (B) at 25%. First and third years then selected (A) 47.46% (N=28) and 31.11% (N=14).

Second years and postgraduates selected (C) with 45.1% (N=23) and 46.15% (N=12) then (A) 41.18% (N=21) and 42.31% (N=11). Second years also selected (D) at the rate of 46.15%. Postgraduates selected (D) as their third most frequent response with 38.46% (N=10) while second years chose (B) 27.45% (N=14).

Table 6.D2.8.1: Perceptions of Education Role of Library – Raw Numbers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Orient.</td>
<td>28</td>
<td>21</td>
<td>14</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>B.Re-orient.</td>
<td>19</td>
<td>14</td>
<td>9</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>C.Library</td>
<td>34</td>
<td>23</td>
<td>20</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>D.Inform.</td>
<td>36</td>
<td>21</td>
<td>21</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>
Bachelors of Teaching and Education selected (D) as their most frequent response with 50% (N=37) and 46.43% (N=26) followed by (C) with 41.89% (N=31) and 41.07% (N=23) then (A) 39.19% (N=29) and 39.29% (N=22).

Bachelor of Arts, Bachelor of Ministries and Diploma of Ministries each selected (C) most frequently 83.33% (N=5), 70% (N=7), and 50.91% (N=28). Bachelor of Ministries also selected (D) at this rate. Second and third most frequent responses were (D) 50% (N=3) and (B) 33.33% (N=2) Bachelor of Arts, (B) 30% (N=3) and (A) 20% (N=2) Bachelor of Ministries, (A) 47.27% (N=26) and (D) 38.18% (N=21) Diploma of Ministries.

Table 6.D2.8.2: Perceptions of Education Role of Library – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Orient.</td>
<td>29</td>
<td>1</td>
<td>2</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>B.Re-orient.</td>
<td>19</td>
<td>2</td>
<td>3</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>C.Library</td>
<td>31</td>
<td>5</td>
<td>7</td>
<td>28</td>
<td>23</td>
</tr>
<tr>
<td>D.Inform.</td>
<td>37</td>
<td>3</td>
<td>7</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>E.Other</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Nil</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Provide</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

The most frequent response with 46.77% was (C and D tied). Greatest deviation occurred when responses were considered by **Year-level segmentation** with most frequent responses divided between four
options. Course segmentation had most frequent response spread only over three options.

Table 6.D2.8.3: Perceptions of Education Role of Library – Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>A&amp;D × 1</th>
<th>C × 1</th>
<th>C&amp;D × 1</th>
<th>D × 2</th>
</tr>
</thead>
</table>

Deviation = 4 options

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>C × 2</th>
<th>C&amp;D × 1</th>
<th>D × 2</th>
</tr>
</thead>
</table>

Deviation = 3 options

Statement D2.9: Who do you think should take major responsibility for training the student in the skills of information searching:

Assumptions on Lifelong Learning Resource System (appendix 1) included “v. Resources for learning abound in every environment; a primary task of a learning system is to identify these resources and link learners with them affectively” (Knowles 1990:181–182). Human resources were considered by this statement to determine respondent perception of this learning resource and applicability to personal lifelong learning endeavours.

Inconsistent with other statements, data indicated that respondents thought that librarians (B) should be responsible for information literacy development of respondents. While this indicated the
correlation between lifelong learning and the library a stronger lifelong learning response would have been (C) where the respondent takes personal responsibility. This indicates an area requiring development.

A small majority of students, 52.74% (N=106), selected (B), followed by (C) with 36.32%, and (A) with 16.42% (N=33). Only 7.46% (N=15) of respondents selected (D) Other. This was made up primarily of 4.48% (N=9) who thought that it was a joint effort and simply stated All. There were 2% (N=2) who stated Parents, Colleagues, or a combination of Librarians and Students. Only .5% (N=1) noted the responses Packages or Teachers.

Each year-level segment selected (B) with 64.41% (N=38) first years, 47.06% (N=24) second years, 53.33% (N=24) third years, 35% (N=7) fourth years, and 50% (N=13) postgraduates. Fourth years also selected (C) at this rate. (C) was the second most frequent response by first years 52.54% (N=31), second years 31.37% (N=16), third years 35.56% (N=16), and postgraduates 11.54% (N=3). Postgraduates also selected (D) at this rate with the added responses of “all of the above” and “colleagues”. Third most frequent response from these segments was (A) with 16.95% (N=10) first years, 27.45% (N=14) second years, 8.89% (N=4) third years, 7.69% (N=2) postgraduates.

Table 6.D2.9.1: Responsibility for Information Skill Training – Raw Huabers by Year-level Segmentation

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Yr</th>
<th>2nd Yr</th>
<th>3rd Yr</th>
<th>4th Yr</th>
<th>P.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Lecturer</td>
<td>10</td>
<td>14</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>B.Librarian</td>
<td>38</td>
<td>24</td>
<td>24</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>C.Student</td>
<td>31</td>
<td>16</td>
<td>16</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>D.Other</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Parents</td>
<td>1</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>All</td>
<td>3</td>
<td>4</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>Colleagues</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>
Each course segment selected (B) with ranges from 83.33% (N=5) Bachelor of Arts, down to 70% (N=7) Bachelor of Ministries, 57.14% (N=32) Bachelor of Education, 52.7% (N=39) Bachelor of Teaching, and 41.82% (N=23) Diploma of Ministries. Bachelor of Arts also selected (C) at this rate with no other responses.

Second and third most frequent responses for Bachelor of Teaching, Bachelor of Ministries, Diploma of Ministries, and Bachelor of Education were (C) 40.54% (N=30), 30% (N=3), 18.18% (N=10), and 44.64% (N=25) and (A) with 20.27% (N=15), 20% (N=2), 16.36% (N=9), and 12.5% (N=7).

Table 6.D2.9.2: Responsibility for Information Skill Training – Raw Numbers by Course Segmentation

<table>
<thead>
<tr>
<th>Course</th>
<th>B.Teach</th>
<th>B.Arts</th>
<th>B.Min.</th>
<th>Dip.Min.</th>
<th>B.Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.Lecturer</td>
<td>15</td>
<td>—</td>
<td>2</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>B.Librarian</td>
<td>39</td>
<td>5</td>
<td>7</td>
<td>23</td>
<td>32</td>
</tr>
<tr>
<td>C.Student</td>
<td>30</td>
<td>5</td>
<td>3</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>D.Other</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Parents</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td>All</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>8</td>
<td>—</td>
</tr>
<tr>
<td>Colleagues</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Librarian</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td>&amp;student</td>
<td>Packages</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
<tr>
<td>Teachers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

The most frequent response with 52.74% was (B). Greatest deviation occurred when responses were considered by Course segmentation with a variance of 41.51% between the highest and lowest response.
on the most frequent response (B). Course segmentation segments each selected the same response (B). All Year-level segments selected the same response (B).

Table 6.D2.9.3: Responsibility for Information Skill Training Percentages/Deviation Results

Demographic Segmentation (Year-level) Response Range

<table>
<thead>
<tr>
<th>B x 5</th>
<th>64.41 % to 35 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation = 29.41 %</td>
<td></td>
</tr>
</tbody>
</table>

Demographic Segmentation (Course) Response Range

<table>
<thead>
<tr>
<th>B x 5</th>
<th>83.33 % to 41.82 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation = 41.51 %</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 7

CONCLUSIONS AND IMPLICATIONS

Both quantitative and qualitative methods were used to obtain data. Statistical analysis of results from the questionnaire resulted in five major factors creating scales which form the basis of a model related to the nature of perceptions regarding lifelong learning and library use. Chapter 7 refines the results of Chapter 6 to suggest an alternate model by showing how these perceptions of lifelong learning and library use may be formed into a model for library customer education.

This chapter will endeavour to tie together the whole study. It will chronologically proceed through the document survey and questionnaire.

7.1 Summary of Data Collection Analysis

The massive changes of the late twentieth century are demanding highly flexible and mobile people, capable of adapting to rapid change and continued learning throughout life. The hypothesis of this study is that libraries are a pivotal point for lifelong learning and this study has demonstrated that this, at the sample institute, is identifiable in some areas (C2.1, D1, D2, D4, D2.4), developing in others (C2.2, D8, D2.7), and requires further attention in other areas (C2.3, D3, D9, D2.6).

Personal perceptions are developed by individuals over many years. Patterns of overlap in the data, as expected, between respondent segments' perceptions were discovered. The hypothesis was supported, concluding that the lifelong learning and library connection was implicitly acknowledged (D2.4, D2.5) and practised on campus (B2.2,
Ch.4.2) and that continual customer education becomes required to consolidate the lifelong learning role of the library (B2.6, B2.7). One of the primary aims, successfully achieved by the tertiary library, is the facilitation of information access (D2.1) contributing to academic achievement (D6). Student learning (D1) and assessment methodology (D5) demonstrated that library use improvement (D6) and education (D2.8, D2.9) becomes beneficial.

The majority of statements, 63 to 32 of the survey questions, proved, using benefit segmentation principles of response diversity, to be more applicable to course segmentation. Reasons for this are greatly affected by external variables, many of which impinge on library attitudes and alter perceptions (C2.3) of the lifelong learning and library connection. Statements such as D1, D2, D3 about course content and D4, D5 about assessment reflect this. Some specific topics strongly reflected developing lifelong learning philosophies, primarily issues reflected in C2.7 and D1 proved more desirable of year-level segmentation.

Respondents may be said to possess the broad pre-requisite for lifelong learning listed by Cropley and Dave (1978:12) which were motivation (B3) and self-image (B2.1). These attitudes (B2.3), values (B2.6) and motives (B2.4) allow learners to believe that learning is desirable (B2.7). Lifelong learning attitudes, therefore, promote the desire to participate in education.

Lifelong learning skills were identified as being evident (C1). This is seen in the development of the capacity to recognize the need for information (D4); define the purpose of tasks such as assessment (D2.2); formulate and pose questions related to the task (B4, D5); use a wide range of information sources (B4, D5); select appropriate
information (D2.1); organize information (C4); communicate and present information (C7); and evaluate results (C2.7).

The survey examined the identifiable generic or context-free characteristics or qualities of the lifelong learner applicable to all different types and contexts of learning (A7, A8) and found that these were present to varying degrees in respondents. These qualities are affected by variables including background (A5, A6, A7), and subject speciality (A1), as expected, in varying degrees and combinations in different people.

Results of the survey indicate that the level of use (B1, B2) and interest in library resources (B6) and services (B7) varied. It was shown that integration of library skills into the college programme becomes preferred (C6) probably because of time investment outside of lectures. This was not consistent with results of studies by Mueller and Foreman (1987), Marshall (1989), Robertson (1989). Research by Breivik (1993) and Wilson (1994a,1994b) supported the full integration of library customer education in the tertiary curriculum and this becomes the ideal (C1.8,D1.7,D1.8,D2.9). This requires greater levels of co-ordination and considerable co-operation across all levels of college life. This will become increasingly more difficult, as a goal, as the college continues to grow.

Intrinsic adult independent learning skills were discovered to be evident in respondents (C1), particularly the concepts of information literacy (C1.4) and critical thinking (C1.7). Libraries have long been recognised as having a role in developing skills in the location (C1.2,C1.7,C2.1,C2.2,C2.6) and manipulation of information sources (B2.1,B2.7,C1.3,C2.1,C2.3) this was evident through survey results. Recently it has been realised that critical thinking skills (C2.3,C2.4)
are also intrinsic to information seeking behaviour (C2.5,C2.6,C2.7) and while the library has a role in developing skills in this area this was not evident through study results (D1.6,D1.7).

The educational role of the library seems to often be considered secondary to its custodial and service functions and this campus proved no exception. This means that generally, attempts to improve the quality of teaching practice and the effectiveness of customer education programmes have been under-funded and understaffed. This, data analysis confirmed (B2.5,C1.7,C2.1D1.7), is definitely an area requiring both further consideration by personnel and library promotion to alter perceptions.

7.1.1 Data Analysis

Tertiary libraries have usually been evaluated through the level of library service and resource usage, often compared with academic results. These studies have, universally been unable to make concrete conclusions related to the tertiary library and the development of lifelong learning skills because they have taken a bibliographic rather than skills approach. The constraints of the campus and its policies restrict, to varying extents, the effectiveness of the library, its customer education programmes and services, as a facilitator of lifelong learning skill development. It may not be possible for the library to function far removed from the policies and aims of the campus but data analysis indicated, broadly stated that:

i. Student perception of their information literacy/lifelong learning skill levels, needs, and ambitions are indeed an indicator of their own personal reality.
ii. Previous experiences (A5→A8) do not produce generalization that can be considered for segmentation of students into groups for library customer education for lifelong learning skill development.

iii. When information on the customer education lifelong learning skill needs perceived by students was segmented, more similarities could be made more on the basis of course of study rather than year-level of study.

iv. Library use data analysis (B1.1→B1.7) indicated that perceived needs varied per course, but that with years studying at tertiary level the variety and extent of library expanded. This indicated that exposure to tertiary study created in students the perception that library use, a component of lifelong learning, was applicable to many areas of life (B2.1→B2.7) and that the recognition of the need for lifelong learning skills developed through library customer education was desirable.

v. The self-perceived skill level of students varied per segment (C1.1→C1.8), awareness of personal skill levels was evident across the segments (C2.1→C2.7), but the acceptance of personal responsibility for development of skills was most evident in final year students. Recognition of library customer education as a resource for the development of lifelong learning skills was not as evident (C1.7) with results varying according to the course of study of students. Interest in library customer education methods (C1.6) varied per segment but was of different value to different courses more than to different year-levels. Some courses valued the development of lifelong learning skills (B2.1→B2.7,C2.1,C2.4) and thought that they would use libraries following graduation (B1.2,C2.7), but that libraries do integrate with life (C1.8,D1.8,D2.6).

vi. The integration of libraries within life (B2.4,B2.6,B2.7,C1.8,D1.8,D2.6) was most evident in the courses where library use was encouraged (D1.1,D1.2,D1.3) through a
variety of means, either assignment requirements (D1.4,D1.5), recommended readings (D2.3), or, particularly in the case of education students, further reading (D2.3). Courses that required less academic development, practical courses such as the course focusing on practical ministry, the Bachelor of Ministry, presented students who viewed the library more broadly and not from the purely academic stance of providing course related information D2.1→D2.9). Student course groups who (B1,B2) did not rely heavily on the library for academic requirements (D1.1) and who did not present with a history of academics or library use (A) took the stance of seeing the library as a life-wide resource (C1.8, D2.6) and the librarians as coordinators of lifelong learning skill development (D2.4,D2.5).

