Academic Discourses and the Twenty First Century

Context: Empowering All Students with Comprehension and Critical Engagement

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Declaration of Authorship

I hereby declare that the work herein, now submitted as a thesis for the degree of Doctor of Philosophy by research of the Charles Darwin University, is the result of my own investigations, and all references to ideas and work of other researchers have been specifically acknowledged. I hereby certify that the work embodied in this thesis has not already been accepted in substance for any degree, and is not being currently submitted in candidature for any other degree.

April 30\textsuperscript{th} 2011

[Signature]
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Dedication

I dedicate this thesis to all of my family whose loving support and enthusiasm for the project has been its fuel. In particular, I dedicate it to my extraordinary parents who instilled in me a love of the written word and a fighting spirit, both necessary for this undertaking.
Think like a wise man but communicate in the language of the people.

*William Butler Yeats (1865 - 1939)*
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Abstract
Current economic, social, educational, and philosophical conditions of university learning in the 21st century are unique, resulting in a disjuncture between traditional academic discourse and the culture, literacy and the learning modes of current students. Driven by the knowledge economy and technology, governments have encouraged the massification and globalisation of university education and continue to promote access to university for non-traditional students. In regional, post-Dawkins universities of Australia, the student demographic is increasingly diverse, spanning age groups from 18-75, cultures, socio economic and educational backgrounds and English language proficiency.

Evidence suggests that high levels of abstract and technical language exclude many students from academic discourse communities denying them an opportunity to succeed, affect performance and increase drop-out rates. In neglecting to provide specific strategies for ensuring all students have access to meanings in discourses, current theories for higher learning inadvertently fail to recognise that ‘knowledge’ is constructed through language. Further, university pedagogies continue to assume high levels of literacy previously associated with traditional university students.

This thesis integrates learning theory and systemic functional language analysis to provide an understanding of, (1) how we use language to express abstract technical knowledge in the humanities, social science and science, and (2) what learning theory tells us about how we might best recruit students into academic discourse communities. To help establish the most effective ways of presenting discourse to first year students, it also compares three versions of discourse presenting the same knowledge and students’ views on how easy the discourse was to comprehend.
Contemporary university language and learning theory, the linguistic features of academic discourses, and students’ responses to these are examined. This analysis informs a proposal for an inclusive pedagogy, effective in the apprenticing of students to become successful participants in academia, and the new knowledge world in general. These strategies build on the “Reading to Learn” scaffolding literacy approach of Rose (2007) by incorporating more explicitly, stages that acknowledge the importance of schema, concept mapping and experiential learning and our understanding of proclivities of the net generation.
Chapter 1

Aims, Inspiration, and Overview

1.1 Introduction

In the current climate of university learning, there are a number of social, political and pedagogical forces at play which impact on the literacy and thinking skills of students entering our universities. This has particularly been noted in English speaking countries like Australia, the United Kingdom and the USA. These forces include the lower literacy levels and changing cultural capital of our student cohorts and the commodification and post modern reform of education systems. In recent times, particularly in Australia, incentives to increase our numbers of non traditional students have been encapsulated in government policy and the retention of these students is directly linked to increased funds for universities (DEEWR 2008). By exploring the interplay between who our students are now and what we know about learning and language, this thesis proposes ways of improving the engagement and performance of university students, particularly first year undergraduates.

The aim of this thesis is to first describe and analyse the language features of academic discourse to show why university is challenging for many beginning students, particularly our increasingly diverse cohorts. The discourses of humanities, social sciences and science will then be compared and contrasted to examine the differences in the language and knowledge structures across these disciplines and show how these differences affect the accessibility of these discourses. A further perspective will be gained by
comparing students’ perceptions of different approaches to presenting the same text. By analysing contemporary academic texts and correlating this analysis with what we know about how we learn, how we develop language, and students’ perceptions of the texts they encounter when beginning university study, this thesis will advance our understanding of what we need to do to optimise our students’ experience of academic texts and hence optimise their learning.

The analysis of text samples utilises a Systemic Functional Linguistics (SFL) model of discourse analysis. This model explicates the relationships between language and context and provides a framework for understanding the form and function of the texts within their disciplinary context. Importantly, SFL provides a language to describe and explain the features of the disciplinary texts being examined and the features that make them easier or harder for students to engage with.

This analysis then provides a map which informs a proposal for a teaching approach that explicitly scaffolds the knowledge structures and associated language of academic discourse so that students learn to unpack and repack academic texts and in doing so become effective voices in their disciplines. The findings of this thesis should be transferable to other fields within the disciplines that are described by the same types of knowledge structures.

1.2 Objectives

To achieve these overall aims, this study explores the following questions:

- What is the profile of 21st century university students, particularly those at a dual sector regional Australian university?
- What does the literature say about how we learn?
- What does the literature say about how we learn language?
Can these theoretical understandings be reinterpreted through a linguistic analysis of samples of discourse from humanities, social science and science and is there a correlation between written texts of a discipline and their spoken counterparts?

How differently do different practitioners present the same body of knowledge and are there more or less effective ways of doing this?

Given the above, what would be the most effective linguistic/teaching model for imparting this type of knowledge in current higher education learning situations (including face to face lectures, tutorials and online modes of learning)?

1.3 Inspiration for this study

1.3.1 Background

The rapidly changing technologies and philosophical positions of the last century (particularly postmodernism, economic and technocratic rationalism and globalisation) have affected societies and individuals at a range of levels and in a myriad of ways, all of which significantly impact on literacy and education. The increasing demographic diversity of university students, rapidly changing technologies, and a market-driven approach to higher education challenge us to examine established methods of teaching academic discourse in order to continue to reach our students and ensure their retention and success at university. On the one hand we are required to embrace the positive impacts of post-Fordist, liberalised policies, globalisation and new technologies on education while at the same time addressing the negative impacts of an increasingly technologised, multi-literate world on students’ ability to engage with the traditional texts of academia (Pransky 2001, Manuel 2002).
My experiences designing and teaching higher education enabling and first year common core units have accentuated for me the sense of urgency in addressing a number of specific issues related to higher education literacy. These issues relate to the aforementioned factors, particularly the changing profile of university students, changing learning technologies, reduced literacy levels and a push by governments to increase the participation of non-traditional students. Added to these factors is the tendency for the cultural capital of our current cohorts to be dominated by popular culture at the expense of the more traditional western philosophical cultural capital, on which academic discourses are generally based (Hirsch, 1987). Bourdieu (1980, 1991) describes cultural capital as a symbolic wealth that can be exchanged in the semiotic marketplace. The status and/or privileged, conferred by cultural capital, depends on the context it is being used and its relevance to that context. To be empowered in the higher learning arena our students need to master the cultural capital associated with academia.

This study was particularly inspired by my observations of a large group of students in a first year common core unit in which I taught. The cohort for this unit is uniquely representative of the university’s first year demographic as it is a compulsory first year unit for all Charles Darwin University students. The unit, “Reading and Writing the World of Ideas”, aimed to provide an introduction to the history of western philosophical ideas while also quite explicitly teaching students academic reading and writing skills. From observation, a number of students were challenged by the extremely abstract discourse that describes this subject. By contrast, on the occasion of a guest lecturer presenting their topic in everyday terms, utilising analogies that referenced the everyday world to explain concepts, students reacted with more enthusiasm for the subject matter and presentation.
These observations were confirmed through interaction with students in the more informal, intimate forum of tutorial sessions related to the lectures and in discussions with other tutors for the unit. For many of the students, the ideas and associated terminology presented in the lectures were often completely unfamiliar and as a result, the majority of students in my tutorial groups left the lectures with a limited understanding of what they had heard. Thus, despite the fact that all lectures were prepared with care and presented enthusiastically, many students were not necessarily gaining a great deal of knowledge from attending them.

1.3.2 The nature of academic discourse

This experience begged the question of whether it was something particular about the language of the history of western ideas that presented these challenges or whether language across all academic discourses and disciplines was equally problematic for the modern first year student. Alternatively, was it simply a problem of how particular lecturers chose to communicate a topic and could there be alternative ways to express the same concepts? Finally, what was it about the language structures and lexical choices that made the discourse difficult and different? This thesis sets out to shed light on these questions.

Given that highly abstract and technical language is a feature of all academic discourses to a greater or lesser extent, it was reasonable to assume that most university disciplines present some degree of challenge for our students. Martin & Rose (2005: 10) explain that in modern written languages abstraction, grammatical metaphor and technicality have become essential resources for expanding existing sets of meanings/ideas and in English these grammatical resources have allowed the expansion of the discourses of the sciences, humanities and post industrial bureaucracies. This necessary
employment of abstract terms to represent ever more complex and abstracted notions of the world tends to create an exclusive and impenetrable world for the uninitiated.

This short example from a transcript of the lecture vividly illustrates the potential challenge awaiting students:

“Thus, structuralism is accompanied by a belief, as I talked about before, in transcendent truths; that is, truths that are assumed to move on from one generation to the next, unalterable, absolute and universal. And it’s those three things, if you like, which are being called into question; this universality, this homogeneity, this sameness, this inalterability, being called into question in our own day” (Post Modernism Lecture, 2004)

One of the reasons formal written discourse can be so challenging to the novice is that when processes are re-construed as things through grammatical metaphor and abstraction, the people and the processes seem to disappear and it is often difficult to work out who is doing what to whom (Martin & Rose, 2005: 107). Bernstein (1999) expands on our understanding about the difficulties of academic discourse by explaining, not only how discourse reflects the stratification of society, but also how the knowledge structures in discourses can work to increase its exclusivity. Grammatical metaphor and abstraction along with other features of language and discourse structures will be defined and discussed in Chapter 4.

1.3.3 The nature of lectures and tutorials

Because effective learning is determined by a number of contributing, interrelating factors, ascertaining the exact cause of the students’ difficulties
in comprehending lecture material could present itself as a highly complex task. However, from my observations and attempts to help students grasp the knowledge in tutorials a number of key factors emerged. The students who were having problems following the lecture tended to be the younger members of the group, whereas, the older students, who claimed to be more familiar with the language and concepts presented, found it less challenging. Despite this variation in confidence amongst my tutorial group, all of the students in my group appeared to respond positively when we “unpacked” the information from the lecture using familiar, everyday language, experience and concepts. While I was able to assist my students, without a standardised approach for disseminating lecture material in tutorials, there is no guarantee that the remaining one hundred and twenty students attendant at the lecture were being provided with the same level of scaffolding in their tutorials.

The potential effect of being shut out from the discourse concerned me. Evidence suggests that using abstract and technical language too much, too soon at a first year level has the potential to alienate and disempower students because of the way it excludes them from the discourse community and denies them an opportunity to succeed in their apprenticeship. This exclusion, in turn, might cause a range of problems to do with diminishing self-confidence and efficacy, motivation, performance and ultimately dropout rates(Kilgore 2001, Mariani 1999, Bernstein 1999, Hillman 2005, Tinto 1988, Mackie 2001).

Ways of presenting knowledge in higher education inevitably vary from practitioner to practitioner and in the absence of an explicit pedagogy that addresses this widened knowledge and language gap, teachers in higher education can easily be left to rely on the same approach for articulating knowledge that they were exposed to as undergraduates. Thus, even where
knowledge is delivered using state of the art educational technology and a
general pedagogy that is carefully considered, approaches to unpacking texts
tend to be inconsistent and inadequate for meeting the needs of the diverse
literacy competence of current university students.

In neglecting to provide specific strategies for how to induct students into the
discourse of the discipline, current theories for higher learning inadvertently
fail to recognise that the ‘knowledge’ is constructed through language.
Consequently, teaching practices also neglect the importance of ensuring that
the students can access traditional University texts (Rose, Lui-Chivizhe,
McKnight and Smith, 2004, Rose 2005a, Rose 2009). Further, despite the
developments in flexible learning and the use of multimedia to teach,
university pedagogies continue to assume the high levels of literacy
possessed by traditional university students (mostly from middle-class
university educated families).

Thus, university students are still expected to independently read and
critically analyse complex texts and present written work that coherently
analyses and discusses issues using appropriate academic language and
conventions. These tasks, which require higher order thinking and
experience, and confidence with the abstract and technical language of
academic discourse are extremely challenging for many of our students.

Viewing higher education learning from a linguistic perspective, as a process
of apprenticeship into a discourse community, allows the development of a
comprehensive pedagogy that recognises and responds to the intrinsic
connection between language and knowledge.

1.3.4 Changing literacy levels

Concerns about the difficulty students face with academic discourse are
particularly acute as we face these increasingly lower literacy standards in

The English language levels of our international students are a cause of increasing frustration and anxiety for university staff and the students themselves. Birrell (2006) found that over a third of international students graduate from Australian universities with English language levels that are insufficient for following a professional discourse in any profession. Birrell’s (2006) study indicates that a large number of international students graduate with levels of English below IELTS 6. Given that IELTS 6 is the absolute minimum English language level required for beginning university students, this finding is of great concern. These students and domestic students with language backgrounds other than English are, in effect, faced with the challenge of two new languages to comprehend: English and the language of the field they are studying.

Problems with the literacy levels of school leavers are also the topic of continuing debate about how language is taught and what the appropriate depth and breadth of school curricula should be (Van Loon 1999, Marks et al, 2001). In their investigation of school leaver literacy levels Marks et al. (2001) found that 60% of students were operating at levels of reading comprehension and analysis of between 2 and 3 on a scale of 1-5. At these levels, students are able to comprehend, at best, only moderately complex evidence and lines of reasoning.

A growing perception is that the school curriculum has been diminished by the postmodern progressive pedagogy that appears to favour critical literacy over cultural literacy. There is some concern that requiring students to critique texts even before they have become competent readers, has a
detrimental effect on students’ cultural capital and their mastery of reading and writing skills (Macdonald 2003, Donnelly 2007). Bernstein (1975) explains that the emphasis of progressive pedagogy on the authentic, aural voice of the child can have the effect of locking them into the immediate world rather than helping them learn ways of expressing the world conceptually. The research of Martin (1999), Rothery (1996) and Chouliarki (1997) has confirmed Bernstein’s concerns and led to the development of models of literacy teaching that scaffold and make explicit the genres of education.

In seeking to liberate and provide for their students’ individual voices without first equipping them with adequate literacy and cultural capital, the proponents of postmodern and critical pedagogies could be viewed as being inherently as elitist as their predecessors. Those who have promoted these approaches tend to be from the generation before post-modern reform and most often from middle class, educated backgrounds. Unlike many of their students, they are likely to have been privileged with strong foundations in literacy and cultural capital (Hirsch 1987; Luke 1995). Thus, they are well equipped to question the structures which form the foundations of knowledge, thinking and literacy. They already have the positions of power and privilege that their backgrounds and more traditional education has provided them with and, thus, have nothing to lose by critiquing the structures that have helped them to get where they are. Unfortunately, by not insisting that their students master these same structures and knowledge they are compromising their students’ ability to access the privileged world of academia and bureaucracy, which requires members to speak and write like academics and bureaucrats.

Gare (2006) echoes an increasingly heard voice of concern about the fall-out of postmodernism. She points out with irony that the French education
system knew better than to take Derrida, Foucault and Barthes’ post-modern revolution as a guideline for pedagogy. French students are exposed to the same educational rigour their parents and grandparents were while unfortunately many students in the US, Britain and Australia are not.

Difficulties in coping with academic discourse are also an issue for many non traditional students because of their literacy and cultural backgrounds. Non traditional students are found in relatively high numbers at small regional universities and will be found in increasing numbers at all Australian universities at the behest of recently introduced government incentives (DEEWR, 2008). Although the term non-traditional students encompasses a range of student characteristics, a core definition describes this group as “having population characteristics not normally associated with entrants to higher education”. This generally translates as groups of students who come from underrepresented “social classes, ethnic groups or age groups” (Harvey, 2009). It is this group, who are unlikely to have been privileged with the same rich written literacy as traditional students, who we can expect to experience difficulty comprehending their set readings and successfully completing written assignments.

1.3.5 Addressing inequalities

In response to this climate, my thesis is concerned with finding strategies that will provide equitable access to learning for current first-year students by ensuring they are given the support they need to operate at the same literacy level as other students. It emphasizes the need to put in place a consistent and explicit literacy approach that becomes an integral component of first year university pedagogy. This approach will help to “democratise our classrooms” by allowing all students to be empowered by the
educational experience rather than some (those with marginal literacy) being diminished by it (Rose 2005a).

It is important to note that this thesis does not advocate a ‘dumbing down’ of discourse to reach these students; it advocates a scaffolding of discourse so that students are enabled to reach the required levels of literacy to access and engage meaningfully with the ideas presented to them. In effect it suggests an approach that fills in the gaps in their literacy and cultural capital, empowering them with skills and knowledge they may not have had access to previously.

There are a number of relevant theories of language/knowledge acquisition which combined, and in some cases modified, can be applied to successfully resolve the problems described. These are drawn from among others: Bernstein (1975, 1986, 1999); Ausubel (1968); Christie (1997, 2002); Cook (1994); Halliday and Martin (1984, 1990, 1993); Halliday (1985); Hirsch (1987); Hamp-Lyons, Hood & MacLennan (2001); Martin & Rose (2007a & b); Rose (1999, 2003, 2004, 2005a & b, 2006a & b, 2007a & b, 2008a & b, 2010); Vygotsky (1986); Wignell (1994, 1997, 1998, 2007).

Predictably there are overlaps between the ideas of various theorists that serve to strengthen and complement this proposal for a fresh approach. Further, despite a wealth of research, knowledge and inspiration from educational theorists, the central place of literacy for successful engagement in university study has not been explicitly addressed in mainstream higher education pedagogy. There is a need to synthesise current understandings of how we learn with how academic discourse works from a functional linguistics point of view. Through such a synthesis and using authentic text models, from a range of disciplines, a strategy for effectively scaffolding university discourse (particularly for first year students) that builds on genre based
approaches to reading and writing (Martin 2005, Martin & Rose 2005, in prep, Rose 2004, 2007, 2008, in press; Rose, Lui-Chivizhe, McKnight & Smith 2004; Martin & Rose, 2005; Martin, 2006; Rose & Acevedo, 2006; Rose, Rose, Farrington & Page, 2008) will be proposed. This approach acknowledges the individual, cultural and educational needs of the students’ as well as the importance of the content.

1.4 Defining discourse and disciplines

1.4.1 Defining Discourses

Central to this enquiry is its exploration of academic discourse and the different kinds of discourse patterns evident in different disciplines; hence, the general notion of discourse needs to be clearly defined before the specific discourse of academia is explored. Discourse can be viewed from a number of perspectives, including

a sociological, a critical theory and a linguistic perspective.

The first, the sociological perspective, refers to discourse as “... a method of communication that conforms to particular structural and ethnographic norms and marks a particular social group by providing a means of solidarity for its members and a means of differentiating that group from other groups.” (Ritzer and Ryan, 2001, p151). Further, Ritzer et al (2001) suggest, it is more accurate to refer to this concept in the plural in order to capture its use for marking boundaries between one discourse and another and to recognise its intradisciplinary applications.

The second, a critical theory perspective, refers to an ideological attitude in a field (Foucault 1972, Gee, 1990). Foucault (1972:80) suggests discourse is a term that can refer to a “...general domain of all statements...an
individualizable group of statements and sometimes a regulated practice that accounts for a certain number of statements.” He further, describes discourses as “… systematically organised statements which construe the meanings and enact the power and values of social institutions.” Fuller (1996:13) adopts a similar position as Foucault’s, describing discourses as, “systematically organised statements which construe meanings and enact the power and values of social institutions”.

The third perspective from Martin and Rose (2003) is the linguistic perspective of discourse as text. This Systemic Functional Linguistic (SFL) perspective describes discourses as comprising three interwoven metafunctions: the interpersonal, the ideational and the textual. Any discourse can be viewed from sociological, critical theory or linguistic perspectives simultaneously (Martin and Rose 2003).

1.4.2 Defining disciplines

Because the terms discipline and discourse can both be used to refer to a field of enquiry or a body of knowledge at a macro or micro level and both are used interchangeably in the literature it is important to establish a consistent definition for this thesis.

At a macro level, Wignell (2007, p6) refers to discourses as “… enduring and evolving bodies of knowledge and practice organised according to identifiable, meaningful linguistic and social practices.” He utilises this definition to describe three major discourses of knowledge and practice: Humanities, Social Sciences and Science. Wignell (2007) acknowledges, after Foucault (1972), that this definition could also be used to describe the notion of discipline. Discipline he suggests refers to areas of specialised enquiry that are categorised under these broader ‘discourse’ headings. Hence, the discourse of Social Science includes the disciplines of sociology, economics,
geography; the discourse of Humanities includes the disciplines of history, philosophy, English, cultural studies; and the discourse of Science includes the disciplines of biology astronomy, chemistry and physics (Wignell, 2007).

Beyer and Lodahl (1976) describe disciplinary fields as providing the structure of knowledge in which faculty members are trained and socialized; carry out tasks of teaching, research, and administration; and produce research and educational output. Disciplinary worlds are considered separate and distinct cultures that exert varying influence on scholarly behaviours as well as on the structure of higher education. Kreber (2008) suggests that universities are made up of ever more specialized disciplinary settings, each characterized by its unique traditions, concepts, practices and procedures.

For this thesis I will adopt the approach taken by Wignell (2007: 2) which refers to discourses as “organised bodies of knowledge” at a macro level under which can be found institutionalised disciplines - the fields of knowledge within these broader discourses. The analysed samples of discourse from these disciplines will be referred to as texts.

1.4.3 Samples from three discourses: Humanities, Social Science and Science

The discourse samples from the Humanities, Social Science and Science were chosen from lectures in first year units at Charles Darwin University in the Northern Territory of Australia in the disciplines of sociology, ecology (science) and the history of ideas. These choices were made on the basis of SFL interpretations of the features of these discourses and, on the basis of these features, the disciplines that typify these discourse patterns.

In this way the physical science of ecology is an example of science discourse where the “prime linguistic resources … are related to experiential meaning”
and technicality is utilised to name, define and reorganise the world (Wignell 2007: 52). History, on the other hand, is an example of humanities discourse because it relies on the resources of grammatical metaphor and abstraction rather than technicality “as its framework for reinterpreting the world” (Eggins, Wignell and Martin, 1987 in Wignell 2007). Sociology, an example of social science discourse, displays a combination of technical and abstract language patterns (Wignell 2007).

Interestingly, practitioners within these disciplines do not always reach consensus about which discourse their field of knowledge belongs to, particularly within the discourses of Social Sciences and Humanities (Becher, 1981). This probably reflects different theoretical and political positions within disciplines and a non linguistic appraisal of what constitutes a discipline. In some respects this thesis may assist in clarifying this confusion by building on the work of Eggins, Wignell and Martin (1987), Martin, Eggins, Wignell and Rothery (1988); Martin (1989, 1990), Wignell (1994); Cope, Kalantzis and Wignell (1993) in identifying discourse patterns common to humanities, sciences and social sciences. On the other hand, the confusion also denotes the necessarily dynamic nature of academic discourse which, as Wignell’s (2007) examination of origins of the discourse of social science suggests, has evolved by borrowing and adapting ways of meaning that reflect paradigms, and purpose both political and academic.

1.5 Overview of the methodology
This section briefly describes the approach taken for gathering and interrogating the data in order to answer the questions posed in the aims. The Systemic Functional Linguistic framework used to analyse the discourse and details of the methodology will be provided in Chapter 5.
To explore the nature of academic discourse across disciplines and the nature of different instantiations of the same discourse in the same discipline, two different “gazes” were applied to compare the language of: 1/ Lectures across three disciplines, 2/ a humanities lecture and three associated tutorials. Students’ perceptions of different presentations of the humanities discourse were surveyed to gauge which instantiations were the most accessible.

Spoken texts were chosen over written text because each text had the potential to vary according to practitioner and context and students’ reactions to the different instantiations were an important component of this investigation.

The samples of discourse comprised transcriptions of tape recordings of first year lectures and tutorials from the disciplines of history, sociology and ecology. The texts were analysed to establish the differences and similarities in the linguistic features of the three different discourse samples, which of these linguistic features make them easier or harder to understand and whether different ways (instantiations) of presenting the same body of knowledge (either in lectures or tutorials and by different practitioners) affect students’ understanding? The three texts were also examined from the point of view of Bernstein’s (1999) framework describing the vertical discourse of academia as being presented as either horizontal or hierarchical knowledge structures.

For the second gaze, the four instantiations of the humanities discourse represent both different practitioners (three different teachers) and different forums (a lecture and tutorial). All students attended the lecture but the tutorial groups were made up of individual groups of students from the lecture. The language used in the lecture was compared to the tutorials; accounting for the social and physical variables in the four instantiations of
the text. The survey of students’ perceptions utilised an instrument designed to establish their understanding and perceptions of first the lecture and then the tutorial.

The linguistic features were identified according to SFL discourse analysis tools that realise: the flow of ideas; the connections made between ideas; how ideas are organised according to classes, qualities, parts; the abstract and metaphorical words and phrases in the texts that are employed to generalise, describe, classify and evaluate processes; and finally the extent to which these abstractions and metaphors are utilised in each text. These features were marked throughout each text. Parts of these marked texts are reproduced in Chapter 5 and copies of the whole text marked are provided in Appendix A. As well as being identified within the texts, the incidence of lexical and abstract metaphorical density was quantified, measured and compared.

1.6 Structure of the Thesis and Theoretical Sources

As previewed the aim of this thesis is to explore the language and learning features of academic discourse in the light of 21st century student cohorts and from these insights propose a pedagogic response to improve the quality of learning for our students that provides increased success, particularly for our non-traditional students.

The thesis will firstly provide an overview of the context and motivation for this inquiry. This includes the politics of the modern university, the nature of our students and factors influencing their success, including the interplay between power and knowledge. It then discusses how we learn and how we learn through language. Finally, it examines the samples of academic discourses from three disciplines and students’ reactions to these. Through
this thorough examination of the current context and the nature of academic discourse and learning, conclusions about what students find difficult about academic discourse and why they are reached and utilised to inform a proposal for an approach to twenty first century university pedagogy. The chapters are organised as follows:

**Chapter 1** Aims, inspiration, and overview

**Chapter 2** Understanding the context: 21st century university students and academic discourse

**Chapter 3** Learning theories: thinking about how we learn

**Chapter 4** Understanding Discourse

**Chapter 5** Examining and discussing the evidence

**Chapter 6** Conclusions and implications for university teaching

Chapter 2 examines what the problem is by firstly describing the particular group of students and course of study being examined. It outlines the current university climate, both politically and in relation to who university students are in the 21st century. Reflections from Northedge (2002), Reeves (2002), Laurillard (2002), and Ramsden (1992) will provide an overview of current learning theory. The effects of traditional pedagogy on how current cohorts of students will be examined from a socio linguistic perspective in relation to the connection between power and knowledge. This section will draw on the ideas of Foucault (1972), Moore and Muller (2002), Maton (1999), Christie (1998) and Bernstein (1999) amongst others to examine the way language is used to maintain power structures in social relationships.

Chapter 3 explores issues of academic learning in order to understand the ways we best learn and thus why traditional models are failing students. Learning theories relating to cultural capital, schema, advanced organisers
(Hirsch 1987, Cook 1994, Ausubel 1963a &b, 1968, 1969) help explain why the cultural context of the learner is a crucial indicator of their ability to learn institutional knowledge and provide theoretical links between the cognitive theory of learning and language learning. Vygostsky’s (1978 and 1934/86) work is also of particular interest as it describes learning as a social event that involves scaffolding and negotiating new knowledges/languages by acknowledging and working with the existing knowledge each party brings to the learning situation. Necessarily the thesis will situate these learning theories within current approaches including, critical literacy, constructivism and experiential learning.

Following on from this Chapter 4, provides a systemic functional view of how we learn through language. This chapter highlights not only the inextricable link between language and learning but more specifically it describes the features of academic discourse and the processes undertaken in understanding it from a systemic functionalist viewpoint. This is the framework for the analysis of discourse samples for this thesis.

Systemic Functional Linguistics is an appropriate tool for analysing this type of language situation because of its emphasis on context and view of language as a resource of meaning rather than a set of rules. Thus, the analytical tools it offers allow discourse to be viewed at all structural levels while at the same time relating it to the social context Eggins, Wignell and Martin (1987), Martin, Eggins, Wignell and Rothery (1988); Martin (1989, 1990), Wignell (1994); Cope, Kalantzis and Wignell (1993); Halliday and Martin (1984, 1990, 1993); Halliday (1985); Martin & Rose (2007a & b); Wignell (1994, 1997, 1998, 2007). Halliday’s (1987:108) view that “every language is constantly renewing itself in resonance with changes in the environment” underpins my investigation which essentially proposes that, at
an introductory level, abstract technical concepts can be presented in new, non-traditional ways without compromising the integrity of the ideas.

Before presenting the analysis of the texts, Chapter 5 describes the data being examined and method for examining it. The data will be described in terms of its source and context, including the course and units from which the text was sourced, audience description (i.e. student demographic), and the social features for the text delivery. The method for analysis of the data will be based on Systemic Functional Linguistics (SFL) frameworks from Halliday and Martin (1984, 1990, 1993); Halliday (1985); Martin & Rose (2007a & b); Wignell (1997, 2007). This section will indicate which aspects of SFL discourse analysis are being utilised for the analysis and why.

The analysis and discussion section first examines and compares the text samples across the three disciplines: science, humanities and social sciences. It then compares four instantiations of the same text in lecture and tutorial contexts and analyses students’ qualitative experience of these. Through this it will show how the features of the texts and the students’ response to them corroborate the theoretical understandings of how language in academic discourses work and what we know about how students learn.

The final chapter, Chapter 6, will sum up the findings of this thesis and suggest a way forward for an effective learning model based on these findings and building on the work of Martin (2005); Martin & Rose (2005); Rose (2004, 2007, 2008); Rose, Lui-Chivizhe, McKnight & Smith( 2004; Martin & Rose (2005); Martin (2006); Rose & Acevedo (2006); Rose, Rose, Farrington & Page (2008). It will bring together theoretical understandings about the current educational and social climate, the nature of academic discourse, language and learning theory and what the data has shown as a way of
informing the way forward for building beginning students’ understanding and engagement with academic discourse.

Suggestions for a way forward will be framed in terms of a charter to reach all first year students in all their diversity. Strategies for unpacking academic discourse/texts and scaffolding academic reading skills will be proposed. The chapter will conclude with qualifications and issues for further investigation.

In summary, this chapter provides an overview that justifies the purpose and frames the approach for this thesis. It suggests that through using what we know about how academic language works and how we learn and applying this to the context of universities in the 21st century we can improve the integrity of the learning experience for students. In doing so we can insure that our students are empowered to engage deeply with knowledge and are able to become active, effective participants in the world of knowledge and enquiry.
Chapter 2

Understanding the Context: 21st Century University Students and Academic Discourse

2.1 Introduction

The considerations of this thesis are inspired and underpinned by the context of university learning in the 21st century. These assume that the current economic, social, educational, and philosophical conditions of university learning are unique and that, because of this uniqueness, we need to carefully analyse the nature of academic discourse. In addition, we need to understand who our students are and what they need in order to succeed beyond the first year of their studies. The demographic of university students in the Twenty First Century is increasingly diverse in age, socio economic background, culture and educational attainment compared to university students thirty or more years ago, who represented a more homogenous group of students who were more likely to be from educated middle-class backgrounds. Consequently, the way we present academic discourse needs careful consideration if we are to provide equal access to academic knowledge for all students who enrol in university.

At present, national policies to open the doors of the academy to non traditional students need to go beyond the rhetoric of equality and provide students with adequate scaffolding and apprenticeship into the ‘secret’ language of academia by making the invisible discourse rules more visible. Without this, the current high attrition rates of these students will continue and, more importantly, the link between knowledge and power will help to perpetuate social stratification.
This chapter will examine 21st century university learning in relation to three key aspects of the current context: the socio-political climate, the current student profile and how this reflects the literacy, learning, success and expectations of our students. Additionally, the features of academic discourse and its potential to perpetuate inequalities and stratification will be examined.

2.2 The socio-political climate

2.2.1 A business model for university learning

The commodification of university learning and the economic models applied to funding universities affect who we accept into university and how we deliver learning. Funding models also affect the capacity of staff to develop their knowledge specialities and to deliver a quality educational experience to students. Herein lies something of a contradiction where on the one hand universities are under financial and political pressure to accept students from non-traditional backgrounds but at the same time staff are required to teach more students, using increasingly complex learning modes and in compliance with ever more intricate, mostly bureaucratically driven, quality measures. Hood’s (2001, p. 8) speech on “The Research-Led University: reflections from New Zealand”, sums up these tensions:

Vice-chancellors and their colleagues find themselves straddling an overt institutional pluralism that requires of them the delicate balancing of the organic and the deliberate, the collegial and the managerial, the pure and the commercial, teaching, scholarship and research – basic and applied, while at all times protecting the academic freedom of members and the autonomy of the institution.
“Quality” education is a key preoccupation of educational policy makers in the twenty first century and is an imperative dictated by global economic, technological and social changes. Education, now firmly established as a commodity to increase productivity, is modelled as a business enterprise with human and economic inputs and outputs. Rowe (2006) remarks on the considerable emphasis in the last thirty years on reform and change, driven by standards-based performance indicators (PIs) which are focused on measuring literacy, numeracy and science. In most developed countries: “accountability, standards monitoring, benchmarking, school effectiveness and reform dominate the education vernacular (e.g., Buckingham, 2003; Chapman et al., 1991; Dorn, 1998; Hill & Crévola, 1999; Forster; Rose, 2001a, 2005a).

As seen more recently in the (DEEWR 2008) review of higher education, universities are being challenged to consider how the “inputs and processes of educational systems (e.g., physical resources and curriculum provision)” link with the “outputs (e.g., improvements in student achievement outcomes, as well as in school and system performance)” (Rowe 2006,p.1). University teachers are being urged to be accountable for the ways resources are utilised in terms of improved efficiencies, while at the same time, within these more restricted economic conditions, they are expected to provide a high quality learning experience that is measurable in student outcomes. Added to this heady mix, is the challenge of providing for increasingly globalised communities of learners as a consequence of technological and social changes.

Balancing all of these demands has become part of day to day business for academics and inevitably in the maelstrom our ability to deliver quality pedagogy, with minimum resources to an ever-changing community is demanding and challenging. Thus, an understanding of the interplay
between audience, technology and pedagogy seems to be an essential component of survival for students and university teachers alike.

Expanding participation and social inclusion are key factors driving the Australian government’s most recent higher education (HE) reform agenda, adding yet another criterion for universities to respond to (James et al. 2010). To achieve this the government’s targets for the higher education sector include; a bachelor level or above qualification for 40 per cent of all 25-34 year-olds by 2025 and by 2020, an undergraduate student body made up of 20 per cent low socio-economic status (SES) background students. These key goals will drive the current focus on enhancing the quality of higher education and universities will be rewarded for their ability to achieve increased participation of low SES and retention of students in general (Department of Education, Employment and Workplace Relations 2010).

These targets reflected in the Bradley review (DEEWR 2008) are supported by a pledge in the Federal government’s 2009 budget of an increase of $5.4 billion for higher education and research in order to support this new HE agenda. Thus, the race is on for universities to establish administrative frameworks, infrastructure and pedagogy that attracts low SES students and hangs on to them.

If we assume that knowledge is shared with university students through texts (in their many varied forms) then a system for successfully engaging all students with texts to ensure the efficient and effective transfer of academic knowledge must be our core business. In a learning age that encourages pluralism and constructivism, pedagogues can be as much victims as students when faced with a baffling array of possible approaches and technologies for teaching. A systematic approach to unpacking and scaffolding written and spoken text to build academic knowledge is the
principal concern of this thesis in response to the aforementioned competing forces at play in the current higher education climate. In the language of the bureaucracy, if we achieve successful learning we achieve quality outcomes and retention.

2.2.2 Globalised and virtual learning

2.2.2.1 Globalised learning

An understanding of the globalised learning phenomena is essential to this thesis because it describes the increased cultural and linguistic diversity of university students. It also foreshadows the effect of the combination of linguistic diversity and virtual modes of learning on students’ ability to engage with academic discourse. Altbach (2004, p.3) views globalised learning as “the broad economic, technological, and scientific trends that directly affect higher education and are largely inevitable. Politics and culture are also part of these new global realities.” The components of globalisation which directly impact on universities are information technology, the use of a common language for scientific communication, and the mass demand for higher education (massification) and educated personnel to drive our knowledge economy. (Altbach 2004, Laurillard 2002).

Globalised learning has developed as a consequence of and as a conduit for globalisation and is enabled by ever sophisticated technologies for promoting opportunities for learning. Globalised learning relates to, on the one hand, the globalised demographic of in situ classrooms which are increasingly culturally diverse, and on the other hand, the global reach of education as geographic boundaries are dissolved with the use of information communication technologies. Universities now draw more students from the global market due to domestic fiscal pressures to increase numbers and socio-political pressure to liberalise education and allow access
to students from non-traditional backgrounds. Not only do we look to attract foreign students to our universities but also to reach them in situ with the help of technology.

The knowledge economy, a theme integral to the globalisation phenomena, has increased the imperative for globalised learning. The knowledge economy refers to necessary creation of new knowledge and the currency of this new knowledge in response to a world, which appears increasingly complex politically, social, and environmentally on local and global levels (Altbach 2004). As university policy makers and the literature constantly remind us, universities are now charged with providing students not only with disciplinary knowledge but also with the ability to create new knowledge in response to ever changing scenarios in professional workplaces (Laurillard 2002, Altbach 1998a). Increasingly universities are competing with growing knowledge industries which provide a burgeoning array of post-education corporate training programs for the continuous update of skills and knowledge within individual workplaces. It has even been suggested that the value of universities, given their cost, is in question and the pressure is for university management to understand and manage the knowledge/skills nexus. (Laurillard, 2002)

Dearing (1997,p.51) in his report for the National Committee of Inquiry into Higher Education suggested four main purposes of higher education in a learning society: “1. Inspiring and enabling individuals to develop their capabilities to the highest levels ...; 2 Increasing knowledge and understanding ...; 3. Serving the needs of the economy ... 4. Shaping a democratic and civilized society...” The achievement of these purposes will, according to the committee, “enable society to maintaining an independent understanding of itself and its world” (Dearing 1997, p.72).
Laurillard (2002, p.18), in her analysis of the report, reminds us that “society” refers to a global concept of society and that therefore the knowledge referred to is “widely owned, fully disseminated and not located within some elite …”. Such rhetoric encapsulates the shifts in the role, ownership and intended recipients of higher learning in the last half of the twentieth century.

The challenges that have arisen in delivering effective globalised learning could be viewed under the broad headings of technological challenges and cultural and linguistic challenges. The reliance on technology for delivering globalised education necessitates a mastery of technology by students and teachers as well as sufficient access to the tools required for this mode of learning (personal computer’s, broadband connections etc). From a cultural and linguistic point of view global education must somehow traverse a broader spectrum of cultures and students must have adequate mastery of the language of global education.

In the global learning market English is the lingua franca, and students for whom English is not the first language are expected to have sufficient mastery of the language if they are to participate. However, given the enormous diversity globalised education brings to our body of students, it can no longer be assumed that first year students have the common foundation in cultural capital and literacy to engage equally and effectively with the abstract world of academia (Altbach, 2002).

Altbach (2002) refers to English as “the Latin of the 21st century”. English is the principal language worldwide for communicating knowledge, for instruction and is the language used for almost all scientific journals and those for most other academic fields, both hardcopy and on the internet. It is the mostly widely used and indeed the most commonly required second
language in most countries. English speaking countries attract the largest number of international students and it is the most common medium of instruction in many academic systems in countries other than English speaking ones. This includes Singapore, Ethiopia and much of Anglophone Africa, India, Pakistan, Bangladesh, and Sri Lanka. Other countries are increasingly offering courses in English to attract overseas and domestic students who wish to develop their English for use in the international arena.

Thus, the relationship between student success and engaging with academia through a second language cannot be ignored (Crystal 1997). It dictates an additional level of challenge for a large number of our students in terms of interpreting meanings, structures and logic that may differ from those in the mother tongue culture (Hood 2004, Kroll 2003, Ravelli & Ellis 2004).

Pennycook (199 , p.305) warns that students (particularly those from English as a second language backgrounds) encounter problems where their “assumptions and beliefs are not heard”, and “the complexities of the meanings students are trying to produce are not acknowledged”. These problems often arise through “conflicting cultural values and identities embedded in new language, new registers, and also in much EAP pedagogic practice”. Hood (2004) cites a number of advocates (Pennycook 1994; Benesch 1996, 1999; c.f. Ivanic 1998, Clark and Ivanic 1997) for pedagogies that, by acknowledging culture, and power relations, help students find a voice in a new language. Belcher and Braine’s (1995), plea for pedagogy that provides an explicit metacognition of academic texts and their context encapsulates the imperatives of such a pedagogy that, rather than replacing or undermining students’ cultural identities, allows them to expand these identities to encapsulate new ways of knowing and communicating. The Sydney School of Systemic Functional Linguistics, proposes a scaffolding
literacy approach where all students are enabled with a meta cognitive awareness of texts. This approach is described in more detail Chapter 3.

2.2.2 Virtual Learning

The Australian National Training Authority (ANTA) describes virtual learning as learning that happens across geographical boundaries. It also refers to the virtual environments provided for students in real time classrooms to enhance their learning (ANTA 2003a). A globalised approach to learning is enabled by technology which allows a virtual education for students regardless of where they are (assuming they have access to the technology). Virtual learning encompasses the dominant twenty first century themes of online learning, e-learning and flexible learning. The notion of flexible learning is economically and morally driven in its aims to “expand choice on what, when, where and how people learn” (ANTA 2003a). It is responsive to different learning styles and needs of students and the training requirements of communities and industries. Flexible learning is largely enabled by technologies, thus the concepts of online learning and e-learning have become synonymous with flexible learning.

In order to understand the technological and pedagogical challenges of virtual learning it is worth exploring the different vehicles of virtual learning and what these currently entail. Online learning refers to learning that is delivered either remotely or in the classroom via computer networks, which may be local area networks, intranets or public internet applications (ANTA 2003b, p.5). It utilises a range of tools including email, chat, newsgroups, and text, audio and video conferencing. These are delivered through various platforms which range from public web pages to online learning systems which provide students with learning content, course information, readings,
group interaction opportunities, online assessment (quick tests etc) and functions such as student grades.

KPMG (2002, p.54) note that online learning as a sole mode of learning is increasingly less common since mixed modes of learning (which include face to face and paper based delivery) are generally believed to be more beneficial than pure online delivery. E-learning, on the other hand, is a concept that encompasses a broader range of applications and processes than online learning to make learning more flexible for students. In this way, both learning virtually and learning in the classroom are supported by electronic media, i.e. “internet, intranets, extranets, satellite broadcast, audio/video tape, interactive TV and CD-ROM to make learning more flexible for clients.” (ANTA 2003b, p. 5)

Extending beyond these definitions for the platforms of virtual learning, it is useful to consider the various instructional modes for virtual education as a way of understanding the form of texts modern students are expected to engage with. Leu, Kinzer, Coiro & Cammack (2004) highlight the gaps in research on the literacy requirements of engaging with online texts. They cite the RAND Reading Study Group report (2002, p. 4) that suggests, “… the Internet makes large demands on individuals’ literacy skills; in some cases, this new technology requires readers to have novel literacy skills, and little is known about how to analyse or teach those skills”. Similar concerns are mirrored by the United States National Institute of Child Health and Human Development (2000).

2.2.2.3 Instructional modes for virtual education

A large number of virtual learning program still use text to transmit ideas, usually in the form of HTML, PowerPoint, or PDF documents. However, interactive tools and visual data also play a large part in virtual learning.
Kurbel (2002) describes the following instructional modes which are now commonly utilised for learning.

*The Virtual Classroom*, as the name suggests, attempts to recreate the classroom experience in virtual space so that remote students are afforded sufficient support through interaction with the teacher and collaboration with peers. PCs and voice and video tools are used to access the space and share information as written or verbal text. *Hypertext courses* provide course material as text much as traditional distance education program. The principal difference is that hypertext courses provide the materials electronically to be viewed with a browser and include hyper links to related activities and support material to scaffold learning as students work through the text.

*Video-based courses* provide external students with access to the information delivered to internal students by either videoing lectures and tutorials and placing them online or using a voice over of the lecture to accompany PowerPoint presentations or online examples used for illustration. Video-streaming technologies are used and students watch the video by means of freeware or plug-ins (e.g. Windows Media Player, RealPlayer). *Audio-based courses* provide the same without the pictures, although a transcript may be provided. *Animated courses*, text-oriented or audio-based course material can also be brought alive by animations created using Macromedia Flash or similar technologies.

Finally, *Web-supported textbook courses* utilise specific textbooks as the core text for learning but supplements students’ reading and reflection of the text with discussion online and links to examples and activities that utilise the web as a resource.
Communication in virtual learning environments is often asynchronous except where specific synchronous virtual classrooms have been established, so students rely on email, discussion forums and the telephone to ask questions and share ideas. Consequently scaffolding through discussion with peers or the teacher generally involves considerable lapses of time in discussion of ideas. Thus, in online learning environments scaffolding of knowledge through discussion with the teacher is sporadic and needs to be supplemented with other forms of accessible scaffolding provided through online texts (spoken or written).

2.2.2.4 Platforms for virtual learning

Apart from the e-learning platforms or Learning Management Systems (e.g. Blackboard, WebCT, OLAT, Moodle, JoomlaLMS, SharePointLMS etc) utilised by most universities to provide learning content and administrative functions, a number of other more radical online learning platforms have come into the learning arena in more recent years. Second Life (http://secondlife.com/) now provides a virtual classroom for a number of universities including Princeton, Rice University, Pepperdine University, University of Derby (UK), Vassar, and the Open University (UK) (Parker, 2007). Second Life has become a popular platform for language learning programs and is arguably one of the most widespread uses of 3D virtual spaces for education (Seiler, 2009). Second Life allows students to enter and occupy virtual worlds under assumed identities and for language learning this allows students to immerse themselves in the cultural context of the language.

Heritage-Key is another virtual platform used for historical education. It recreates historical sites as virtual worlds and supports real time communication through Skype and other messaging options. It encourages
students to create virtual identities and participate in three dimensional historical scenarios (Heritage-Key.com 2010).

2.2.2.5 Effects of virtual learning

Virtual learning at its best favours visual cues, variety of media and interaction to promote learning, however, students still need to read and comprehend to learn. They need to read written text on-screen and the academic articles and readings they download. They also need to read and interpret images. Thus a multimodal literacy becomes an important precursor for successful online learning.

A combination of technology and multiple modes invariably adds a level of complexity and challenge particularly to students new to online learning. The high level of attrition among online students compared to face to face students can in part be attributed to the complexities of this mode although other factors also contribute to attrition. These include part-time status and the more flexible entry requirements for online students. (Tyler-Smith, 2006, Turner & Crews, 2005, Tyler & Rolls 2008) Taking all of these into account, it could be argued that as students (many non traditional) grapple with new technologies they are afforded less time for engaging with and understanding academic texts which are likely to be extremely unfamiliar to a large number of students. Hence a requirement for clear scaffolding becomes even more important.

2.2.2.6 Online attrition rates and implications

Tyler-Smith (2006) reports attrition rates for students studying online off campus of up to 70% and there is considerable consensus that attrition is higher for online off campus learners than those who attend university face to face. Simpson (2004, p.83) claims “that 35% or more of online learners
McVay Lynch (2001), in her examination of high dropout rates at a small, private, urban university of approximately 5000 students (a high proportion with an average age of 33), found drop-out rates for online students were between 35% and 50% compared with 14% for on-campus students.

Reasons for drop-out include: excessive time spent by students and staff trouble shooting technological issues and students’ feeling of social isolation with regard to completing assignments. For many of the students online learning is new and many lack fundamental computer skills. Consequently, the students have difficulty integrating technology with human interaction, which are necessary functions for online learning. Many report that, without human interaction they “quickly felt disconnected from the campus, their motivation dwindled and they appeared unable to initiate any self direction in learning” (McVay Lynch, 2001). A compounding factor is that a number of off campus students choose to study off campus so they can maintain full-time work, hence they experience the added pressure of being time and energy poor.

The challenges faced by e-learners are easy to underestimate by the champions of this learning mode, who necessarily are already accomplished users of the medium. Whipp & Chiarelli, (2004 in Tyler-Smith 2006) list a range of challenges which may severely impact new students confidence and success in e-learning as: “...technical access, asynchronicity, text-based discussions, multiple conversations, information overload and isolation.”

Eshet-Alkalai (2004 in Tyler-Smith 2006), confirms this by suggesting: “Digital literacy involves more than the ability to use software or operate a digital device; it includes a large variety of complex cognitive, motor, sociological and emotional skills, which users need in order to function effectively in digital environments.” (p.93) He reminds us that that many
mature adults lack the confidence, experience and skills in digital literacy that younger students have. In addition, they face a further challenge of constructing knowledge from vast amounts of non-linear, independently presented information.

Ryan (2002 in Turner & Crews, 2005) confirms higher drop-out rates for online students, the principal cause being problems with the technology. Terry (2001 in Turner & Crews, 2005) also corroborates McVay Lynch’s (2001) findings that students had difficulty adjusting to studying independently in an unfamiliar mode. He also cites faculties’ inexperience with online teaching as part of the problem. More recent figures from universities across the globe suggest this trend of high attrition for off campus online students continues (Frankola 2010).

Boyles (2000, cited in Tyler-Smith 2006) developed a model that identifies three sets of variables that relate to retention in eLearning from the point of view of perseverance or withdrawal. These variables are identified as first, defining variables regarding learner’s backgrounds, including maturity, personal circumstances and experience. The second variable is environmental, which includes family, social and work commitments. The third variable described by his model is academic. This includes the learner’s previous academic track record and the match between the academic demands of the subject and the learners ability.

These sets of variables are allied to other individual variables such as academic self-confidence, academic outcomes and ease of integration with the institution, along with institutional size, social integration abilities and the learner’s psychological make-up.

Frankola (2001 in Tyler-Smith 2006) reports lack of time, lack of motivation, poorly designed courses and incompetent instructors as the reasons for
attrition in her survey of online learners. However, Tyler-Smith (2006) suggests students’ responses to surveys may be ad hoc as a result of a learner’s inability to identify the more personal psychological issues related to the increased levels of anxiety and a sense of feeling overwhelmed by technology and unfamiliar modes of learning. He views this “cognitive overload” as being a principal cause of online attrition.

Where students are mature eLearners, new pressures arise since they are often employed full-time and tend to do their learning in their personal time somewhere in between work and family commitments. Studying in personal time can have a harmful effect on an employee’s home life and family and may contribute to attrition statistics (Thalheimer, 2004 in Tyler-Smith 2006). This is particularly so if feedback and institutional support is slow or inadequate, thus exacerbating their feelings of isolation and frustration.

2.3 The student profile

This section will begin with a general discussion of the nature of the 21st century university student and then refine the discussion to examine the particular features of various student demographics, especially those found at small regional universities like Charles Darwin University (CDU). As suggested in the previous section, a key feature of the 21st century university is the widening demographic, a trend inspired by more liberalised policies towards education in the mid 1900s and reinforced by more recent economic and political imperatives.

2.3.1 Increased diversity

In the UK, Dearing (1997) reported a higher percentage of non-traditional students than ever before. In terms of entry to higher education, 74% entered with A levels compared to 86% pre1990s.
The profile of the non A level group includes 21% of students being 21 years and over, 52% women, 28% low socio economic, and ethnic minorities 13%. That these students were on average older and had work experience was a factor in the diversity of entry qualifications. This is particularly the case for open-university students whose mature students often have little or no prior qualifications.

Table 2.1 indicates the diversity of students’ backgrounds and mode of study at Australian universities in general and at CDU (an example of a small regional university). Most interesting is the much higher numbers of non-traditional students (mature age, indigenous, low socio economic status) at CDU as well as the high percentage (60%) of part-time students.

An additional breakdown of mature age students, indicates that 19% of CDU first year students entered university on the basis of TAFE certificate completion. Figures available for the OECD and the USA indicate between 17% and 22% of students in these countries are over 25, reflecting the figures for Australia in general (OECD 2010).

Governments continue to actively encourage increased diversification and pathways to university for non traditional students in recognition of the economic imperative of an educated population (DEEWR 2008), James et al. 2010, U.S. Census Bureau Reports, 1996). The report on “The First Year Experience in Australian Universities” (James, Kraus and Jennings, 2009, p. 7) suggests that, given this trend, an “increasing number of students who enter higher education will be unfamiliar with its character and will have lower levels of achievements in their previous experiences.
<table>
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<th>Category</th>
<th>Australia</th>
<th>CDU</th>
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<td>Low SES</td>
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Table 2.1 Breakdown (%) of first year higher education enrolments in Australian universities compared with CDU for 2008. (James et al, 2009, DEEWR, 2010 & Charles Darwin University, 2008).

The most significant factor shaping the nature of university student populations relates to the increasing accessibility of university education inspired by a liberalised approach to education by governments since the 1960s and consequently the increasing diversity of students (Baldwin and McInness 2000). Affirmative action policies actively encouraged university doors to be opened to people from “underprivileged” backgrounds and, despite funding for university operations and student support flowing less freely in Australia than in the 1970s and 1980s, university is still accessible to people from (almost) all socio economic backgrounds.
Another factor, relating to the increased accessibility of universities to a wider range of students, is economic rationalism. In Australia, smaller universities particularly are increasingly forced to lower the requirements for university entry in order to enrol enough students to keep the universities afloat. Subsequently students are being allowed into university without having to reach even a bare pass in their final year of secondary study. Also fiscally related, is the increasing number of international students accepted into universities.

This laudable shift, moving universities from being the privilege of the monied classes to being theoretically accessible to all, presents a number of challenges, one of the principal challenges being literacy related. Research consistently shows that literacy levels of students from low socio economic backgrounds, where parents are not tertiary educated, are often lower than the literacy levels of students from wealthier more formally educated backgrounds (Rose 1999, 2004; Dearing 1997). This discrepancy relates to a number of factors including: the laying down of frameworks for abstract thinking, exposure to books and wider knowledge and thus the acquisition of cultural capital, among other things.

Further, in many western countries, people who are included in the brief for affirmative action are migrants and people from indigenous cultures whose literacy in a western paradigm is challenged by their different cultural and language backgrounds. On top of this, they too often fit into the low socio economic framework. Like migrants and indigenous students, international students arrive with a rich cultural capital but one that is not necessarily related to the western university paradigm. The literacy problems for this group of students are compounded by the fact that English is generally a second or third or fourth language.
The alternative pathways to university through TAFE courses also mean that TAFE graduates who enter a first year higher education course, while possessing excellent practical skills, may not have been exposed to academic literacies within their TAFE course and may not have completed their final years at school.

Oblinger and Oblinger (2010, p. 8) note the increased influx of non-traditional students in the US, suggesting three-quarters of undergraduate students in the US are “non traditional”. Their definition of this group includes:

- **Delayed enrolment** — did not enter postsecondary education in the same year they graduated from high school;
- **Attend part-time** for all or part of the academic year;
- **Work full time** - 35 hours or more - while enrolled;
- **Financially independent** as defined by financial aid;
- **Have dependents** other than a spouse, which may include children or others;
- **Single parent**, having one or more dependent children;
- **Lack of a high school diploma**.

This profile highlights the educational, social and economic disadvantage we can expect many of our non-traditional students to be challenged by. This is reflected in findings from the US, the UK and Australia, that this group of students tends to have a higher attrition rate in the first year (Oblinger 2010, Wylie 2005, McInnis 2001, Dearing 1997). While there are a number of other factors that impact on students’ success and retention in the first year of university (Tinto 1997, Mackie 2001, Wylie 2005), the challenges of academic culture is likely to be a significant one that compounds other factors for attrition (economic, confidence levels, motivation). Northedge (2001) suggests that universities need to be helping students acquire the ability to participate in specific knowledge communities, both vicariously, as listeners and readers in ongoing debates and generatively as speakers and writers.
2.3.2 The Net Generation

As important as understanding the literacy and learning features and requirements of our increasingly diverse student body is the recognition that within this diverse student body a significant proportion (approximately 80%) of university students are under 25 and can therefore be classified as belonging to the “Net Generation” (Oblinger and Oblinger, 2010). The literacy strengths characteristic of this generation of students suggest they bring with them many useful tools for learning and communicating in an electronic age, but at the same time their digital literacy and preferred ways of engaging with knowledge and ideas clash to some degree with traditional ways of presenting knowledge and teaching. This is clearly the subject of considerable enquiry within the academic community and the growing dominance of e-learning as a way of delivering university courses flexibly has become a standard mandate for most universities. This is in part in response to globalised learning communities but is also an attempt to reach this new cohort.

However, for the purpose of this thesis, it is particularly important to examine the characteristics of this generation in order to understand their experience and response to traditional academic texts. This understanding will allow a considered proposal for engaging these students with academic discourse in their terms, while expanding their literacy skills to include mastery of the literacy of the academy.

The term ‘net generation’ refers to young adults who were born in the early 1980s when personal computers were first introduced into mainstream society. Twenty per cent of this generation began using computers between the ages of five and eight and virtually all of them were using them by the ages of sixteen to eighteen (Oblinger and Oblinger 2005, p.1). A key feature
of this generation is the central role of electronic media as their text of choice. As Oblinger and Oblinger (2005) suggest, internet technology is so integrated in the lives of net generation children that they “probably don’t think of it as technology. Computers, the internet, online resources and instantaneous access are simply the way things are done...[they] have never known life without the internet.”

Computers, digital media (computer games, the internet) and television are utilised considerably more often for entertainment and information than traditional texts (books, magazines) and other recreational activities. Television is viewed an average of 3.1 hours a day and digital media 3.5 hours by thirteen to seventeen-year-olds (Jones 2002). Younger children (six and under) spend as much time on average engaging with electronic media as they do playing outside and significantly less time reading traditional hardcopy texts (Grunwald 2004).

Eighteen to twenty two-year-old college students (sometimes called Millenials) have been characterised by Howe and Strauss (2000) as racially and ethnically diverse students who: tend towards group activity, are close to their parents and share their values, see the value in being “smart”, are interested new technologies, focus on grades and performance, and are busy with extra curricular activities. (Oblinger and Oblinger, 2005)

As a reflection of the multitude of texts this group customarily engage with (sometimes simultaneously), the net generation tend to deal with information differently from previous generations. They are less linear in their thought processes and used to building their understanding of concepts through exploring multiple sources (Oblinger and Oblinger, 2005). Prensky (2001) in his explorations of how digital natives think suggests the following characteristics: they are intuitive and visual communicators; they have good
visual-spatial skills especially with regard to integrating the virtual and the physical; they learn better through inductive discovery than by being given facts up front; they can shift their attention rapidly from one task to another, but equally have trouble paying attention to things that don’t immediately interest them; finally, they tend to have a fast response time and expect the same in return. Profiles such as these are helpful in our reflections on why this generation might be less inclined and able to engage meaningfully with traditional academic texts and modes of learning.

2.3.3 First in family – low socio economic and Indigenous students

In Britain middle-class children have benefited far more than their working-class counterparts from the expansion of university education over the past twenty years. The chance of a young person from a well-off background becoming a graduate has grown at a higher rate than that of a child from a less advantaged home. The socio-economic gap in university participation increased in the UK in the mid and late 1990s (Blanden and Machin, 2004; Machin and Vignoles, 2004; HEFCE, 2005). As identified previously, the cause of this gap lies in problems with attainment at each stage of education (Bernstein 1999, Rose 1998, 2004, Cunha et al. 2006). Unfortunately, even if low socio economic students achieve university entry, rates of drop out or non-completion have been identified as problematic for this group, particularly, in the UK. (Dearing, 1997; McGivney, 1996; HEFCE, 1999; Quinn, 2004)

A similar pattern has emerged in Australia where a 2002 study by the Australian Council for Educational Research (ACER) has also found connections between low socio economic status and tertiary entrance performance. These insights are confirmed and elaborated on by James (2002) who finds that “socio-economic background, gender, and
geographical location all effect students’ attitudes to the attainability of higher education”. His study reveals appreciable social stratification in the opinions of senior secondary students about the relevance and attainability of a university education. Though the overall attitudes of young people towards secondary school are similar in many ways, their aspirations and intentions regarding higher education are strongly influenced by socio-economic background, gender, and geographical location. Socio-economic background is the major factor in the variation in student perspectives on the value and attainability of higher education.

Rose (1998, 2004) suggests the education schooling system fails to prepare a large proportion of indigenous and non-indigenous students for a vocational and professional future because it fails to acknowledge the socio-economic and cultural context of all of its students and thus fails to provide these students from low literacy backgrounds with sufficient literacy scaffolding. According to Rose (1998), the inequalities in current education systems stem from the sequencing and pacing principles of the literacy curriculum that assume all students are privy to orientations to written meaning acquired through parent-child reading proper to commencing school. These stages of literacy will be described in Chapter 3 in detail.

Hillman’s (2005) report on the first year university experience confirms previous studies (DEST, 1996 & James et al, 2004), which find an adverse correlation between low-socio economic status, rural and isolated backgrounds, indigeneity and educational attainment. To compound this disadvantage, Hillman (2005) claims that “close to 40% of low SES groups were from remote or isolated backgrounds” and from her sample of indigenous students 16% were from low socio-economic backgrounds and 37% were from rural/isolated backgrounds.
Hillman suggests these difficulties may be related to a “dual equity group membership”. This is confirmed by James et al. (2004) who report that over a third of students in higher education were members of an additional equity group, either rural or isolated or lower socio economic. In the case of the Northern Territory indigenous population there is likely to be a high proportion who fit into all three groups: indigenous, isolated and lower socio-economic.