Librarian responsibilities for lifelong learning have traditionally come under four broad categories and these were supported by this study: working with students (B2.7); maintaining the collection (B1.5, B1.7); working with staff (D1); and working with the community (D2). These responsibilities all require an indepth knowledge and understanding of the lifelong learning and information literacy skill needs of the respondent market, provided by this study. They do suggest more of a subservient or educational support role rather than the library taking on a more proactive approach to lifelong learning skill building.

This study has discovered the need to expand this list considerably, through revealing the need to change the perception of students, particularly in some courses, for the need for the library in their life after college (B2.7). This firmly unites the principle that integrating library promotion with customer education skill building is also required (C1.6,C2.1,C2.3,C2.4). Students expressed their perceptions of their current skills levels through answers to a variety of questions (C1.5,C2.3,C2.6), C2.6 showing how student perceptions of their
current lifelong learning skill levels vary from their perception of skill level prior to enrolment (C2.5). Promotion of the library and implicit skill building activities are required to increase student expectations of their skills at the end of the course (C2.7). Students expressed a desire to increase skills, but suggested a lack of time and desire to invest their own time in non-assessed activities.

The College

Lifelong learning is implied in the college's curriculum on the basis of its commitment to academic freedom. This means, as discussed in Chapter 4, that lifelong learning is considered fundamental to the curriculum because critical thinking and an appreciation of differing perspectives and developments are encouraged. The evidence or foundation of this being the College's documented philosophy of the “freedom to learn, to think, to decide truth for themselves, to form their own values and make their own judgements” (CHC 1993a:2).

The campus document search, presented in Chapter 4, found that the Christian philosophy of Christian College provides a framework for philosophical considerations of lifelong learning through an emphasis of personal growth and development for the whole person as the basis for further learning and professional development. Integration of library personnel in all college and faculty activities facilitates promotion of the library as a lifelong learning agent. Lifelong learning of staff is evident and the philosophy of integration of professional and personal growth united through a broad interdenominational Christian philosophy.

College documentation did not mention lifelong learning explicitly even though it was inferred. Primarily, documentation emphasises personal growth and development for the whole person and provides
the basis for further learning and professional development. Many of the principles of lifelong learning are suggested rather than stated in the documents of the College. For example, undergraduate teacher education courses at College endeavour to equip teachers with a foundation for career-long professional growth and flexibility in employment. The College utilizes criterion-referenced assessment, formative rather than summative evaluation, and recognises the desirability of the principle of continuity of learning. College policy in the education faculty, for example, encourages library use and the College involves common first year subjects that promote positive information and library philosophies. This is not included in School of Ministry courses and, hence, greater diversity when considered per course is evident through college documentation.

The documentation of institutional commitment to lifelong learning encourages students to accept personal responsibility for, and confidence in their own future learning (B2,C2,D2). Students are subsequently far more likely to adopt deeper approaches because they have learned how to search, analyse and comprehend information. Transferable, higher-order meta-cognitive abilities are developed and the strategies and learning skills gained at university transferred into personal and work environments. Graduates should be able to determine what they need to know in order to perform particular tasks, or to draw meaningful conclusions.

7.2 Present Research Compared with Literature Review

The main findings of the present research relate to the affect or constraints imposed by variables, the documented policies of the campus within which the library must operate and the perceptions of library respondents. Further, the research related to the impact of shared characteristics of respondent segments on the most appropriate
approaches for customer education to develop lifelong learning skills and philosophies in respondents.

Although commonalities with previous research have been found, important new perspectives have been developed. The range of similarities between most appropriate segmentation for the various categories considered was surprising in the light of most earlier research. The fact that a significant number of respondents expressed beliefs that could be easily segmented, fitted with what a few researchers had suggested, but was a much clearer result and much broader in application than expected.

Other perceptions were also addressed by many of these respondents – shared responsibility for their present learning, the desire to be independent learners by the time of their graduation, and recognizing the place of self in the learning and knowing process.

The present research was also able to trace possible pathways of customer education leading to higher level lifelong learning skills and philosophies not observed by previous studies, and to report the important impact of common background of respondent segments on this process. The rate of lifelong learning skill and philosophy growth through existing, primarily implicit, approaches suggested general gradual development through exposure to the tertiary environment.

These findings have important implications for considering models of lifelong learning skill development, understanding factors influencing development and presentation of customer education programmes in tertiary libraries, researching other library areas, and for the development of lifelong learning skills and philosophies of tertiary students.
7.3 Implications for Customer education Practice

There are many different methodologies for customer education (C6). The development of any customer education programme must consider the interests, education levels, and subject expertise of potential respondents. These variables affect and influence the content and methodologies chosen for any customer education programme. Customer education should be designed to improve and reinforce attitudes in addition to providing information.

In terms of awareness of the affective skills that go to make up the successful independent learner, respondents show some sophistication (C7). Overall, they agreed that they found searching for information a satisfying experience, that they enjoyed practising the skills of independent learning and that they were not intimidated or embarrassed by the processes involved.

Section C2. Skills Assessment Rationale or Perception considered respondent expectation to develop information skills and their library use abilities throughout their time at college. It determined that results were very course specific with expectations from education courses demonstrating expectations of high lifelong learning desires and ministry students with very low expectations.

The Australian Library Association's Education Statement indicated that libraries are committed to the provision of services and products “directly tuned” to the needs of respondents (ALIA 1992), but library effectiveness is often measured by the quantity of resources and services. Very little research has considered respondent perceptions. It has been suggested that this is due to respondent perception of libraries and the perceived difficulty of assessing specific library contributions to learning (Wells 1995:121).
Educational psychologists have established that confidence levels adult learners have in their ability to perform any particular tasks is a direct reflection of subsequent performance levels of the tasks (C2.1, C2.2). The Wilson (1994a) study found that exposure to the academic environment was sufficient to increase confidence levels in various information skills. The present study would support results from the Wilson (1994b) study and indicate that any lack of confidence was not a barrier to information seeking behaviour, as had been suggested by other studies.

Students who lacked experience in the psychomotor skills of information seeking may fail to overcome elementary barriers to successful information seeking (C2.2). This may lead to a loss of confidence and a reluctance to persist with information seeking. Psychological barriers exist about reluctance of tertiary students to ask for assistance in the library. Oberman (1991:193–194) and Wilson (1994a) found that this was a widespread and persistent library problem. Wilson (1994a) found that students who displayed good affective skills acquisition demonstrated initiative, confidence and independence and gained satisfaction from using the library.

A lack of confidence amongst students can act as a barrier to affective information seeking behaviour. The last two statements in this section look at the confidence levels of the students from two different aspects; their level of confidence in asking for assistance when they need it (C2.4) and their confidence in their independent information seeking skills (C2.5). The respondents appeared quite confident about approaching library staff if they needed help, in contrast to the findings of studies conducted with students in the Hatchard and Crocker (1990:101) study. C2.5, C2.6, and C2.7 reflected increased perceived confidence and familiarity with library resources. Again,
percentages decreased with years at college, each year-level however selecting (E).

Many experiences in life can alter personal perception. Library customer education includes any activity or experience which creates the opportunity to learn. When librarians provide instruction that fosters skills development there is a significant increase in library use and expectations by respondents (Wakeman 1990:37). Respondents become aware of the increased opportunities available to them and view the role of the library from a new perspective. The library becomes a venue for self-directed learning and is transformed into a centre for active learning (Hubbard & Wilson 1986:22).

Library customer education services will be targeted to meet the needs of segments with homogeneous information needs. Considering each respondent segment as a set of individuals with specific needs dictates the need to facilitate different library customer education activities. The design of the education product must reflect the implicit and explicit recommendations made by respondents through the survey. The need to educate respondents as to the services offered and how to get the most out of the available resources must also be reflected in library promotion plans. Survey results indicated that education was needed to make respondents aware of the purpose of the library, its facilities and services. Promotional education activities are clearly required.

It may be concluded from the study that the implementation of an information skills self-directed workbook, designed for the different segments of the respondents becomes desirable and supported by students. Self-directed learners in a problem-based programme would benefit substantially from a one session library workshop which uses
a lecture on finding and evaluating information, a library tour, and a workbook they may use independently. This format may be too ominous to consider initially, but should be considered in any five-year customer education plan. It would permit self-directed learners to progress at their own pace in line with currently supported adult learning theories and apply the information available in the workbook to their own individual learning requirements.

The primary role of the library should be to empower (B2.7). Cram (1993:50), similarly, observed that increased competency in any area contributed to self esteem. Library contributions to respondent competency fulfils primary aims and objectives of the library. The techniques for customer education offered by the library must be as varied as possible and, to encourage participation, be linked to the direct needs of respondent segments. The library had been endeavouring to take a personal approach to customer education needs. The study demonstrated how respondents may be segmented to direct approaches to specific segments and thus reach a greater audience. One result of the study was the designing of a series of “how-to” library information sheets and a knowledge quiz sheet on different topics, including the correct use of indexes and compilation of bibliographies.

It may be concluded from results that segmented grouping for customer education sessions would need to vary in accordance with the library skills being taught. A session, for example, involving specific periodical resources of the collection might be directed towards the relevant course subject area. The skills of manual searching may be more appropriately addressed per year-level segment. Search strategies could be established for various subject
related areas. This becomes most important with the common subjects found in first or fourth year.

The preference demonstrated for course segmentation indicates that information literacy skills should be integrated into classes. Students should be required to use the library during all courses and experiences should be planned to assist learners gain library skills. Library skills should be integrated and include activities involving general library respondent processes and bibliographic instruction.

Even the best planned and organized customer education programme may not transform every participant into a dedicated library respondent and this would not be the goal. The library must discover what the needs of respondents are, how best to categorize these needs, and how to aid in the life-long learning of respondents. Fostering a positive perception of the value of lifelong learning library skills, through implicit customer education, can increase understanding of library services and facilities and reduce apprehension about visiting the library. It could encourage higher levels of utilization. This should lead to greater acceptance of formal customer education activities and higher library skill implementation levels.

Integration of information skills into the existing education programme becomes one of the best strategies for library customer education. Integration, through a problem-solving approach, enhances the lifelong learning skills of cognitive learning and information skill development. It accommodates the basic tenets of skills instruction by authorising systematic and sequential development of information skills, and through skill reinforcement. Skills, as required, are presented as thinking processes within broad individual parameters. This facilitates easy review and reinforcement of newly refined skills. It increases
acceptance and internalization of the need for library skill proficiency. Library respondents researching information on a particular concept are actively learning and developing an appreciation of the complexity of the discipline. Other lifelong learning skills developed include critical and analytical thinking, problem solving strategies, and communication skills unique to each particular discipline.

This study agrees with results from the Candy, Crebert and O'Leary (1994:103–104) study which indicated that positive results could be achieved if academic personnel linked research methods to information literacy and included an assessable component of library research in assignments. Library customer education could then be offered to coincide with assignments. The Queensland University of Technology thought that information literacy was fundamental to the design and delivery of every course.

The value of information skills should be more clearly reflected in the curriculum with course aims and objectives specifying information skills. Teaching methodologies will need to incorporate information skill building strategies, reading lists becomes minimal and alternative sources encouraged, library reserve collections becomes of reduced importance but library usage becomes of primary importance. Assessment would encompass information skills.

Library customer education must be directly related to the needs, interests, and problems of respondents. Library customer education is not an end in itself, but a vehicle for increased efficient and affective library use. It should facilitate the development of high level communication and information skills in an environment where opportunities are created to assist learners realize their full potential. Individuality should be recognized and encouraged, and
innate curiosity fostered and channelled to include a broad area of
general and specific knowledge, skills, and attitudes required in a well-
rounded individual. Library respondent educators must be facilitators
and mentors of positive attitudes to all aspects of communication, life,
and learning.

Programmes must develop with year-level, but be course specific.
A library education programme should help respondents develop
individual search strategies. These programmes must commence with
general library orientation skills and progressively build into more
sophisticated information retrieval skills. Customer education should
eventually lead to a sophisticated knowledge of sources. This will be
rephrased in library objectives to read a ‘sophisticated level of skills in
the utilization of a variety of resources’.

The fundamental objective of education services in libraries is
to improve the information seeking behaviour of respondents.
Positive information handling behaviour changes should make each
learner more independent and more efficient in their information
work. This would facilitate a more efficient, more sophisticated
respondent service. Education should allow respondents to make
more relevant and valuable demands upon library services. Customer
education should go beyond the teaching of particular utilization
skills to facilitate the development of problem solving abilities. A
valuable education activity should transcend training and achieve skill
proficiency. (Zachert 1990:5; King 1987:89–90)

Librarians considering the implementation of education programmes
must commence with an examination of the earlier library experiences
of respondents. Many respondents have experienced some form of
library education during their formal education. Library customer
education must build on this to link theory with practice and be integrated into training (Wakeman 1990:37). A respondent oriented approach to customer education would dictate a focus relative to the immediate context of individual needs, and respondents constructing needs out of personally important situations. (Kirk & Todd 1993:128)

Adults construct personal world views through the perceptions each have made regarding the world. They then behave in accordance with this perception. The identifiable determinants of these perceptions include personal beliefs, values, needs, attitudes, and self-experience. The adult's perception of each of these determinants is truth to the individual. Adults treat such determinants as true, because personal perceptions of each creates personal truth. This study has supported Patterson (1993:128) in that it has indicated that to the individual, perception may equal truth in the eyes of the beholder.