The following data from the DEST National Indigenous English Literacy and Numeracy Strategy (2005) highlights the challenges faced by Indigenous students who do make it to higher education and provides some insight into the wide but interrelated range of issues that may affect their ability and/or motivation to persist at university study. According to the DEST (2005) study, Indigenous students tend to be from back grounds where they:

- Are less likely to get a preschool education; are well behind in literacy and numeracy skills development before they leave primary school; have less access to secondary school in the communities in which they live; are absent from school two to three times more often than other students; leave school much younger; are less than half as likely to go through to Year 12; are far more likely to be doing bridging and basic entry programmes in universities and vocational education and training institutions; obtain fewer and lower-level education qualifications; are far less likely to get a job, even when they have the same qualifications as others; earn less income; have poorer housing; experience more and graver health problems; and have higher mortality rates than other Australians.

Indigenous and non indigenous students who fit into additional equity group categories in being from a rural/isolated low socio economic background face further challenges that can severely impact on their overall university experience. These include having to move to a new community for their education and suffer not only course related costs but additionally:
accommodation costs, the anxiety of leaving behind friends and family, and the challenges of adapting to a new culture, operating independently, establishing good study habits, as well as possible facing challenges related to poor literacy. (Hillman, 2005)

Van Loon (1999) examines the fate of students who have failed tertiary entrance English and still gain entry to university. She confirms the increasing decline in literacy in universities (and 'decline' of English in school and in higher education) especially in the context of students gaining entry with lower scores and/or through bridging programs (especially at regional universities). ACER (2002) reports a correlation between Year 9 literacy and tertiary entrance scores. We can infer from this that students who enter university with lower tertiary entrance scores can be predicted to have lower literacy levels. Wylie (2005) proposes a pattern of attrition for non-traditional students where a student’s poor adjustments in academic and social self-worth results in a re-evaluation of and spiralling separation from their course participation.

In response to a widely perceived decline in literacy levels in Western societies (Agger, 1991) a number of university faculties in Australia have begun to integrate remedial, academic skills and study skills programs into mainstream degree courses, additional to the provision of such courses in bridging and enabling programs (Desierto, 1998). This attempt to address the gap in students’ literacy at first year as well as the increasing focus on academic literacy in global and local conferences (e.g. National Tertiary Literacy Conference 1996 Victoria University of Technology and Proceedings of the Conference held at La Trobe University, November 21-22, 1994 on Integrating the Teaching of Academic Discourse into Courses in the Disciplines) provides strong evidence of declining literacy levels.
2.3.4 Mature Students

As part of the liberalisation of university study and the drive to build “knowledge communities” mature-age students are encouraged to attend university, providing either a second chance for those who did not qualify with university entrance scores or pathways from more skills-oriented tertiary qualifications through vocational courses. Swails (2002) provides a profile of adult learners, who in the US represent a significant number of non-traditional learners (on average 35 percent of undergraduates are adult learners). He profiles adult learners as being 70% female, 80% employed and having a median age of 38. He concludes that the motivation for studying for these students is often quite different to that of the net generation, being much more focused on a specific outcome.

Many adult learners, particularly those from low socio economic and rural backgrounds suffer demonstrable educational disadvantage (Baynes, Kilpatrick and Abbot-Chapman, 2002). They may have had interrupted schooling, may not have a tertiary entrance score or have studied formally for a number of years. Consequently, in terms of cultural and academic literacy they may be at considerable disadvantage in their first year at university. However, this disadvantage is generally countered with the advantage of life skills and knowledge, emotional maturity and perhaps most importantly motivation. Abbott-Chapman, Braithwaite & Godfrey (2004) in their study of the effect of mature age alternative entry, found that orientation, academic and social support were more important factors for success than tertiary entrance exam achievement or prior academic experience, thus the suggestion is that this group respond well to academic and social scaffolding as they make the transition into academia.
2.3.5 Effect on Literacy, Learning and Expectations

2.3.5.1 Academic Literacy

The results of a survey by Marks et al. (2001) of graduate skills of over 2000 students from 20 Australian universities indicate the levels of literacy of 60% of first year university students were sufficient for them to comprehend, analyse and evaluate explicit meanings and relationships in texts that are between straightforward and moderately complex text. From these findings we might infer that many of our first year students are not well equipped for engaging with academic discourse, which is generally presented in the form of highly complex texts. Rose, Lui-Chivizhe, McKnight & Smith (2004, p. 42) explain that tacitly university students are expected to:

... read complex academic texts with a high level of understanding, and be able to critically analyse such texts in order to present coherent analysis, argument or discussion in their own written work. They must also be able to structure their [writing] appropriately, using academic conventions and objective academic language, to demonstrate their mastery of a topic or inform and influence their readers.

Nearly half the university staff surveyed for the Dearing (1997) report on higher education expressed concern about the quality of higher education entrants relating to the standard of their academic work. Staff perception may be a reflection of a reaction to the diversified student demographic and the lack of fit between outmoded pedagogy and the new students, but it is just as likely to reflect higher numbers of students who do not possess sufficient cultural capital for traditional university leaning.

Added to this lack of readiness to engage with complex texts is a lack of preparation to engage with texts in an academic way. As (Geisler 1994 in Hood 2004) explains, literacy practices in the tertiary context are characterised by the creation and transformation of knowledge, and by
engagement with texts as rhetorical constructions whereas in secondary school, texts are treated as “autonomous representations of knowledge”. Thus, the shift from high school to university literacy is problematic for many of our mainstream as well as non-traditional university students (Hood 2004).

2.3.5.2 Cultural literacy

The other interrelated component of literacy required for students to meaningfully engage in university discourse is cultural literacy. Hirsch’s influential and controversial (1989) work “Cultural Literacy” is devoted to examining the consequence of forty years of liberal education on the literacy of society. Based on the assumption that formal or institutional texts embody the language of the historically dominant culture, he suggests that an inextricable link exists between cultural literacy and the ability to read, write and learn. He believes cultural literacy is the possession of “the basic information needed to thrive in the modern world” (Hirsch 1989, p.2).

“World knowledge is essential to the development of reading and writing skills … cultural knowledge is the background information stored in [peoples’] minds that enables them to take up the newspaper and read it with an adequate level of comprehension, getting the point, grasping the implications, relating what they have read to unstated context which alone gives meaning to what they have read” (Hirsch, 1998, p.2-3).

Theories about learning and understanding (to be explored in the next chapter) confirm that to understand what someone is saying we must understand more than the surface meanings of the words, we must understand the context as well. Hirsch provides evidence of the decline of background knowledge by citing studies with American high school students. In many cases he believed these students were not “mentally
prepared” to participate positively in society because they “did not understand the society well enough to value it” (Hirsch, 1998, p. 6). While Hirsch acknowledges the intrinsic value in what young people already know he is concerned that the ephemeral and narrowly focused nature of their existing cultural capital confines its relevance and application to their own generation. Clearly, this could raise loud objections from cultural theorists, but the suggestion being made by Hirsch is extremely relevant if one understands that he is referring to young peoples’ ability to engage with society’s formal traditional structures, such as those represented by schools, universities and professional work environments.

These institutions, despite the hard work of the deconstructionists and postmodernists, are still based on historically dominant structures and theoretical frameworks. Thus, in order to engage effectively with these, participants need to know at least some aspects of the knowledge and ideas on which they are based. In order to participate in society students more than ever, in Hirsch’s words (p.8) “… need a profound conception of the whole of civilisation”. For example, Hirsch claims that “Many young people strikingly lack the information that writers of American newspapers and books have traditionally taken for granted among readers from all generations.” He goes on to say “that children lack the intergenerational information is a serious problem for the nation” (p.8). Presumably the depth at which people can participate socially and politically is affected by their possession of this background knowledge.

Hirsch further believes that the decline of literacy and shared knowledge are closely related, interdependent facts. He makes two important suggestions with regard to the literacy of current generations. First, we cannot assume young people know the things that are known by literate people of previous generations. Second, reading and writing are not “empty” skills that are
independent of specific prior knowledge. Also, importantly, he reminds us that levels of literacy vary from context to context, so a young person may be extremely literate in a context that requires the background knowledge they possess and not literate in other contexts. Further, this narrow field of literacy has a limited benefit even in the related context because as Patterson (1980 in Hirsch 1987, p.110) argues, in the modern world we need general knowledge to enable us to keep up with new ideas events and challenges which inevitably impact on our local world. The importance of cultural literacy for learning is explored further in Chapter Three as it relates to schema theory.

2.3.5.3 New literacies

While Hirsch’s (1987) concerns with the decline of historical knowledge are a vital factor in understanding and addressing the challenge of enhancing students’ access to university discourse, what the new literacies 21st century students bring with them must also be acknowledged. Understanding how our students preferentially engage with texts and learning allows us to build strategies for scaffolding discourse that will “speak” to our students and capitalise on their strengths.

As described previously (Section 2.2.2), the net generation is characterised as having a stronger preference for visual literacy than their predecessors. They are experienced at integrating images, text and sound and tend to favour images as a way of expressing themselves (Prensky, 2001). However, although they move comfortably and frequently between real and virtual text, their text literacy tends not to be as well developed as previous cohorts (Frand, 2000). Importantly, despite the fact that they appear to be antisocial in real-time because of the distractions of technology they are in fact believed
to be far wider and more constant in their social connectedness: they are always switched on to their network (Oblinger and Oblinger 2010).

Another relevant learning characteristic of this generation is their preference for immediacy: they want things to happen now. In fact Oblinger and Oblinger (2010, p. 3) suggest more value may be placed on speed than accuracy, which has implications for the depth of their commitment and engagement with knowledge, particularly where texts are difficult to comprehend. Rather than being given volumes of text written or spoken, research, Oblinger and Oblinger (2010) suggests that this generation prefer to learn experientially. They prefer to learn by seeking answers and devising strategies.

In response to this (alleged) preferred way of learning is the potential for bringing texts alive for these students by approaching texts from a meta-cognitive point of view: searching for answers to questions and understanding how texts are structured in order seek answers and meaning from texts. This approach lends itself to another important characteristic of this generation: a preference for peer-to-peer team work. Additionally their preference for structure, rules and procedures (Phalen, 2002) indicates the enormous potential for capturing their interest by building understanding of genre and text structures as a way of mastering texts.

Prensky (2001) warns us that the predilection of this generation for interactivity exposes an opposite tendency; a discomfort with stillness and reflection. Further they are often unwilling to read large amounts of text, either a long reading or lengthy instructions. Oblinger and Oblinger (2010, p. 3) cite a study that found students’ willingness to do an assignment and their post-test scores increased when instructions were changed from a text based step by step approach to a graphic layout. Prensky’s (2001) research
concludes that by the time the Net Generation are 21 they have spent twice as many hours playing video games than reading and that these students, being strongly visually literate, retain only 10% of the words compared to 30% of images read. Additionally, since much of what they read is on the web they tend to scan rather than read for detail (Manuel 2002).

One might wonder, given the above profile, whether traditional texts have become completely redundant as vehicles for passing on knowledge to undergraduates, however, the continued use of traditional academic text as currency for knowledge exchange amongst peers in the academy guarantees the centrality of these texts for students learning, particularly as they progress beyond first year.

Insights such as these provide vital information about how we might frame and scaffold texts in higher education in order to capture students’ interest and help them to gain deeper understandings of the concepts these texts aim to convey. They highlight the redundancy of traditional ways of presenting texts as well as the importance of encouraging our students to engage with texts with a level of interest and thoughtfulness that will allow them to become critical new thinkers capable of advancing knowledge rather than copying and pasting it. If our students are to become active participants in academia they are still required to think and speak like academics. Equally should they graduate to the commercial world, old fashioned formal codes still dictate acceptable discourse and consequently the apprenticeship into reading and writing of formal texts provided by university education continue to plays an essential role for graduate success (Bernstein 1990, NVCR 2003).
2.3.5.4 Student expectations

An understanding of students’ preconceptions and perhaps misconceptions about what and how university education works is essential in providing insight into what motivates students’ engagement with learning and therefore how we might motivate their engagement with discourse.

According to Hillman (2005), students are not only more diverse and more consumer minded, they increasingly seek choice in subjects, delivery mode and assessment and in time spent on campus. The Australian Universities Teaching Committee (James & McInnis, 2001) reveals a strong perception from university staff that this increased consumerist attitude to study strongly correlates with the increase in the cost of education to students. Interestingly, staff report that an alarming aspect of this new attitude is students’ expectation that they should play a more passive role in their education. Hillman (2005) further reports a belief by staff that: “a growing proportion of students are predominantly instrumental in their outlook, avoiding intellectual challenge and adopting narrowly reproductive approaches to assessment”.

Related to expectations is the social and economic situation of 21st century students who juggle far more complex lives than the majority of students forty years ago. McInnis, James and Hartley (2000) and James, Krause and Jennings’ (2009) studies of first year students across a ten-year period (1999 to 2009) reveal that the proportion of students studying full-time and working part-time has increased by nine per cent. They also report that the number of part-time hours worked has increased considerably compared with 1994. This corroborates the aforementioned claims by staff that increasingly students look for a less intense engagement with university study to make room for the extensive commitments in other parts of their
lives (McInnis, 2001). Anecdotal evidence of students at CDU suggests a number of students enrolled in full-time external study while working full-time in the mistaken belief that distance-mode study requires less time. Understandably these students are a high risk for failure and/or withdrawal, especially where they are mature students with families to care for as well.

A natural consequence of these outside economic pressures is the effect of time on task. For example James et al. (2009) found a significant decline in students’ course contact hours (averaging 15 hours per week) and time spent in private study. It is unlikely that many of these students are allocating the time required to unpack difficult written and spoken text.

In terms of what students would like for teachers, Zimitat (2006) in his survey of first year undergraduates at Griffith University found significant differences between the views of males and females, disciplines, and passing and failing students in what aspects of good teaching were most important. However four aspects of good teaching which were consistent across these groups were: “. (i) being good at explaining things, (ii) being approachable, (iii) having enthusiasm for the subject matter, and (iv) providing helpful feedback. The next most important aspects were: making expectations clear, making subject matter interesting and using assessment strategies that did not reward memorisation.” These findings are supported by Ramsden’s (1992) six principles of good university teaching: interest and explanation; concern and respect for students and student learning; appropriate assessment and feedback; clear goals and intellectual challenge; independence, control and active engagement; and learning from students. This thesis considers whether these principles can be applied at the level of text engagement.
Sander (2003) cites Laurillard’s (1993) suggestion that effective education relies on our engaging in a two-way dialogue with students in order to respond to students’ learning needs. Greater student diversity increases the imperative of teachers knowing and responding to students’ individual knowledge and skill base and also students’ conceptions and perceptions of learning. This level of individual exchange with students has implications for class sizes, pedagogy and staff professional development.

2.3.5.5 Challenges in first year

Completing the first year is recognised as the most challenging stage of university study and consequently the first year is the year where attrition and academic failure are most prevalent. (McInnis, 2001; Williams, 1982 in Hillman, 2005). Tinto (1988 in Hillman, 2005) suggests completing the first year is an essential indicator in ongoing success. Studies of universities in America and the UK suggest rates of first year attrition there are similar to those in Australian universities (Porter 1990; Tinto 1993 in Rau & Durand 2000). Rau & Durand (2000) claim that less than half the students who begin college in America actually graduate. Longden (2006) cites UK completion rates as ranging from 50% to 95% depending on the institution and Bird and Akerman (2005) report an average figure of 25% dropout rate at UK universities.

Further, of particular interest for the CDU context, an examination of the percentage rates of first-year students expected to graduate shows that universities with the highest success rates are largely those that are the most academically eminent. Without exception, however, those universities with the lowest success rate are the least academically selective, undertake little research and have expanded fastest to meet the UK Government’s aim of “widening participation” (Bird and Akerman, 2005).
Many first year students not only lack the requisite skills for university learning, they also lack abstract theoretical frameworks for organising the information they encounter. In addition, many students enter university and find that their world view, or common sense understandings, are in conflict with that of the university culture as a whole and with the philosophical stances and underpinnings of their fields of study in particular. For example, students imbued with a modernist world view entering the social sciences and humanities do not readily understand post modernist theories, which inform much contemporary thinking in these disciplines (McInnis et al. 2000 p.31)

Wylie in his 2005 investigation of non-traditional students in higher education posits two important aspects of student success: “Perceptions of Utility and Course Demands, and Existing Academic Self worth”. In terms of perceptions of utility and course demands, students’ motivation is affected by how useful they believe completing the course will be. Conversely, their motivation diminishes when the course becomes too challenging. Academic and social self worth are additional factors which effect their ability to withstand the challenges of the first term at university. Students from non-traditional backgrounds are likely to be particularly vulnerable to these factors affecting motivation and success, particularly their academic and social self worth. Further, where they are from non university educated family backgrounds they may lack the familial or social support to maintain their focus on the utilitarian advantages of a university degree.

Wylie (2004) suggests that non-persistence behaviour occurs at various critical points. For the non-traditional student this is in the first 6 to 8 weeks of the new student’s study program and accounts for the largest single episode of attrition (Kambouri & Francis, 1994; Malicky & Norman, 1994; Quigley, 1995; White & Mosely, 1995 in Wylie 2004). Wylie (2005) drawing
from the work of Tinto (1997) and Bean (1980) hypothesise a process of evaluation undertaken by students prior to and on commencement of course enrolment that is affected by five factors: “background, academic, environmental, course utility and self worth.” Wylie claims that a combination of poor adjustments in academic and social self-worth results in a re-evaluation of and separation from their course participation and believes this process is spiralling in nature and continues until complete disengagement from the study commitment is reached. Hence the importance of providing intervention and support which includes strategies to maintain self-concept is viewed as critical in the first weeks of study rather than retrospectively after the students have begun to fail (Jackson et al, 1996 in Wylie 2005).

Mackie (2001) proposes an “interplay of forces, personal, institutional and contextual/external”, which affect student withdrawal. These she correlates with the three stages of Tinto’s (1997) model, separation; transition; integration, as a way of understanding the forces that enable or disable these three stages. Her study of first year students in the Business School of a new university reveals that a complex interplay of these forces leads to the decision by a student to leave or to stay. She found commitment to the university experience, homesickness, levels of perceived control over events and alienation played a role in the decision to withdraw.

Mackie (2001) suggests that “all students arrive with some level of commitment and an intention to complete their course of study, it is the concern that by the beginning of the second term we succeed, for some, in turning this ‘expectant hope’ into ‘fears realized’ and may have failed to exploit the potential within that initial commitment.” These forces are described by Mackie (2001, p. 267) in more detail as:
1. SOCIAL FORCES ENABLE/CONSTRAIN SOCIAL INTEGRATION

Meeting people, integrating, finding support and establishing a social group. Participating in university social life.

2. ORGANIZATIONAL FORCES ENABLE/CONSTRAIN ORGANIZATIONAL INTEGRATION

Understanding and coping with course content, pace and style. Finding the organization supportive.

3. EXTERNAL FORCES ENABLE/CONSTRAIN INTEGRATION WITHIN THE EXTERNAL UNIVERSITY

Forces in the environment that aid or impede the ability of the student to cope with the change: financial, accommodation, part-time work, family, relationships.

4. INDIVIDUAL FORCES ENABLE/CONSTRAIN THE INDIVIDUAL’S COMMITMENT TO CHANGE

The motivation, commitment, feelings and attitudes of the individual involved in the change: long term goal, initial commitment, homesickness, the availability of alternatives.

McKenzie and Schweitzer (2001) and Rickinson and Rutherford’s (1995) investigations also suggest that strong predictors of attrition are students’ levels of social integration and academic performance as well as their general satisfaction with university life. McInnis and James (1995) note that the “social nature of the university experience has the potential for contributing positively to academic performance, and more generally should influence the individual’s sense of competence”. Yet Hillman’s (2005) study reports an increasing disengagement from university life due to the increasing numbers of students studying full-time and working part-time. Consequently a quarter of those surveyed claimed not to have made friends at university. Thus the opportunity to provide students with a positive social experience of
university tends to be restricted to ensuring their tutorial time interactions (face-to-face and online) provide them with a sense of belonging.

Rau and Durand (2000) have found the effect of students’ motivation to learn or “academic ethic” has a significant effect on attrition. Rau and Durand’s research suggests present study effort, as defined by study hours and reduced alcohol consumption, and a proxy for past effort (at high school) and high school percentile rank, account for most of the explained variance in grade point average. They conclude that the ability of colleges to graduate learned, individuated, and ethical human beings may depend on the commitment students make to their own education - i.e. they believe members of the “academic oriented” subculture make this commitment; members of the “party oriented” subculture do not.

2.4 Implications for school/university pedagogies

2.4.1 Responding to the changing profile

As the previous discussion suggests, the changing profile of university students increases the urgency for critically examining and updating traditional methodology for university teaching. This needs to be more than the enthusiastic embracing of flexible learning ideals which promise, through appealing to young students’ preoccupation with technology and visual stimulation, to deliver learning more effectively. The danger here lies in overemphasising the “bells and whistles” appeal at the expense of providing content that is as fully comprehensive as its traditional counterpart. By anchoring new methodologies in an understanding of the centrality of language for learning and the importance of a scaffolded apprenticeship into disciplinary discourses, we can ensure that the baby is not thrown out with
the bathwater and that, for students, new knowledge is neither out of their reach nor over simplified.

As university study has become more accessible to a wider range of students who vary in age, culture and language as well as socio-economic and educational background it cannot be assumed that all students possess the required literacies for academic study (Northedge, 2001). Northedge further suggests that: “universities need to be helping students acquire the ability to participate in specific knowledge communities, both vicariously, as listeners and readers in ongoing debates and generatively as speakers and writers”.

The arrival of approaches like flexible learning, constructivist learning, e-learning, student-based approaches is certainly an indication that dramatic shifts are already taking place in many disciplines. However, the danger is that these new approaches fail to take into account some fundamental aspects of university learning. Northedge (2001) argues that neither traditional nor student-centred models adequately address this diversity of students. He suggests that learning must involve an entry into a knowledge community and that teaching must provide a route into these knowledge communities.

Part of providing this route is to address the issues raised by Hirsch relating to cultural literacy. Before students can challenge old paradigms and be active participants in reinterpreting knowledge they need to be familiar with and literate in these traditional knowledges so that they can participate intelligently. They still need to learn and comprehend appropriate background knowledge. They need the background and frameworks of the traditional paradigm before they can effectively deviate from it. We cannot afford to distract students from these essential components of advancing knowledge. They need critical literacy and they need theoretical frameworks
as a basis for their enquiry. These frameworks for enquiry have evolved out of traditional academic paradigms so, in embracing these new learning approaches, educators must be wary of depriving students of the necessary traditional foundations. We need to help them become active participants in what Swales (1990 in Northedge 2001) refers to as “discourse communities” where participants share a particular way of talking and understanding issues.

Despite increasing rhetoric regarding the first year experience, assisting university transition, and providing access and equity for non-traditional students, the internal systems of academic curriculum, discourse, pedagogy and evaluation in many cases still perpetuate old codes and in this way old class relations (Bernstein 1999). Further, Hood (2004) questions whether current rhetoric referring to students as apprentices or novitiates into the academic community actually translates in real terms. Although these terms imply a guided entry into the academic community studies suggest few students “perceive themselves as being apprenticed” (Candlin 1998, p. 21 in Hood 2004).

The significantly higher attrition rate of universities with high numbers of first-in-family students is testimony of the difficulty these students have in adapting to and functioning successfully in the academy. While evidence previously mentioned (Wylie 2004 et al) cites a range of issues affecting students’ success in the first year, their academic experience effect is a consistent theme raised (McInnis & James 1995, Baldwin & McInnis 2000, Mariani 1997, Barthel 2000, Mackie 2001, Davies and Elias 2003, Longden 2004, Yorke 1999). Importantly, while outside effects like financial pressure and family issues are difficult for institutions to address, academic preparedness is one that we can assist students with. Further the
empowerment students experience from achieving academic success may well mitigate other factors for attrition.

The kind of academic support we provide our students is also a matter for exploration. This thesis focuses on understanding the discourses of academia in the belief that it is the intricacies of language in these discourses that we need to share with our students, as an essential part of their apprenticeship into academia. While universities are investing more and more in student academic support for students discourse comprehension tends to be treated as just one of a plethora of skills (which generally include referencing, skimming and scanning, academic voice and essay structures) offered, rather than focused on as a key component of successful engagement with university learning (Rose, Lui-Chivizhe, McKnight, and Smith, 2004).

Bernstein (1999, p. 169) alerts us to the dangers in attempts so far in schooling systems to make specialised knowledge more accessible by recontextualising the discourse into the local more operational discourse. He implies the distortions and distributive rules that govern the way language is adapted may raise new issues regarding equality. It seems the challenge is how to empower students with tools to become active participants in the discourse rather than distorting the discourse to suit the audience. Young and Muller (2007, p. 181) add further critique regarding the work of constructivists and critical theorists, suggesting that, in undermining claims to knowledge and truth, social constructivists have denied students the possibility of any better understanding and therefore inadvertently contradict their mandate for providing students with freedom through education.

Maton (2007) opens up opportunities for understanding the dynamic between the knowledge and the knower and suggests “fields of intellectual
and educational practices” are more than just knowledge structures to be reconstituted for easier digestion by different audiences. He suggests that knowledge structures are also “knower structures” in being constructed by those privileged with knowing. He refers to two dimensions of discourse: knowledge and practice: “as embodying messages both about the basis of privileged knowledge and about the basis of being a privileged knower”. This provides a useful departure point for building our understanding of how we might enable all students to become privileged knowers.

2.4.2 Power relations

This leads us to a recognition that unequal power relations exist in universities: those from privileged backgrounds continue to enjoy an easier access to academic discourse, because the discourse is developed by the highly literate it assumes its readers must have a high literacy. (Young and Muller, 2007). Thus, educational inequality, despite massification and liberalised policies, remains. The origins of this inequality lie beyond curriculum and pedagogy and reflect our stratified socio economic system. Despite the existence of change, tension and new possibilities in official pedagogic identities, their transmission and their acquisition, the effect of class relations in the way knowledge is generated, distributed and legitimised still exists and this continues to effect the way subjects are positioned (Bernstein, 1990, p. 259).

The creation and transmission of knowledge and educational inequalities is further explored by Bernstein (1990) from the point of view of classification and framing: ‘if classification regulates the voice of a category then framing regulates the form of its legitimate message’ (p100). Furthermore, ‘frame refers to the degree of control teacher and pupil possess over the selection, organization, pacing and timing of the knowledge transmitted and received in the pedagogical relationship’ (1973b, p. 88). Bernstein’s insights continue
to provide an important framework for responding to access to and equity in education in this globalised era.

His work is particularly relevant because it explores the opportunities for democratising education. In referring to the inherent power play between the subject and the purveyor of the known and importantly to the potential of this dynamic for the repositioning of the subject into a position of knowing, Bernstein (1990) suggests that there is room in the system for apprenticeship into knowledge communities. He examines the effect of the way power is distributed and controlled on the individual. He views this as occurring through certain related principles of organisation which position the individual subjects but at the same time allow the possibility of changes in positioning.

Figure 2.1 from (Bernstein 1990, p. 17) illustrates the means whereby it is possible to perform transformations to: 1/ class relations and positioning, 2/ positioning and code, 3/ codes and communication.

![Diagram of communication class relations, positioning and code: from the invisible to the visible (Bernstein 1990, p. 17).]
Bernstein suggests that if such transformations can be accomplished, then the invisible can be recovered from the visible. Thus the task of this thesis is to make visible to educators and students these hidden elements that allow the participation of all players in the discourse community. As a way to achieve this visibility, Bernstein suggests strong framing where the transmitter is more explicit about the distinguishing features of the situation. On the other hand where framing is weak the acquirer appears to have a greater degree of regulation of the above principles (Bernstein 1990, p. 36).

Like Rose (1999), Bernstein (1990, p. 56) suggests that children from different classes will react to information differently and that modal mobility (in terms of the ability to move from one way of encoding information to another) deteriorates the less privileged socio-economically the student is. Modal mobility is attributed to linguistic and cultural literacy because it relies on sufficient levels of these to move from one mode to the next according to the context.

Pedagogic relations, according to Bernstein (1990), consist of the relationship between three codes. Hierarchical sequencing criteria suggest that the “transmitter has to learn to be the transmitter and the acquirer has to learn to be the acquirer”. The transmitter must learn/acquire rules of social order, character and manner, which become the condition for appropriate conduct in the pedagogic relations (Bernstein 1990, p.65). Every pedagogic practice must have sequencing rules – pacing is the time allowed to achieve these. Bernstein (1990, p.13) explains “… class regulated codes position subjects with respect to dominant and dominated forms of communication and to the relationships between them. Ideology is constituted through and in such positioning. From this perspective, ideology inheres in and regulates modes of relation.” Equally, recognition is integral to pedagogic practice as it creates the means of distinguishing between contexts and regulates the creation and
production of specialised relationships internal to that context (Bernstein 1990, p. 14).

Following “Halliday’s view of linguistics as an ideologically committed form of social action” the Sydney School of Systemic Functional Linguistics (SFL) builds on Bernstein’s 1996-2000 analysis of symbolic control, with the suggestion that: “Ideology thus runs through the entire ensemble of language in social context, differentiating social subjects in hierarchies of power, control, status, authority and prominence” (Rose 2010, p. 3).

As Rose (2010) explains, age, gender and other symbols of status affect power and control in everyday contexts and beyond this, institutions, especially in post-colonial societies, generate additional genres, control over which is determined by specialised education. Access to this education depends on our socio-economic status. Further, our control over these institutional genres conditions our social status, claims to authority within these institutions and where we stand in public life. These variations in control over genre also effect our relationships within the discourse event—the field (do we assert or concede authority) the tenor (are we dominant or deferential), and mode (do we command attention or pay attention. In recognition of these dynamics, the Sydney School is principally concerned “with redistributing control of the genres of power through educational intervention” (Rose 2010, p. 3).

Bernstein (1996) provides us with a comprehensive understanding of how the organising principles and rules of education systems operate to reproduce systems of meaning and maintain the distribution of power and control. He describes these rules as:

* Distributive rules* regulate relationships between power, social groups, forms of consciousness and practice...who
may transmit what to whom and under what conditions. *Recontextualising rules* regulate formation of specific pedagogic discourse... pedagogic discourse selects and creates specialized pedagogic subjects through its contexts and contents. *Evaluative rules* constitute any pedagogic practice...the key to pedagogic practice is continuous evaluation...evaluation condenses the meaning of the whole device (1996, p 42-50).

Importantly, Bernstein (1996) places power as the informing principle at the top which is distributed according to social group, knowledge and consciousness. Rose (2001) explains that the principal economic bases identified by Bernstein as the seat of power in modern societies, material economic production, and the production, distribution and reproduction of symbols characterise the old and new middle class. For the old middle class, the base for power and control is industrial production and for the new it is symbolic control. Rose suggests that between these two seats of control exists a struggle for control of education and the pedagogic device. On the one hand education is seen as an essential component of industrial/economic success so there is a pressure for universities and technical training providers to educate the working class. However, Rose (2001) posits (perhaps controversially) that there is resistance on the part of those agents who have symbolic control to share these resources with the working classes.

Rose (1999, p. 1) describes a cycle of knowledge privilege which begins before school. He explains that unequal access to literacy development is based on a curriculum that assumes children begin school with prior experience of this cycle of learning and the same level of exposure to texts and parent-child scaffolding enjoyed by middle class children prior to beginning school. This pre-school stage where children from highly literate families learn to engage with text is an essential precursor to the next stage of literacy development achieved in primary school. Rose (1999) reports the
widely held concerns of teachers from middle primary to secondary that optimal engagement occurs with only a minority of children in the classroom. The middle group just keep up and a significant majority remain completely disengaged. He suggests that teacher training tends to offer no more than behaviour management strategies and that school curricula: “while appearing to offer equal opportunity, evolved to service industrial stratification in Fordist economies into professional, vocational and manual occupations (Rose et al. 1992, Rose 1998), but has become increasingly disfunctional in post-Fordist economies, impacting particularly seriously on indigenous [and other non-literate] communities” (Rose 1999, p.2.).

Once this disadvantaged group reach university, which they do through the current-liberalised approach to entry, (lower tertiary entrance score, enabling programs, via vocational courses) they are expected to be able to read, understand and critically analyse complex texts and use these to present written work that analyses, argues or discusses abstract issues coherently. Additionally they are expected to present their work according to academic conventions, structures and language. Thus, at no point does the system allow them to catch up, to fill the gaps of their disadvantage. Elite students acquire academic genres tacitly because in earlier stages of the curriculum (i.e prior to formal schooling) they have acquired orientations to learning from reading. Further, because secondary teachers do not have sufficient time to teach reading and writing skills to weaker students the cycle of failure for the non-elite continues and can be expected to do so for those who enter university through alternative entry (Rose 2004). These assumed stages in literacy development in current education systems are illustrated by Rose (2004) as follows:
Figure 2.2 Stages in the literacy development sequence (Rose 2004, p. 3).

Just as Rose explains how students are left out of the sequencing chain, Bernstein (1990, p. 53) confirms the importance of reading as the vehicle for acquiring the written code: “...for beyond the book is the textbook, which is the crucial pedagogic medium ...”.

From the point of view of Bernstein’s (1996) rules for knowledge distribution, three social groups have been broadly identified on the basis of qualification and literacy: professional, vocational and manual occupational (Rose 2006). Each group is recognised as possessing certain types of knowledge: for professional qualifications, theoretical knowledge; for vocational qualifications, technological knowledge, and for those in manual occupations knowledge tends to be limited to “everyday forms of practical
knowledge”. Assuming people’s occupations reflect to a large extent the knowledge they have mastered, we must question the continued cycle of disempowerment of our students from low socio economic, low literacy backgrounds (see Section 2.2.3 Hillman, 2005, DEST, 1996 & James et al, 2004) and ask ourselves why school is not providing these students the opportunity to master theoretical and technical knowledge.

As a way of understanding the inequalities in access to these different types of knowledge Bernstein (1999) has analysed the structure and form of everyday or common knowledge as compared to institutional or schooled knowledge where “one form becomes the means whereby a dominant group is said to impose itself upon a dominated group and functions to silence and exclude the voice of this group … and … are often ideologically positioned and receive different evaluations”. (Bernstein 1999,p. 158). In Bordieu’s terms one is seen as creating symbolic and the other as creating practical mastery.

Habermas (1988,p. 24) talks about the written form as the basis for constructing expert systems which remove individuals from their local world. He explains that the progressive abstraction of a symbol system, and the loss of reference to the “living body” results in an increasingly “semanticised” system, one that will be far removed from the experience of those who experience is limited to the everyday. Bernstein (1999,p. 158) refers to these two types of discourse as vertical and horizontal respectively and within vertical discourse he distinguishes knowledge structures particular to different disciplines. Vertical and horizontal discourse are two fundamental contrasting forms of knowledge, the written form (found in bureaucracies and academia) and the oral form (everyday knowledge).
His reflections do much to advance our understanding of how knowledge and ‘truth’ are established in different knowledge systems within the vertical discourse of academia and in this way how we might assist students by helping them to understand the implicit structures, rules and foundations of knowledge in the disciplines. The key structural features identified by Bernstein (1999) help to explicate why knowledge structures presented by one discipline may be less accessible than those presented in another.

Horizontal discourse, which describes common sense everyday knowledge, has features such as: oral, local, context dependent and specific, tacit and multilayered across but not within context. (Bernstein 1999)The knowledge in horizontal discourse entails a set of strategies which are “segmentally organised, context specific and dependent in order to maximise encounters with persons and habitats”. Vertical discourse on the other hand has either hierarchically organised knowledge structures with a “coherent explicit and systematically principled structure as in the sciences or horizontally organised knowledge structures which take the form of a series of specialised languages with specialised interrogation for the production and circulation of texts as in the social sciences” (Bernstein 1999, p. 159).

The pedagogies of horizontal and vertical discourse are summed up in Table 2.2 by Bernstein in terms of how he knowledge is distributed and by whom in:

<table>
<thead>
<tr>
<th>Pedagogy</th>
<th>Vertical Discourse</th>
<th>Horizontal Discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice</td>
<td>Official/Institutional</td>
<td>Local</td>
</tr>
<tr>
<td>Distributive principle</td>
<td>Recontextualisation</td>
<td>Segmentation</td>
</tr>
<tr>
<td>Social relation</td>
<td>Individual</td>
<td>Communalised</td>
</tr>
<tr>
<td>Acquisition</td>
<td>Graded performance</td>
<td>Competence</td>
</tr>
</tbody>
</table>

Table 2.2 Pedagogy of horizontal and vertical discourse (Bernstein 1999, p. 162).
Importantly, as highlighted previously, vertical discourse has strong distributive rules that regulate access, transmission and evaluation whereas the distributive rules of horizontal discourse relate to a shared context within a reservoir of everyday cultural specific knowledge. Within horizontal discourse it is the individual’s “repertoire” or set of strategies and analogic potential that determine their potential for contextual transfer or acquisition of new knowledge. The more socially isolated and excluded members are, the weaker their potential for developing a repertoire from the reservoir of system potential (Bernstien 1999). Bernstein (1999, p. 160) also believes that “pedagogic interventions are a function of the different knowledges. These observations have a strong resonance for the concerns of this thesis.

Although, initially Bernstein’s discussion of reservoir and repertoire relate to horizontal discourse he later draws similarities between horizontal discourse and the horizontal knowledge structures within vertical discourse. He suggests the stratification procedures produce the same distributive rules, controlling the flow of procedures from reservoir to repertoire. He concludes that both vertical and horizontal discourses are likely to operate with “distributive rules that set of positions of defiance and challenge”. From this an assumption could be built regarding the need for a repertoire and reservoirs to participate and acquire knowledge in both kinds of discourse community.

Young and Muller (2007) extend Bernstein’s explorations of the knowledge structures of everyday and institutional knowledge, drawing on the work of Cassirer (1996), which takes us beyond simply an understanding of how knowledge structures of local and institutional discourse differ to the explorations of possible mechanisms for framing ‘truth’ and knowledge in more universally accessible ways. Of interest is Cassirer’s (1996) descriptions of the logical structure of symbols that constitute knowledge and his
exploration of the progression of knowledge from the organic to the conceptual. Importantly, Cassier allows us to reconsider horizontal knowledge structures in terms of different verticality. He acknowledges the opportunities to reconsider sociology, for example, in ways that allow a logical reference to the concrete or in his terms, “work, form, cause and act”. This understanding resonates with Wignell’s (2007) exploration of the phylogenesis of the discourse of social science. These ideas will be explored further in relation to learning and knowledge acquisition in Chapter Three.

A further consideration with regard to power and knowledge relates to the cognition and consciousness required for participating in different knowledge systems. Underlying Bernstein’s understanding of the differences between every day and institutional knowledge is another layer which relates to his earlier theoretical work (1975-1990) on categories of consciousness. This understanding of the nature of the consciousness that informs and is informed by the discourse is essential to building and understanding of how students get shut out of discourse. Bernstein identifies two categories, one providing restricted orientations to meaning and the other elaborated or coded orientations.

Rose (2006, p. 40) explains that “elaborated coding orientations have been compared with Vygotsky’s notion of ‘high order consciousness’, which he claims is characteristic of educated social groups, but less so of oral cultures (Hasan 2004).” However, Bernstein (1990) qualifies this point, suggesting that elaborated orientations to meaning may be a strong feature of an oral culture with regard to religious cosmologies but the oral code of transmitting this knowledge may not be an elaborated in the same way as in written discourse.
Rose (2006) alerts us to another crucial aspect of inequality in the school system which relates to coding orientations. This relates to the recognition that for oral cultures another significant difference between spoken and written communication exists on an interpersonal plane. Where speaking involves interacting with people, reading beyond early childhood increasingly involves interacting with a book. The cognitive and interpersonal features of such interaction, while taken for granted by literate readers who have learned to interact with books in the years before school, are an key component of the challenge faced by students from non literate backgrounds. Rose (2006) explains that in order to read with understanding and engagement it is essential to conceptualise the book as a partner in an exchange of meaning. Without the orientation to books that middle class parents give their children, it appears to be very difficult for some children to arrive at this orientation on their own. From this premise Rose proposes two forms of consciousness “an orientation to interacting with people, and an orientation to interacting with books”.

The distribution of types of knowledge and consciousness to groups in our society is summarised by Rose (2006,p.41) in Figure 2.3:

Figure 2.3 Distributive Rules of the Pedagogic Device (Rose 2006,p. 41 adapted from Bernstein 1996).
Rose (2006, p. 42) suggests a dominant moral order in our classrooms that is one of inequality perpetuated by the following relations and identities:

Firstly the hierarchy of occupations in the economy is projected by economic relations between social groups, the ‘social order’. Secondly, the order and relations of the society are recontextualised in education as a regulative discourse of order, relations and identity in the classroom. Thirdly, specialisations within the occupational hierarchy of the economy are recontextualised in education as an instructional discourse of specialised skills and knowledge. And fourthly, this instructional discourse is projected by the regulative discourse of the classroom. That is, social order, relations and identity are the underlying messages that are manifested semiotically in the classroom, as selective transmission and acquisition of specialised skills and knowledge.

The Sydney School draws on Bernstein’s 1996/2000 analysis of symbolic control to explain in the systemic functionalist linguistic (SFL) terms, register and genre, how ideology is understood to permeate every layer of meaning through ‘relations within and between contexts’. In everyday contexts these genre relations are effected by status age, gender, repertoire and reservoir whereas in institutional contexts (science, industry and administration) it is socio-economic status and educational pathways which influence mastery of genres. In turn our level of control affects our status, authority and influence in public life. (Rose 2010)
Rose (2010, p. 3) draws from Martin (1992 in summing up the way that hierarchies of power, control, status, authority and prominence are expressed through language as understood in SFL terms as:

ideology (access)       power
genre (management)     control
tenor (social hierarchy) status
field (expertise and rank) authority
mode (attention)       prominence

The Halliday-inspired SFL approach to understanding language offers us an invaluable tool for understanding the connections between knowledge, language and power because his systemic functionalist framework allows us to see language as an event embedded in a social context. Further, by viewing the functions of language as a stratification of the ideational, the interpersonal and the textual, this approach allows us to understand the power dynamic through the way the interpersonal manifests. The inevitable manifestation of this interaction in the ideational and textual provides us with a picture of the power knowledge interplay (Anderson, 1988, p. 32).

By acknowledging the potential of knowledge and discourse to perpetuate power relations and understanding where our first year students are situated in the discourse power continuum we arrive at a useful launching point for influencing policy and practice related to university pedagogies and influencing considering what is required to scaffold students to a place where they can be empowered by academic discourse rather than excluded from it.
2.5 Conclusion

This chapter has attempted to provide a context and an explanation for what motivates this thesis. By examining the current socio-political climate, the student profile and their literacy, learning and expectations, and the features of academic discourse that perpetuate inequalities and stratification the “problem” has been framed.

Socio-politically we are at a time where knowledge is seen as an essential driver of economies and the sharing of knowledge is burgeoning. This is because of and a cause of our globalised world where economies and people exist more and more beyond geographic borders. Added to this, liberalised policies for education have contributed to the diversification of university student communities but ironically this has also promoted inequalities in access to university knowledge as policies for inclusion fail to meet practices for inclusion.

Twenty-first century university students are profiled and it can be seen that it is not only their diversity in terms of socio economic background, culture, age, English language, and socio economic status that effects their ability to access university learning but also a disjunction between net generation literacy and learning and traditional university discourse and pedagogies. This includes issues relating to how students learn and use language as well as the disjunctions between their cultural literacy and the historical bodies of institutional knowledge on which academic discourse is based. Added to this is the suggestion that there is a widening gap between students’ ability for high-level reasoning and what is required to successfully read and write complex academic texts. Problems that have emerged out of constructivism and critical theory influences on education are raised.
The fact that the transition from the university requirement to use texts to derive new bodies of knowledge is rarely explicitly addressed in high school or first year university learning is also presented as an issue.

Summarising the literature, Webb (1993) identifies the following areas of marked differences between students that need to be acknowledged:

- English language proficiency
- approaches to learning;
- insight into the ‘hidden curriculum’;
- familiarity with the milieu of higher education;
- access to external supports;
- attitude to the ‘authority’ of lecturers; and
- knowledge of the conventions of academic discourse and discipline-specific practices.

Finally, in response to this understanding of the student profile, the mechanisms by which inequalities are inherent in and perpetuated by discourse are the subject of extensive discussion by sociologists, philosophies and linguists and Bernstein (1990, 1999), Cassier (1996), Young and Muller (2007), Maton (2007) and Rose (1999, 2004, 2006, 2010) offer us useful insights into the nature of institutional discourse of education and the inherent structures that promote its exclusivity. From this the following chapters will examine what we know about how we acquire knowledge and language, what the particular linguistic features are of academic knowledge structures in science, humanities and social science and what we might do to make these features explicit to our students so they become true apprentices of academic discourse.
Chapter 3

Learning Theory: Thinking About How We Learn

3.1 Introduction

Having discussed the nature of specialised knowledge in academia and the difficulties associated with learning it, there are a number of relevant learning theories which might help to successfully resolve the problems described. Predictably there are overlaps between the ideas of various theorists and these serve to strengthen and complement these learning theories. However, it seems that despite the wealth of research, knowledge and inspiration from the educational theorists of the 20th and 21st Centuries, gaps still exist with regard to specific ideas on methodology for effectively teaching specialised knowledge to first year university students in the current socio-political climate.

As described in Chapter Two, socio-political, economic and technological changes in the past decade have led to significant changes in the profile of university students (particularly in Australia, the UK and the United States), all of which have had an impact on students’ perceptions of traditional written and spoken university texts as well as their ability to engage with them. One challenge faced by educators is to balance the increasing emphasis on engaging students in meaningful learning that references “the now” and possible futures while at the same time helping students to “look back” to what has informed the “now” and effectively analyse, synthesise and utilise this knowledge.
This chapter will identify and elucidate existing learning theories that provide explicit insights and strategies for addressing the increasing need to assist students in effectively accessing written and spoken university texts. Links between general learning theories and Systemic Functional Linguistic (SFL) theories of language and learning will be made in the following chapter. These links are essential since this thesis proposes that it is the combination of both language and learning theory that provides us with a comprehensive approach for inducting students into university learning. Such an approach acknowledges the individual, cultural and educational needs of the audience while at the same time ensuring that the necessity for students to successfully acquire the knowledge embodied in academic discourse is not ignored. Because the link between acquiring knowledge and acquiring language is inextricable (particularly in formal learning situations), there will be a number of approaches described in this chapter that are mirrored in the approaches to language acquisition described in the following chapter.

The chapter begins with an examination of the ideas of schema theory espoused by Hirsch (1989), Cook et al. (1994), which not only confirm the need for relevant background knowledge for effective comprehension but which also emphasise the importance of cultural knowledge for academic advancement. Vygotsky’s (1986) concept of the zone of proximal development and associated ideas relating to “Scaffolding” theory (Wood, Bruner and Ross 1976, Hammond 2001, Rose, Gray & Cowey 1999) will also be discussed as will Ausubel’s (1963, 1968, 1969) theories on schema and heirarchies of knowledge. Post modern learning theories relating to experiential, social and constructivist learning will also be examined as they provide a broader context of learning in which specific approaches that draw on scaffolding theory can be embedded.
3.2 Schema Theory

3.2.1 Overview

Schemas are a representation of the conceptual structures we possess that reflect past experience and through which we interpret and remember new experience. D’Andre (1992, 1993) describes a schema as a dynamic, often hierarchically organised “template” that helps us interpret and understand different experiences of the world. Norman (1986: 536) sees schemas as “…flexible, interpretive states that reflect a mixture of past experience and present circumstance.” The activation of schema is seen as the activation of an extremely rich sensory, emotional and conceptual world.

Schema theory incorporates the ideas of two important perspectives for understanding learning, “speech act theory” and “discourse analysis”. Both perspectives stress the significance of shared knowledge and processing rules in the act of learning. However, their respective emphasis is different: speech act theory stresses inference procedures whereas discourse analysis stresses shared knowledge of the world. Schema theory embraces both as being essential. It emphasises the importance of the interaction between our existing knowledge and the text being learned (which occurs as a process of inference) for effective comprehension to occur.

The implications of schema theory for this study are twofold. Firstly, it suggests that we need to be aware of the nature of the existing schema/cultural capital of our students in order to establish whether it is sufficient to adequately comprehend academic discourse in the humanities, social sciences and science disciplines. This awareness can then inform decisions on how teaching methodology should be adjusted to accommodate the students’ schema or lack thereof.
3.2.2 Origins and affiliations

Although the term “schema” can be traced back to Kant (1781, 1787), schema theory as it relates to educational theory has its origins in Gestalt psychology in the 1920’s. Alternative or closely related terms are: global concepts, scenarios, frame (Minsky, 1975), cultural literacy, and contextual or world knowledge (Hirsch, 1987). Bourdieu’s (1990: 114) concept of “embodied cultural capital” is also related, in as much as it refers to educational, social, and intellectual knowledge acquired from ones surrounding culture and embodied in “linguistic capital”. Thus, cultural literacy is a component of cultural capital, which is both acquired over time incidentally from ones family and social and cultural environment and more consciously through formal learning.

According to Cook (1994), schema theory enjoys wide recognition as an integral part of assisting our understanding of knowledge acquisition because it emphasises the importance of the players in this discursive event. It has also provided a crucial link in the development of Artificial Intelligence theory and from these psychological leanings has become an essential tool in discourse analysis.

3.2.3 Schema and cognition

From a cognitive theory perspective, understanding the mechanisms of the mind confirms the importance of schema (our knowledge bank) in comprehension. The mind, when stimulated by “triggers” or key linguistic items, activates a schema which is used in discourse processing to predict and make sense of a particular instance described by the discourse. In this sense schema are ‘norms’ and individual [introduced] facts are deviations (Cook 1994).
Thus, new experiences, whether they are of language, knowledge or sensory data, are understood through comparison with existing knowledge. The receiver matches the new experience to similar experiences held in memory. The new experience is processed in the context of this existing experience and how closely it conforms to or deviates from it (Cook 1994:9). Figure 3.1 illustrates this process of understanding through reference to existing schema:

Figure 3.1 Processing new knowledge and experiences.

If the existing schema is not sufficient to match the new discourse, then comprehension must occur out of context or “in a void” and is much less cogent. Cook (1994:14) describes a range of situations where we automatically utilise an existing schema for comprehension of unfamiliar material. For example, people often fill in the details in discourse from their own schema, i.e. they “read in” the details and apply this expectation driven understanding to all linguistic levels and ranks. Another example is the fact that we can use the definite article even where the noun has not been referred to previously. Thus the following makes sense because we have prior knowledge that a “pilot” is required to fly a plane: “The plane was unable to take off because the pilot was ill”. Finally, our ability to guess the meaning of homonyms based on the context and prior schema. e.g. “The King sent for his seal” provides further evidence of this use of existing schema.
Although an accurate modelling of how schema are used has not been achieved given the intricate, multifaceted nature of the process, with what we do know, it is possible to make some practical advances in the teaching of literacy (Hirsch 1987: 56). Johnson-Laird’s (1983) view is that we use at least two radically different kinds of schema, one analogous to static pictures and one to scripts and procedures. We also know that we possess not only surface general schema, but associated with these, a whole memory of traces of associated knowledge. We know schema overlap and get embedded in other schema and that we adjust existing schema to the context. Most importantly he suggests that schema store knowledge and secondly schema organises knowledge in ways that it can be accessed and applied rapidly and efficiently.

3.2.4 Which schema do we need?

Hirsch (1989) in his controversial book: *Cultural literacy : what every American needs to know*, suggests that “true literacy” requires the possession of a common body of information possessed by society, this common body of information providing an essential schema for understanding texts which in themselves reflect our culture. The controversial aspect of his thesis relates to his identification of a set of specific names, phrases, dates and concepts which he believes encapsulate this essential common knowledge. Perhaps most controversial is his suggestion that this common body for knowledge can and should be fixed in standardised, stabilised language (Choate, 2007). At first glance critical and postmodern theory could be seen to be diametrically opposed to Hirsch’s approach, however viewed more broadly, schema theory accommodates the common aims for emancipation and equal expression shared by Hirsch (1989), Freire (1970) and their various proponents.
Hirsch (1989) suggests that exchange of information between cultures is restricted where there is an absence of a standard language which allows a standard knowledge base, schema or shared knowledge of the field. Those who lack the lingua franca that describes this knowledge are inevitably excluded. According to Hirsch, the connection between literacy and national culture is a general principle of modern times. Hirsch (1987) points out that every national language is a conscious construct that transcends any particular dialect, region or social class describing first and foremost our historical culture as well as our contemporary culture.

This attempt to fix knowledge and language is clearly treading on dangerous ground in an era of education influenced by Freirian pedagogy motivated as it is by a critique of social oppression frequently seen as enacted by corporate and/or government entities (Freire and Macedo, 1987). However, one of the dilemmas in the post-structural era, that has perhaps contributed to the loss of historical cultural knowledge, is the prevarication over what knowledge should be privileged and suspicion of imposed regimes of education and knowledge.

In general, critical theorists believe that learning should be a process of challenging what we know and how we know it in order to gain emancipatory knowledge that frees learners from assumptions and stereotypes about the marginalised members of society, which they believe are frequently found in texts (Kilgore, 2001). The more text-driven Australian school of critical literacy theory encourages the analysis and critique of the relationships among texts, language, power, social groups and social practices, and invites us to acknowledge the contingency of knowledge. “Literacy ... is as much about ideologies, identities and values as it is about codes and skills” (Luke, 1993).
Similarly postmodern theorists view knowledge as contingent on context and perspective and thus constantly shifting. Furthermore, they question any one thing that is presented as knowledge or truth, favouring rather, an inclusivity of multiple truths in the ongoing construction of knowledge or what is known (Tisdell, 1998). Multiple truths refer particularly to the inclusion of truths or perspectives from different cultural, class and gender viewpoints.

While critical theory questions hegemony and the legitimacy of any particular discourse or truth over another, postmodern theory, with its emphasis on inclusivity (of all viewpoints), is in agreement with schema theory which espouses the importance of acknowledging and working with students’ existing frameworks of knowledge while at the same time leaving room for the promotion of a shared universal cultural knowledge base. Building a universal cultural knowledge base does not preclude an acknowledgement of other cultural viewpoints and interpretations. Further it could be argued that students need to know and understand historically dominant discourses before they can reinterpret and question them. Any approach that denies students access to academic cultural capital is in danger of denying students access to the academy and/or the ability to think and question in a meaningful, productive way.

Critical theorists view learning as “… a process of challenging truth claims and arriving at a critical consciousness” that there are no universal truths and that truth claims simply “… serve the interest of some at the expense of others.” (Kilgore, 2001) Postmodernists, view learning as occurring through “deconstruction, play and eclecticism” (Kilgore, 2001) and are less extreme than critical theorists in that all knowledge constructs are seen as having a place. This implies at least a tacit support of the importance of empowering students with and understanding what these knowledge constructs are and how they “mean”.
3.2.5 Schema and literacy

Despite the views raised by postmodern and critical theory, Hirsch’s (1989) arguments and evidence cited for the importance of schema in reading and comprehension remain relevant to this thesis:

First we cannot assume that young people today know things that were known in the past by almost every literate person in the culture.[…] Second, […] we cannot treat reading and writing as empty skills, independent specific skills. (Hirsch, 1989: 9)

Hirsch suggests that mastery of these “independent specific skills” is premised on the possession of adequate background knowledge. Possession of this knowledge provides a schema of stored knowledge in a retrievable form so we can rapidly and efficiently apply knowledge to different contexts. Hirsch (1989) cautions that unless the prior knowledge is organised for rapid and efficient deployment, people cannot perform reading/comprehension tasks of any complexity. The limits of short-term memory prevent the integration of un-chunked material, and so crucial parts of meaning are lost to memory while others are being painstakingly worked out. A well-developed and organised schema not only helps us make sense of incoming data but also helps us to manipulate and connect information rapidly.

Another premise of schema theory is that good readers are not distinguished from bad on the basis of reading “skills” but rather they are distinguishable on the basis of their possession of appropriate schema. Hirsch (1989:60) cites research that suggests, that execution of cognitive skills are dependent on existing schema (procedural and substantive) that are highly specific to the required skill. Further, it is claimed that experts perform better than novices not because they have a greater intellectual capability but because they have more relevant and quickly available information (Hirsch, 1989: 61). Thus,
research indicates that, before students can acquire the cognitive skills to comprehend what they read and think critically and write about what they have read, they need the relevant knowledge base.

Additional evidence of the importance of prior knowledge is reflected in the results of a large scale experiment conducted in 1979 (Hirsch, 1989). Students were given a range of reading comprehension tasks each presenting concepts of different degrees of familiarity to the students and each text in two versions; one stylistically flawed and one clearly written. Their experiments revealed that students’ comprehension was affected not by the readability of the text but by whether they had the background knowledge of the text. This was found to be the case despite the fact that the students possessed what were deemed proficient reading skills i.e, memory capacity, eye movement, basic vocabulary and reading strategies. Hirsch (1989: 47) like Cook (1994) concludes, that even if students have adequate reading skills, in terms of memory capacity, eye movements, basic vocabularies and reading strategies, a lack of relevant background knowledge (schema) will seriously compromise their literacy. Further, studies by Cook (1994) confirm “lack of familiarity not only debased the reading rates of audiences it also erased the differential effects of good and bad writing style”.

This claim is cause for serious consideration in higher education where frequently it is assumed (on the basis of students passing entry requirements) that students will already possess a sufficient knowledge base, when entering their first year of study, to engage meaningfully with new ideas. This assumes university educators have an up to date knowledge of what students learn in the related disciplines at school and it assumes that all students have adequate levels of educational attainment. An additional assumption is that students somehow possess sufficient skills in comprehension, analysis, synthesis and critical thinking to engage
meaningfully with disciplinary texts despite a paucity of the required schema. However as Chapter Two has described, because of the diversity in culture, literacy and formal educational attainment of our current cohorts we can expect that a great number of students do not possess adequate schema for discipline knowledge and therefore un-scaffolded approaches to higher education pedagogy will be insufficient.

These insights are particularly important in terms of access and equity. Those students who do possess the relevant schema or field knowledge will generally be from a predictable demographic background; i.e. those with tertiary educated, middle class parents. On the other hand, students from lower socio economic and first-in-family backgrounds do not enjoy as high levels of educational attainment as other students (DEST, 1996, James et al., 2004, Hillman, 2005). Further, students from language backgrounds other than English, who have not had access to the cultural capital from which the disciplinary field is derived, will be even more disadvantaged than English speaking students as they negotiate English and the technicalities and abstractions of the discipline. Because successful comprehension is not within reasonable reach for many of these students, they are likely to find it hard to sustain a motivation to learn (Mariani, 1997). Not to mention the range of other emotional and practical consequences of failure and disempowerment.

3.2.6 The role of inference in comprehension

Hirsch (1989) also reminds us that the explicit meanings of text are only a component of the meanings they convey; the larger part of meaning lies below the surface of the text and is accessed through the reader’s own schema. He claims that our background knowledge is part of the meaning of text and that extra-linguistic inferences occur on our first exposure to material. In summary, “...inferences based on prior knowledge are part of
meaning from the very beginning”. To make sense of what we read we must use relevant knowledge to form a model of how sentence meanings hang together. The model constructed from our prior knowledge and the words of the text in turn helps us make sense of further words and sentences in the text.

Bransford (1972 in Cook 1994: 40) tested this assertion that inferential elaborations are part of a process of understanding prose. He gave his subjects a passage written in vague and general language and without a title so that without a context (normally provided by a title) subjects found it difficult to construct a mental model. However, once the passage was given a title (or macro theme) that invoked relevant prior knowledge, subjects constructed a mental model that enabled them to understand and remember the sentences. According to Bransford “The title enabled them to integrate the sentences into a mental model that they constructed from prior knowledge. This model gave the sentences meaning and the students in turn adjusted the model of the passage that was finally stored in memory. Apparently such an integrated model is essential to understanding and remembering discourse.” Thus textual organisation is an essential component of scaffolding meaning within a text. This will be elaborated on in the following chapter.

3.2.7 Schema, memory and comprehension

The connection between remembering and understanding is another important consideration examined within schema theory. The relevance of this for abstract knowledge acquisition relates to the relationship between schema laid down in the long term memory and how we use this for further schema building i.e. acquiring new knowledge. Hirsch (1989) cites research conducted by Sachs (1967) that indicates the surface forms of sentences are lost in memory in a few seconds. Sachs’ claims that it is only the gist in new
information that is remembered/or integrated and this occurs through the connection of new information with existing schema. If there is no related existing schema then there is nothing for the receiver to hook the gist to and they are unlikely to comprehend or remember the information. Thus, an inextricable connection between understanding and remembering is assumed.

This has important implications for how we organise language to scaffold knowledge. The importance of structuring language in such away as to foreground the “gist” and expand on it with reference to students schema seems evident. Described from a systemic functional perspective, one would ideally capture the “gist” in the hyper-Theme and hyper-New (the clauses at the beginning and end of each paragraph which predict the information in the paragraph (Martin and Rose, 2003)) and expand on this in the body of the paragraph.

In assuming the link between remembering and understanding, it is relevant to note George Miller’s important research in the 1950’s into short term memory. This is reflected in Sachs’ (1967) investigations in suggesting that we cannot remember information that is presented rapidly and is not connected to other information. Bever (1972) claims that language is transferred from short-term memory into long-term memory not as a literal recollection of words but as a shorthand recoding of their gist, which normally erases from memory many of the individual words. In psycholinguistic terms Bever (1972) described the process thus: “(i) The clause is the primary perceptual unit; (ii) within each clause we assign semantic relations within minor phrases; (iii) after each clause is processed, it is recoded into a relatively abstract form, thereby leaving short-term memory available for processing the next clause.”
Hirsch (1989) suggests, when readers constantly lack crucial information, the limits of short-term memory do not allow the integration of unchecked material, and so crucial parts of meaning are lost to memory while others are being painstakingly worked out. Extensive reliance on dictionaries and encyclopaedias to decipher meaning becomes impractical as the reading process becomes so laborious that it makes assimilation of complete meaning impossible. A well-developed schema not only helps us make sense of incoming data but also helps us to manipulate, connect information rapidly and remember it.