Lifelong learning is characterized by a flexibility of time, place, content, and technique. It requires a self-directed mixture of learning styles and strategies. The goal of lifelong learning is the fulfilment of the adaptive and creative functions of individuals leading to the continuous improvement of the quality of life. Learning opportunity, motivation, and educability are three essential prerequisites for the realization of this goal.

If a programme is not compulsory, and even if it is, attendance can not be guaranteed unless there is a perceived need by respondents. This study initiated the introduction of a Library Instruction Programme offered to all first year students at the college. The programme was not compulsory, and less than half of the students chose to participate. Respondents would like to use library resources more efficiently and experienced frustration at being unable to do so.
7.4 Introduction to the Perceptual Model

Researchers of library skill development have used a variety of models of library customer education, most describing qualitative differences developing in areas of behaviour or personal rationales. In this present research a third type of model seems to fit the data more usefully. The model of a ladder, similar to Maslow's Hierarchy, which emphasises the reaching of one step before the next, describes the present data. This metaphor is important in representing the developmental process because it emphasises the concept that steps are realized in a sequential way.

The quantitative and qualitative data that were analyzed, interpreted and discussed in Chapter 6 were obtained through questionnaires completed by respondents who were at varying stages of their tertiary education. The analysis of these data produced a perception based model of lifelong learning and the library connection to become a focus for customer education. These represent the qualitatively different ways in which the respondents had experienced, perceived and understood the connection between lifelong learning and libraries in the context of their philosophy of life.

Since this research focused on perceptions, a discussion of the implications of the study's findings is seen as an inherent part of its conclusions. This chapter concludes with a discussion of the research implications for librarians and suggestions for the conduct of further research that could extend, enrich and apply this study's outcomes.

7.4.1 Respondent Perceptions

A behavioural model and a relational model of customer education both emphasise a leaving behind of one way of developing the library skills of lifelong learning, and changing to another, qualitatively
different, way of library skill development. While it is useful to emphasise the qualitatively different aspects of the different positions and the changes over time, it is more in keeping with the present data to recognize the changes in students' development. This change can be seen as the interweaving of developing lifelong learning skills and philosophies while the respondents still utilize some of the skills they commenced college with. An example of this is the change of expected skill level at graduation between the time of commencement and graduating classes. Respondents seldom indicated that they did not wish their skill level to alter during their time at college. Rather this indicated the increased understanding of the value of lifelong learning skills and philosophies and reflected the gained confidence in their own personal objectives. Over time this became a qualitative change or development.

Another important outcome of perceiving respondent perceptions as interweaving themes, rather than stage-like changes, is the resultant similarity in the perception of different respondent segments. The present data paints a different picture. At any time in the research there were over a third of respondents able to be grouped together. The present educational emphasis on teaching for different learning styles has relevance in teaching library respondents in different segments.

One of the analyses that should be undertaken in a study of this kind is a comparison of the relationship between the information considered in the Literature Review, alternate models as included in Chapter Three and the proposed Perceptual Model of Chapter Seven. The following discussion examines both the similarities and the differences between the literature review and this study's outcomes.
The perceptions that have been identified in this study, provide a diverse yet, in some way, alternative view to that portrayed in the literature. However, there are some elements that are common to both the literature reviewed and this research study's outcome. These common elements relate to:


ii. Failing to realize the opinions of respondents disregards the fact that particular groups or segments of people will accept only those modes of information transfer perceived as personally relevant or applicable (Kunz, Rittel & Schwuchow 1977:9).

iii. Analysis of respondent perceptions can lead to increased and more affective library use (Wells 1995:128).

iv. Needs analysis studies are able to produce orderings of respondent information source preferences (Gruppen 1990:168).

v. Customer education can be directed at specific respondent segments, respondent segments differed in their purpose for using the library but all groups within the one discipline shared procedural uses (Market 1989:133–38; Wilson 1994a).

vi. Adults have a desire to be independent and self-reliant learners (Knowles 1990:30,31; Wilson 1994a).

vii. Information literacy skill increases due to the influence of exposure to the tertiary environment which had a positive affect on the confidence levels of students (Wilson 1994a).

viii. Customer education in the form of training makes a difference to the implementation of specific skills (Mueller & Foreman 1987; Coombs & Houghton 1995:260–262; Robertson 1989).
ix. Respondents recognize the role of librarians in teaching respondents to find their way around a growing mass of information (James & Galbraith 1985; Gruppen 1990).

x. The skills of information retrieval, developed through formal and informal customer education, generate more positive perceptions of information retrieval, and in turn, are predictive of higher skill implementation levels (Marshall 1989).

xi. Information use and respondents' needs are a sound and justifiable basis for training programmes (Harris 1979:12–15; Fjallbrant & Malley 1984, Lubans 1978, Bruce 1990, and Wilson 1994a).


xiii. Information retrieval skills and respondent needs are a sound and justifiable basis for customer education programmes (Bruce 1990; Wilson 1994a).

xiv. The ultimate goal is to have students utilize library skills to learn throughout life (Collins 1989; King 1987).

xv. Respondents require a clear interest in, and a need to be met by, education before they participate (Welborn & Kuehn 1988).


xvi. Learning occurs in tertiary libraries (Candy, Crebert & O'Leary 1994:150, 159) because lifelong learning extends beyond, as noted earlier, the formal curriculum into activities, practices, and services utilized during tertiary education years (Loper 1988).
Demands of courses can influence the lifelong learning and library connection because pro-library lecturers and their teaching methodology are reflected in student library use behaviour (Wells 1995:121,123).

These common elements of respondents' perceptions provide a basis for a consideration of the differences that exist in respondents' expressions of the qualitative differences in their experiences and understandings of lifelong learning. Differences are also evident in respondents’ preferred approaches and tactics for information skill philosophies and practices.

No assumption is made in this current study that the outcomes of the study are necessarily representative of all the possible perceptions of the issues considered. However, given the diversity of respondents' lifelong learning philosophies, it may be that the Perceptual Model developed here is more generally applicable to the wider tertiary student community.

7.5 The Perceptual Model for Tertiary Library Customercation

The perceptual model may be outlined as:

**Audience** – All internal tertiary students

**Premise** – Tertiary customer education theoretics and their components (Chapter 2.2), specifically lifelong learning (Chapter 2.3), including research developments through recorded history have focused on purely clinical or concrete physical and intellectual skills (Chapter 3.4). Skills in both these genre, however, can not be adequately, or effectively, developed without an emotional desire to do so (Chapter 3.6). This study examined the perceptions of students on a range of tertiary library related issues originating from gaps discovered during the literature review (Chapter 3) and also considered concrete issues or actual campus
library use in light of lifelong learning policies and procedures (Chapter 4).

**Segments** – Clear divisions appeared when each question was considered both demographically and geographically (Appendix 6). This ease of segmentation, indicated by the clear divisions evident in data generated from each part of the questionnaire (Appendix 6), is evident in the consideration of both physical information seeking (A,B1) and intellectual (B1,C1) issues and emotional or perceptual (B2,C2,D2) issues. A perceptual model would approach tertiary students through the primary division of courses (Appendix 6). The approaching of students through courses would mean presenting customer education through a discipline focus.

**Perceptual Model** – The areas of perception included in this investigation and recommended within this model are library use (B), library skills (C), and integration of the library within the campus (D). Tertiary customer education needs to be viewed from a more multidimensional perspective, integrating all the aspects (B,C,D) as discussed during each chapter of this thesis.

Perceptions are irrevocably linked to skills. This was evident in the data when questionnaire parts 1 (library and skill use issues) were compared with questionnaire parts 2 (rationale and perception issues), particularly considering questionnaire data consistency between responses in part (B2) where library use perceptual rationales were considered and (C2) where library skill perceptions were considered.

The perceptual model is founded on the valuing and recognizing of the force of respondent perceptions as considered in the questionnaire parts B2, C2 and D2, as highly as actual skills, as considered in questionnaire parts B1, C1 and D1. The aims and objectives of a campus can reflect greatly upon the ability of the library
to openly engage in student lifelong learning skill development. Chapter 4 examined the aims and objectives of the campus and found an underlying support for the development of lifelong learning skills. Chapter 4 confirmed that library participation in lifelong learning skill development was feasible within the philosophy of the campus. Questionnaire Part D tested the foundation of this campus documentation by examining the actual experiences of students. Part D1 found that while students thought that library use was a necessary component of their assessment, it varied per course (appendix 6). This was supported by an analysis of the semester's Assessment Matrix which produced a list of the different assessment methodologies selected by faculty during one semester (appendix 5). These have been discussed throughout this thesis. Given an environment where lifelong learning is recognized, even at an elementary level, a model for library customer education can be proposed.

The alignment between self-evaluated skills (C1.2,C1.3,C2.5), self-observed lifelong learning values (B2.1,C2.7), recognition of personal experiential learning (C1.4,C2.6), recognition of areas of lifelong learning skills in need of further development (C1.5,C1.6,C2.3,C2.4), desire to further lifelong learning skills (C1.1,C2.2,C2.7), recognition of the role of the library in the development of lifelong learning skills (C1.7,C1.8,C2.1), and willingness to participate in explicit customer education to develop lifelong learning skills (B2.7,C1.7,D2.8), through participation in library customer education needs to be exploited.

The promotion and extension of a need recognized by students to develop a lifelong learning skill, or ability is the first rung or the foundation of the perceptual theory. Shaped as a ladder, therefore, interest in meeting the need becomes the next rung or step along the way. Once interest in lifelong learning is kindled, promoted,
or extended through a perceived need or desire, opportunity to develop the required skills or abilities is then required. Support in the way of encouragement is then required to progress further, then reinforcement to cement the developing or refining lifelong learning skills or knowledge. If achieved successfully this model suggests the result will be the adoption of the lifelong learning skill or ability utilized to meet the initial need. The Perceptual Model can be seen in Figure 7.1.

```plaintext
== Adoption of ==
= Lifelong Learning =
==== (D2) ======
==
==
= Reinforcement (D1) ==
==
==
= Encouragement (C2) ==
==
==
== Opportunity (C1) ==
==
==
== Interest (B2) ==
==
==
== Need (B1) =======
```

Figure 7.1 The Perceptual Model

In the Perceptual Model, positive perceptions are the foundation of each level, or rung on the ladder. Without positive perceptions the
desire to develop along each stage is not engaged. Librarians must recognize these levels and be the facilitator or motivator creating a positive environment so that positive lifelong learning experiences are created.

Customer education is the librarian's tool box with the wide variety of implicit and explicit methodologies appropriate for different individuals or student segments. The ease or success with which the librarian can lead students up this ladder is a variable in the students ultimately being able to use libraries and information literacy to be lifelong learners and the higher level goal of the adoption of a personal lifelong learning philosophy and the ability to be self-sufficient throughout the climb up the ladder using libraries and libraries as resources.

The Perceptual Model approaches students on the basis of groups possessing similarities (A). The model considers issues related to the use of libraries (B), then the lifelong learning skills associated with library use (C), and finally the integration of library use into life (D). The next section will discuss how this model originated from these various foci of the study.

7.5.1 Demographic (Focus A)

Section A. Demographic (Focus A) discovered the most logical division of respondents to facilitate a lifelong learning library education approach and the identifiable similarities in key areas of respondents' backgrounds. It determined that backgrounds were similar when considered per course segments with all five statements (A3,A8) being more diverse when considered per Course. These statements provided information which facilitated the grouping of respondents into demographic segments (A1,A2). It demonstrated that the students
in different courses are united by similarity in areas of background that may imply that some variables of background may lead to common choices of subjects.

It was discovered that students shared common library use background or experiential characteristics. This common ground facilitated them being grouped together. The next three focus areas of the study, each divided into two parts, provided data which, when analyzed, lead to a sequential set of six lifelong learning tiers. These six tiers lead from the personal identification of a learning need through to the adoption of a personal lifelong learning philosophy.

7.5.2 Library (Focus B)

The second set of statements, B. Library (Focus B) examined the personal methodologies implemented by students when using libraries and information resources and whether these indicated any characteristics of a lifelong learning philosophy. Librarians considering the implementation of education programmes must commence with an examination of the earlier library experiences of respondents. This part of the survey examined respondent's Library Use (Bl) and identified that through asking respondents to identify their own library use patterns and habits they actually identify their perceived library use skill needs. The first question in this section, B1.1, examined length of time respondents had spent away from libraries. This information linked learning episodes and library use as it confirmed the lifelong learning and library connection through identification of link between library use and need for information.

Each statement in Bl of the survey reflected a lack of satisfaction from information searching and a distinct preference for the simplest and quickest information path (B1.5, B1.7). It signified, however,
that the College library was meeting information needs, but this may also indicate that the College library was the easiest information avenue (B1.6). Issues of need, therefore, became the base level of the Perceptual Model's ladder leading to adoption of a lifelong learning philosophy.

Going into this survey it was assumed that respondents had preconceived notions about the relation of the library to their future learning needs. The survey revealed that respondents had connected use of the library with continued learning (B2) by inquiring about anticipated frequency of library use after graduation. It becomes expected that through involvement in tertiary education, development of lifelong learning skills would lead to increased self-directed library use. This part of the study revealed the expectations of students and identified that personally perceived interest in continued library use to facilitate personal learning was the next thing required in order to become lifelong learners.

Information sought (B2.3) indicated a negative attitude to the lifelong learning skills of enjoyment of searching for information with no clear pattern developing over year-levels through to Postgraduates that indicated a growing interest the use of a library for the locating of personal information. This indicated a growth of lifelong learning philosophical development throughout time at college.

Enjoyment and satisfaction leading to an interest in performing information seeking tasks are an indication of information seeking maturity and independence. Respondents thought that information seeking and analysis were enjoyable exercises (B2.1), so interest was evident at some level. The respondents also confirmed that personal
satisfaction was an important motivating force in their information seeking behaviour with a positive response (B2.2).

Broad motivations (B2.2, B2.3) for use of the library along with library use plans (B2.5) indicate clear lifelong learning philosophies (B2.2, B2.3). The slight increasing choice of the library as a venue for finding information of personal interest throughout students' course duration (B2.4) also reflects developing lifelong learning philosophies.

The library service is an attempt by the College to provide students with access to information resources to meet needs. Customer education is necessary to increase interest in more affective use of library resources and facilities. Students have, historically, been dependent on the librarian for both retrieval and supply of needed materials and had no opportunities to explore topics for themselves. In the main, this is still true for some students. It is still a matter of debate whether students are aware of the role information seeking skills play in their development as adult independent learners, or whether they are aware of the library services offered to them (B2.6). Perceptions of future library use (B2.6) demonstrated that the importance of libraries is realized more as years at tertiary study proceed. This being an excellent sign of the development of lifelong learning philosophies. The need for information is generated by exposure to tertiary studies and libraries.

Learning in a library may take place in the structured setting of a formal education centre, in various information situations, or within instantaneous processes. Different learning opportunities (B2.2) can develop interest in library skills and techniques including optimum selection of resources and procedures.
7.5.3 Skills Assessment (Focus C)

Part C. Skills Assessment (Focus C) examined Skills Assessment and Library Use (C1) and determined that respondents present similar responses when self-assessing their information skills and their library use and considered that this indicated opportunity for expanding lifelong learning abilities. People become ready to learn when they experience a need to learn a particular thing. It is learned in order to cope more satisfyingly with real-life tasks or problems. This awareness demonstrates opportunity for learners to see customer education as a process of developing increased competence. For an adult to benefit from a learning experience it must present the opportunity to build upon past experiences (C1.2). It is essential that the learning experience be problem or task-oriented, becoming increasingly self-directed.

Adults have a definite desire to be independent and self reliant (C2.3). Knowles (1990:30–31) observed that literature emphasised that adult independent learners enjoyed the cognitive processes of locating, evaluating and analysing information sources. Enjoyment and satisfaction found from seeking information are, according to Knowles (1990:30), an indication of maturity and independence in information seeking. This enjoyment and satisfaction present encouragement to improve lifelong learning skills. The Wilson (1994a) study also found that students enjoyed searching and analysing information and that personal satisfaction was an important motivating force in personal information seeking behaviour.

Writers in the field of adult education maintain that adults have a need to be self-directing and that adult independent learners are motivated to seek information by internal factors; that is, they have a desire to discover further information on a topic in which they are
interested and this desire is sufficient to encourage action (C2.5). This is important because a lack of confidence or negative perceptions amongst students may act as barriers to affective information seeking behaviour.

7.5.4 Course Integration (Focus D)

Lifelong learning extends beyond the formal curriculum into activities, practices, and services utilized during tertiary education years (Loper 1988). Section D1 related to integration of tertiary life, specifically college, curricula, lifelong learning and libraries and found that reinforcement through integration helps cement a lifelong learning philosophy.

There is much that can be done by universities to develop lifelong learning skills and philosophies in students. This is an important stage of learning life because while for some people lifelong learning skills and philosophies are developed during compulsory schooling, for others it is not. Tertiary education can be one of the last formal chances to instil the skills, philosophies and characteristics of lifelong learners in adults. Survey results in D1, specifically D1.1 through to D1.5, indicated that the connection between resources and curricula become stronger in the mind of students with more exposure to tertiary study. The reinforcement of this connection further cements the development of a personal lifelong learning philosophy. Survey questions D1.6 through to D1.8 provided further evidence of the need to reinforce the role of the library in lifelong learning.

Library customer education is considerably more affective when it is presented with physical practice of information retrieval skills (D2.1,D2.2) and accompanied by actual use of the library (D2.3). This
and the analysis of data in D2 supports the education methodology of concrete learning experiences.

A positive personal perception of the role of the library (D2.4,D2.5,D2.6) in learning which can be developed through positive perceptions of the worth of customer education by students (D2.7,D2.8,D2.9) is important if customer education is to be adopted.

7.5.5 Discussion of the Perceptual Model

Education has often restricted learning to childhood and placed a preeminence on the formal years of schooling (Cropley & Dave 1978:7–9). In this view of education, the excessive emphasis formal education placed on knowledge and facts dissociated education and life. These pedagogical models emphasising content and an authoritarian approach to education did not prove successful in the development of lifelong learning skills. Pedagogical models of education tended to restrict independence, self-reliance and ownership of the learning episode from the learner and generally typify a spoon-feeding approach where control for learning is in the hands of the educator. In an effort to develop a model of lifelong learning, educational theorists investigated different ways of approaching the learning processes.

Current lifelong learning theories have been behaviourist and relational. They have emphasised learning goal identification, the development of independence and the importance of the learning process through reflection and integration. (Mullins 1993:44;Bruce 1997)

Respondents' personal perceptions of their lifelong learning skill needs are able to mirror their personal reality. This means, put simply, that
by determining at what strength respondents feel their information needs and skills are in certain areas, strategies may be planned that lead to more affective customer education. By analyzing, at a sample tertiary campus, the personal perceptions of students related to the connections between lifelong learning and the tertiary library, as compiled from the literature review, it may be determined what areas of customer education might develop the lifelong learning skills and knowledge of respondents. A model is needed that facilitates examination of issues through the perspective of respondents and places learning at the heart of library services. This study proposes a model to determine whether the perceptions of personal lifelong learning skills and attitudes can be developed in respondents through library customer education at a tertiary campus.

Knowles (1990:30) quoted Lindeman, who in 1926, as a pioneer of adult learning theory, stated that adult education was a process through which learners became aware of “significant experience”. Recognition of significance of experience leads to evaluation. Meanings accompany experience when the learner knows what is happening and what importance the event includes for them personally. A positive perception of the need for lifelong learning skills will lead to a desire and perceived need for their development. The library is well placed, and a popular choice of students, for participation in their lifelong learning skill development.

Researchers have attempted to identify, describe, explain and predict the factors, processes and outcomes that are associated with learning. Some have given attention to behavioural aspects, others have focused on cognitive or meta-cognitive issues. The basic assumption of this thesis is that the library, as a social system, can be conceptualized as a system of learning resources. Generating from this conceptualization,
Libraries may be perceived to deliver implicit and explicit educational services. This supported the institutional form for education, defined by Knowles (1990:171–72) as the Lifelong Learning Resource System or Learning Community. The Knowles model was based upon eight assumptions (appendix 1) and a spiralling series of seven elements (appendix 2). It was skill and performance based and provided a practical, physical basis for the development of a more library customer education inclusive model based on uniting the self-perceived needs of students, the proposed perceptual model.

Highly and sequentially developed skills, however, will not automatically lead to increased library use or an adopting of lifelong learning skills and philosophy (Fjallbrandt & Malley 1984:24, Wilson 1994a). A positive perception of the library and lifelong learning may be used to support skill development (B2.7) and encourage the development of lifelong learning skills (C1.4) and philosophy (B2.6). Knapp introduced the use of conceptual frameworks in library science and Tuckett and Stoffle (1984) analyzed their use in conjunction with problem-solving teaching and learning styles. The perceptual model proposed in this thesis focuses on the respondent and their perceptions rather than the reference tool or the bibliographic skill. It supports recommendations that librarians adopt an individualized (D2.6) educational facilitator (D2.8) problem-solving approach (D2.7) to customer education. (Sheridan 1986:163; Oberman 1983:22)

Account must be taken of the interactions between learning, specifically lifelong learning, and perception. While there are some common attributes to these, learning has always been considered as the superordinate concept, while perception as the subordinate one. It had been suggested that if both cognition and perception are given too high a place in learning priorities, learning associated with ethics,
values, attitudes, sensitivities and emotions (the affective domain), the psychomotor domain, the experiential, the procedural and the personal may not be as holistic as they should be. This thesis recommends that perceptions on the value of each of these must be a balanced integration of the cognitive process and product and that a perceptual model of lifelong learning may help focus and unite these. This is achieved by recognizing that as the library/librarian is the bridge leading people to information so positive perceptions of lifelong learning is the foundation. This perception may be viewed as a carrot drawing people to the bridge. These are different for each course indicating the need for a different approach per segment.

Role of the Librarian


Benefits for Respondents that Support Existing Literature

i. To develop appropriate lifelong learning skills, information skill components need to be included in all course units (D2.9). Support has been derived from this study for Candy, Crebert and O'Leary (1994:119,148–149), Owen (1992:75), and Bruce (1997:9) that through incremental course structures (D1,D2), students gradually gain in independence and become independent, self-directed learners (C2.5,C2.6,C2.7).
ii. Demands upon students increase their responsibility for learning as course structures become more complex (C2.4,D1.3). Library customer education must link into this need (B1), increasing respondent awareness in order to be engaged (Nicholson 1994:17; Wright 1994:14; Gruppen 1990:165; Keane 1990:116–126).

**Understood Beliefs of the Perceptual Model**

i. The personal perceptions of respondents can mirror personal reality (Wells 1995:128; Groen 1989:76) – B2.1,B2.2,B2.5,C1.1

ii. People are more inclined to participate in skill and knowledge building activities if they believe they will be beneficial (Wells 1995:128; Groen 1989:76) – C1.2,C1.3,C1.5,C1.6

iii. Analysis of respondent perceptions can lead to increased and more affective library use (Wells 1995:128; Groen 1989:76) – C1.7,C1.8,C2.1,C2.2,C2.3,C2.4

iv. Recognizing the self-perceived needs of respondents and identifying and catering for preferred library use and lifelong learning styles facilitates the creation of appropriate customer education programmes – D2.1,D2.2,D2.3

v. Library respondents' perceptions of their needs historically differs from librarians' perception of respondent needs. Librarians need to develop a better understanding of their market in order to meet self-recognized respondent needs – B2,C2,D2

vi. An understanding, by librarians, of the lifelong learning and customer education self-perceived needs of respondents would lead to increased knowledge of customer education needs in a given environment – D2

vii. An efficient and affective means of planning customer education services can be developed from a thorough understanding of the lifelong learning skills required by respondents – D2
Lifelong learning's information literacy, the ability of individuals to recognize when information is required and then to locate, use and evaluate information for a given need, is fundamental to the decision-making skills of all students, particularly upon graduation because for some, graduation indicates the end of formal education opportunities to develop these skills. (Breivik 1986:723; ALA 1989:2; American Library Association Presidential Committee on Information Literacy Report 1989; Jessup 1993:124–125) – B1,B2,C1,C2

The subsequent quality of their personal and professional lives after graduation, including their ability to comprehend, analyze and propose solutions to problems can depend on the quality of lifelong learning skills. (Breivik 1986:723; ALA 1989:2; American Library Association Presidential Committee on Information Literacy Report 1989; Jessup 1993:124–125) – C2.1,C2.7

Lifelong learning is characterised by an integrated set of skills and knowledge that promote participation in continued learning; developed through acquisition of positive attitudes toward continued learning; and usually driven by immediate, personal need. (Breivik 1986:723; ALA 1989:2; American Library Association Presidential Committee on Information Literacy Report 1989; Jessup 1993:124–125) – B2.1,B2.2,B2.4,B2.5,B2.6

There is a need for co-operation between librarians and teachers to develop appropriate teaching strategies for lifelong learning (Rader 1990:18–20) – C1.1,C1.4,C1.5,C1.6,C1.7,C1.8

Lifelong learning is connected to individual development including any activity that provides the opportunity to aid discovery and develop inner growth, creativity, and renewal throughout the entire lifespan. In the simplest definition, lifelong learning has been described as a mode of behaviour, intrinsic, demand-oriented and heavily dependent on
learner motivation and ability to continue learning. (Cropley 1980:7–8) – C1.8,D1.8,D2.5,D2.4,D2.6,D2.7,D2.8

Succinctly stated, lifelong learning may be conceptualized as a continuous learning and adaptation process throughout life, very broad and comprehensive and including all learning; formal, nonformal and informal; across the lifespan (Candy, Crebert & O'Leary 1994:xi; Candy & Crebert 1991:4) – A7&A8,B1.1&B1.2

7.6 Recommendations

There are several areas where research is needed as a result of the completion of this thesis. New research endeavours should critique, validate and extend the strength of this study’s results. This may be achieved through the adoption of the following recommendations for continuing investigation.

The research approach used in this study has enabled insights to be gained into a range of qualitatively different ways in which the participants understand, interpret and perceive lifelong learning and libraries. The study has sought to explore a range of implications about lifelong learning and the library connection to determine the respondents' needs and desires related to library customer education. There is a continuing need for research to corroborate and extend the outcomes of this current study.

Results of this study have implications at two primary levels: first, library services; and secondly, further research. These two areas will be addressed separately in the following pages.