Wulf (1922 in Hirsch: 55) claims that we remember things that are more like the average or typical of what we experienced. This finding has significant implications on teaching methodology and reinforces the importance of an analogous approach to teaching. Schema function powerfully in comprehension and memory. Assuming that remembering only takes place where it has been possible to integrate new ideas with existing categories or frameworks, a student’s inability to remember is likely to imply a lack of understanding, although this may not always be the case.

3.2.8 The influences of schema on perception

Edelman (1992 in Cook 1994:10) cautions that schema can be a barrier to understanding if the learner is unable to adjust existing schema to create new ones. If the learner has any reason to remain fixed to existing schema and is unable to see connections between this and new information, this may inhibit comprehension. Hence, the specific process of utilising existing schema for learning needs careful consideration. It cannot be assumed that the learner instinctively knows how or is willing or able to make the connection between schema and introduced information.
Problems with integrating and expanding schema are most likely to occur where the learner’s schema or field knowledge is significantly different from the cultural discourse embodied in the text. In this instance, ideas about learners’ zone of proximal development (Vygotsky, 1978, 1934) and scaffolding (Hammond (2001), Freebody (2000), Painter (1996) Wood, Bruner and Ross (1976), Martin & Rose (2007) and Rose (2004) discussed later in this chapter, come into play and provide a solution for crossing this barrier through working with students’ existing schema and negotiating a space of shared knowledge and understanding before students are encouraged to shift to a new zone.

Another important influence of the learner’s cultural background is that it will affect the way the text is “read” and distort the original message according to the reader’s cultural framework and thus the version remembered will be different from the original. Cook (1994) cites an experiment conducted to ascertain how cultural background affects our recall of new material. His experiment involved first exposing subjects to a North American Indigenous folk story and then asking them to recall it. What was observed was that subjects who were non Indigenous North Americans would omit or adopt details to bring the story into line with their own schema which in this case involved adjusting cultural details relating to the field.

These findings highlight the potential for the subjective distortion of new knowledge and the need for us to be aware of this potential for multiple interpretations of the same text. In the current socio-political climate of globalisation and multiculturalism where our university students come from vastly diverse cultures, this is an important consideration, not only, for our understanding of the way students comprehend but also for teaching and learning in general. It emphasises the importance of finding a space where
similarities and differences between different realities/schema can be understood before new knowledge is integrated.

Hirsch (1989: 53) suggests a person’s perception can be seen to take place through a relatively narrow window of short-term memory where key words are formed into clauses that have meaning and the clauses are then connected to appropriate schema. When appropriate schema are not readily available the limits of short-term memory are quickly reached and the process has to be painfully restarted. Eventually the perceiver may be forced to interpret the information out of context of existing schema and consequently may misinterpret meaning. Thus, for readers to effectively integrate phrases into comprehensible meanings they must already possess relevant and quickly available schema.

3.2.9 Schema modification and expansion

An important aspect of this meaning making process via schema is that the mind has the ability to adjust existing schema to fit the context. So the process involves the reader actively bringing past schema to bear on what he or she is reading but, once the reader has found the schema which “fits” most closely, he or she is able to adjust the schema to the context of the particular discursive event (Hirsch, 1987: 53). Understanding the way we categorise knowledge and the language we use to label the categories, provides important insights for educators into how we might use language and organise concepts to help students build up useful schema. It provides a frame for thinking about how we can encourage students to expand meaning potentials to: a) create more delicate categories; b) extend to contexts and c) integrate new meanings. However, where the reader’s schema does not relate to the field being considered, this process can be painfully time consuming and ultimately unsuccessful.
Cook (1994:10) divides discourse into three major types: *schema reinforcing*, *schema preserving*, and *schema refreshing*. *Schema reinforcing* refers to situations where the discourse serves to reinforce the learner’s existing schema. The success of a literary narrative text is attributed to the fact that it tends to be schema reinforcing because the genre and the themes are universal so there is minimal new or unfamiliar information introduced. *Schema preserving* is achieved through repeated exposure to the knowledge of existing schema, although specific linguistic and structural differences may occur. *Schema refreshing* occurs where discourse varies from existing schema and requires the learner to make adjustments to prior knowledge. It is this third type that this thesis is concerned with.

Given the evidence that many students in their first year at university have different cultural capital(existing schema) from the historical one from which much traditional university knowledge is derived, does this difference restrict the extent of schema refreshing that can occur both in complexity and in quantity? If the answer is yes, then the task at hand is to find a way, despite the limitations of existing schema, to reference students’ existing schema in order to “refresh” it with new schema that builds students’ knowledge of the field and the discourse that describes it.

### 3.2.10 Categorising knowledge

This understanding of how we comprehend and remember new knowledge combined with language learning theory provides a useful guideline for how new knowledge should be presented for maximum effect. According to Cook (1994: 48) “[our] cognitive life takes place through a small window of attention that is framed by short term memory. We use past knowledge to interpret this window of experience to place its momentary fragments within larger wholes [categories] that give them a function and a place.”
categories we use to interpret experience are ones that have been most useful in the past. These tend to be middle level categories as they are general enough to include a range of items. From the point of taxonomic relations (discussed in the following chapter) these middle categories are those described by class-member and/or co-class; whole part and/or co-part (Martin & Rose 2003:103).

An example of a middle level category is “bird” under which we may classify canaries, sparrows, egrets, penguins etc. The broader category “animal” is less useful because it includes too large a range of possibilities for efficient storage of information. However, the categories that children learn first in acquiring language tend to be middle level categories because adults tend to favour this categorical level when scaffolding their early language. So for example, they learn tree before oak and they learn dog before animal. However they may learn “Spot” before they learn dog, if Spot is the name of the family dog. These middle level categories or basic level terms are the basic framework of meaning of our world (Rosch 1975). This point has interesting implications for how we frame complex information for our students in the process of scaffolding as it suggests that the middle level category might be the familiar term from which new concepts, language and schemas can be built.

Rosch (1975) suggests, that people continue to view their world in terms of a basic classification unless a particular context or constraints are introduced. If we extrapolate this to a first year university situation, where for example, a student is presented with a text on post-modernism without any assistance in linking the concept to a prior framework, the student might relegate the information to the simplest common denominator “some kind of political thing”, rather than processing and conceptualising postmodernism in a more intricate way. Ausubel’s (1969) work on advanced organisers suggests that
not only is our depth of understanding compromised where we view the world in generalised terms, but also that, even if provided, a more refined understanding of concepts will be lost unless students fit them into a meaningful hierarchy of knowledge (schema). Ausubel’s advanced organisers are discussed in more detail at the end of this chapter.

Another way of understanding how we process information is to view these categories as typical exemplars or prototypes of categories of words, which according to Hirsch (1987:54) constitute the “basic furniture of our minds”. These prototypes are the brain’s “filing system” comprising a classification of things we use every day. To make meaning of our attempts at perceiving, conversing, reading and writing we need to access this filing system. Each file within the system is labelled with terms that encapsulate a whole range of associated information. In this way information can be taken in through the relatively narrow window of short-term memory, matched with schema and contextualised relatively efficiently. “Because our narrow windows of attention confine us to just a few elements of meaning at a time, the technique of using surface elements to stand for larger wholes is an essential feature of our mental life” (Hirsch 1987: 54).

### 3.2.11 The knowledge required for effective comprehension

In designing schema-building approaches to teaching first-year university courses it is important to consider the extent and nature of the schema required for effective comprehension. Collins and Quinlan (1969 in Hirsch: 57) suggest that the knowledge most often needed is the most directly available - at the surface of the schema. The primary traits of a particular issue are the most important in communicating and making sense. These are the distinctive traits that show how one thing differs from another. More universal traits are easier to infer at a later date. For example:
Primary traits: canary - yellow, sings
Secondary traits: bird - feathers, wings, flies
Universal traits: animal - skin, moves, eats, breathes

What this suggests is that the primary traits are likely to relate to concrete ideas that can be seen or felt while secondary traits are more abstract and, as suggested above, universal notions. Another useful way of observing these levels is from the point of view of the types of language represented by the three traits. Martin (1984) describes a mode scale which explains the potential for language to shift from concrete to abstract conceptualisation. He explains the changes in language as it moves from being embedded in action/concrete to language which is more reflective/abstract. This is elaborated further in Chapter Four in relation to Systemic Functional Linguistic approaches to understanding discourse.

The implications of these observations will be discussed in greater detail in the final chapter of this thesis in relation to teaching methodology but suffice to say it is essential that the transmitter incorporates an understanding of the significance of primary traits/concrete language in order to help students to access and develop their existing schema. These notions add weight to the argument that, at the early stages of exposure to new knowledge, simplification is the key to accessing new concepts. This simplification takes the form of connecting the concept being taught to the students’ own experience either directly by presenting ideas in the context of the students’ immediate world or through the use of analogy. The way we achieve this simplification, in linguistic terms, is through the way we frame, structure and unpack ideas will be explored in the following chapters.
3.2.12 Conclusions about schema

The proponents of schema theory contribute important insights into how students can be assisted in moving beyond local knowledge and literacy towards building literacy for academic discourse. It seems clear that understanding is enhanced when students have a cognitive reference point in the form of a relevant knowledge base. Additionally, research suggests memory and successful retrieval of schema is enhanced if schema is stored under categories. Finally, schema theory suggests that although the schema we tend to acquire first represents middle level categories of knowledge it is the primary traits that encompass the most useful information. From this we might conclude that to build students schema for understanding academic discourse we might present students with concepts visually categorised at primary secondary and tertiary levels which in turn presents concepts from general to the specific and the abstract to the concrete.

Rather than taking the approach of Hirsch (1989) and entering into the arena of deciding on a particular generic set of knowledge that all students require to participate in literate society, a more achievable and less contentious approach would be to build disciplinary schema at a macro level and, schema for individual text content at a micro level.

3.2.13 Hierarchies of Knowledge and Advance Organisers

Ausubel (1960: 267) adds another layer to the concept of schema by suggesting that “the key to meaning involves solidly connecting the new learning material with existing ideas in the learner’s cognitive structure.” He describes cognitive structure as being “… hierarchically organised in terms of inclusive concepts under which are subsumed less inclusive sub concepts and informational data” (Ausubel 1960: 267). This complements previously mentioned ideas on the importance of schema but adds an additional
dimension with regard to how ideas are organised. Ausubel used the image of pyramids; the tip of the pyramid being the most abstracted realisation of the concept under which increasing detail is organised as layers of related and increasingly concrete concepts are found.

Another way to describe and depict the hierarchical nature of this organisation is to present it as a taxonomy. Martin and Rose (2003: 91) describe taxonomic relations as “the qualities, classes and parts … which build up a picture [of the elements in a text]” The taxonomic relations between ideas within a text are signposted through a range of linguistic devices which are an essential component in helping students understand and follow these relationships. This linguistic understanding of taxonomic relations (to be explored further in the following chapter) is an essential component in conceptualising and practising the strategies encapsulated in theories regarding schema, hierarchies of knowledge and advanced organisers.

Ausubel’s (1960) ideas about hierarchies of knowledge are based on a number of key premises: that learning involves fitting information into an existing cognitive structure; that knowledge is arranged hierarchically; that lower level, (more concrete concepts are subsumed by higher level ones; and that retention and forgetting are both determined by the psychological process of subsumption. Ausubel and Robinson (1969) contend that meaningful learning requires:

…material presented to the learner be capable of being related in some sensible fashion. The new information must be fitted into a larger pattern or whole. Second, the learner must possess relevant ideas to which the new idea can be related or anchored. The learner must have appropriate subsuming concepts in his or her cognitive structure. “finally, the learner must actually attempt to relate, in some sensible way, the new ideas to those which he already possesses.
Thus, from his point of view, teaching and learning are largely matters of erecting cognitive structures (scaffolding) to store new information. Further, unless information is stored in the appropriate “file” it is unlikely to be retained for further use. According to Ausubel “learning occurs as potentially meaningful material enters the cognitive field and interacts with and is appropriately subsumed under a relevant and more inclusive conceptual system”. (Ausubel, 1963b:25). Thus “new meaningful material becomes incorporated into cognitive structure in so far as it is subsumable under relevant existing concepts”. (Ausubel 1968: 267). Like Vygotsky, Hirsch, and Cook et al, Ausubel stresses the importance of the learner’s existing structures for acquisition of new knowledge. Ausubel uses the term anchorage where major concepts act as anchoring posts for new information. Without these existing anchoring posts new learning is inhibited.

However, he also stresses the importance of the organisation of the cognitive structures or anchoring posts believing that this “... is in its own right the most single independent variable influencing the learner’s capacity for acquiring more new knowledge in the same field” (Ausubel 1968: 130). Thus, the existing cognitive structures must be well organised in order for information to be retained. Ausubel and Fitzgerald (1962 in Ivie 1998, 01:4) suggest that “If this ideational scaffolding is clear, stable and well organised it is reasonable to suppose that it provides better anchorage for new learning and retention than if it is unclear, unstable, and poorly organised”.

Ausubel’s theory of advanced organisers comes into play where students do not possess appropriate existing structures or concepts needed to integrate new information into their cognitive systems (Ivie, 1998). Ausubel’s advanced organisers relate directly to Cook, Hirsch (1989) and Rosch’s discussions of how we comprehend and remember knowledge as categories.
Ausubel proposes that advance organisers are a way of providing students with information in a logical framework so that material is easier to understand and easier to store. The organisers are represented by “appropriate and relevant subsuming concepts introduced prior to the learning of unfamiliar material”.

Organisers work in two ways: 1) they draw upon and mobilise whatever existing subsuming concepts the learner already has and 2) presented at an appropriate level of inclusiveness they provide optimal anchorage. Further Ausubel (1968) suggests “the more unfamiliar the learning material (i.e. the more undifferentiated the learner’s background of relevant concepts), the more inclusive or highly generalised the subsumers must be in order to be proximate. These introduced subsumers become advance organisers or anchoring structures for the new material.”

This has important implications for our teaching methodology. It suggests that, presupposing students’ lack of existing, relevant background knowledge and structure, we need, in the first instance, to present new information to them in a logical, hierarchical form of general abstract concepts followed by specifics. In this way we may provide them with cognitive structures (which they may not already have) and concepts at the same time. This is likely to increase their chances of understanding and retaining the information as well as laying the structural and conceptual foundations on which to build new knowledge.

Ausubel’s learning represents a very logical approach which may challenge current constructivist orientations to learning. He views thinking as an orderly activity and knowledge as being arranged hierarchically with higher level concepts being subsumed by lower level ones. From these premises he sees instruction as involving a number of steps:
**Step One:** The teacher ascertains if the student already possesses relevant concepts in his or her cognitive structure.

**Step Two:** The teacher provides appropriate advance organizers, which are used to anchor the new material within established cognitive structure.

**Step Three:** The teacher presents the new material in an organized fashion, checking to make sure the student is subsuming the new information under appropriate organizers.

**Step Four:** The teacher provides sufficient practice (drill) so that the material is thoroughly learned, becoming an integrated part of the student’s cognitive system.

**Step Five:** The teacher guides the student through a problem-solving situation which utilizes higher order thinking skills. If the teacher is successful in executing all of these steps, then he or she will have laid a secure foundation for the student to take the next step on his or her own, namely, implementing the powers of higher order thinking in his other life. (Ivie, 1998)

However, the underpinning premise of schema and advanced organizer theorists, that knowledge is organised in particular pre-existing formats, is not without its critics. Nassaji (2007) suggests the assumption of pre-existing, structured formats is a “static and inflexible view of the role of knowledge” (2007: 87). He proposes that the construction-integration model of Kintsch (1988, 1998) is a more flexible model of the role of knowledge in comprehension. While agreeing that comprehension relies on knowledge, Kintsch proposes that the knowledge is not pre-stored in the highly structured way some schema theorists suggest. Instead it is the texts with which readers interact that provide knowledge structures which play an essential role in assisting students’ comprehension. This comprehension occurs as an iterative process of, constructing, processing, fine tuning and integration of ideas in each new phase of the text with reference back to the
previous phases stored in the working memory. Thus, Nassaji (2007: 91) suggests “the knowledge that guides the comprehension system is not outside the text” and that knowledge is initiated by the textual information.

This construction-integration view is not necessarily at odds with the view of schema theory and ideas about pre-existing internal knowledge structures, rather it serves to refine our understanding of the crucial role text structure plays in assisting students to understand the association between ideas and implicit meanings with texts. Genre theory, as described in recent publications from Martin and Rose (2003, 2007) also stresses the importance of text structure for comprehension (This is explored in detail in the following section 3.6.6). In terms of questions about how knowledge is stored, research into knowledge associations tells us that we organise knowledge in our memory in ways that are meaningful to us, and these meanings reflect to some extent our cultural context.

The implication of all of this for teachers is the need to find ways to bring students pre-stored knowledge to the foreground and to make text structures explicit in order to allow students to “refresh”, and perhaps store, new knowledge according to universal systems of knowledge classification. The Systemic Functional Linguistic approach outlined in Section 3.6 to provides a framework for understanding and explaining text structures and for scaffolding learning and language in general.

3.3 Knowledge structures in academic discourse

3.3.1 Official and local knowledge

Bernstein (1999) provides another perspective on the issue of how knowledge is structured. He implies that pedagogy which is based on recognising the potential of unrecognised voices tends to homogenise and stereotype differences between “official” and “local” knowledge.
He suggests “one form tends to be romanticised as the medium celebrating what the other has lost” (Bernstein, 1999: 158). Bernstein’s concepts of vertical and horizontal discourse provide a detailed differentiation between official and local knowledge and the distribution of these forms. By examining the mechanics of how both vertical and horizontal discourse are distributed Bernstein provides a practical framework for understanding the mechanisms of this distribution both within these discourse systems and across them. These insights are essential for this thesis because they lay the groundwork for exploring options for helping students to utilise local knowledge to access official knowledge.

**3.3.2 Vertical and Horizontal Discourse**

Bernstein (1999) suggests that knowledge structures in the disciplines of science are more easily identified because ideas and knowledge are explored and justified within a framework of generalised ‘factual’ interpretations of the world. On the other hand, in the humanities and social sciences varying interpretations of the world of ideas are to be expected given that the knowledge structures of these disciplines tend to be in contest and harder to translate into generalised terms. Regardless of the discipline and the way the knowledge within that discipline is constructed, an accepted framework of concepts and language exists that can provide students with a basis from which to critically comprehend texts as well as construct their own.

With regard to local or horizontal knowledge, Bernstein uses the terms *repertoire* to refer to the set of knowledge an individual possesses and the term *reservoir* to refer to the collective knowledge possessed by the whole group in the community. He suggests the relation between the actual practice and potential of a member of the group is affected by how isolated or excluded a member is from the group. Thus the potential for circulation of
knowledge is increased as isolation and exclusion are reduced. He refers to horizontal knowledge as being segmented because, although local knowledges exist alongside one another, each knowledge may be quite separate and discrete from the others. However because the knowledge is local and immediate the reading of the contexts within which these knowledge operate is quite unproblematic (Bernstein 1999:161)

On the other hand, the circulation of knowledge in vertical discourse is much more complex because “… the pedagogy of vertical discourse is not consumed at the point of contextual delivery but, is an ongoing process extended in time.” (Bernstein 1999: 161) The systems of distribution in vertical or official discourses are described by Bernstein as having either horizontal or hierarchical knowledge structures. Hierarchical knowledge structures build knowledge hierarchically so ideas and definitions can be tracked back historically and/or logically. Hierarchical knowledge is exemplified in the sciences. Horizontal knowledge structures typically are more difficult to define, being segmentally organised and utilising new unrelated terms to posit new ways of understanding ideas. “Underlying these contrasts or oppositions is a complex multilayered structure of pairs operating at different levels of individual and social experience.”

By interrogating knowledge structurally in order to think about how knowledge is acquired Bernstein provides a framework from which to consider the possibilities for effective pedagogy at university. He points out that there already exists an approach in schools that utilises horizontal discourse to facilitate access to vertical discourse, often in the name of recognising diversity. However, Bernstein (1999) implies a potential deficit in this approach when engagement in vertical discourse is restricted to only those concepts which can be described by the horizontal discourse.
Thus, the importance of scaffolding students in a zone of proximal development towards the greater levels of abstraction described by vertical discourse is essential. By referencing back to what students know and forward again to what they need to know it is possible to avoid Berstein’s (1999) concern that vertical discourse may be simply reduced to the level of strategies that fit students’ repertoires with perhaps the integrity of the knowledge being lost in the translation. (Bernstein 1999:169).

### 3.3.3 Inbuilt redundancies

Perhaps the most provocative point made in Bernstein’s discussion about vertical discourses is his observation that “horizontal knowledge structures particularly those of the social sciences have an in-built redundancy” (Bernstein 1999: 166). He suggests that in describing the present they rely on retrospective languages and generate new hegemonic conceptual relations from those in the past. In this way horizontal knowledge systems rely on the production of new language to build on and describe old concepts which are embedded in a particular knowledge structure rather than building new knowledge from existing knowledge. The “obsession” with producing language to rename these is borne out of a lack of empirical reference points from which to develop or reject a particular language/concept. Conversely, the hierarchical knowledges of the sciences, while having a strong technical framework for description, reference empirical observations in advancing knowledge rather than conceptual frameworks captured and driven by language (Bernstein 1999:167).

### 3.3.4 Moving between discourse structures

The implications of Bernstein’s observations are twofold. One, they suggest possibilities for utilising horizontal discourse to access vertical discourse but caution us about the possibilities of losing conceptual substance over form.
Two, in highlighting the reliance of hierarchical knowledge structures on retrospective orientations rather than reference to empirical observations, Bernstein hints at the possibilities of a new approach to these disciplines which encourages the inclusion of an empirical gaze to allow more substantial critique and development of this knowledge.

Building on both of these reflections, it may be possible to develop an approach that continues to give students of vertical discourses access to concepts by, in the first instance, utilising a hierarchical knowledge structure (which relate to a more concrete plane) to frame and explain a new concept. By tracing a concept back to its concrete realisation before referencing forward, scaffolding gradually towards the most abstract conceptual point students are given an opportunity to understand ideas from the point of view of everyday knowledge/schema. At the same time, this reflection back to the concrete could provide an opportunity to encourage students to find empirical reference points to help legitimise and build on conceptual considerations thus enriching their critical understanding.

Understanding vertical and horizontal discourses as occupying a continuum from concrete “local experiential worlds” (Habermas 1998) to “abstract instrumental rationality” (Giddens 1990) is important when considering the how to assist students to shift from operating mainly in the local experiential to operating effectively in abstract instrumental discourses. The language shift required by our students relates to a shift in mode along the continuum from action to reflection illustrated previously as well as field from congruent to abstract (Martin, 1989).

The question is how to most effectively foster a reference back to the local in order to build the abstract rationality. We are also challenged to consider how to utilise and acknowledge the plurality of the local realities we face in
our diverse university communities. Equally, we must decide on how to approach the expanding of students’ cultural capital and schema in such a way that provides them with adequate foundational knowledge for learning at university. New concepts need to be taught using simpler, more tangible and culturally relevant analogies, text needs to be unpacked and abstract language introduced at the appropriate stage. The concepts of advance organisers, Vygotsky’s zone of proximal development, as well as the social aspects of constructivist notions of learning come into play in providing solutions to these considerations. These will be discussed in the following section.

3.4 Vygotsky and the Zone of Proximal Development

3.4.1 Language and learning as social activities

“Vygotsky was concerned with the dynamic concept of thinking rather than the relatively inert and elusive notion of intelligence, even though his theory of “proximinal intelligence” is of substantial importance. To Vygotsky, thinking must be understood as an internal activity, the genesis of our thoughts being explainable in terms of overt, external activities - particularly the linguistic activities in which we have been and continue to be engaged and which he believed to be primarily social.

Lipman (1991) explains that through a process of internalisation we develop representations of linguistic activities which can be reanimated. Thus, the way which think and what we think corresponds more or less to what we and others say and do in our social interactions.

Vygotsky (1986 in Lipman 1991) further stresses the importance of a pedagogic approach that is interactive suggesting that students who are taught didactively will be merely reactive and hesitate to show intellectual
initiative. To avoid such “cognitive lethargy” he suggested a lively classroom discourse where students set models for each other of animated, thoughtful and rational individuals capable of thinking for themselves rather than always waiting for questions from the teacher to which to react. Lipman (1991) concurs with Vygotsky’s (1986) call for a reconstruction of the classroom so that vigorous and reasonable dialogue would form a matrix that would in turn generate thinking - which would be correspondingly rigorous and reasonable. He cites Vygotsky’s (1996:) suggestion that possibly the most common cause of miseducation is “the failure to convert the classroom into a community of discursive enquiry”.

However, the language and structures through which classroom dialogue is enacted are not automatically accessible and empowering for students. The distribution of power and control are also manifest in social interactions through the way knowledge is organised and through the distributive rules governing its presentation (Bernstein, 1990). “...[T]he relationship between power, knowledge, and forms of consciousness and practice is accomplished by the distributive rules of the pedagogic discourse.” (Bernstein 1990, p 182). (Bernstein (1999) elaborations on the specific distributive rules of institutional discourse will be explored in Chapter 4.)

3.4.2 Thinking and Language

Vygotsky (1986) made explicit the essential connection between teaching and cognitive development. He observed that the child’s mind realises itself to the extent allowed by the pedagogical intervention and thus the way we teach and the potential for students’ mental development are inextricably bound. As Vygotsky (1986) put it, “The only good teaching is that which stays ahead of development and draws it up behind”. Lipman (1991) calls for
a curriculum “dedicated to unsettling the mind and forcing it to come to grips with what it might normally take for granted”. (Lipman, 1991)

The insistence on the primacy of thinking rather than of knowledge in education is stressed by a range of early educational theorists. Vygotsky (1991) stressed the inextricable link between thinking and language. While Mead (1934 in Lipman 1991: p3) emphasises “the genesis of community through communication and the thinking self through internalisation of that community”, Dewey (1916) stressed that an educational session should begin with an experience - a unified cognitive/affective event that would provoke and sustain continued reflection by the class”. As an extension of these ideas, Lipman (1991) suggests that school should be “harnessing and putting to work the social impulses of the child in contrast to the imperial, divide and rule strategy that some teachers even today employ”.

Dewey (1916) was concerned with the student becoming the enquirer by reconstructing each discipline into a form of scientific enquiry. However, Lipman (1991: p4) suggested that children’s primary interest is to obtain meaning from what they learn and meanings they can verbalise. He felt philosophy could provide this new design of education but it would have to be a brighter more readable version that could strengthen a child’s reasoning, concept-formation abilities and judgement.

3.4.3 The zone of proximal development

The zone of proximal development (ZPG) is defined by Vygotsky (1986), as the distance between the real level of development and the potential level of development. A difficult goal is offered; the child receives orientation from an adult; he/she reaches that goal and another is offered; he/she tackles it and solves it independently if possible or with the help of an adult. Thus, the learner is taken to greater “heights” by building on what they already know.
Vygotsky (1986: xxxvii) used the term ZPD (Zone of Proximal Development) to “describe the place at which a child’s empirically rich but disorganised spontaneous concepts “meet” the systematicity and logic of adult reasoning.”

He suggested socially meaningful activities serve as a generator of consciousness. Individual consciousness is built from the outside through relations with others. “The mechanism of social behaviour and the mechanisms of consciousness are the same ... we are aware of ourselves, for we are aware of others, and in the same way as we know others.” (Vygotsky 1986: xxxvii) Vygotsky believed human higher mental functions must be viewed as products of mediated activity. The role of the mediator is played by psychological tools and means of interpersonal communication. Psychological as distinct from material tools, are internally oriented, transforming the natural human abilities and skills into higher mental functions.

Vygotsky made a principal distinction between “lower”, natural mental functions, such as elementary perception, memory attention, and will and the “higher” functions, which are specifically human social or cultural goals and means of conduct. The lower functions do not disappear in a mature psyche but are structured and organised to specifically social goals and means of conduct. He used the Hegelian term “supersede” (aufgehoben) to designate the transformation of natural functions into cultural ones.

3.4.4 Vygotsky’s layers of knowledge and cognition

Vygotsky (1986) suggests that the older “lower” layers of human behaviour do not die out when the new emerges, but instead are superseded by it. Thus, psychology must distinguish the lower layers embedded in the higher but also reveal how the higher stages mature out of the lower ones. Further in Vygotsky’s (1986) suggestion that the new developmental approach must
be built on three concepts: higher mental functions, cultural development, and mastering one’s own behavioural processes we are reminded of Hirsch’s (1987) concerns about the necessity of cultural capital for learning as well as Ausubel’s concern with the need for the learner to know how to organise information as part of the learning process.

Here we see a representation of hierarchies of knowledge described by schema theorists and Ausubel. Further the shift from lower to higher mental functions is synonymous with the notions of the shift from concrete to abstract ideas. Thus, the learner is scaffolded gradually towards the abstract concept by first establishing firm and common ground in the concrete. Importantly for this research, a central tenet of Vygotskian research was the distinction between spontaneous or everyday concepts (the concrete) and scientific concepts (the abstract). He believed:

“ The spontaneous concept is purely denotive in the sense of being defined in terms of perceptual or functional or contextual properties of its referent. In contrast, the relationship of a scientific concept to its object is mediated from the start by some other concept... the very notion of a scientific concept implies a certain position in relation to other concepts, i.e. a place within a system of concepts” (1986: xxix)

The development of scientific concepts begins with analytical procedures rather than concrete experiences. This can be compared to the learning of a second language in school compared with oral language at home. Spontaneous concepts develop in the context of everyday experiences with their rich immediacy of meaning. Conversely, scientific concepts or a second language are examples of non-spontaneous speech development” (Moll 1987: 180) How then to instil the richness of meaning and bridge the gap between spontaneous, concrete knowledge and language and abstract scientific concepts. This is especially problematical in a socio-political climate where
immediacy of meaning is the comfortable norm for our young people whose lives have been dominated by the wonders of our technological age.

Vygotsky (1986) suggests that, to learn scientific concepts, a previously developed set of meanings (schema) originating from the learner’s everyday experiences must be available. This spontaneously acquired knowledge then mediates the learning of the new. In this way Vygotsky sees everyday objects as standing “between the conceptual system and the world of objects” (p180), just as one’s first language mediates between ones thoughts and the second language. Thus, the development of scientific concepts both depends and builds upon an already existing set of everyday concepts. Further, he sees as a general principle of formal/ institutionalised instruction the learner as consciously regarding and manipulating the objects of instruction. Thus conscious awareness and volition are bound up with the act of knowing (Moll: 252). However, if the learner does not possess sufficiently related knowledge problems may arise unless the educator mediates by scaffolding students from what they know and building this knowledge base towards a richer cultural capital and eventually a new level of knowledge.