7.6.1 Recommendations for Library Service

Some areas for implementation in library service include:
i. Following the case-study, using market segmentation and consumer analysis principles, market position may be used as a policy-making step. It would allow for the prioritizing of identified segments in terms of the library's customer education goals. Market positioning is the determination of the library's education role – A1→8

ii. King (1984:77–80) recognized the diverse information requirements of respondents and endeavoured to offer programmes that reflected the broad range of information interests. Segments, it would seem, although grouped in a way to best fit together for the majority of education programmes, must be flexible enough to be dissected for different customer education topics – A3→A8, Chapter 6

iii. The study recommended that foundation courses in higher education include subjects on learning how to learn at university level, information literacy, communication and computer skills along with interdisciplinary subjects. The transferable skills of lifelong learning should be the foundation of any undergraduate degree (Candy, Crebert & O'Leary 1994:65,118) – B1.1→B1.7,D1.1→D1.8

iv. The positive relationships developed between the librarian and student respondents outgrew the research value of the case-study. The continued regular promotion of library services and facilities would maintain and continue to develop this new awareness – B1.4,B1.5,B1.6

v. The popularity of personal collections demonstrated in the case-study would strongly support an initiative of promoting services and facilities to build on what students already have outside the library – B1.4,B1.5,B1.6

vi. Customer education in tertiary libraries has generally been seen as either a one-off programme, often self-paced booklet format supported by topic or skill specific directed sessions, these being add-on or a component of a general orientation programme. Usually, these programme are not assessed, and if they are, the assessment is not
recorded. Improving the student perceived relevance of customer education is vital, particularly if programmes require voluntary investment of time on the part of students B2.7,C1.6,C1.7,C1.8

vii. Increased problem-based learning courses requiring students to develop information retrieval skills early in the course would lead librarians into a recognized education role. Librarians thought that it was important to collaborate with course co-ordinators in the design of resource packages appropriate for the needs of students. This would involve the removal of prepared reading lists that were traditionally handed to the students at the beginning of each semester. Reading lists generally restricted reading and research has shown that often, students made little or no use of these lists. Students should be encouraged, within course requirements, to create personal reading lists, drawing on all the databases and indexes and using evaluative measures in the list's compilation. This would necessitate academic staff viewing their role as facilitators and enhancing collaboration between themselves and librarians in the design and delivery of programmes – 01.4,01.5,01.7,02.4,01.1 → D1.8

viii. Librarians must work closely with academic personnel to facilitate positive attitudinal changes (Crocker 1985:15). Only a few university libraries in Australia, however, involve librarians in course planning and in the design of resource-based learning courses (Candy, Crebert & O'Leary 1994:103,182; Harrison & Owen 1992:56). Once universities recognize that the facilitation of lifelong learning is a central purpose the subsequent perspective of all activities will support services that operate to fulfil this mission. Librarians need to have a clear educational rationale, a purpose clearly aligned with student learning outcomes – D1.1 → D1.8

ix. The library's most ‘generalizing’ function is education under which all other functions of the library are contained. There is a strong case to be
made for a change in focus towards customer education as the major role of the library service for tertiary institutions practising quality teaching and learning as part of their aim. The development of this role for all libraries is becoming increasingly urgent. The library must be an education centre where communications and information are means to an educational end not the actual purpose (Christ 1972:75–80). A change in focus is required by librarians to a broader education focus.

x. The integration of library skills into the tertiary education programme is a concept which focuses primarily on the nature of the learner and the many processes involved in the development of thinking and learning skills. Integration promotes increased understanding because it is hypothesised that people do not think in terms of different subjects or fields of understanding but reflect a more holistic view of the world. Integration is compatible with the ways in which people learn and develop. A study by Mueller and Foreman (1987) on methodological and scheduling aspects of library customer education concluded that integration was preferred by respondents. Integrating library customer education into college life, educating respondents on the spot and becoming involved in lectures where skill building relevance may be more clearly perceived by students is recommended – D2.6,D2.7

7.6.2 Recommendations for Further Research

i. Segmentation on competency base, by education and information literacy skill background, for customer education becomes an area for further investigation – A1→A8

ii. Many students, for example, preferred journals as a source of information but many still preferred books. It becomes an informative follow-up to consider the age and education background of respondents in relation to their preference for information format – B1.1→B1.7
iii. There are many variables that may affect the student acquisition of lifelong learning skills. Practical and conceptual responses within the survey revealed a consistent increase. The influence of exposure to the tertiary environment has a positive affect on the confidence levels of students. Research is required to show if these positive perceptions diminish during the years following graduation – B2.1, B2.2, B2.6

iv. An area of interest for further study on site becomes to re-distribute the survey twelve months after implementation of a series of high-exposure promotional and marketing activities, including customer education concepts recommended and preferred by respondents in the survey – B2.2, B2.3

v. Library instruction, in most tertiary settings, has been an add-on to a course, and as a result has had little bearing on the recorded results received by students. Information literacy would require students to use a variety of information resources as part of their regular assignments. Students are thus taught that being able to locate, evaluate, and affectively use information is critical to learning (Breivik 1992:6; Oberman 1991:200). This study found that students believe librarians have a definite role to play in the development of lifelong learning skills, but research is needed into levels of faculty and administrative support for this involvement – B2.7, C1.1, C1.2

vi. Co-operative programmes, planning and teaching (CPPT) offers affective strategies for developing information literacy and critical thinking skills in the learner has not proved successful in tertiary institutions. Librarians have often experience logistical problems because of large and diverse student bodies. Many tertiary institutions have found that the educational role of the library is considered secondary to its custodial and service functions. This has meant that attempts to improve the quality and effectiveness of customer education programmes have been under-funded and understaffed. Research is
needed into the affect of, and the ideal levels of funding and staffing to achieve quality library customer education leading to lifelong learning skill development – B2.7,C1.6

vii. It should be possible to identify a time frame for teaching information skills across all disciplines. This study found that it is not ideal to attempt a generic information skills programme to meet the needs of each student year. The scatter of results indicates that the most successful lifelong learning programme may, in fact, not be tailored to disciplines, but to individual units of study within disciplines. Few students were aware of the role information literacy skills played in their development as lifelong learners. The study found that the information needs and skills required by students differed markedly between courses and that it was not possible to identify a discrete set of skills or requirements that every student should acquire at a predetermined stages of their academic career. Research into the construction of a list of skills required or in need of development during different stages of undergraduate tertiary study requires development – C1.1→C1.8

viii. Educational psychologists have established that the level of confidence adult learners have in their ability to perform certain tasks is an accurate reflection of their later performance at those tasks. The study investigated students levels of confidence in performing information seeking and critical thinking tasks prior to their enrolment at the college. In all cases confidence levels increased with years at college, graduates indicating greater levels of confidence. This suggests that exposure to the tertiary library environment is sufficient to increase information handling confidence levels. A study comparing other libraries respondents who have not been engaged in formal tertiary study becomes beneficial to the whole lifelong learning and library connection picture – C2.5,C2.6,C2.7
ix. Technology is making the physical location of resources less important than before and is placing the responsibility for locating and manipulating information sources firmly in the hands of the user. Study in the implications of technology in library customer education for lifelong learning skill development is recommended – D1.7, D1.8

x. Recommendations from recent studies, particularly in Australia, concluded that the tertiary library should, philosophically, be the centre of the campus, integrated into every aspect of tertiary life. No models exist proposing how this should be done. This is an area requiring further investigation – D2.1 → D2.9

xi. Libraries must consider the maintenance and improvement of the quality of individual and collective life through personal, social, and professional growth through research on the impact of tertiary library experiences on learning outside of college – D2.6, D2.7

7.7 Conclusions

This study commenced with the hypothesis that the role of the tertiary library in the development of lifelong learning skills revolves around the creation of positive perceptions by respondents.

The results contribute to the understanding of the role of tertiary library customer education in lifelong learning through examining the area from a broader perspective than previous studies. While there are clear similarities with other researchers, as discussed in Chapter 3, in the analysis of distinct issues such as library use (B1) or skills development (C1), there are also important alternative findings, forming a new model, drawn from the perceptual focus (B2, C2, D2) of this study's approach. The influence of respondent perceptions as an all-encompassing variable is in stark contrast to other approaches which focused on variables related to faculty opinions or evaluated student skills or even library use statistics or library customer
education evaluation forms as determinants of the value of tertiary library contribution to respondents' development of lifelong learning skills.

This thesis examined students' assessment and perceptions of their library use (Bl) and personal abilities both current (C2.6) and prior to enrolment (C2.5) and identified differences between course and year-level segments (A). Considering students by course (A) presents a pattern which suggested a more influential factor in the acquisition of information seeking skills than other variables considered (appendix 5). It also supported Wilson (1994a) by suggesting that the expertise and participation of the librarian was necessary if lifelong learning programmes were to succeed (D1,D2).

The basic assumption of this thesis was that the library can be conceptualized as a system of learning resources. From this conceptualization, libraries may be perceived to deliver both implicit and explicit educational services (D2.8). Implicit library education were shown to generate from experiences that deliver positive, reinforcing experiences (D1) and from integration with college life (D2) including assessment (C1.4,C1.5). Explicit customer education, while acknowledged by students to be a role of the library (D2.4,D2.5,D2.7) and valuable and of interest (B2,C1) and skill development as needed (C1.2,B2.7) was perceived to be time consuming (C1.1) and not likely to be engaged by students (C1.1). Students thought that many lifelong learning skills (Appendix 1, 2, 3) could be developed in conjunction with the library (C2.1,D1.7,D1.8) and that a choice of methodologies and flexible time and delivery modes (C1.6,C1.7,C1.8) presented more opportunity for engagement of skill building activities.
Market positioning was a tangible result of the study. It made it possible to select a combination of services to meet the needs identified by targeted student groups (B1,B2). A more thorough understanding of the respondent market was obtained through consumer analysis (A,B1). Patterns within the analysis of how and why library respondents made particular resource decisions (Chapter 6) could be discerned through the case-study (appendix 4).

An educated person must know how to acquire and use information. Knowles (1990:30) suggests that adults have a strong desire to be independent and self-reliant, and that they dislike situations where they must rely on others for the things that they need. Customer education involves the imparting of information about library resources and services. It can develop a sound base for library use skills while reducing methodological frustration, and can, as this model suggests, lead sequentially to the adoption of a lifelong learning philosophy. Additionally, it encourages continued utilization of the library and its services and prepares the respondent for personal continuing education, freeing library staff from the more routine or basic reference queries.

To ensure lifelong learning customer education programmes are affective they need to meet the needs of each respondent group. Lifelong learning customer education should generate from an understanding of the library use and background of respondents (A,B1), and current and aspired skill level perceptions of respondents (B2,C1,C2). A library-based model provides an ideal framework for the sequential teaching of lifelong learning because it emphasises the development of skills rather than content. It stresses unity and continuity of personal development thus having the ability and student support to lead to the formulation of curricula and instruments of education (D1,D2). The consideration of student perceptions facilitates
the creation of positive, strong communication between the needs of life, cultural expression, general development and of the various situations for thought through which every individual endeavours to find fulfilment.

Current rapidly changing social and economic structures demand highly flexible individuals who are capable of adapting rapidly to change and who can continue to learn throughout their adult lives. Traditional pedagogical models, with their emphasis on content and their authoritarian approach to education, have not proved completely successful in developing the skills required by adults for the lifelong education process. The flexible, open pathways created by the concept of lifelong learning (Dave 1976:35) are founded on the assumption that education occurs via many paths. This has shown that the library can be a developmental ladder (Figure 7.1) between or supporting the development of lifelong learning along the many pathways, as well as a pathway within its own right. Building upon the perceptions of respondents from the point of need, a knowledge of skill, ability, and expectation perceptions, as discovered through the questionnaire (appendix 4), can lead sequentially through to the adoption of a personal lifelong learning philosophy during the undergraduate tertiary years.

The research participants have been initiated into a process of thinking about lifelong learning through the activities of this research study. This process has raised their level of awareness and made them aware of the need for the development of a lifelong learning skills. However, it may seem both inappropriate and unproductive to cease work with these respondents. An ongoing process should be put in place to further the thinking on the theme of this study among the respondents.
This study's inductive and participatory design also requires that the outcomes be implemented for respondents so that the personal developments that they have commenced in their thinking about lifelong learning and the library connection may be extended and enhanced. It is proposed that this be undertaken as soon as possible after the completion of this study. This will be achieved through the revision and implementation of library customer education policies and procedures.

While this current study has attempted to take as many perceptual factors as possible into account during its design and implementation, there may be factors that may have inadvertently influenced the research processes. Some of these have had explicit impacts, while others may have demonstrated implicit affects on the study. For example, factors including the time of day of the data collection participation, the personal variables and environmental influences immediately prior to the data collection, and such, may have had significant or other influences on the processes and outcomes of the study. These type of factors are likely to be significant for this type of study because of the belief that qualitative data needs to be experienced and obtained at the site. While assumptions have been made about similar factors in this current study, the researcher was unable to, and did not intend to, control all the variables operating in the context of the study.

Respondents were believed to have had a range of life experiences that, together with their prior experiences, would assist them in addressing the research questions/foci. The analysis of their responses to, and interactions with, these research questions has enabled the researcher to formulate the key ideas, expressed in this study in the
form of perceptions. These were developed from the data collected from respondents.

The perceptions expressed by students during a lengthy survey have been formulated into a theoretical model, called a Perceptual Model, which defines, discusses and maps the sequential relationships among the perceptions. The range of perceptions that have been developed within the context of the perceptual model, provides an understanding of respondents' philosophies. The processes for developing the model, as well as the model itself, have been tested for reliability using criteria and strategies that were outlined through the study. The outcomes of this study are now accessible for further analysis and review, in both similar situations and with different perceptions.
Bibliography


Australian Library and Information Association (1992b). Libraries are tops of the (cultural) pops: New ABS survey shows that public libraries are runaway winners over other cultural activities such as museums, galleries, and concerts, incite, 13:3, 5.


Booker, D. (1991). Distance learners, libraries and new learning methodologies. Paper delivered at the Australian Library and Information Association Distance Education Special Interest Group Conference, Armidale, 2–3 October 199 ALIA: Canberra.


Christian Outreach Centre (1995a). Keep the fire burning! Christian Outreach Centre School of Ministries prospectus ’95/96. COC: Mansfield.

Christian Outreach Centre (1995b). Courses offered by the School of Ministries. COC: Mansfield.


Education Department of South Australia (1989). common and agreed national goals. The Department of Education: Adelaide.


Library Services in Distance Education: Proceedings of a national seminar. ALIA: Adelaide, 7S-85.


Harrison, C. (1993a). Open and flexible learning: Information literacy as a key competency. In Information literacy for the Australian agenda: Proceedings of a conference conducted by the University of South Australia Library held at Adelaide College of TAFE 2–4 December 1992, ed. D. Booker, University of South Australia: Adelaide.


Herschell, Robert (1992b). A preliminary proposal to the course advisory committee and the Board of Teacher Registration Course Consultative Subcommittee.