Both Piaget (1999) and Vygotsky explore the shift from spontaneous to systematic conceptualising. Wertsch (1985:103) describes this as a process where “the emphasis has shifted away from those aspects of linguistic orientation that involve contextualisation to the capacity of linguistic signs to enter into decontextualised relationships that are constant across contexts of use.” Vygotsky (1986) saw an analogous difference between spontaneous to scientific, speech to writing, first language to second language. He viewed earlier knowledge as a more inductively based process of generalisation and abstraction that becomes linked with a more deductively explored systematic conceptual framework. Further, he stressed the complex interweaving of the two lines of development.
Transitional or intermediate concepts are of particular significance in facilitating changes in conceptualisation. Panofsky et al. (in Moll 1990) stress that there is no single universal set of intermediate stages but, instead, that cultural and familial experiences contribute to the way systematic and spontaneous concepts are woven together.

The emphasis of Vygotsky’s ideas on how we come to know is based on the premise that development in a particular domain begins by being externally and socially regulated. Speech serves to make a person’s thoughts accessible to the processes of social influence. Indeed Di Bello and Orlich (1987 in Au 1990, ed Moll) suggest the very act of speaking about one’s current understanding makes it explicit and allows the individual to become aware of his own misunderstandings and also allows the educator to become aware. The ensuing discussion has the potential for promoting the learners acquisition of new concepts.

3.4.5 Applying Vygotskian theory

Au (1990: 274) describes a model of instruction, for improving reading comprehension, based on Vygotskian principles which starts with the premise that teachers need to know: how to plan a lesson; how to structure lessons; how to shape students’ thinking through responsive questioning. The process of instruction includes the following steps: (1) Identifying a central theme/ main idea to focus discussion on and make the topic meaningful; (2) Identify concepts likely to be unfamiliar to students; (3) divide the text into chunks for guided reading and discussion.

In structuring lessons Au (275) suggests an “experience - text - relationship” approach. The experience stage is for accessing prior knowledge and concept development, the text phase for clarifying relationships between text and the student’s prior knowledge and the relationship phase for drawing
relationships between text and prior knowledge. The way teachers interact with students during these lessons is also of primary importance. Gallimore et al. (1986 in Au 1990) advocate the formulation of questions based on students' prior knowledge. Such an approach has found its way into mainstream reading skills theory for example in Stewart-Dore's (1983) ERICA model. This model advocates the active engagement of the reader in the context created by the author as well as the meshing of a range of variables shown in the following illustration in Figure 3.2:

![Diagram of the ERICA model](image)

**Figure 3.2 Variables considered in the ERICA model, from Stewart-Dore (1983)**

However, both this model, the similarly conceived DARTS (Directed Activities Related to Text) (Lunzer & Gardner, 1984) and the approach advocated by Au (1990) and Gallimore (1986) assume that once the first stage (engaging the reader's text related schema and an analysis of text structures) is completed, students will be ready for literal, interpretive and applied comprehension of the text. This is a high expectation, particularly with regard to non narrative academic texts, as it does not anticipate the conceptual intricacy bound up in the language of the text. So while students
may have improved ability to engage with the text at the level of macro theme, the more intricate layers of meaning may still elude them.

3.4.6 Challenges to the traditional approach: making meanings explicit

Rose (1998) questions the value of students trying to comprehend text through guesswork and suggests such approaches privilege those students with sufficient cultural knowledge to make sense of the intricacy of meanings contained in a text. Rose (1998) advocates an approach that first tells students what the text is about and how it is structured using language and schema that students understand and then reads the text out loud to students before working through the text in detail with them to explore the language and meaning at a paragraph and sentence level. Rose’s methodology will be discussed in more detail in the following section.

In terms of the aforementioned theories this approach achieves: a) schema referring; b) schema building and c) provides students with advanced organisers to integrate new information within a zone of proximal development. Thus, it provides students with adequate scaffolding and frameworks to engage with the intricacies of how these meanings are expressed and organised and take away what they have learned to new texts. Rose’s (1998) “Reading to Learn” approach will be discussed in more detail in the next chapter.

Bruner (1973, 1983), like Vygotsky, believed the child’s social environment and particularly social interaction with other people are extremely important in the process of learning. Like Piaget he believed individuals actively assimilate and accommodate in terms of an existing set of cognitive structures. He refers to three distinct modes that are used to represent the world: *Enactive* (actions), *Iconic* (pictures) and *Symbolic* (words and numbers). Because the social world, to which children are exposed, is expressed
through the actions, pictures and words of adults, these modes become our established representational tools.

Bruner (1983) emphasised language as the principal tool for enabling a child’s cognitive development and suggests four major aspects of instruction that should be addressed. First, building the learners' motivation and readiness for learning by considering appropriate experiences and contexts, second the careful structuring of knowledge so that it can be readily accessed by the learner, third effective sequencing and design of material to facilitate extrapolation and building of new knowledge and fourth the timing and nature and pacing of rewards or feedback.

3.5 Constructivism

It is important to acknowledge the place of constructivist theory, as a more recent evolution of learning theory that embraces the aforementioned insights into learning. Constructivism has emerged as a major influence in teaching practice in the last thirty years. It recognises schema and draws on ideas of knowledge construction and the social context for learning. Learning is viewed as an active process where learners construct new ideas or concepts based upon their current/past knowledge. These principles are embodied in the work of the progressive theorists Vygotsky (1978), Bruner (1973, 1983), Cook (1994), Wertz (1979) among others.

Constructivism developed as a reaction to the behaviourist approach to teaching pedagogy which became popular in the 1960s and led to approaches such as outcomes-based learning and management by objective. The behaviourist view emphasised the pivotal role of the teacher in providing the correct stimulus for learning while at the same time not recognising the pivotal role played by students in the learning process. Constructivism, on the other hand, acknowledges and attempts to address the complexity of
student cognition and the teaching-learning process (Jones & Brader-Araje 2002). It emphasises the use of a Socratic style of dialogue to engage students in learning, and help them understand what they know and what they still need to learn. This in turn helps the teacher to anticipate the scaffolding students will require to progress.

The key tenets of constructivism reflect the work of Vygotsky, Bruner and the schema theorists in the way they viewing learning as an active process that relies on prior knowledge, preconceptions and cognitive conflict (Jones & Brader-Araje 2002:4) . von Glasersfeld (1996:1), who is associated with radical constructivism, asserts that “the thinking subject has no choice but to construct what he or she knows on the basis of his or her own experience.” Further, learning is seen to occur when students link new ideas with their existing knowledge. (Naylor & Keogh 1999: 93). The third key component of constructivism is the community which provides the setting, and challenges and scaffolds students learning (Davis, Maher, Noddings, 1990:3). Scaffolding is seen as an essential component of supporting students to move from what they already know to a new level of knowing.

Drawing on the work of Bruner and Vygotsky, the constructivist approach recognises the pivotal role language plays in learning. “Language forms the foundation of the individual’s conceptual ecology as well as the means of conceptual growth” (Jones & Brader-Araje 2002:4). Constructivism also draws from the insights of Piaget and Dewey. This can be seen particularly in Piaget’s ideas regarding the role of knowledge construction in learning and Dewey’s views regarding the importance of inquiry for learning.

One criticism of constructive theory, in its purist form, relates to its emphasis on collaboration as a way of learning. The concern is that the voices of the already empowered will dominate in collaborative scenarios, thus inhibiting
the active participation of less confident learners. Further, the rejection of testing and external criteria can make it difficult to evaluate students’ progress. However, it maintains its relevance as an approach that promotes the importance of a recognition of learners’ prior knowledge and the of learning as a social practice. (Jones & Brader-Araje 2002)

Incorporated in these theories is the notion of learning styles and the related idea of experiential learning (Kolb 1984, 2002, 2004, Fleming and Baume, 2006) which acknowledges that learners favour different modes of learning depending on their preferred style of learning and engaging. Kolb refers to: Concrete Experience and Abstract Conceptualization as two related aspects of grasping experience, and Reflective Observation and Active Experimentation as ways we transform experience. While Fleming’s model, based on Neurolinguistic Programming (NLP), posits visual, auditory reading/writing and kinaesthetic as the different modes by which people engage with learning. There is criticism of the lack of scientific basis to prove that a student will learn better if taught in the mode that favours his/her preferred learning style. However, what we can usefully take from these theories is the recognition that people understand and respond to learning differently depending on its mediums and modes. This may be influenced by culture, age, personality type or the material being learned. Regardless, it inspires us to recognise diversity in our classrooms and adapt our pedagogy accordingly.

To help us understand the mechanisms of academic discourse the following section provides a detailed analysis of how discourse works and how it is read and understood. In this way it supplements the above overview of how we learn by helping us understand what is it we are learning and how best to bring back this knowledge to students existing schema and scaffold them towards deeper and more sustained understandings of academic text.
3.6 Systemic Functional Understandings of Learning and Language


3.6.1 SFL Orientations to Learning

The connection between the learning theories previously discussed and the SFL view of language learning is encapsulated in Christie (1985). Christie confirms Vygotsky’s ideas with her suggestion that mind, identity and personality are socially created by the negotiation and construction of social processes and symbolic systems. SFL theory views language as a resource with which we construct meaning and a symbolic system with which we make sense of the world. Further, because all learning involves the learning of language, all teachers should see themselves as teachers of language. Thus, language development may be said to have three interrelating elements: learning language, learning through language, and learning about language (Halliday 1985, 1993).
3.6.2 Learning through language

Learning through language pervades all aspects of our lives particularly where we are actively engaged in learning new concepts. Equally as we learn through language we learn new language in the process of dealing with issues of significance and importance to us as learners. The principle that language is learned in use applies regardless of the age or stage of learning. “We learn language and we learn through it, less because we never set out to learn it and more because we enter into all sorts of Contexts of Situation in life in which the very need to deal with those contexts requires that we develop appropriate behavioural patterns” (Christie, 1985).

However, to participate in the shared construction of a particular genre, participants require some existing language or genres. Students are required in their struggle to grasp new concepts, to learn new language and learn through existing language, hence the importance of scaffolding language to enable students to achieve their goal. Christie (1985) suggests that teachers need to focus on the behavioural patterns of their students. She suggests teachers need to ask two questions: 1) What do my students need to be able to do in language in order to be successful in mastering this content? And, 2) What kind of context of situation for working and learning should be generated in order that students will be assisted to master the required language patterns?” A third question they might ask is: What existing knowledge language do my students already have that we can build on to learn new language?

If we recall the work of Rosch (1989:49) on the use of categories to interpret experience we can see the relevance of using the learners existing language in the process of scaffolding. Rosch suggests that middle level categories (terms of basic classification) are the ones children learn first in acquiring language
and through which “... in the absence of any special context or constraint people understand the world ...”. These, incidentally, will tend to be grounded in concrete experience. So, to scaffold the acquisition of knowledge/language in a particular context we might assume the learner possesses the language of the middle level category and use this existing language/knowledge as the initial building block.

For example assuming one were discussing the cultural aspects of globalisation, the middle level categories for this concept might be the less abstract concepts: fashion, music, art, food, religious and political ideas. It is the language that describes these middle level concepts that the teacher would start with to engage students at the level of their experience and language base and then introduce and build towards the language and concepts described by the general as well as the more specific categories. Represented taxonomically it would look like this:

```
Global trade markets
  Cross cultural/global influences
    asian styles
      harlem street wear
    world music
  fusion cuisine
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Figure 3.3 Possible levels of categorisation for the concept “globalisation”
3.6.3 Language as a resource for expanding meaning

Apart from the links between scaffolding learning and scaffolding language, the SFL view of language as a resource for making meaning and expanding meaning rather than as a set of rules is a subtle but essential aspect of the theory that provides a language with which to advance this thesis. It suggests that language is dynamic, that meaning can be expressed in a number of different ways depending on the context and that language can be viewed broadly as text types.

Halliday and Martin (1993: 22-23) describe five orientations of SFL. First they make a distinction between rule and resource, suggesting that SFL is “orientated to the description of language as a resource for meaning rather than as a system of rules”. It thus provides the opportunity to view language as an “…expanding meaning potential” expressed at a macro level through field, tenor and mode. Secondly, they are “concerned with texts, rather than sentences, as the basic unit through which meaning is negotiated”. Thirdly, SFL examines the orientation between text and context by focusing on “solidary relations between texts and social contexts rather than on texts as decontextualised structural entities in their own right."Important for this research is the fourth orientation of SFL which, in acknowledging the myriad potentials for making meaning by viewing language as a “meaning making system rather than a meaning expressing one”, supports previously discussed learning theories. In this way SFL “permits”, from a linguistics point of view, one proposal of this thesis, that abstract technical knowledge can be expressed in more than one way. The fifth orientation of SFL is towards, “developing an elaborate model in which language, life, the universe and everything can be viewed in communicative (i.e., semiotic) terms”.

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3.6.4 The nature of academic and bureaucratic discourse: “elaborated
codes”

Halliday (1985, 1993) and Martin (1990, 1993) provide specific insights into
discourses which have, in Bernstein’s words, elaborated codes found in, for
example, the abstract discourses of the humanities, social sciences, sciences
and bureaucratic administrations. They identify the qualitative difference of
these elaborated codes as being the employment of grammatical metaphor
(nominalisation of processes and the relations between them) in written text.
The other significant feature of such discourses is that they deal with
information out of context, thus challenging the participant to process
information in the abstract. These modes of communication have evolved to
enable this type of written discourse necessary to communicate a particular
field of knowledge, however, they exclude those who are unfamiliar with
them because of their abstract and technical nature. Further, if a lecturer
speaks as the text is written, the difficulties newcomers to the discourse may
experience are exacerbated. This is particularly the case for those students
from cultural backgrounds where there is little preparation for thinking in a
non contextualised mode.

It is widely accepted that discourses of the western education system are
highly specialised and framed for the vocational and professional contexts
crucial to modern communities and political participation in these (Rose
1999, Martin and Rose 2003, Bernstein 1999). They are not only specialised
horizontally for these contexts but also vertically according to socio economic
class. Only 10 - 20% of students are enabled by the schooling system to
continue successfully in tertiary education. Thus, Rose (1999) suggests the
education schooling system fails to prepare a large proportion of indigenous
and non indigenous students for a vocational and professional future
because it fails to acknowledge the socio-economic and cultural context of all of its students.

Research indicates that children’s home experience with language has a significant effect on their ability to interact with institutionalised text. Rose (1999) cites Painter (1999), Williams (1999) and Cloran (1999) as all supporting the notion that children from literate middle class families are “privileged” with home experiences (extensive spoken interactions and scaffolding, parental book reading) which prepare them to engage with decontextualized texts. These findings also suggest this language is specifically evolved for the written mode and that in the spoken mode the ideas can be expressed in ways that are more immediately accessible. These are obviously important considerations for this thesis both in terms of understanding the limitations students may arrive with and the way the information is presented (i.e if it is spoken like a text) may affect the students’ comprehension. Rose’s findings also imply that there are easier ways to present a complex text.

Vocational and professional discourses are associated with Bernstein’s (1975, 1986, 1990, 1999) elaborated codes which have evolved in stratified industrial cultures and are exemplified in the written discourse of the sciences and the bureaucratic administration. Bernstein’s distinction between the written and the spoken form can be interpreted from a Hallidayan perspective as elaborated code and elaborated orientation. Both exist in societies with both complex and simple divisions of labour. Rose claims that the elaborated orientations are a feature of all societies but using the indigenous example he shows that they are expressed and transmitted in different ways and “realised by layers of interlocking semantic features whose significance is revealed in stages of member’s ceremonial apprenticeship”. Ideally the same
apprenticeship should occur in a western context in the high school system (Rose 1999, 224).

3.6.5 Scaffolding Learning and Language

The work of Hammond (2001), Painter (1999), Martin and Rose (2007b) incorporates scaffolding as the underpinning mechanism to teaching literacy. Scaffolding is a term used for teaching methodology that not only fits into Systemic Functional linguistic theory but also embraces the ideas of Vygotsky’s ZPG and schema in that it too is based on the premise of teaching by working with the learners existing knowledge and building towards a new goal. Hammond (2001:2) describes scaffolding as acting in the same way as a builder’s scaffolding does in providing learners with “temporary support structures that will assist learners to developed new understanding, new concepts and new abilities”.

The earlier proponents of scaffolding, Wood, Bruner and Ross (1976) first used the term to refer to parents who assist the language development of their children by providing them with scaffolding by: “… dividing the task into manageable components and directing their children’s attention to the essential and relevant features”. At the same time parents demonstrate and model the “right” way, keeping the task at an appropriate level of difficulty. Thus, in Hammond’s words (2001) “the parents provided the support through intervention that was tailored to the demands of the task, and determined by the child’s ability to complete it.”

Likewise, it is suggested the teacher’s job is to take on this role of scaffolding. However, the temporary role of these learning structures is also emphasised. The support provided by the teacher should be in the nature of helping learners to develop their understanding, to learn new concepts and to be able to perform the task independently. The teacher needs to know when to
withdraw support and when to reapply it for new tasks and concepts (Hammond 2001:2).

Thus, it is most important that the educator should in the first instance be able to gauge “where the learner is at” in relation to the task. This ability to customise support is known within the framework of scaffolding as contingency. This refers to teaching strategies that are based on and responsive to a student’s current understanding. Further, as Mercer (1994: 96) stresses the job of educators is to “...enable students to achieve tasks and understandings they would not be able to do on their own”. In providing such support the educator is required to sequence activities in a such way as to enable the learner to build skills, knowledge and language, to push them beyond current abilities and levels of understanding towards the next level of learning (Mercer, 1994: 96) The educator is also required, through an “empathy” with students existing levels of ability, to provide a certain quality of guidance and support. In this respect, scaffolding theory supports the concept of schema by “providing cognitive support which anticipates the child’s own internalisation functions” (Mercer 1996). In applying these measures, as Bruner (1978: 19) describes, “... the steps [are] taken to reduce the degrees of freedom taken in carrying out some task so that the child (read learner) can concentrate on the difficult skill he/she is in the process of acquiring”.

Here it is important to recall Mariani’s (1997) findings that confirm the frustration experienced by students where they are presented with a high level of challenge but an inadequate, low level of support. By contrast, the aim of scaffolding is to help students work with; “increasing independence - to know not only what to think and do, but how to think and do, so that skills and context can be applied to new contexts” (Hammond 2001:5). Thus, scaffolding incorporates Vygotsky’s ZPG in that it takes students beyond
their comfort zone but with high support. Material presented at the lower limits of the zone presents no challenge and material at the upper end, frustration. (Hammond 2001)

Scaffolding can be seen to accommodate Vygotskian, constructivist and SFL theory in a number of other ways. It too sees learning as a social process, a communicative one where “knowledge and understanding are constructed in culturally formed settings”. It emphasises the importance of the learners existing level of competence as well as their potential “… as determined through problem solving under adult guidance or in collaboration with more capable peers” (Hammond 2001:9). Importantly, the view shared by some researchers that the ZPG is an entity constructed by the educator (rather than one innate to the learner) stresses the vital role scaffolding plays in extending and maximising the potential ZPG.

Mercer (1994) defines a scaffolding approach to teaching and learning as one where the teacher aims for a higher level of competence than the student already has in relation to a specific skill or concept and where the teachers intervention is required for students to learn. This approach also requires evidence of not only successful completion of the task but also that students are enabled to independently complete subsequent related tasks or concepts.

3.6.6 A genre approach to language learning

Building on our understanding of scaffolding as an essential aspect of the “how” of learning language, a genre-based approach advocates providing students with an understanding of a text in relation to its genre or social purpose. In this way, it provides us with the “what” from a top down point of view and recognises the importance of the social context of texts for meaning (Halliday and Martin 1993: 22-23). Importantly, in building language in meaningful contexts this approach follows a natural learning
process and, in advocating learning through interaction, emphasises the social dimension of learning so valued by Vygotskian and constructivist learning theory. Martin & Rose (2007) and Rose (2004) describe this cycle of scaffolding interaction as one of teacher preparing, learner responding and teaching elaborating. This cycle is widely referred in school contexts as the IRF or initiate-response-feedback cycle (Rose & Martin 2007:6).

In their project to develop a “language based approach to teaching and learning” Martin and Rothery (1996: 92) identified a range of genres and associated language features (lexical grammatical and cohesive features) in primary texts. A huge body of research (notably Christie & Martin 1997; Halliday and Martin 1993; Rose, McGuiness & Korner 1992; Hood 1996; Martin & Matthiesen 1991) has followed which has helped to expand our understanding of genre in relation to a wide variety of texts and contexts. This includes our understanding of: how academic genres reflect the knowledge, values and social practices of their particular discipline; what genres are found and in what sequence in each discipline; and how they are valued in each discipline; and how genres change over time.

3.6.6.1 Genre as cultural capital

Importantly, the genre-based approach recognises that a knowledge of text-appropriateness according to social context is a form of cultural capital. As Feez (2002: 55) suggests genre pedagogy responds to “the realisation that knowledge about the stable patterns and possibilities in variation between texts across a range of social institutions is a form of cultural capital.” The implication of this realisation leads to another important feature of the genre-based approach which is to make visible the structures and rules of the discourse in order to provide all students with access to this cultural capital. This exemplifies Bernstein’s (1993: 73) “visible pedagogy.”
3.6.6.2 Providing visible pedagogy

The visible pedagogy is manifest in three phases; deconstruction, joint construction and individual construction. The deconstruction phase identifies the structural and grammatical features of the genre, the next involves joint construction of a text in the same genre before individually constructing their own text. Setting the context and building the field are integral aspects of the process where students are engaged in activities to build content of the genre and build their understanding of the contexts in which it employed in order to gain a critical orientation and control of the text. (Martin & Rose 2005:2)

An understanding of this approach is important for this study because it helps inform the ways university educators can adapt their delivery of spoken and written texts to build students metacognition and language about the social purpose and subsequent mechanisms of genre. By making these mechanisms explicit students are afforded easier access to the ideas within texts and a more critical understanding of the implicit meanings in texts.

As Martin and Rose (2007:2) explain, genre not only describes the function of the text, for example, to explain, argue, discuss, but also incorporates the other dimensions of the social context: field, tenor and mode. The field may be located in one or more disciplines, the tenor will enact relations of academic authority and the mode the dense technicality and abstraction typical of academic texts. Understanding of these is essential for students in the process of making meaning of texts and also in knowing how to construct their own versions of these genres.

Martin and Rose (2007:4) in their support of a genre-based approach explain that children learn to speak in context and through this gradually come to
understand the genres of their culture. Halliday (1994: xxxi) summarises this process: “As a language is manifested through its texts, a culture is manifested through its situations; so by attending to text-in-situation a child construes the code, and by using the code to interpret text s/he construes the culture.” In the same way students need to be introduced to the genres of academic culture. Since language learners need to recognise and understand language patterns and purposely extract meanings from texts on the basis of their existing literary capital it is essential that they are guided through a process to: “firstly recognise language patterns in texts, secondly to interpret them in contrast with related language features in systems, and thirdly to use them to write texts of their own.” (Martin & Rose 2007: 4) This cycle is illustrated in Figure 3.4 below:

![Figure 3.4 Teaching and Learning Cycle from Rothery (1994)](image)

3.6.7 “Reading to Learn” methodology

Martin and Rose (2007:8) suggest it is the joint construction phase which is most essential for building a bridge between language learned in the home
and that learned at school. In his “Reading to Learn” methodology Rose (2004, 2005, 2006 and 2007) has extended the application of this teaching and learning cycle by utilising the model for teaching reading as well as writing. By explicitly working through texts according to each strata of the language in a social context, students are provided with an understanding of the meaning of the text in context. These strata are depicted by Martin & Rose (2007:2) in Figure 3.5:

![Figure 3.5 Strata of language in social context from Martin & Rose (2007:2)](image)

Thus, meaning in texts is revealed as the context and purpose of the text is discussed in relation to genre and field, and the tenor and mode of the text is examined to ascertain how arguments and facts are organised and taxonomised to show relationships between ideas. Finally, at the level of lexicogrammar and graphology, technical and abstract terms are unpacked and understood in the context of students existing linguistic capital.
We have a lot to learn from Rose’s experience in indigenous settings where in making the realisations of decontextualised discourses “visible” to students, the gaps in prior experience of such discourse are bridged. This includes making not only the language features of the text visible but also the pattern of teacher learner interaction associated with these features. Rose (1999) suggests that “… teachers need to design learning activities that will enable children to develop an elaborate orientation to discourse”. His findings show that indigenous students can be supported to read texts well above their normal independent reading level “by building up a high level of intersubjectivity between teacher and students through detailed discussion of the texts they are reading”. Recognising the notion of a zone of proximal development and the potential for supporting students to comprehend texts above their existing level is an essential premise for developing methodologies for teaching students at the tertiary level as well as at school.

Of equal importance for understanding literacy in the university context is an understanding of the stages in the literacy development assumed by school systems. Rose’s (2004) sequence of learning to read and write in the current education system suggest that each stage “assumes and evaluates orientations to written ways of meaning that are acquired in previous stages”.

The importance of the first stage to progress in the second is not necessarily acknowledged by the current education systems. Research by Bergin (2001) and Williams (1999) suggests that children from literate families acquire up to a thousand hours of parent-child reading which provide essential orientation to text by building their contextual, discourse semantic, lexicogrammatical and graphophonic knowledge. Students from oral and or non-literate backgrounds miss out on this stage, the mechanics of which many remedial programs do not adequately recapture. Consequently,
students may progress through the school system without ever mastering these vital components of written literacy. With the current political emphasis on increasing participation in universities by students from “non traditional” first-in-family backgrounds it is easy to see how current remedial approaches may be inadequate.

From his analysis of current school systems with regard to: the reading development sequence; the role and forms of reading practices before school and the forms of reading practices at each stage of schooling, Rose (1999) proposes an approach to teaching reading and writing that addresses the inequalities of a stratified society by ensuring all students have an opportunity to engage meaningfully and successfully with texts regardless of their backgrounds. His approach, “Reading to Learn” is effective at all levels of schooling and has been successfully implemented in preparatory university classes. Of particular interest is its application with students at Sydney University’s Koori centre in programs that prepare students for academic literacy.

Rose, Gray & Cowey (1999) first described a scaffolding literacy approach, in the context of early years learning, which supports students at a whole range of levels to engage in text above their normal standard. The process of scaffolding reading and writing of texts moves through a sequence of (a) exploring the social context of the text (b) deconstructing sequences of meanings and finally (c) focusing on the higher order level of lexical and grammatical features of the text. Through unpacking text at a contextual, discourse semantic, lexicogrammatical and graphophonic level students are able to read texts with meaning while at the same time learning about how to reconstruct their own texts in the genre. The stages and sequence in scaffolding reading and writing are illustrated in the following Figure 3.6:
Figure 3.6 Scaffolding sequence and levels of language (from Rose et al. 1999)

The work of Rose et al. (1999) in scaffolding literacy and learning in indigenous settings is relevant to this thesis in a number of ways. First, it addresses problems with teaching and learning related to students’ low literacy that may stem from the divide between “literate” and “non-literate” home environments. Students’ poor cultural literacy, which poses an additional challenge, is also addressed through this methodology, particularly at the level of text in context. This method reflects learning approaches that embrace the social context of learning and the importance of scaffolding learning from the starting point of existing schema.

In the context of academic literacy the “Reading to Learn” approach views the ability to interpret academic texts (which may be written or oral) as the central activity of academic life. Reading constitutes the primary medium for engagement in formal education and in an academic context students are exposed to highly complex language patterns with high levels of abstraction.
and technicality quite different from the patterns they are used to in everyday spoken discourse (Rose 2004). Bernstein (1990) confirms the centrality of reading skills for accessing the pedagogic meaning and social relations embodied in academic text. He suggests the ability to understand and engage in teachers’ oral dissemination of information and engage in class discussion comes from experience with reading and that students writing serves to indicate what has been learned from reading.

Thus, not only is reading the window to knowledge but it also models the discourse which students are expected to emulate in their writing. Ensuring beginning university students engage actively and successfully with texts is an essential component of their success and a rich opportunity to build students confidence and competence as participants in their disciplines.

The “Reading to Learn” approach suggest levels of scaffolding that are adapted for the audience so in low literacy settings texts will be examined at the sentence level as well as at the level of hyper and macro them and new. Students learn how to interpret texts and then apply what they have learned about the patterns of written meaning in these texts to their own writing. The approach involves a three stage cycle of preparation, identification and elaboration. These stages are designed to “firstly, enable students to recognise comprehend and use meanings, secondly, to interpret in terms of the academic field they are studying and of their own experience, and thirdly to critically analyse how authors construct meanings and to choose how to construct meanings themselves” Rose (2004).

Stage 1 Preparing for Reading

Martin and Rose (2005) describe the stages in more detail. The first stage “preparing for reading” orientates students to the genre and field of the text
in the same way parents have been found to do while reading to their children (Martin & Rose 2005).

**Introducing text/genre/summary of content/organisation:** This orientation summarises what the text is about, its genre and the way the ideas unfold in everyday terms. In explicitly describing the text organisation and structure students not only build their understanding of the meaning of the text through the way it unfolds and a model for their own writing, they are also given a map or advanced organiser which helps them to understand and remember how ideas relate to one another (Ausubel 1968, Ausubel and Fitzgerald 1962, Ivie 1998).

**Connecting ideas with student’s context:** At this preparation stage students are also invited to share their understandings or experiences of issues dealt with in the text, thus giving them an opportunity to activate connections with their existing schema an essential component of comprehension (Bransford 1972, Cook 1994, Hirsch 1989). The text can be then read out aloud to the students. This allows them a preview of its more detailed meanings in preparation for the next phase. These steps unpack the general meanings in the text reducing students’ cognitive load for understanding detailed meaning within the text. More importantly it ensures that all the students regardless of literacy level can follow the meaning of the text successfully.

**Stage 2 Detailed Reading**

**Unpacking meanings at a sentence level:** Once students have gained a good understanding of the overall meanings in the text through the preparation stage they are prepared for understanding more detailed meanings at the paragraph and sentence level. This phase involve three preparation cues: first a paraphrase of the whole sentence in everyday terms in relation to the context of the whole text, secondly they are given a cue for the position of
specific key terms and thirdly the wording is unpacked in everyday terms.
The following example provided by Martin and Rose (2005:12) in a class for year 10 students in South Africa illustrates this process of preparing students for meaning at a sentence level.

Now the first sentence tells us that the trouble blew up in the townships, and that the people were rebelling against the government. (Teacher then reads the sentence and students read along to themselves.) In the mid-1980’s South African politics erupted in a rebellion in black townships throughout the country.

**Text marking:** Students are then asked to identify and highlight terms within the sentence that provide key ideas, in this instance *Mid 1980’s, erupted, rebellion, black townships*. Through this process students are given cues to identify key wordings that not only help them to build a new language to represent everyday terms but also learn about how ideas are positioned syntactically. In this example the teacher elicits this meaning making with the following: “Now that sentence starts by telling us *when* they were rebelling. Who can see the words that tell us *when*?”.

**Elaborating meanings:** Finally in this phase, once they have identified a key term, complex abstract terms and metaphors through definition, explanation and discussion with students own experience (Martin and Rose 2005).

**Stage 3 Note-making and Rewriting**

This writing phase utilises the same approach of supporting students to collectively reach the goals of this phase. These include note-taking and paraphrasing the original text, and utilising the key terms and language patterns identified and discussed in the reading phase.

**Note-making:** In the note-making phase highlighted text is collectively written up on one side of the board. Either the teacher or the students act as
scribe while the rest of the group call out the words highlighted in the
detailed reading phase. For ESL or low literacy students this is a good
opportunity for word recognition, pronunciation and building familiarity
with new vocabulary.

**Rewriting:** This phase involves joint reconstruction of the text using the
highlighted terms on the board. This is a rich language building and
meaning making phase where students again examine the meaning
contained in these key terms in order to arrive at their own paraphrased
version of the original.

Abstractions, technical terms and nominalisation introduced in the detailed
reading phase are again unpacked reinforcing meanings and reinforcing the
mechanism of academic discourse. For students from Non English speaking
backgrounds, perhaps the most empowering aspect of this process is
building their skills in recognising where key meanings lie in a text and
learning how to reproduce these meanings in their own words, thus,
avoiding plagiarism.

Hood (2008) points out that, although note-taking, summarising and
paraphrasing are recognised as key academic skills for students, recognising
where to find key meanings within texts is not often specifically taught. The
“Reading to Learn” approach with its emphases on understanding how ideas
in texts are organised at a whole text and sentence level helps students to
predict where key meanings will be found.

Once students have jointly rewritten the original text, checking for meaning,
grammar and spelling as a part of this process, they can then be given an
opportunity to construct their own text in the same genre with reference back
to the structures and meanings discussed in the text/s they have read.
The extent of reading and writing scaffolding can be adjusted according to students’ levels of literacy, so for example in the first year of higher education detailed reading of the text might be focused on key paragraphs and or key sentences within paragraphs rather than the whole text. Importantly, the principal goal for the Reading to Learn approach is providing access to meaning and success for all students in the classroom. This is achieved through providing adequate scaffolding, arriving at meanings collectively and continually affirming students’ contributions.

This “[c]ontinual success and affirmation opens up the potential and motivation for further learning, enabling students continuous close attention, grasp of higher level meanings and retention of information about the fields and language patterns of the text” (Martin and Rose 2005: 15). Students can then be given the opportunity to write their own texts in the genre. The following diagram from Martin and Rose (2005:10) illustrates the phases in the Reading to Learn cycle discussed above.

Figure 3.7 Reading to Learn cycle from Martin and Rose (2005:10)
3.7 Conclusion

This chapter has reviewed leading educational theory that improves our understanding of how new knowledge is acquired; what cognitive, social circumstances determine our learning; and what teaching approaches help to facilitate deep learning. The views of Hirsch (1989) on cultural literacy suggest the existence of a common foundational knowledge is essential. These are supported by theories regarding advance organisers (Ausubel 1968) and schema (Cook 1994) which suggest prior knowledge is an essential reference point for learning new knowledge. The work of Vygotsky (1986) and Bruner (1973, 1983), amongst others, encapsulated in constructivist theory reminds us that not only is prior knowledge important for effective learning but also interaction and careful scaffolding of learning. Finally, the systemic functional (SFL) view that language development has three interrelating elements: learning language, learning through language, and learning about language as well as their emphasis on the importance of visible pedagogy, complements and refines the previous learning theories. In this way SFL theory provides a comprehensive approach to learning that acknowledges the importance of the interpersonal elements of teaching and learning but not at the expense of careful explicit engagement with knowledge structures and the language describing them in order to assist all students to find meanings in texts.
Chapter 4

Understanding Discourse

4.1 Introduction

Systemic functional linguistics (SFL) is an appropriate linguistic tool for understanding the dynamics of the discourse with which this study is concerned for a number of reasons. Firstly, SFL treats language as a social semiotic, viewing it from the point of view of its function in different social contexts (Halliday, 1978; Halliday, 1994; Halliday & Matthiessen, 1999; Martin, 1992). In this way it lends itself to a major aim of this study, which is to examine the way language is used in different contexts in tertiary education: lectures compared with tutorials, the academy compared with everyday life. SFL also recognises language as a resource for making meaning and recognises that there are a range of possible language choices in any given communicative situation. Finally, as suggested by Wignell (2007:51), “SFL offers a set of analytical tools which can be used to explore discourse internally in an integrated manner from its macro-structure to lexico-grammar and, in addition, relate the discourse to its social context.” This allows an analysis that can make explicit how we transmit this knowledge through language.

This chapter provides an overview of the aspects of Systemic Functional theory of discourse analysis that are particularly relevant to this study. The specific framework and SFL features being utilised for this analysis will be described in relation to their application in the analysis and discussion of data provided in Chapter Five. These insights into discourse structures will also inform the proposed model for teaching abstract technical knowledge to first year university students introduced in Chapter six.
4.2 Overview of aspects of SFL related to this thesis

4.2.1 The five orientations of SFL

The five orientations of SFL outlined by Halliday and Martin (1993: 22-23) provide a theoretical frame for this analysis. The first orientation relates to the notion of language as a “meaning potential”. In other words, language is viewed as “a resource for meaning rather than a set of rules”. From this the notion of a semogenesis of discourse is possible, “... with genesis interpreted as expanded meaning potential”. Semogenesis of discourse encompasses “phylogenesis (evolution in the professional community), ontogenesis (apprenticeship in education and logogenesis (development in text)” (Halliday and Martin, 1993:23).

The second relevant orientation is a concern with texts, rather than just sentences, as the basic unit through which meaning is negotiated”. (Halliday and Martin, 1993: 22) In other words meanings at a sentence level cannot be isolated from the whole text, thus the organisation, language and structure of the whole text contribute meaning at the sentence, clause and word level.

The third orientation of SFL is the focus on the relationship between “text and social context rather than texts as decontextualised structural identities in their own right” (Halliday and Martin, 1993: 22). The ways meanings are expressed reflect “the resolution of the engagement of physical, biological and social resources”, language and social context being related by realisation as “complementary abstractions” (Halliday and Martin, 1993:23).

Figure 4.2 below illustrates “one semiotic system (language) as the realisation of another more abstract semiotic system (social context)” (Halliday and Martin, 1993:24). In this relationship of realisation the choices about which language choices to use to express meanings is dictated by and reflects the social context (in this thesis the social context being the academy). The SFL treatment of language
and social context allows for the possibility that social context and language are dynamically linked.

![Diagram of social context and language](image)

Figure 4.1 Language and social context (from Halliday and Martin, 1993:25)

The fourth orientation, which reflects this understanding of the link between language and social context, is “language as a meaning-making rather than a meaning-expressing system” (Halliday and Martin, 1993:23). In other words language is not simply a set of pre-existing structures expressing pre-existing meanings, meanings and structures reflect a particular situation and social purpose.

The fifth orientation is an orientation towards “extravagance” rather than “parsimony” in its development of “an elaborate model [of language] in which life, language, the universe and everything can be viewed in communicative (i.e semiotic terms” (Halliday and Martin, 1993:23).

These five orientations are encompassed in the notion of language as a social semiotic. Within this global perspective, specific aspects of the SFL model which help to capture key elements of the discourse variations in this analysis will be elaborated on, beginning with the underlying themes of discourse as an open
dynamic system, instantiation, and metafunctions, after which specific elements of SFL utilised for this analysis will be described.

4.2.2 SFL and Discourse as a dynamic open system

According to Wignell (1997), drawing on Lemke (1995), an important consideration for the SFL approach to analysing language is the concept of open dynamic systems. This concept represents an underlying theme to this thesis which seeks to recognise the variations and the potential for transformation of language within discourses.

Lemke (1995:107) suggests that “... we operate within, and work to transform, our material ecosystem according to semiotic cultural principles. Reciprocally, the linkages of material processes on which the ecophysical being of the community depends, which indeed are the ecophysical being of the community, form the basis for all possible and actual change in cultural systems and semiotic practices”. Thus, Lemke suggests that our interpretation of the material is an expression of cultural meaning and that the role played by particular material processes effects our abstract translation of it.

Lemke also suggests that dynamic open systems become more complex as they evolve (Lemke, 1995). They are non-linear and in being so have a number of possible futures. This view highlights the importance of understanding the many possible ways a material situation can be expressed and therefore the potential for educators to effectively describe the world in alternative ways.

In developing this notion of dynamic open system Lemke’s analogy is based on work on complex systems from physics and chemistry (Prigogine, 1980; Harrison, 1982; Prigogine and Stengers, 1984; Jackson, 1989) and from Biology, Ecology and geophysiology (Odum, 1983; Salthe, 1895, 1989, 1993; Holling, 1986; Weber et al, 1988; Lovelock, 1989; Kaufmann, 1993). Lemke
(1995) explains that it is the patterns of interconnectedness and how the variables within a system depend on one another that make the system complex. The greater the complexity of these patterns, the less predictable is the future of the system. That is, the more patterns there already are in the system, the more that it is possible for the system to generate, therefore the future is less predictable.

Wignell (1997: 47) explains that discourses as dynamic open systems have a number of interacting variables and have evolved over time. He suggests that “Their internal relations are complex and their relations with their environment are complex. Further he suggests that “[any] discourse which has evolved over a long span of time is a complex semiotic entity” (Wignell, 1997: 48). Most importantly he suggests that “[any] discourse, then, at any temporal point would have a number of possible futures.

Thus, in understanding discourses as dynamic open systems, which involve an interplay between the material and the abstract, we open up the way for the potential to view knowledge from a number of positions in a hierarchy of expression. The material being the common denominator underpinning the hierarchy, with the abstract expression of the material occurring at a number of possible levels in a number of possible ways. This perspective is essential in reinforcing the potential of language to express ideas at different levels and from different perspectives on a material and abstract plane.

The concept of open dynamic systems is intrinsic to the SFL views of the language and its relationship to the social contexts. Halliday (1987:108) explains: “Every language is constantly renewing itself, changing in resonance with changes in its environment. But this is not an incidental fact about language; it is a condition of the existence as a system ...” (Halliday, 1987:108)
Christie (1985) supports the idea of the dynamic nature of discourse with her suggestion that mind, identity and personality are socially created by the negotiation and construction of social processes and symbolic systems. Language is a resource with which we construct meaning and a symbolic system with which we make sense of the world. Language is a resource for learning and therefore all teachers should see themselves as teachers of language. Language development may be said to have three interrelating elements: learning language, learning through language, and learning about language (Halliday, 1987).

Learning through language is the aspect of language that pervades all aspects of our lives particularly where we are actively engaged in learning new concepts. Equally as we learn through language we learn new language in the process of dealing with issues of significance and importance to us as learners. The principle that language is learned in use applies regardless of the age or stage of learning. “We learn language and we learn through it, less because we never set out to learn it and more because we enter into all sorts of contexts of situation in life in which the very need to deal with those contexts requires that we develop appropriate behavioural patterns”. (Christie, 1985)

However, in order to participate in the shared construction of a particular genre, participants require some existing language or genres. As they attempt to grasp new concepts, students utilise their existing language while at the same time learning new language. To facilitate this, teachers need to focus on developing the appropriate behavioural patterns of their students from the point of view of two questions: 1) What do my students need to be able to do in language in order to be successful in mastering this content? and, 2) What kind of context of situation for working and learning should be generated in order that students will be assisted to master the required language patterns? (Christie, 1985)
The potential for the creation of contexts for learning that utilise students existing language as a building block for new learning and language is also highlighted in Lemke (1995) and Wignell’s (1997) summation of the evolving nature of language as it expresses cultural meaning and its potential for abstract expression at a number of possible levels. These views encourage us to consider the possibilities of presenting the language of academic discourse in a way that utilises explicit scaffolding of the language of texts as well as encouraging students to draw on the language and genres of their personal cultural domain.

The question of the extent of flexibility within a language system to express the same concepts in a variety of ways, i.e. from a variety of cultural perspectives, utilising a variety of forms of language and cultural perspectives, is considered in the next section within the SFL frame of instantiation.

4.2.3 Instantiation

The SFL concept of the hierarchical relationship of instantiation describes the “generalised potential of language to the instance as a selection of that potential (Hood, 2008,p.353”). Martin & White (2005) explain that, in terms of potential instantiations of meaning, language moves through a cline that starts with the entire meaning potential of the topic at the level of system to potential that is limited progressively by its selection from register to text type to text and finally to the reading of the text. They illustrate the cline language potential for making meaning in the following way:

```
   System       (generalised meaning potential)
   Register     (semantic sub-potential)
   Text type    (generalised actual)
   Text         (affording instance)
   Reading      (subjectified meaning)
```

Figure 4.2 Cline of Instantiation (from Martin & White 2005:25)
Martin and White’s (2005:25) cline of instantiation recognises sites for meaning potential in relation to metafunctions as well as each stratum of language, “... so we can consider more generalised or actual meaning potential in an ideational, interpersonal or textual sense. We can also consider the system to instance relationship in terms of discourse semantic, lexico-grammar, and phonology/graphology.” (Hood 2008: 353)

This concept of instantiation will provide the overarching gaze for this thesis as its aim is to understand the effect of, not only different discourses, but also different instantiations of one particular discourse on students’ engagement and comprehension. It examines how the meaning potential of a particular discourse is read and realised textually by different teachers using different text types. In doing so it attempts to describe the different ways meaning can be represented and how this variation is achieved without compromising the original the meaning potential of the text.

Hood (2008) explores metafunctions and textual features that allow meanings to be expressed from different levels of generality, attitude and engagement. Her explorations into how texts can be rewritten, suggest a range of metafunctions and textual features that allow variations or instantiations of a generalised meaning potential without compromising meaning. Those pertinent to this thesis are variations in the expression of: periodicity; ideational and interpersonal meaning; generalisation as it relates to classificatory relationships of hyponymy and meronymy (taxonomic relations); nominalisation; abstraction; grammatical metaphor; lexical metaphor; and the infusion or diffusion of lexical verbs. These terms will be defined in Section 4.3 Framework for Analysis which describes how the texts for this thesis are analysed. So far this chapter has provided an overview of aspects of the systemic functional approach to learning language and to discourse analysis relevant to the considerations of this thesis. These elements of discourse analysis discussed will be applied to the analysis of texts in relation to
components of each text’s metafunctions, textual features and language. These components include: *metaphor and abstraction, lexical incidence, lexical and metaphoric & abstract density, periodicity, conjunction and taxonomic relations*. These are summarised in the following section and their application to the analysis of the text for this thesis is explained.

### 4.2.4 Metafunctions

The principle of metafunctions views every natural language as both “a theory of human experience” and “an enactment of social relationships” these two functions are dependent and “actualised by a third function, that of creating discourse” (Halliday, 1998, p. 185-186). Meaning is organised around three metafunctions, the *ideational* (physical and biological reality), the *interpersonal* (social reality) and the *textual* (semiotic reality) metafunctions. Within each of these metafunctions, lexicogrammatical and discourse semantic systems allow particular meanings to be realised (Halliday, 1998, p. 185-186). Thus, the metafunctional perspective provides us with specific foci for analysing the impact of abstract technical discourse.

The three metafunctions can be broken down further. The *ideational* is divided into the experiential and the logical metafunctions (Halliday, 1985a, 1998). The experiential being a resource for representation of, for example, a happening or relationship with the world which is construed in a clause as a process, participants involved in that process, and circumstances in the context of the process. Logico-semantic relations and relations of taxis between and among clauses and within text are realised by the logical component (Wignell, 1997, p. 54).

While the ideational metafunction is concerned with what is happening and how, the interpersonal metafunction organises meanings about social relations and attitudes of people. For example the choice of vocatives reflects meanings about
relative status and attitude between interactants. Finally, the textual metafunctions is the resource which enables the previous two metafunctions to be organised into text, will be. These three metafunctions are realised simultaneously in a clause and thus a clause can be analysed from these three perspectives. (Wignell, 2007, p. 28-29) The analysis of this thesis, is concerned principally with two of these metafunctions, the ideational and the textual as its principle aim is to capture the textual features of academic discourse presented rather than the interpersonal aspects of the way it is delivered.

4.2.4.1 Stratification

The notion of stratification warrants further examination, since it not only helps us understand the genre based approach but also provides a framework for analysing how an existing discourse is communicated. Systems of discourse are described as being stratified with their own internal organisation whose elements are realised through each other. An example of this realisation is illustrated in the following diagram adapted (from Fuller, 1996, p.45):

![Figure 4.3 One model of stratification (from Fuller, 1996: 75)](image-url)
By understanding how the context of the situation is translated into phonological features the kind of choices possible for moving from one stratum to the next can be anticipated. That is from the context of the situation, through to semantics, lexico grammar and phonology. The components of the first level of the stratum, the context of the situation, need to be understood to see how this translation takes place. Halliday and Martin (1993, p. 32) provide us with a theory of register which clarifies these components of context. Register contains the variables of field, mode and tenor. The field refers to what it is about and within these “sets of activity sequences”, what participants, processes and circumstances are involved (Martin, 1992, p. 292).

The tenor refers to who is taking part and how they relate to each other in terms of the transient, permanent or relatively permanent relationships between participants. Tenor not only relates to the speech role being enacted in that particular dialogue, it also encompasses all the social relationships in which the participants are involved. (Halliday and Martin, 1993, pp. 32-33).

Martin (1996) provides an elaboration of the variables of tenor that is particularly relevant for understanding the dynamic of pedagogic relations which first inspired this thesis. He refers to tenor as expressing the semiotics of relationships with regard to dimensions of status, contact and effect. Status is defined by Wignell (2007, p. 30) as “the relative position of participants in the social hierarchy of culture” and contact as “their degree of institutional involvement with each other”. Affect describes Halliday’s (1978, p. 33) notion of the “degree of emotional charge” in the relationship between participants.

Finally, Martin’s (1996, p. 10) view of tenor as “social relations as they are enacted through the dimensions of power and solidarity” is perhaps the most important aspect of the component of context for this thesis. This view of tenor implies that there are choices in tenor that will in turn impact on the semiotics of a
communicative situation. The positioning of power affects the choices that are made in the way information is conveyed in a given situation. It must follow that where there is a vested interest in maintaining “power” the tenor will reflect this and this positioning will be translated in the mode adopted to communicate. The mode refers to the language used and what part it is playing in the discourse: the function, channel and the symbolic organisation. It also includes the rhetorical mode in terms of categories such as didactic, expository, discursive etc.

A key aspect of these components of register is the notion of semiotic distance which can be observed in relation to field, tenor and mode and for the purpose of this study, tells us a great deal about how easily the message may be transmitted and received. The semiotic distance expressed through mode is a translation or consequence of the field and tenor (Martin, 1996, p.11).

Wignell (2007, p.30), reflecting on Martin’s (1996) discussions of semiotic distance, suggests that from the point of view of field, this semiotic distance “relates to the role language is playing in what is going on, whether language is embedded in the action, constructing, reconstructing or reflecting an action” Thus, where the discourse lies in this continuum from concrete to abstract will determine its semiotic distance and as a consequence the degree of technicality and abstraction in the language.

With regard to tenor, the semiotic distance relates to the way various channels of interaction are enabled or disabled. The notion of enabling and disabling channels of interaction is central to the claims of this thesis because: 1) it assumes that we have an option to enable or disable and 2) this assumption opens the way to the possibility of making the right choice for particular audience. Further, Wignell’s (1997, p.60) note regarding a divergence in the treatment of register by Halliday and Martin (1993) is also important to consider with regard to the potential for choice. Where Halliday views register as “a functional variation within the
linguistic system and form of the text language”, Martin views it as “a distinct semiotic plane achieving realisation by skewing the probabilities of choices from discourse semantic and lexicogrammatical systems.”

Martin’s (1996) view provides a useful perspective for understanding the discourse choices made, by the teacher, at the semiotic plane of register within a particular genre. He recognises genre as not only being the result of register choices but also being a semiotic plane in its own right: one that reflects social purpose and culture. Further, Martin views genre as a phasing together of field, tenor and mode to create a text which expresses a particular social process (Wignell, 1997, p.60)

The connection between register variables and metafunctions as hypothesised by Halliday and Martin (1993) is illustrated in the following diagram, which shows field realised by the ideational metafunction, tenor by the interpersonal and mode by the textual. The question raised by this thesis is whether the same field can be realised while making choices regarding levels of abstraction within the ideational metafunction. More specifically it explores the possibility of tailoring the language used to fulfil each of the metafunctions in order to scaffold students towards the genre as it is traditionally represented by the academy.

The possibilities for presenting the field in new inclusive ways represents the need for a historical shift to reflect the culture and language of the 21st Century. Martin (1996, p.8) suggests that the way knowledge is represented in language through genre and register evolves or changes over time. He refers to genre and register as being potentially interpreted as “the projection of semo-history (across three time frames) rather than as realising an abstract and reified ideology”. These three time frames are: “the ways in which subjects engage dynamically with texts as they unfold (logogenesis), the ways in which they are positioned and repositioned socially throughout their life (ontogenesis) and the ways in which a
culture reworks hegemony across generations (phylogenesis)” (Martin, 1996, p.8). Martin (1996, p.8) goes on to say that “in these terms, language, register and genre constitute the meaning potential that is imminent from moment to moment as a text unfolds, for the social subjects involved, at a point of evolution of the culture where meanings are being made”. Figure 4.4, following, illustrates the semohistory informs genre, register and language which in turn informs how texts are realised in terms of field, tenor and mode and in terms of the ideational, interpersonal and textual features at the next level.

![Figure 4.4 Language register and genre as a projection of semohistory across timeframes (Martin 1996, p.9)](image-url)
The final stratum, identified by Martin, *Ideology*, is positioned at the greatest level of abstraction in Martin’s (1984) model. This stratum is relevant for this study because it is concerned with “the ways in which social subjects are positioned in a culture” (Martin 1996, p.8) and this positioning is achieved by differential access to meanings as people interact with each other. Martin’s stratum of ideology complements Bernstein’s work on coding orientation (see Chapter 3) which is seen to engender subjectivity in the way meanings are presented.

Ideology is manifested through the genre, language and register which can be interpreted as a “projection of semohistory”. The projection of ideology at the semiotic plane of language, register and genre, alerts us to two important considerations for how we communicate academically. One is that ideology informs language choices, and the other is that subjectivity and power relations are expressed in the language choices we make (Martin 1996). This realisation is the underlying premise for this thesis in its exploration of how academic texts have the potential to empower or disempower students.

Having established the components of Martin’s model of stratification it is important to acknowledge the realisation of these components. While the realisation of genre occurs through register as its expression plane, language is the expression plane of both register and genre. This analysis will be essentially concerned with register, discourse semantics and lexicogrammar. Conveniently for this analysis, Martin’s model provides a further stratification, this time at the level of the content plane of language. This stratification occurs in relation to discourse semantics and lexicogrammar which are expressed through phonology/graphology.

Wignell (2007, p.33) summarises Martin’s model of stratification as treating “language and social context as complementary levels of semiosis, related by the concept of realisation.”
Wignell (2007, p.33) goes on to explain how this semiosis is realised on each plane:

Social context consists of semiotic planes of genre and register on to which ideology is projected. Genre and register are viewed as connotative semiotic systems which are realised both by choices at lower levels and finally by choices in language. This ultimate realisation is possible because language is viewed as a denotative semiotic system (a system with its own expression plane). Discourse semantics and lexicogrammar represent the stratified content plane of language for which phonology/graphology is the expression plane. Phonology is a resource for realising abstract wordings as sound and includes intonation, rhythm and syllabic and phonemic articulation. Alternatively this level may be the graphological system of language.

Mattheissen (1993) also provides a useful way of understanding the internal organisation of each stratum. The three components he describes are: Axis which refers to the paradigmatic and syntagmatic organisation of text. The paradigmatic organisation being the array of possible configurations of a text within a particular paradigm and the syntagmatic being the actual choices made. Delicacy refers to the ordering of components within a language system from the most general to the specific or looked at another way, shifting towards increasing degrees of delicacy. Rank deals with constituency, each rank makes a contribution to the whole. Thus, a clause is ranked through phrases, which consist of words which consist of morphemes.

These components describe a framework for the analysis which will necessarily be applied to the stratum of language, having firstly identified in more general terms the genre and register of each text analysed.

The ideology behind the language analysis tool adopted for this investigation is summed up by Wignell (1997, pp. 63-64): “Language bridges from cultural meanings of social context (the social hierarchies the role relationships, the
institutional activities, and the related distribution of language within these) to sound and writing. It does this by moving from higher orders of abstraction to lower ones. That is, from discourse semantics and lexicogrammar to phonology/graphology.”

The variations in how different university teachers utilise the language choices for bridging these cultural meanings will be explored by a detailed investigation of these three components of the language within the context of the internal organisation of the stratum. Figure 4.5 below illustrates the different levels and components to be analysed in the text samples for this study:

Figure 4.5 Relationship between metafunctional solidarity, register, language and lexicogrammar to be analysed in this study (Adapted from Halliday and Martin 1993, p.30).
The specific focus of this language analysis looked at from the point of view of delicacy and rank will thus comprise realisation, discourse semantics and lexicogrammatical systems including: transitivity, lexical systems and grammatical metaphor. To illustrate their relevance and application as tools for analysis this section will examine these in more detail.

4.2.4.2 Realisation

Realisation refers to the relationship between levels of abstraction and is interpreted as a “chain of metaredundancy” by Halliday and Martin (1993 in Wignell, 2000, p. 66). That is, in relaying information at higher levels of abstraction some of the details of information in the previous levels is lost. For example, the abstract term, *psychological*, unpacked to a lower level would describe the term as “to do with how individuals feel, think and react to the world”.

Importantly for this investigation, metaredundancy theory suggests that although this theory is directional in terms of the realisation of increasing levels of abstraction, the relationship between each stratum is “symbiotic rather than deterministic” (Wignell, 2000), or in the words of Halliday and Martin (1993:42) “non-directional as far as cause and effect are concerned”. Thus, the implication is that the gist of the message does not change as levels of abstraction increase although it may be expressed with increasing delicacy. It also affirms that movement in both directions is acceptable allowing information to be packed into higher levels of abstraction or unpacked into more concrete levels of meaning.

Although it could be argued that the levels of cognitive sophistication are increased as the message becomes more abstract, this thesis argues that little is achieved by launching a new concept at a student at the highest level of abstraction if it is too far removed from the language and cultural knowledge they already possess for them to even infer meanings. In this instance, cognitive activity may be paralysed by lack of understanding at a basic conceptual level.
4.2.4.3 Lexicogrammar

From the point of view of the experiential and logical (ideational meanings) in a text which reflects the field, lexicogrammar refers to systems of transitivity, logico-semantic relations and taxis. Logical meanings are addressed through “resources for chaining clauses into clause complex, and for serialising time by means of tense”.

Lexicogrammatically the interpersonal meanings of a text are realised by systems of Mood and Modality and by a selection of attitudinal texts. The mood system assigns speech roles and through this a continuing exchange between participants. Modality deals with degrees of certainty. Textual meanings situate the ideational and interpersonal meanings in the context of the audience. This is achieved through the use of Theme and Information. Theme establishes the angle of the subject matter and Information organises its status. (Wignell, 1997, p.68)

4.2.4.4 Transitivity

Wignell (1997, p. 65), describes Halliday’s (1985a) system of transitivity as one that “interprets and represents experience of phenomena in the world and in our consciousness by construing experiential meanings in terms of Participants, Processes and Circumstances. Transitivity deals with representational meanings at clause rank. According to Halliday (1985a, p. 101):

…transitivity specifies the different types of process that are recognised in the language, and the structures by which they are expressed. The basic semantic framework for the representation of processes is simple. A process consists potentially of three components:

(i) the process itself
(ii) participants in the process
(iii) circumstances associated with the process.

These provide a frame of reference for interpreting our experience of what goes on.
Thus, transitivity indicates how we construe experiential reality. Further, it indicates certain types of processes which include: Material Processes (Processes of doing), Mental Processes (Processes of sensing), Relational Processes (Processes of being), Behavioural Processes (between Material and Mental Processes), Verbal Processes (Processes of saying), Existential Processes (Processes of existing).

The relevance of Transitivity for this analysis lies in the relationship between types of processes and abstraction where Material Processes represent the most concrete expression of a concept and Existential Processes the most abstract.

4.2.4.5 Discourse Semantic Systems

Discourse semantics relate to systems which are “internal to language but operate above clause rank” (Wignell, 2000, p. 64). Discourse semantics also deal with metafunctional diversification, different metafunctions being concerned with different discourse systems.

*Conjunction* is classed as a discourse semantic system that expresses logical relations in a text. Systems of conjunction will be noted in this analysis because they are important “indicators” of whether the logical relations are relayed explicitly or not thus determining the comprehensibility of the message. (Wignell, 1997, p.74)

The four fundamental logico-semantic systems of conjunction are: additive, temporal, comparative and consequential. These can be explicit or implicit, external or internal. External conjunctive relations code real world schemes and internal ones code relational (abstract) schemes. Further, external relations are seen as being oriented, in general, to field whereas internal relations are oriented to genre. Internal conjunctions are used to structure a rhetorical text rather than one that deals with real world logical relations. Implicit and explicit refer to
whether the conjunctive relation is explicitly marked or not. (Wignell, 1997, p. 74)

The roles of external and internal conjunctions are summed up in Table 4.1 and meanings and examples in Table 4.2.

<table>
<thead>
<tr>
<th>Logical relation</th>
<th>External</th>
<th>Internal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition</td>
<td>adding activities</td>
<td>adding arguments</td>
</tr>
<tr>
<td>Comparison</td>
<td>comparing and contrasting events</td>
<td>comparing and contrasting arguments</td>
</tr>
<tr>
<td></td>
<td>things and qualities</td>
<td>evidence</td>
</tr>
<tr>
<td>Time</td>
<td>ordering events in time</td>
<td>ordering arguments in the text</td>
</tr>
<tr>
<td>Consequence</td>
<td>explaining why and how events</td>
<td>drawing conclusions or countering arguments</td>
</tr>
<tr>
<td></td>
<td>happen</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.1 The different roles for external and internal conjunction (Martin and Rose, 2004: 127).

<table>
<thead>
<tr>
<th>Logical relations</th>
<th>Internal Meanings</th>
<th>Internal Examples</th>
<th>External Meanings</th>
<th>External Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition</td>
<td>addition</td>
<td>and, besides, in addition</td>
<td>additive</td>
<td>further, in addition</td>
</tr>
<tr>
<td></td>
<td>alternation</td>
<td>or, if not-then, alternatively</td>
<td>alternative</td>
<td>alternatively</td>
</tr>
<tr>
<td>Comparison</td>
<td>Similarity</td>
<td>like, as if, similarly</td>
<td>similar</td>
<td>similarly, for instance</td>
</tr>
<tr>
<td></td>
<td>contrast</td>
<td>but, whereas, on the other hand</td>
<td>different</td>
<td>on the other hand, in contrast</td>
</tr>
<tr>
<td>Time</td>
<td>successive</td>
<td>then, after, subsequently, before, previously</td>
<td>successive</td>
<td>firstly, finally</td>
</tr>
<tr>
<td></td>
<td>simultaneous</td>
<td>while, meanwhile, at the same time</td>
<td>simultaneous</td>
<td>at the same time</td>
</tr>
<tr>
<td>Consequence</td>
<td>cause</td>
<td>so, because, since, therefore</td>
<td>concluding</td>
<td>therefore, in conclusion</td>
</tr>
<tr>
<td></td>
<td>means</td>
<td>by, thus, by this means</td>
<td>countering</td>
<td>admittedly, nevertheless</td>
</tr>
<tr>
<td></td>
<td>purpose</td>
<td>so as, in order to, lest, for fear of</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>condition</td>
<td>if, provided that, unless</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.2 Meanings and examples for internal and external conjunction (Adapted from Martin and Rose, 2004: pp 119 &127).

4.2.4.6 Lexical relations

Another aspect of discourse semantic systems that is useful for this analysis is lexical relations which are dealt with by Martin (1992, pp. 271-379) under the heading “ideation”. Martin suggests that lexis is the most delicate realisation of grammar, that “the grammar of a language makes more general meanings, while lexis makes more specific ones”. He also identifies two aspects of lexical relations, superordination and composition. Superordination refers to relations of hyponymy. Words are related as hypernyms, hyponyms or co-hyponyms. The following Figure 4.6 illustrates this:

![Figure 4.6 Illustration of the relations of hyponymy.](image)

Composition is described as a taxonomic relationship of meronymy and co-meronymy. Meronyms being parts of the whole and co-meronyms of each other. (Wignell, 1997, p.80). For example in Figure 4.7 below:
Figure 4.7 Illustration of the relations of meronymy.

These aspects of lexical relations are essential tools in understanding how language represents the organisation of knowledge and conceptual shifts. This helps to explain students’ difficulty with comprehension particularly where assumptions about prior knowledge of logico-semantic systems are made. An examination of the taxonomic relations between the concepts covered in each of the sample texts (lectures and tutorial transcripts) this thesis is concerned with, will expose the extent of movement from abstract to concrete. As well, an examination of the taxonomic relations in the texts will help us understand the texts from the point of view schema theory discussed in Chapter three, and thus how well the texts reached the cultural/linguistic and conceptual resources of all of the students.

4.2.4.7 Grammatical Metaphor

For the lexical analysis of the text samples, grammatical metaphor is a key distinguishing feature between the different instantiations and different disciplines represented in the samples. Wignell (1997, p.81) explains that “grammatical metaphor is a resource which allows for a reconstrual of meaning, initially from a congruent one to a metaphorical one”. Generally it is associated with written language. Where spoken language tends to use more verbs to explain things, ideas and events as they occur, written language reconstrues these verbs into to nouns which name the spoken processes. Thus, spoken forms seem to be nearer reality and written forms have a more metaphorical quality. (Halliday, 1985) “In this way written language tends to be rather more highly coded, more removed from or less directly related to the categories of our experience” (Wignell, 1997, p.81)

For example the spoken” form of:
Going on a trip overseas helps me to recover from a busy year of work

Becomes:

The recuperative effects of annual overseas travel will assist in the recovery from demanding employment.

The first example, utilises verbs and personal pronouns (going, helps me, to recover) to describe and explain the reasons for taking a trip overseas while the second removes the direct action and the person, reconceptualising the action and the person as abstract metaphors (overseas travel, recuperative effects, recovery). In this way the reference to everyday experience in everyday language is removed.

Although grammatical metaphor tends to be associated with “written language” as opposed to spoken, what will be observed from this research is that the language of some academics in their verbal delivery of information is more “written” then spoken. This makes their lectures more lexically dense. In other words, high in the proportion of lexical items (content words) to words as a whole. This can pose problems if the audience is new to the particular discourse being spoken, and has a limited knowledge and language of the discourse.

As discussed in Chapter Two, because of massification of education contemporary university student populations cannot be assumed to be confident or experienced in demonstrating higher order thinking skills (Rose 1999, 2004; Dearing 1997, ACER 2001). In many instances they also possess a limited cultural capital (Hirsch, 1987) and as a consequence a limited vocabulary. These deficits in cultural capital, language and higher order thinking will invariably effect students’ ability to engage at a conceptual level. Thus scaffolding of language and cultural capital is essential in order for students to understand and expand new conceptual realities. If we attempt to interpret meanings in written language based simple on our on our everyday experience, which is encoded in the language we possess, our perception of concepts will be distorted and limited.
The way language moves from the every day (congruent) to the conceptual (abstract) can be understood from a lexicogrammatical point of view. This assists our understanding of how we need to scaffold language and concepts to ensure our students full understanding and to assist their apprenticeship into new discourses. Halliday (1998, p. 190) summarises the congruence between semantics and realisation in lexicogrammar in the following way:

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Semantic</th>
<th>Lexicogrammatical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence (of figures)</td>
<td>realised by clause complex</td>
<td></td>
</tr>
<tr>
<td>Figure</td>
<td>“ “ Clause</td>
<td></td>
</tr>
<tr>
<td>Element</td>
<td>“ “ group/phrase</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Types of Elements</th>
<th>Process realised by verbal group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating entity</td>
<td>“ “ nominal group</td>
</tr>
<tr>
<td>Circumstance</td>
<td>“ “ adverbial group or prep phrase</td>
</tr>
<tr>
<td>Relator</td>
<td>“ “ Conjunction</td>
</tr>
</tbody>
</table>

Table 4.3 Congruent realisations between semantics and lexicogrammar (from Halliday, 1998, p. 190).

From a linguistic perspective, congruent realisations precede metaphorical ones and are more associated with spoken language than written language. This is because, historically, spoken language preceded written language and thus “unmarked realisations in spoken language are treated as being congruent, the prior form from which the metaphorical is derived” Wignell (2000, p. 81). What is communicated through speech and through writing is not identical; some learning is more effective through speaking and some through writing. Further, there are different teaching styles and different learning styles that determine whether communication is more effectively directed to the ear or the eye.
In other words reading and writing, listening and speaking are different ways of knowing and learning. (Wignell, 2000, p. 96)

For the receiver, written language evokes a more sophisticated cognitive engagement because it presents a more synoptic view of the universe as product rather than a process. Written language encodes reality as a structure or thing that exists. It freezes it and allows us to take it in as a whole. The cost of this perspective is that we may simplify some of the relationships amongst its parts and pay less attention to how it got the way it is and more to where it’s going to next. (Wignell, 1997) Hence it assumes prior knowledge of the congruent aspects of the concepts and of the metaphorical language we use to describe them.