Higher Education Council (1993). The enabling characteristics of undergraduate education with respect to lifelong personal and professional learning: Project Brief. (Unpub.)


Houle, CO. (1961). The inquiring mind. University of Wisconsin: Madison, WI.


The assumptions on which the model of a Lifelong Learning Resources System is based:

i. Learning in a world of accelerating change must be a lifelong process.

ii. Learning is a process of active inquiry with the initiative residing in the learner.

iii. The purpose of education is to facilitate the development of the competencies required for performance in life situations.

iv. Learners are highly diverse in their experiential backgrounds, pace of learning, readiness to learn, and styles of learning; in turn, learning programmes need to be highly individualized.

v. Resources for learning abound in every environment; a primary task of a learning system is to identify these resources and link learners with them affectively.

vi. People who have been taught in traditional schools have on the whole been conditioned to perceive the proper role of learners as being dependent on teachers to make decisions for them as to what should be learned, how it should be learned, when it should be learned, and if it has been learned; they in turn need to be helped to make the transition to becoming self-directed learners.

vii. Learning (even self-directed learning) is enhanced by interaction with other learners.

viii. Learning is more efficient if guided by a process structure (eg. learning plan) than by a content structure (eg. course outline).
Appendix 2. Processes in Lifelong Learning (Knowles, 1990:183)

This model proposes that the process of lifelong learning consists of individuals engaging in a series of spiral learning projects involving the following elements:

i. A broadening and deepening of the skills of self-directed inquiry.

ii. The diagnosis of learning needs.

iii. Translation of these needs into learning objectives.

iv. Identification of human and material resources, including guided experiences, for accomplishing the objectives.

v. Designing of a plan of strategies for using these resources.

vi. Executing the plan.

vii. Evaluating the extent to which the objectives have been accomplished.
Appendix 3. Characteristics and Features of Lifelong Learning
(Dave, 1973)

i. Coverage of practically the entire life-span.

ii. Education viewed in its totality encompassing and unifying all stages and forms of education.

iii. Inclusion of formal, non-formal, and informal patterns of learning.

iv. Horizontal integration:
   • Home, neighbourhood, local community, larger society, world of work, mass media, recreational, cultural, and religious.
   • Between subjects of study.
   • Between different aspects of development such as physical, moral, and intellectual, during a particular stage of life.

v. Vertical articulation:
   • Between different stages of learning.
   • Between different levels and subjects within a particular stage.
   • Between the roles assumed by the individual at different stages of life.
   • Between different aspects of development over time, such as physical, moral, intellectual.


vii. Allows the creation of alternative arrangements of structures for acquiring education.

viii. General and professional fields of education are inter-related and interactive.


x. Emphasis on self-learning, inter-learning, self-evaluation, participatory evaluation of the individual's performance, and cooperation evaluation of group work.

xi. Individualization of learning and evaluation.
xii. Inter-generational learning, family learning, community learning.

xiii. Exposure to broad areas of knowledge.

xiv. Inter-disciplinary, unity of knowledge. Emphasis on quality of knowledge besides quantity.

xv. Flexibility and diversity in content, learning instruments and techniques, time and place of learning.

xvi. Dynamic approach – assimilation of new developments in knowledge and in means and media of communication from time to time.

xvii. Enhancement of educability.


xix. Creating learning opportunities. Utilizing these opportunities. Creating a learning climate.


xxi. Facilitates smooth change of life roles at different periods in the life-span.

xxii. Understanding and renewal of one's own value system.

xxiii. Maintenance and improvement of the quality of individual and collective life through personal, social and professional growth. Emphasis on the quality and efficiency of life, besides longevity.

xxiv. Development of a learning society; an enlightened and enlightening society. Also learning to be and learning to become.

xxv. Unifying and organizing principle for all education.
Appendix 4. Questionnaire

Name of Research Project:

Lifelong Learning and the Library Connection:

A Focus for Tertiary Customer education

Principal Investigator:

D.A. Cronau

CC College Librarian

Phone Ext. 225

Your participation in this study is requested and we ask you to read the following and sign in the space provided:

Purpose of the Study:

This case-study will endeavour to determine the current and ideal respondent-perceived role of a tertiary library in facilitating the development of lifelong learning skills in students. It will investigate how lifelong learning could be used as a focus for customer education programmes.

This case study will target the students and new graduates of a tertiary institute to assist in identifying the most affective library customer education focus for fostering lifelong learning attitudinal and skill development and supporting the aims and objectives of the institute.
I understand that I am free to withdraw my participation in the research at any time and that if I do I will not be subjected to any penalty or discriminatory treatment.

I have read and understood the written explanation given to me and have been given the opportunity to ask questions about the research and received satisfactory answers.

I understand that any information or personal details gathered in the course of this research about me are confidential and that neither my name nor any other identifying information will be used or published without my written permission.

I understand that if I have any complaints or concerns about this research I can contact:

Mr Barry Yau, Executive Officer
Ethics in Human Research Committee, CSU
Private Bag 99, Bathurst NSW 2795
Ph: (063) 384 187
Fax: (063) 384 833

Signed by: ……………………………… Date … / … / 97 CC Library Survey

Information is a vital resource. Your library, in an endeavour to improve service to you, ask that you complete this survey. Please tick the most appropriate statement or print your answer on the dotted line.

[Part A – Demographics]
Your Name (Optional): ..............................

A1 Course: ..............................
A2 Year-level: ..............................

A3A Male: ..............................
A3B Female: ..............................

A4 Age bracket:
A4A -19 ..............................
A4B 20–24 ..............................
A4C 25–29 ..............................
A4D 30–39 ..............................
A4E 40- ..............................

A5 Highest education level previously completed:
A5A Year 10 (Junior) ..............................
A5B Year 12 (Senior) ..............................
A5C TAFE Certificate ..............................
A5D Associate Diploma ..............................
A5E Diploma at TAFE ..............................
A5F Diploma at BCAE/ University ..............................
A5G Undergraduate Degree ..............................
A5H Postgraduate Degree ..............................
A5I Other (Please specify) ..............................

A6 Most recent role before commencing at CHC:
A6A Student at ..............................
A6B Full-time employment ..............................
as
A6C Domestic duties ..............................
A6D Part-time employment ..............................
as
A6E Looking for employment ..............................
A7 Prior to your enrolment, how long was it since you last engaged in formal study?
A7A 0–3 yrs ....
A7B 4–6 yrs ....
A7C 7–9 yrs ....
A7D 10 yrs or more ....

A8 Prior to your enrolment, how long was it since you last used a library?
A8A 0–3 yrs ....
A8B 4–6 yrs ....
A8C 7–9 yrs ....
A8D 10 years or more ....

[Part B – Library]

B1.1 – Library Use

B1.1 How often do you currently use a library?
B1.1A Every one or two days ....
B1.1B Weekly ....
B1.1C Rarely ....

B1.2 When you finish your course how often do you think you will use a library?
B1.2A Every one or two days ....
B1.2B Weekly ....
B1.2C Rarely ....

B1.3 Do you use the library for information that:
B1.3A You are directed to for ....
assignments
B1.3B You are directed to by ....
lecturers
B1.3C Might improve your results

B1.3D You need for other areas of life

B1.3E Other (Please specify) …………………

B1.4 What sources of information do you use:
B1.4A Your personal collection of documented resources

B1.4B Colleagues' personal collection/s

B1.4C The Christian College Library

B1.4D Other university/college libraries

B1.4E Other (Please Specify) …………………

B1.5 The format you currently use for information is:
B1.5A Articles from journals/magazines

B1.5B Books from the general collection

B1.5C Books from the reference collection

B1.5D Videotapes/Audiotapes …,

B1.5E Library-use-only reserved resources

B1.5F Overnight loans resources

B1.5G Other (Please Specify) …………………
B1.6 The source of information you would prefer to use is:
B1.6A My personal collection …,
of documented resources
B1.6B Colleagues' personal collection/s
B1.6C Christian College Library
B1.6D Other university/college libraries
B1.6E Other (Please Specify) …………………

B1.7 The services/facilities you consider most important in finding information are:
B1.7A Periodical collection …,
B1.7B Book loans …,
B1.7C Reference books …,
B1.7D Reservations of items currently on loan
B1.7E Staff assistance …,
B1.7F “Current Contents” (new journal) display
B1.7G Computer catalogues …,
B1.7H “New Acquisitions” (new book) display
B1.7I Photocopying facilities …,
B1.7J Audio and video tape collection
B1.7K Special loans collection…,
B1.7L Other (Please Specify) …………………

B2 – Library Use Rationale or Perception

B2.1 What are your feelings about the following statements:

B2.1A I enjoy searching for …,, information and using it for my own purposes

B2.1B I am comfortable with …,, asking library staff for assistance

B2.1C I derive a lot of …,, satisfaction from finding out things for myself

B2.1D I think looking …,, for information is frustrating and a waste of time

B2.1E I am frustrated that I …,, have to rely on other people to provide the information I need

B2.1F It is the librarian's …,, job to find me the information I need

B2.1G I do not need to …,, learn how to find information for myself

B2.1H Postgraduates need …,, sophisticated library
and information seeking skills for their research, undergraduates don't

B2.1I In the future, I ..., will find study easier because I am developing skill to find the information I need

B2.1J The library considers ..., the improvement of the quality of individual and collective life through personal, social, and professional growth?

B2.2 Which of the following would describe why you use the library:

B2.2A Event planned – I use ..., the library because of events such as assignments

B2.2B Human planned – I use ..., the library because of pressures from other people

B2.2C Self-planned – I use ..., the library because I choose to
B2.2D  Group planned – I use ….
the library because of
the group I study with

B2.3  If you have spare time and visit the library
what do you do:

B2.3A  Browse to see what is …, new

B2.3B  Browse the new …, journals

B2.3C  Read a journal or …, newspaper

B2.3D  Look for friends to talk…, with

B2.3E  Browse through the …, catalogue to become
familiar with resources

B2.3F  Other (Please specify) …………………

B2.4  Do you use the CHC library to:

B2.4A  Improve your results …,,

B2.4B  Get the minimum …,,
information required to
pass

B2.4C  Meet friends …,,

B2.4D  Further your …,,
knowledge in a
particular subject

B2.4E  Fill in time …,,

B2.4F  Find information of …,,
personal interest

B2.4G  Study …,,

518
B2.4H  Other (Please specify) ........................

B2.5  When using the library do you mainly use:
B2.5A  Self direction, thinking …, specifically for this piece of assessment and set a unique mental plan of action
B2.5B  Refer back to previous …, experiences and follow the same plan as you always do to find the information required
B2.5C  Other (Please specify) ........................

B2.6  When you finish this course do you think you will use a library to?
B2.6A  Maintain skills …,
B2.6B  Further or continued study …,
B2.6C  Meet friends …,
B2.6D  Encourage your students to grow into readers …,
B2.6E  Fill in time …,
B2.6F  Further your knowledge in a particular subject …,
B2.6G  Find information of personal interest …,
B2.6H  Other (Please specify) ........................

B2.7  Libraries should cater for student's:
B2.7A  Acquisition of information seeking skills
B2.7B  Renewal of information seeking skills
B2.7C  Upgrading of information seeking skills
B2.7D  Development of information seeking skills
B2.7E  Provision of resources only
B2.7F  Other (Please specify) …………………

[Part C – Skills Assessment]

C1 – Skills Assessment and Library Use

C1.1 Do you believe you: (Please cross out which does not apply)
C1.1a Use the library to the full extent? Yes / No
C1.1b Know how to use the library properly? Yes / No
C1.1c Benefit from library user education? Yes / No
C1.1d Would attend a voluntary library education session? Yes / No
C1.2 The most common problem you presently encounter in obtaining information is:

C1.2A Knowing how to find ..., the information needed

C1.2B Using library ..., catalogues

C1.2C Using journal indexes ..., articles

C1.2D Cost of photocopying ..., articles

C1.2E Time involved in ..., finding information

C1.2F Other (Please Specify) .................

C1.3 The most common problems you presently encounter in using information is:

C1.3A Finding the best ..., information in the book/journal

C1.3B Using library ..., catalogues

C1.3C Selecting the most ..., appropriate resource

C1.3D Finding the resource in ..., the library

C1.3E Other (Please specify) .................

***** on a 1 to 5 scale with 1 being seldom and 5 being frequently, please rank each of the following statements:

C1.4 Did using the library for this assessment help you develop your information skills in any of the following ways:
C1.4A Developing a knowledge of my personal information needs, interests, concerns and abilities

C1.4B Realizing how to learn through using a library because learning is experiential when I use the library

C1.4C Learning methods to suit my individual learning style are flexible when using a library

C1.4D Clear aims and objectives underpinning programmes and targeting specific learning outcomes that help me develop information literacy skills

C1.5 If you did not choose to make full use of the library for your last piece of assessment, why did you not use the library?

C1.5A Complexity of library services and procedures
C1.5B Inadequate access to resources because someone always beats me to the best resources

C1.5C It would have taken me too much time to find the information

C1.5D Not motivated to use the library

C1.5E Too much information in the library, I didn't know where to begin

C1.5F Other

C1.6 What form of library education do you believe would best suit your needs?

C1.6A Individual subject education programmes

C1.6B General library workshops

C1.6C “Self-help” library education packages

C1.6D “How to” type leaflets

C1.6E Individual assistance as needed

C1.6F Library re-orientation programmes

C1.6G Other (Please Specify)

C1.7 Do you believe it is the role of the library to help you develop your skills in:
C1.7A Understanding the nature of information society
C1.7B Information skills/knowing need — finding — evaluation — etc.
C1.7C High level communication skills
C1.7D Bibliographic literacy
C1.7E Knowledge of information sources
C1.7F Media literacy

C1.8 The areas of development our library should integrate with are:
C1.8A Physical Skills
C1.8B Moral
C1.8C Intellectual

C2 – Skills Assessment Rationale or Perception

C2.1 What skills would you expect to develop from the library?
C2.1A Ability to locate and use information
C2.1B Preparation to use present-day technology
C2.1C Equal access to the marketplace of ideas and information
C2.1D  The ability to communicate affectively
C2.1E  Preparation to live in a multicultural world
C2.1F  The desire to become lifelong learners
C2.1G  Assist respondents explore all potential courses of inquiry
C2.1H  Sensitivity to learners' need for self-esteem, autonomy, reassurance, and competence

C2.2  How important is it to develop the physical skills associated with understanding how to use library equipment associated with the:
   C2.2A  Library catalogues
   C2.2B  CD-ROM

C2.3  I believe I have the ability to:
   C2.3A  Diagnose my personal information requirements
   C2.3B  Formulate my objectives in using the library
   C2.3C  Identify human, material and experiential resources for accomplishing
various learning objectives

C2.3D Develop a strategy …, for affective use of resources

C2.3E Systematically carry …, out a learning plan

C2.3F Self evaluate my use … of the library

C2.4 What skills do you believe becomes valuable for you to develop to use at college and beyond. The skills of knowing:

C2.4A What information is …, available

C2.4B How to evaluate the …, information I find

C2.4C How to use the …, information

C2.4D How to affectively deal…. with information

C2.5 Please think back to just prior to your enrolment at CC. Please indicate your level of confidence with reference to the following with 1 being not at all confident and 5 being very confident:

C2.5A I was familiar with …, library procedures eg. borrowing

C2.5B I was familiar with …, the services offered by
libraries eg. interlibrary loans

C2.5C I was familiar with the …,
types of resources held
by libraries eg. videos

C2.5D I could search a library …,
catalogue and find the
things I need

C2.5E I understood how to …,
use periodical indexes

C2.5F I understood how to …,
use library technology
eg. CD-ROM

C2.5G I was familiar with …,
different types of
printed reference tools,
such as dictionaries
and encyclopaedias

C2.5H I could locate both …,
current and historical
information on any
topic that interests me

C2.5I Given a list of …,
references, I could tell
which becomes most
useful

C2.5J I could take …
information from
various sources and
apply it to solve a new
problem
C2.6 Now at this stage of your course, please show whether you believe your levels of confidence have changed:

C2.6A I am familiar with library procedures eg. borrowing

C2.6B I am familiar with the services offered by libraries eg. interlibrary loans

C2.6C I am familiar with the types of resources held by libraries eg. videos

C2.6D I can search a library catalogue and find the things I need

C2.6E I understand how to use periodical indexes

C2.6F I understand how to use library technology eg. CD-ROM

C2.6G I am familiar with different types of printed reference tools, such as dictionaries and encyclopaedias

C2.6H I can locate both current and historical information on any topic that interests me
Given a list of references, I can tell which becomes most useful

I can take information from various sources and apply it to solve a new problem

By the end of your CHC studies, please show how you would like your confidence levels to have changed:

I would like to be more familiar with library procedures eg. borrowing

I would like to be more familiar with the services offered by libraries eg. interlibrary loans

I would like to be more familiar with the types of resources held by libraries eg. videos and kits

I would like to be able to search a library catalogue and find the things I needed
C2.7E  I would like a better understanding of how to use periodical indexes

C2.7F  I would like a better understanding of how to use library technology eg. CD-ROM

C2.7G  I would like to be more familiar with different types of printed reference tools, such as dictionaries and encyclopaedias

C2.7H  I would like to be able to more easily locate both current and historical information on any topic that interested me

C2.7I  Given a list of references, I would like to be able to more easily tell which becomes most useful for my purposes

C2.7J  I would like to be able to obtain more information from
various sources and apply it to solve a new problem

[Part D – Course Integration]

D1 – College, Course and Library Integration and Library Use

D1.1 How many subjects require you to use the library:
D1.1A All subjects …,
D1.1B Most subjects …,
D1.1C A couple ….

D1.2 Do most of the subjects you are studying require you to use a variety of information resources (i.e. books, journals, videos):
D1.2A Yes …,
D1.2B No ….

D1.3 Do the subjects you are studying require increasing complex information seeking skills throughout the course?
D1.3A Yes …,
D1.3B No ….

D1.4 Did the last piece of assessment work you submitted require library use:
D1.4A Yes, for study only …,
D1.4B Yes, to work with colleagues …,
D1.4C Yes, to use resources …,
D1.4D  No  
D1.4E  No, but I used the library to obtain extra information  

D1.5  What type of assessment was this:  
D1.5A  Open book exam  
D1.5B  Deadlined research project  
D1.5C  Essay  
D1.5D  Clinical case study  
D1.5E  Negotiated learning contract  
D1.5F  Report  
D1.5G  Other (Please specify)  

D1.6  Do you believe that using the library better for this piece of assessment might have improved your results?  
D1.6A  Yes  
D1.6B  No  
D1.6C  Unsure  

D1.7  Do you believe it is the role of the library to help you:  
D1.7A  Understand nature of information society  
D1.7B  Develop the information skills/knowing need – finding – evaluation – etc.
D1.7C Develop high level communication skills through library use
D1.7D Be bibliographic literate
D1.7B Rave a knowledge of information sources
D1.7F Develop media literacy …

D1.8 The areas of life the library should integrate with are:
D1.8A Home …,
D1.8B Local community …,
D1.8C Larger society …,
D1.8D Employment …,
D1.8E Study …,
D1.8F Recreational …,
D1.8G Cultural …,
D1.8H Spiritual …,
D1.8I Other …………………………………

D2 – College, Course and Library Integration and Library Use Rationale or Perception

D2.1 When commencing a new subject what do you do:
D2.1A Rush to the library to beat others to the recommended books
D2.1B Rush to the library to beat others to the best books to be
found from the library catalogue

D2.1C Collate a bibliography …,
of resources that will be useful

D2.1D Refer to the list you …,
have been developing
of resources that are useful to this subject

D2.1E Refer to the CD-Rom or periodical indexes to find the most up-to-date information

D2.1F Rely on the list of recommended resources provided by the lecturer

D2.1C Other (Please specify) ……………………

D2.2 When first given a piece of assessment do you:

D2.2A Rush to the library to beat others to the recommended books

D2.2B Rush to the library to beat others to the best books to be found from the library catalogue

D2.2C Collate a bibliography of resources that will be useful D2.2D Refer
to the list you have
been developing of
resources that are
useful to this subject

D2.2E Refer to the CD-Rom …,
or periodical indexes
to find the most up-to
date information

D2.2F Rely on the list …,
of recommended
resources provided by
the lecturer

D2.2G Other (Please Specify) …………………

D2.3 When you enter the library at the beginning of
semester what do you do:

D2.3A Rush to the library …,
to beat others to the
recommended books or
texts for the subject

D2.3B Browse through the …,
library to see what is
new

D2.3C Browse through the …,
best books to be
found from the library
catalogue for each
subject

D2.3D Collate a bibliography …,
of resources that will
be useful
D2.3E Develop a list of resources that are useful to each subject...

D2.3F Refer to periodical indexes to find the most up-to-date information for each subject...

D2.3G Other (Please specify) …………………

D2.4 Do you believe the role of the library is:
D2.4A To broaden and deepen the skills of self-directed inquiry...
D2.4B The diagnosis of information and learning needs...
D2.4C Translation of these needs into learning objectives...
D2.4C Identification of resources, including guided experiences, for accomplishing the objectives...
D2.4D Designing of a plan of strategies for using these resources...
D2.4E Executing the plan...
D2.4F Evaluating the extent to which the
objectives have been accomplished

<table>
<thead>
<tr>
<th></th>
<th>What do you believe is the role of the library on campus?</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2.5</td>
<td>Designing information products and services</td>
</tr>
<tr>
<td>D2.5A</td>
<td>Diagnosing users' information needs</td>
</tr>
<tr>
<td>D2.5B</td>
<td>Evaluating, synthesising, structuring and packaging information</td>
</tr>
<tr>
<td>D2.5C</td>
<td>Educating users to access and use information</td>
</tr>
<tr>
<td>D2.5D</td>
<td>Participating in programmes targeted at developing literacy skills</td>
</tr>
<tr>
<td>D2.5E</td>
<td>Access to information</td>
</tr>
<tr>
<td>D2.5F</td>
<td>Improvement of library services to meet changing needs</td>
</tr>
<tr>
<td>D2.5G</td>
<td>Contributions of information technology and productivity</td>
</tr>
<tr>
<td>D2.5H</td>
<td>Library policy, planning, and advisory activities</td>
</tr>
</tbody>
</table>
D2.6 The life roles that should be catered for by our library are those of:

D2.6A Learner …,
D2.6B Self …,
D2.6C Friend …,
D2.6D Citizen …,
D2.6E Family …,
D2.6F Worker …,
D2.6G Leisure …,
D2.6H Other (Please specify) …

D2.7 What do you believe are the roles of the library:

D2.7A Working with respondents …,
D2.7B Working with staff …,
D2.7C Working with community …,
D2.7D Customer education – various kinds …,
D2.7E Maintaining collection …,
D2.7F Education in information technology …,
D2.7G On-spot assistance …,
D2.7H Guidance in self-directed and resource-based learning …,
D2.7I Orientation …,
D2.7J Design of specific features to meet needs …,
D2.7K Resources …
D2.8 What do you view as the education role of the library?
D2.8A Library orientation for …, new respondents
D2.8B Library re-orientation …,
D2.8C Education in using the …, library
D2.8D Education in using …, information
D2.8E Other (Please Specify) ………………..

D2.9 Who do you think should take major responsibility for training the student in the skills of information searching:
D2.9A Lecturer …,
D2.9B Librarian …,
D2.9C Student …,
D2.9D Other ………………..
Appendix 5. Review of CHC Assessment Programme Sample

Semester 1 – 1996

<table>
<thead>
<tr>
<th>Possible Tools of Assessment</th>
<th>No.of Times Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>11</td>
</tr>
<tr>
<td>Aural Assignment</td>
<td>—</td>
</tr>
<tr>
<td>Activities Inventory</td>
<td>1</td>
</tr>
<tr>
<td>Book Review(s)</td>
<td>3</td>
</tr>
<tr>
<td>Contract</td>
<td>—</td>
</tr>
<tr>
<td>Current Curriculum Programme</td>
<td>—</td>
</tr>
<tr>
<td>Curriculum Project</td>
<td>1</td>
</tr>
<tr>
<td>Curriculum Report</td>
<td>—</td>
</tr>
<tr>
<td>Case Study/Studies</td>
<td>—</td>
</tr>
<tr>
<td>Debate</td>
<td>—</td>
</tr>
<tr>
<td>Design Brief</td>
<td>—</td>
</tr>
<tr>
<td>Draft Essay</td>
<td>—</td>
</tr>
<tr>
<td>Discussion Paper</td>
<td>—</td>
</tr>
<tr>
<td>Possible Tools of Assessment</td>
<td>No.of Times Used</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Available at CHC</td>
<td></td>
</tr>
<tr>
<td>Drama Workshop</td>
<td></td>
</tr>
<tr>
<td>Essay</td>
<td>7</td>
</tr>
<tr>
<td>Elective Assignments</td>
<td></td>
</tr>
<tr>
<td>Essay Plan</td>
<td></td>
</tr>
<tr>
<td>Folio</td>
<td>6</td>
</tr>
<tr>
<td>Field Diary</td>
<td></td>
</tr>
<tr>
<td>Final Examination</td>
<td>8</td>
</tr>
<tr>
<td>Field Studies Folio</td>
<td></td>
</tr>
<tr>
<td>Field Work</td>
<td>2</td>
</tr>
<tr>
<td>Group Experiment</td>
<td></td>
</tr>
<tr>
<td>Group Presentation</td>
<td></td>
</tr>
<tr>
<td>Group Report</td>
<td></td>
</tr>
<tr>
<td>Genre Study</td>
<td></td>
</tr>
<tr>
<td>Journal</td>
<td>2</td>
</tr>
<tr>
<td>Possible Tools of Assessment</td>
<td>No.of Times Used</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Journal Article</td>
<td>—</td>
</tr>
<tr>
<td>Log</td>
<td>—</td>
</tr>
<tr>
<td>Lesson Plan(s)</td>
<td>—</td>
</tr>
<tr>
<td>Literature Review</td>
<td>—</td>
</tr>
<tr>
<td>Micro Teaching</td>
<td>3</td>
</tr>
<tr>
<td>Music Practical</td>
<td>—</td>
</tr>
<tr>
<td>Mid Semester Test</td>
<td>5</td>
</tr>
<tr>
<td>Micro Teaching</td>
<td>3</td>
</tr>
<tr>
<td>Oral Report</td>
<td>—</td>
</tr>
<tr>
<td>Objective Test</td>
<td>—</td>
</tr>
<tr>
<td>Paper</td>
<td>3</td>
</tr>
<tr>
<td>Plan</td>
<td>4</td>
</tr>
<tr>
<td>Poster Presentation</td>
<td>—</td>
</tr>
<tr>
<td>Peer Review</td>
<td>1</td>
</tr>
<tr>
<td>Possible Tools of Assessment</td>
<td>No.of Times Used</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td><strong>Available at CHC</strong></td>
<td></td>
</tr>
<tr>
<td>Practical Test</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical Workshop</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Quizz</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Report</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Folio</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Log</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Paper</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Plan</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources Review</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading Test</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminar</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Folio</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminar Paper</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Software Review</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible Tools of Assessment</td>
<td>No.of Times Used</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td><strong>Available at CHC</strong></td>
<td></td>
</tr>
<tr>
<td>Test</td>
<td>3</td>
</tr>
<tr>
<td>Tutorial Exercise</td>
<td>2</td>
</tr>
<tr>
<td>Term Paper</td>
<td>11</td>
</tr>
<tr>
<td>Teaching Resource</td>
<td>—</td>
</tr>
<tr>
<td>Teaching Strategies</td>
<td>—</td>
</tr>
<tr>
<td>Unit Plan(s)</td>
<td>4</td>
</tr>
<tr>
<td>Video Examination</td>
<td>—</td>
</tr>
<tr>
<td>Video Lesson</td>
<td>—</td>
</tr>
<tr>
<td>Weekly Tests</td>
<td>1</td>
</tr>
<tr>
<td>Workshop</td>
<td>—</td>
</tr>
<tr>
<td>Workbook</td>
<td>2</td>
</tr>
<tr>
<td>Wordprocessing</td>
<td>—</td>
</tr>
</tbody>
</table>

...
## Appendix 6.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Preferred Segmentation</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 &amp; A2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>Course</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>A4</td>
<td>Course</td>
<td>4 statements to 2</td>
</tr>
<tr>
<td>A5</td>
<td>Course</td>
<td>3 statements to 1</td>
</tr>
<tr>
<td>A6</td>
<td>Course</td>
<td>3 statements to 1</td>
</tr>
<tr>
<td>A7</td>
<td>Course</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>A8</td>
<td>Course</td>
<td>1 statement to 1 % deviation</td>
</tr>
<tr>
<td>B1</td>
<td>Course</td>
<td>2 statement to 2 % deviation</td>
</tr>
<tr>
<td>B2</td>
<td>Course</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>B3</td>
<td>Year-level</td>
<td>1 statement to 1 % deviation</td>
</tr>
<tr>
<td>B4</td>
<td>Course</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>B5</td>
<td>Year-level</td>
<td>2 statement to 2 % deviation</td>
</tr>
<tr>
<td>B6</td>
<td>Course</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>B7</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>B2.1</td>
<td>Course</td>
<td>2 statements to 2 % deviation</td>
</tr>
<tr>
<td>B2.2</td>
<td>Course</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>B2.3</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>B2.4</td>
<td>Course</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>B2.5</td>
<td>Year-level</td>
<td>2 statements to 2 % deviation</td>
</tr>
<tr>
<td>B2.6</td>
<td>Course</td>
<td>2 statements to 2 % deviation</td>
</tr>
<tr>
<td>Statement</td>
<td>Preferred Segmentation</td>
<td>Difference</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>B2.7</td>
<td>Course</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>CIA</td>
<td>Course</td>
<td>1 statement to 1 % deviation</td>
</tr>
<tr>
<td>C1B</td>
<td>Year-level</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C1C</td>
<td>Course</td>
<td>1 statement to 1 % deviation</td>
</tr>
<tr>
<td>C1D</td>
<td>Year-level</td>
<td>2 statements to 2 greater dev.</td>
</tr>
<tr>
<td>C2</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C3</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C4A</td>
<td>Course</td>
<td>3 statements to 1</td>
</tr>
<tr>
<td>C4B</td>
<td>Course</td>
<td>3 statements to 1</td>
</tr>
<tr>
<td>C4C</td>
<td>Course</td>
<td>1 statement to 1 % deviation</td>
</tr>
<tr>
<td>C4D</td>
<td>Course</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>C5</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C6</td>
<td>Course</td>
<td>2 statements to 2 % deviation</td>
</tr>
<tr>
<td>C7</td>
<td>Course</td>
<td>3 statements to 1</td>
</tr>
<tr>
<td>C8</td>
<td>Course</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>C2.1A</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>C2.1B</td>
<td>Course</td>
<td>4 statements to 3</td>
</tr>
<tr>
<td>C2.1C</td>
<td>Course</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>C2.1D</td>
<td>Year-level</td>
<td>4 statements to 3</td>
</tr>
<tr>
<td>Statement</td>
<td>Preferred Segmentation</td>
<td>Difference</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>C2.1E</td>
<td>Year-level</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>C2.1F</td>
<td>Course</td>
<td>3 statements to 1</td>
</tr>
<tr>
<td>C2.1G</td>
<td>Course</td>
<td>5 statements to 4</td>
</tr>
<tr>
<td>C2.1H</td>
<td>Course</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>C2.1I</td>
<td>Year-level</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>C2.1J</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C2.2</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C2.3</td>
<td>Course</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>C2.4</td>
<td>Course</td>
<td>3 statements to 1</td>
</tr>
<tr>
<td>C2.5A</td>
<td>Year-level</td>
<td>1 statement to 1 % deviation</td>
</tr>
<tr>
<td>C2.5B</td>
<td>Course</td>
<td>4 statements to 3</td>
</tr>
<tr>
<td>C2.5C</td>
<td>Course</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>C2.5D</td>
<td>Year-level</td>
<td>4 statements to 3</td>
</tr>
<tr>
<td>C2.5E</td>
<td>Year-level</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>C2.5F</td>
<td>Course</td>
<td>3 statements to 1</td>
</tr>
<tr>
<td>C2.5G</td>
<td>Course</td>
<td>5 statements to 4</td>
</tr>
<tr>
<td>C2.5H</td>
<td>Course</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>C2.5I</td>
<td>Year-level</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>C2.5J</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C2.6A</td>
<td>Course</td>
<td>1 statement to 1 % deviation</td>
</tr>
<tr>
<td>C2.6B</td>
<td>Year-level</td>
<td>4 statements to 3</td>
</tr>
<tr>
<td>Statement</td>
<td>Preferred Segmentation</td>
<td>Difference</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>C2.6C</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C2.6D</td>
<td>Course</td>
<td>4 statements to 3</td>
</tr>
<tr>
<td>C2.6E</td>
<td>Course</td>
<td>3 statements to 3 % deviation</td>
</tr>
<tr>
<td>C2.6F</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C2.6G</td>
<td>Course</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C2.6H</td>
<td>Course</td>
<td>3 statements to 3 greater dev.</td>
</tr>
<tr>
<td>C2.6I</td>
<td>Course</td>
<td>2 statements to 2 % deviation</td>
</tr>
<tr>
<td>C2.6J</td>
<td>Year-level</td>
<td>3 statements to 2</td>
</tr>
<tr>
<td>C2.7A</td>
<td>Course</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>C2.7B</td>
<td>Year-level</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>C2.7C</td>
<td>Course</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>C2.7D</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>C2.7E</td>
<td>Year-level</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>C2.7F</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>C2.7G</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>C2.7H</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>C2.7I</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>C2.7J</td>
<td>Year-level</td>
<td>2 statements to 1</td>
</tr>
<tr>
<td>D1</td>
<td>Course</td>
<td>2 statements to 2 Greater dev.</td>
</tr>
<tr>
<td>Statement</td>
<td>Preferred Segmentation</td>
<td>Difference</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>D2</td>
<td>Course</td>
<td>2 statements to 1 % deviation</td>
</tr>
<tr>
<td>D3</td>
<td>Course</td>
<td>2 statements to 2 % deviation</td>
</tr>
<tr>
<td>D4</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>D5</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>D6</td>
<td>Course</td>
<td>2 statements to 1 %</td>
</tr>
<tr>
<td>D7</td>
<td>Year-level</td>
<td>3 statements to 2 %</td>
</tr>
<tr>
<td>D8</td>
<td>Course</td>
<td>3 statements to 2 %</td>
</tr>
<tr>
<td>D9</td>
<td>Year-level</td>
<td>1 statement to 1 %</td>
</tr>
<tr>
<td>D2.1</td>
<td>Course</td>
<td>2 statements to 1 %</td>
</tr>
<tr>
<td>D2.2</td>
<td>Year-level</td>
<td>2 statements to 2 % deviation</td>
</tr>
<tr>
<td>D2.3</td>
<td>Course</td>
<td>1 statement to 1 %</td>
</tr>
<tr>
<td>D2.4</td>
<td>Course</td>
<td>2 statements to 2 % deviation</td>
</tr>
<tr>
<td>D2.5</td>
<td>Year-level</td>
<td>3 statements to 2 %</td>
</tr>
<tr>
<td>D2.6</td>
<td>Year-level</td>
<td>1 statements to 1 % deviation</td>
</tr>
<tr>
<td>D2.7</td>
<td>Course</td>
<td>3 statements to 2 %</td>
</tr>
<tr>
<td>D2.8</td>
<td>Year-level</td>
<td>4 statements to 3 %</td>
</tr>
<tr>
<td>D2.9</td>
<td>Course</td>
<td>1 statements to 1 % deviation</td>
</tr>
</tbody>
</table>
Appendix 7. Lifelong Learning Resources System

Knowles created a systems model called the Lifelong Learning Resources System. Central to this model is the concept of the postcompulsory education learner and the development of self-directed learning skills. These skills include:

i. to develop and remain in touch with curiosities;
ii. for objective self-perception and to non-defensively accept feedback;
iii. to diagnose personal learning requirements in the light of models of competencies required for performing life roles;
iv. to formulate learning objectives in terms that describe performance outcomes;
v. to identify human, material and experiential resources for accomplishing various learning objectives.
vi. to design a plan of strategies for the affective use of appropriate learning resources;
vii. to systematically carry out a learning plan;
viii. to collect evidence of the accomplishment of learning objectives and have it validated through performance. (Knowles 1990:174)
Appendix 8. Competencies of Lifelong Learning Comprised of the Skills for Various Life Roles (Knowles 1990)

<table>
<thead>
<tr>
<th>ROLE</th>
<th>COMPETENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner</td>
<td>Reading, writing, perceiving, conceptualizing, imagining, inquiring, aspiring, diagnosing, planning, getting help, evaluating.</td>
</tr>
<tr>
<td>Self</td>
<td>Self-analyzing, sensing, goal-building, objectivizing, value-clarifying, expressing, accepting, being authentic.</td>
</tr>
<tr>
<td>Friend</td>
<td>Loving, empathizing, listening, collaborating, sharing, helping, giving feedback, supporting.</td>
</tr>
<tr>
<td>Citizen</td>
<td>Caring, participating, leading, decision-making, acting, conscientizing, discussing, having perspective, global citizen.</td>
</tr>
<tr>
<td>Family</td>
<td>Maintaining health, planning, managing, helping, sharing, buying, saving, loving, taking responsibility.</td>
</tr>
<tr>
<td>Worker</td>
<td>Career planning, using technical skills, accepting supervision, giving supervision, getting along with people, co-operating, planning, delegating, managing.</td>
</tr>
<tr>
<td>Leisure</td>
<td>Knowing resources, appreciating the arts and humanities, performing, playing, relaxing,</td>
</tr>
</tbody>
</table>
ROLE
reflecting, planning, risking.

COMPETENCIES
Information literacy, according to Harrison (1993a:111), is the skills to:

i. recognize the need for information;
ii. identify the information sources;
iii. locate the information;
iv. evaluate the information;
v. organize the information; and
vi. use information affectively – critical thinking skills.
Appendix 9. Zachert’s Model for Planning Education Services

(Zachert 1990:35)

<table>
<thead>
<tr>
<th>12. Evaluate and Recommend</th>
</tr>
</thead>
</table>
| 11. Implement  
Instruction  
and Evaluation  
Marshmallow  
Resources  
Design the Evaluation  
Design the Instruction  
Identify  
Needs |
| 1. Assess Education  
Needs  
| Priorities, and Policies  
| Service/s in Meeting Needs  
| Resource Allocation  
| Instructional  
| Strategies to Meet Need/s |
| 2. Set Goals,  
| 3. Evaluate Affective-ness of Existing  
| 4. Evaluate Current  
| 5. Develop Overall |

6. Develop Overall

Evaluation Strategies
Appendix 10.

UNESCO in Hamburg (1978) identified five criteria for a system of education. These are that education systems:

i. last the whole life of each individual;

ii. lead to the systematic acquisition, renewal, upgrading and completion of knowledge, skills, and attitudes made necessary by the constantly changing conditions in which people now live;

iii. have as their ultimate goal promotion of the self-fulfilment of each individual;

iv. be dependent for their successful implementation on people's increasing ability and motivation to engage in self-directed learning activities; and

v. acknowledge the contribution of all available educational influences, including formal, nonformal and informal (Cropley & Dave 1978:3).
### Appendix 11. Major Characteristics of Lifelong Learning

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totality</td>
<td>Lifelong learning encompasses the entire lifespan and includes all levels of formal and informal education in a host of settings.</td>
</tr>
<tr>
<td>Integration</td>
<td>All educative agencies in lifelong learning are inter-related and interconnected.</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Diverse educational technologies, media, techniques, lesson timing and content. Additionally, life paths chosen would be more flexible and facilitative of varying degrees of change throughout life.</td>
</tr>
<tr>
<td>Democratization</td>
<td>Lifelong learning allows people of different patterns of intellectual development, interests and motivations to benefit from education because educative experiences becomes available as and when required by necessity or motivation.</td>
</tr>
<tr>
<td>Self-fulfilment</td>
<td>Lifelong learning would facilitate adaptation to change and innovative capacities. The ultimate goal of lifelong learning becomes to improve the quality of life of each individual.</td>
</tr>
</tbody>
</table>
Appendix 12.

The Higher Education Council list of characteristics which constitute “good practice” for education facilities in enhancing lifelong learning:

i. Have an explicit policy on developing lifelong learners, including aims, strategies and resourcing;

ii. nominate the development of lifelong learning skills and attitudes as one of the core objectives of all undergraduate courses, clearly articulated in course aims and objectives;

iii. provide improved access to mature-aged and “non-traditional” students wishing to begin or resume university studies;

iv. have in place unambiguous guidelines concerning the recognition of both formal and informal prior learning;

v. provide academic staff development to enhance those aspects of curriculum design, review, teaching and assessment which develop the qualities of the lifelong learner;

vi. establish systems of recognition and reward for teaching practices that develop lifelong learners;

vii. make use of systems of course development, delivery and assessment that regularly evaluate against the profile of the lifelong learner and the principles for content and structure of undergraduate education;

viii. include systems of course accreditation and review which specifically include evaluation of the course's contribution to the development of lifelong learning skills and attitudes;

ix. demonstrate specific support for learning-to-learn and information literacy programmes; and

x. where appropriate, introduce students to alternative learning strategies and teaching technologies which encourage self-managed learning (Chubb 1994:3).