Spoken language, by contrast, is a more dynamic view which defines the universe primarily as process encoding it not as a structure but as in a state of construction or demolition. Spoken language presents a dynamic view – phenomena are not viewed as simply existing; they happen.

This distinction between written and spoken language should not assume that where ideas are spoken they are automatically presented in a more congruent and “simplified” way. Particularly in formal settings, “written” language may well be presented verbally, this in a sense being the major preoccupation of this thesis which posits that, if a lecturer speaks “written” language rather than “spoken” language the message will be less congruent and therefore less accessible. As Wignell (1997, p. 97) explains, written language has pervaded many of the high prestige functions of language in our society and our most highly valued texts are written ones. Written records have replaced oral memories as the repositories of our wisdom. Furthermore linguistics has helped sanctify written language because the study of language has only been possible after the language is written down. Importantly for this thesis, written language has provided an idealised picture and a normative model which we are meant to strive towards.
This is the assumed response of anyone who engages with the academy and it has become a way to separate the verbally sophisticated from the unsophisticated (children, dialect speakers, foreigners, the non-literate).

Less literate adult learners are in effect learning to speak and write a new language. Thus, it is of interest to note Halliday’s (1985, p 95) point that, cognitively, children master generalisation at the first stage of language learning (as observed in Collins and Quinlan’s (1969) discussion about how we categorise knowledge), Following this is their mastery of abstraction and then finally metaphor.

Martin and Rose (2004) further explain that the device of ideational metaphor has provided a powerful resource for the expansion of the discourses of the sciences, humanities and bureaucracies because it enables an expanded set of meanings. Ideational metaphor has evolved to enable us to describe, classify, evaluate and generalise about social processes. The creation of ideational metaphor occurs through one of two processes: “1/ a process or quality can be re-construed as if it were a thing, 2/ a process, or a quality of a process, can be re-construed as if it were the quality of a thing “ (Martin and Rose, 2004, p.104).

However as these “… processes are re-construed as things, the people that participate in the processes are often left out, which is one reason that abstract written discourse seems so alien to our everyday experience …” (Martin and Rose, 2004, p.106) A consequence of this, for people unfamiliar with this kind of discourse, is that it becomes hard sometimes to work out who is doing what to whom. Martin and Rose identify classes of concrete, abstract and metaphoric entities derived by ideational metaphor. The classes of abstract and metaphoric entities are the concern of this thesis. The abstract entities include: technical, institutional, semiotic and generic. The metaphoric entities include process and quality. (Martin and Rose, 2004)
To further understand the shift written language makes away from congruence it is important to note the way congruent language is logically organised. In spoken language relationships between and among processes are favoured with the “experiential lexical ‘content’ spread out over a number of clauses which have potential intricate connections among them” (Wignell 1997, p.82). By contrast written language tends to “push” more experiential content into nominal groups and thus have fewer clauses per clause complex. Thus, it is less grammatically intricate but more lexically dense than spoken language. According to Wignell (1997, p.82) “as the language becomes more ‘written’ there is an increasing ‘nouniness’ in the text”.

Halliday (1996, p. 23) considers grammatical metaphor as “a complex move both “down” in rank and “across” in status (function/class)”. It can further be explained as being a “reconstrual” consisting of a “realignment between a pair of strata : a remapping of semantics onto the lexicogrammar” (Wignell, 1997, p. 82). Halliday (1996) further explains that the direction of movement towards grammatical metaphor is always from left to right from:

realtor ➔ circumstance ➔ process ➔ quality ➔ entity

He explains the possibilities for metaphoric reconstrual of semantic elements and illustrates this in the Figure 4.8 to follow:

(1)any semantic element can be construed as if it were an entity (ie regrammatised as a noun); (2) a relator, a circumstance or a process can be construed as if it were a quality (ie grammatised as an adjective); (3) a relator or a circumstance can be construed as if it were a process (ie grammatised as a verb); (4) a relator can be construed as if it were a (minor process within a) circumstance (ie grammatised as a prepositional phrase). But not the other way round: entities can not be reconstrued as if they were processes; and so on (Halliday, 1995, p.211)
The advantage of grammatical metaphor is that in nominalising processes, a great deal of information can be packaged in a more concise way. For example the following nominal group “the commodification of indigenous cultures” is a much more compact expression of the following: “the cultural practices, art, music and dance of indigenous people make people a lot of money.” Technical terms, are thus expressed through the nominal group structure.

Martin (1996, p. 31) provides a useful distinction between abstractions and grammatical metaphors. He makes the distinction between abstract as being a more “frozen” metaphor and “metaphor” as a more dynamic one. Abstraction, thus, is associated with more standardised metaphoric expressions for phenomena and, although initially derived through grammatical metaphor, tends to be more ideational and relate to more unmarked uses. In this way abstractions could be seen to be further removed from the congruent source than metaphors.  

His system network for metaphors and abstractions is illustrated in Figure 4.9 to follow:
This analysis will follow the model of Wignell (1997, p.90) in “treating ‘abstraction’ as a general source for semiotic distancing”. Grammatical metaphors will be seen as general resources for realising abstraction and involving a reconstrual of experience. Metaphor will be seen as a resource for deriving abstractions although it is recognised that not all metaphors will become abstractions. Further,

Metaphors in the texts analysed will be shown to operate on a local scale, compressing or packaging ideational and then operating textually to push those packages of information into points of textual prominence. They are treated as being derived anew in each context of use. On the other hand, abstractions, although, for the most part, initially derived through metaphor, will be shown to persist as strings or motifs, across extended lengths of texts and texts. (Wignell, 1997, p.90)

The significance of grammatical metaphor for this thesis lies in these details of the mechanisms of abstraction. As earlier discussion has revealed, the further language lies from its congruent meaning the more details of information become redundant and the more cultural capital is assumed. It is likely that analysis of the discourse in question will reveal a high incidence of grammatical metaphor in the texts that students find difficult.
4.3 Framework for analysis

4.3.1 Approach to analysing the text

Drawing from the general understandings from the previous section, the following provides a summary of the elements of the text samples being analysed and SFL discourse analysis theory that underpins this.

The aim of the text analysis is to explore whether the ways we choose to represent ideas linguistically influence how effectively those ideas can be understood and learned by students being initiated into the discourse. It is based on the premise that the communicative features of contemporary learning theory correlate with certain language features. Thus, the analysis exposes a linguistic manifestation of Vygotsky’s ZPG (and the related scaffolding, schema theory and constructivism). The extent that these learning theories are manifest in the language of a number of transcripts is examined from two different gazes:

1/ Cross disciplinary – Humanities, Social sciences, Science
2/ Cross modal – Lecture/Tutorial/ different tutorial styles

The analysis also identifies the ways Bernstein’s (1999) explanations of horizontal and vertical discourse manifest in the way the language/pedagogy is organised. This provides an additional perspective of how elaborated language codes are represented taxonomically and how they reflect the systems of the agencies that create them.

Underpinning the analysis is the notion of instantiation as identified by Martin & White (2005) and further described by Hood (2008, p.353). This concept of instantiation will provide the overarching gaze for comparing the four different "instantiations" of the topic of postmodernism since this notion recognises the process by which a text is re-presented in new ways.
It also informs the comparison and analysis of the lecture transcripts from the specific disciplines (history, sociology, biology) with the nature of the language in the written textbooks in these fields. This comparison is necessary to show that the lectures are typically presented in the manner similar to the written text of the discipline and that these lectures therefore represent typical discourse patterns of the discipline.

Within this framework of understanding this analysis examines how meaning is realised in each instance of the text’s realisation in relation to the following aspects of the text’s metafunctions, textual features and language: metaphor and abstraction, lexical incidence, lexical and metaphoric & abstract density (see 4.3.7.6 for definition), periodicity, conjunction and taxonomic relations.

Lexical items are quantified and then the occurrence of metaphor and abstraction within these, provide an overall count of metaphor and abstraction. These are then examined separately to determine the occurrence of grammatical metaphor and types of abstractions: technical, institutional, semiotic and generic (Martin and Rose, 2003). To denote its use as an overarching term, metaphor & abstraction will be presented with an ampersand “&” instead of “and”.

Specifically in this analysis:

1) Periodicity describes devices which make the text organisation (i.e. the rhythm of the text) easier to follow when they are applied consistently in a pattern that provides readers with a preview of the information ahead and/or a review of the information behind;
2) *Conjunction* indicates the links between ideas and makes explicit the author’s logic for classifying and organising ideas (i.e. the way taxonomic relations are realised);

3) *Taxonomic relations* will be discussed in relation to the patterns of generalisation – the way meaning is committed in the different texts, the way meaning is elaborated through reconstruing/classifying ideas into their components at potentially increasing concrete levels.

4) *Abstraction and Metaphor* reflect what makes academic discourse harder or easier to understand in terms of lexical choices and where they sit on the continuum from ‘congruent’ to abstract; and

5) *Lexical and Metaphoric Density* reflect the extent of cognitive load required for unpacking the discourse.

These devices could be viewed as correlating to a constructivist and to Vygostkian approaches to learning. They represent ways we can use language to scaffold students towards an understanding of new concepts through reference to students’ existing schema as manifest through the *taxonomic* unfolding of ideas and provision of devices of *conjunction* and *periodicity* which make explicit the connections and flow between ideas.

In this way the “reader” is assisted in understanding the implicit and explicit meanings being conveyed in the text and eased into the technicality and abstraction, which in turn reduces the cognitive load associated with abstract technical discourse. In addition to these devices which scaffold meaning, the analysis will also identify the extent of abstraction, metaphor and technicality in order to determine where the text sits on the continuum of concrete to abstract and thus its level of challenge to the uninitiated.
The following provides detailed descriptions of the above language feature principally drawn from the work of Halliday (1985), Wignell (1997) (which describes and traces the genesis of the discourse of social science) and Martin & Rose’s (2003) discussion of periodicity.

It should be noted that the texts reveal minimal utilisation of interpersonal devices, and this analysis does not explore elements of the interpersonal since it is mainly concerned with examining aspects of the texts which can be seen to strongly influence the accessibility of the texts for students. However, the way the interpersonal is manifest implicitly in the choices the creator of the text makes about the way they use language to describe and explain, is the underlying theme of this investigation. Of particular interest is the comparison across texts of lexical and ideational density and the way the discourse is structured.

The lack of prominence of the explicit interpersonal function in these texts is attributed to two main factors. First, for this study, status relations between teacher and students are treated as a given and don’t need to be renegotiated each time. Second, because the very nature of academic discourse discourages explicit subjectivity, interpersonal features are not significantly manifest at the textual level in terms of specific interpersonal devices to warrant specific identification. Second, since the purpose of the texts is to summarise and explain the concepts relating to an existing body of knowledge, they report rather than attempt to persuade or tell a story. Thus, they are not concerned with communicating attitudes, feeling and values and predictably interpersonal functions were not found to be a significant element in any of the samples even in the more personal, less formal tutorial setting.
The choice to focus on abstraction & metaphor: lexical and abstraction &
metaphoric density, periodicity, engagement, taxonomic relations, and conjunction
is thus related to both the purpose and nature of academic discourse
examined in the medium of verbal instruction and to the purpose of this
enquiry which was to focus on the way language provides meaning.

4.3.2 Periodicity

According to Martin & Rose (2005: 176), periodicity refers to the way we
show information flow in discourse: “…the way meanings are packaged to
make it easier for us to take them in”. It refers to regularity of “waves” of
information which create a predictable rhythm in the text. Without these
patterns of information flow we would find discourse very hard to
understand. There are a number of devices employed to indicate this flow of
information:

4.3.2.1 Organisation of text at a macro level

At a macro level, texts are traditionally structured with what can loosely be
called an introduction, body and conclusion where the introduction should “say
what’s going to be said”; the body, “says it” and the conclusion “sums up
what has been said”. Thus the text gives readers/listeners some idea of what
to expect, fulfils expectations and then reviews them. Martin & Rose (2005)
use the analogy of a wave to capture the way such moments of framing
represent a “peak of textual prominence followed by a trough of lesser
prominence. So discourse creates expectations by flagging forward and
consolidates them by summarizing back”. It not only does this at the macro
level but also at the section and/or paragraph level and at clause level.
Macro Themes and Macro News Themes and news at the macro (whole text level also at chapter level and perhaps sub-section level) are referred to as macro themes and macro news. So, for example, the title and introductory paragraph could be viewed as macro themes while the concluding statement of a whole text would most likely be a macro new. Where the text is divided into sections/chapters these will be lower level macro themes (Martin & Rose 2005). Above hyper-Theme and new there are various scales of macro theme and macro new.

4.3.2.2 Hyper-Themes and Hyper-News

The hyper-Theme orientates and predicts what will happen at each phase of the discourse at the paragraph level. In many texts it is evaluative as in the example paragraph below with hyper-Theme in bold:

**Childcare centres can be a good place for the socialisation of children.** Children are forced to learn how to play and share with each other. They also learn emotional awareness and how to resolve conflicts. Through these experiences, they establish the foundations of good communication. Thus, these children inevitably learn valuable lessons about operating constructively in a social group.

While hyper-Theme predicts what will happen in each phase, new information will accumulate in each subsequent clause and often be distilled in the final sentence as a hyper-New (as marked in bold above). But because writing more often looks forward than back hyper-Themes are more common than hyper-News (Martin & Rose, 2005). Fries (1981, in Martin & Rose, 2005) describes patterns of themes as indicating a texts “method of development” while patterns of news establish its point.
4.3.3 Conjunction

The inclusion of conjunctions and circumstances of time or place at the clause level help to indicate the “flow” of meanings, what the author’s logic is and how a new piece of information relates to the previous piece. Thus they scaffold new phases in the text.

So conjunctive adjuncts such as “for example” and “conversely” all indicate to the reader the logical connection of the text to follow in relation to the text preceding it. Other markers are circumstances of place: First, secondly, finally – which help the reader anticipate the sequence of the information within the whole text. (Martin & Rose 2005) They also serve to explain the transition between each level of commitment of meaning. Thus the use of the conjunction “for example” alerts the reader that a more concrete explanation of the preceding idea is about to be presented.

Another form of meta-discourse is where certain phrases describe and “name” the new phases or new “waves” of information in the discourse (Martin & Rose, 2005). For example: “Her book is about ...; In this way the reader can anticipate the genre and the relationship between this phase of information and the ones on either side of it.

4.3.4 Taxonomic relations

Taxonomic relations are the qualities, classes and parts ascribed to the participants which “build up a picture of them” (Martin and Rose, 2003, p.91). By examining the taxonomic relations we are able to see the fields built up in the text by the author and how a particular text construes a field as compared to its instantiation in an alternative text. The significance of examining and commenting on taxonomic relations lies in the role this classification of participants plays in unpacking and scaffolding the reader.
towards abstract technical ideas. At the same time it provides an opportunity for reclassifying abstractions in concrete everyday examples that draw on the reader’s experience (schema). Thus, examining the taxonomic relations allows us to appraise the effectiveness of each author’s /speaker’s instantiation in scaffolding the discourse sufficiently to reach their audience.

For example, in the following extract from the humanities text the author of the lecture classifies postmodernism as comprising a number of “anti’s’, however even by the third level of the taxonomy the ideas are still captured in abstractions.

![Taxonomic relations in extract from postmodernism lecture](image)

**Figure 4.10 Taxonomic relations in extract from postmodernism lecture.**

### 4.3.5 Abstraction and Metaphor

As discussed in the previous section, in modern written languages abstraction and metaphor have become an essential resource for expanding existing sets of meanings/ideas and in English they have allowed the expansion of the discourses of the sciences, humanities and post-industrial bureaucracies.
However, the necessary employment of abstraction and metaphor to describe these ever more complex and abstract notions of the world creates an exclusive and difficult to penetrate world for the uninitiated. When processes are re-construed as things through ideational metaphor, the people and the processes (actions) are left out. Thus, abstract written discourse is removed from the concrete activity and participants and it is often difficult to work out who is doing what to whom. (Martin & Rose, 2005, p.107) This reconstrual to what Halliday (1995, p. 211) calls “thinginess” encompasses a number of possible grammatizations but only in one direction, from left to right.

Martin and Rose (2005) describe the types of abstractions and metaphors:

<table>
<thead>
<tr>
<th>Abstract</th>
<th>Technical</th>
<th>Found in and coined by professional occupations like economics, biology, linguistics, astronomy professions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional</td>
<td>Specialised to social institutions like government, legal, educational institutions.</td>
<td></td>
</tr>
<tr>
<td>Semiotic</td>
<td>Refer to features of thought and language like: ‘idea’, ‘concept’, issue, text etc</td>
<td></td>
</tr>
<tr>
<td>Generic</td>
<td>Names kinds of things, i.e. terms for classes and parts. e.g: way, kind, manner, time, cause</td>
<td></td>
</tr>
<tr>
<td>Metaphoric</td>
<td>Process</td>
<td>Derived from processes e.g marriage, relationship, trauma, elation</td>
</tr>
<tr>
<td>Quality</td>
<td>Derived from qualities e.g kindness, truth, integrity, concern</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4 A summary of kinds of abstract entities classified under abstraction & metaphor from Martin & Rose (2005, p. 108).

4.3.6 Quasi-technical Abstractions

In addition, for this analysis, I have coined another category of ideational metaphor, for those that are “quasi-technical” in nature. These are lexical items that appear to be technical in terms of having a specific meaning within the field but because they are not defined in the text there is ambiguity about
whether they are instantial metaphors or part of the field. For example in the phrase “the civilisation of the image” civilisation is a grammatical metaphor but the image has a particular meaning within the field that is not defined. Another example from the next is the now and the not yet. This technically ambiguity, typical of post-modern discourse, has the potential to complicate matters further for students because first they cannot be interpreted literally in a general context but relate specifically to the field but on the other hand because they are not specifically defined within the field there is uncertainty about in which field they are applicable.

4.3.7 Variations to these definitions

4.3.7.1 Abstractions and metaphors

The distinction between the abstractions and grammatical metaphors in this analysis is where terms are derived initially through grammatical metaphor but, because of their persistence, they become more or less unmarked realisations and are not derived metaphorically each time they are used, they will be classed as abstractions after their first instance. (Wignell, 2007, 171-185)

4.3.7.2 Institutional abstractions

The names of disciplines such as sociology, history and political science are treated as institutional abstractions. Terms such as laws, rules, policy, regulation and related terms which either explicitly or implicitly relate to the regulation of behaviour in conjunction with the likelihood of some 'punishment' if they are not 'obeyed', are treated as institutional abstractions because they represent institutionalised knowledge and practice which is formalised and is located in social institutions such as universities. (Wignell, 2007)
Where terms which refer to an institutional practice at a macro /bureaucratic level are not defined and incorporated into the technicality of the discipline of the discourse being analysed they are treated as institutional abstractions. These terms are generally ones which refer to institutions of government (such as government, bureaucracy, committee), or which refer to institutional regulation of behaviour (such as rules, sanctions, laws).

However, when such terms are defined within the context of the discipline they are treated as technical abstractions. (Wignell, 1997)

4.3.7.3 Generic abstractions

“Lexical sets to do with quantity, quality, manner, time and place are treated as generic abstractions (Martin, 1996)”. However, following Wignell’s (1997, p.85) adaptation, for other generic abstractions, “where they are defined and/or are classified they are treated as technical abstractions from that point.”

Terms which represent a synthesis of large scale 'doings' and 'beings' such as society in sociology are treated as generic abstractions until they are defined. From that point they are treated as technical abstractions. The same applies to a term such as labour and its related lexical set. If labour is used to refer to either the act of working or to the concept of work it is treated as a generic abstraction unless and until they are defined. If, however, it is used more instantially, such as in: "I worked hard but my labour was rewarded", it is treated as a metaphor. Likewise terms which refer to the result of labour, such as produce, product, stock and related items are treated as generic abstractions. Terms such as analysis are treated as generic abstractions because analysis requires ‘doing’ as well as ‘thinking’. (Wignell, 1997, p 85-86)
4.3.7.4 Semiotic abstractions

“Following Martin (1996), words which refer to semiotic entities such as word, notion, idea and fact are treated as semiotic abstractions. Extending a little from Martin (1996), terms such as beliefs, values and related items are treated as semiotic abstractions where they are used generically to refer to the concept of belief. If, however, they can be traced to a local congruent realisation, such as: "I believed it and my belief was justified”, they are treated as grammatical metaphors. In addition, terms such as theory, principle and concept are treated as semiotic abstractions. A theory, for instance, refers to aggregations of ideas, notions, beliefs, concepts and principles. “(Wignell 1997)

4.3.7.5 Lexical Density

Lexical items (content words) may consist of more than one word and they function in lexical sets which are open so that each set potentially has an indefinite number of potential lexical items in it. By contrast grammatical items (function words) enter into a closed system where items in a class are limited. They include: “determiners, pronouns, most prepositions, conjunctions, some adverbs and finite (auxiliary) verbs”

Halliday (1985: 67) suggests that the most relevant organising concept for measuring lexical density is to “count the number of lexical items as a ratio of the total number of clauses” in a clause complex. Thus lexical density is measured as the mean of the number of lexical items per clause across a span of text. So, to calculate lexical density the number of content words in a clause complex (sentence) is divided by the number of clauses in that clause complex.
For example, 15 content words/ 3 clauses = lexical density of 5. Hyphenated words are treated as 2 lexical items. Where words are repeated in a clause each instance will be counted.

This approach is deemed appropriate in the context of academic discourse and still takes into consideration Halliday’s (1985) discussion of frequency. Halliday (1985: 64) suggests here that lexical items that are more commonly used in the language contribute very little to the lexical density whereas those that are infrequently used will contribute a lot. He also suggests that where a lexical item is repeated in a clause the effect of density is reduced. However, in these text examples the potential reduction in density through repetition is countered by the infrequency of the use of these lexical items in the language, the previous point made by Halliday (1985).

4.3.7.6 Density of Abstraction & Metaphor

Building on Halliday’s (1985) acknowledgement of frequency it is assumed that, for novices to academic discourse, abstraction and metaphor generally fits into the infrequent lexical sets category in clauses. As a way of distinguishing these infrequent lexical sets from the frequent and measuring the load of abstraction and metaphor, a principle focus of this analysis, I propose a new measure: Density of Abstraction & Metaphor (A&MD).

This new measure applies Halliday’s (1985, p.67) formula to a measure of abstract & metaphoric incidence in each clause complex relative to the number of clauses. E.g 6 abstractions & metaphors/ 2 clauses = A&MD of 3. This provides an indication of the number of potentially unfamiliar metaphoric and abstract terms which require deciphering by the student as each clause is presented. It is assumed that cognitive load increases as lexical density does and that in turn this cognitive load becomes much higher as the abstract and metaphorical terms in each clause increases in number.
The assumption that this increased cognitive load will present difficulties to beginning university students is based on a number of premises:

1/ Because abstraction & metaphor are distanced from congruency it is often difficult to work out who is doing what to whom (Martin & Rose, 2005);

2/ Sixty percent of students in first year surveyed across Australian Universities have been found to have inadequate literacy levels for deciphering implicit meanings in complex text (Marks et al, 2001);

3/ Students’ cultural capital in the university context is often minimal so the schema they have to draw on for deciphering the content will be limited (Hirsch, 1987; Luke, 1995);

4/ Being first year students, they are novices to the discourse and may have little or no experience of its technical language;

5/ In the discourse of the humanities and social sciences, the structure of the text, rather than building hierarchically on previous knowledge as in the Sciences, presents knowledge in discrete packages of generally unrelated ideas and language. (Bernstein, 1999)

4.4 Conclusion

This chapter has outlined the systemic functional approach to understanding discourse and how we learn through language. It provides the theoretical framework for the analysis of text samples for this investigation and it provides a translation of mainstream learning theory into a framework that recognises the inextricable connection between learning and language. The emphasis of SFL on viewing language as a resource for making meaning that is dynamic and related to its function in different social contexts allows an exploration of the possibilities of how we use and present language in academic disciplines.
The analytical tools describe by SFL allow us to understand discourse according to its social function from the macro level of genre and then reveal how this translates to the linguistic features of the discourse. As Halliday (1996, p.2) suggests:

... grammar construes a universe of things and relations, imposing categories on our perceptions of phenomena; in other words it sets up a theory of experience, modelling the immensely complex interaction between the human organism and its environment.

Thus, it is the capacity of grammar to transform human experience into meaning and to express phenomena in a variety of ways that motivates the discourse analysis for this thesis particularly with regard to the grammatical features of: metaphor and abstraction, lexical incidence, lexical and metaphoric & abstract density, periodicity, conjunction and taxonomic relations. In the following chapter these are identified and discussed in the five samples of first year academic texts from the disciplines of humanities, social sciences and science.
Chapter 5

Examining and Discussing the Evidence

This chapter summarises and discusses the findings of the data analysis for this project. It includes the analysis and comparison of the linguistic features of the following texts with regard to what makes them more or less difficult for first year university students.

5.1 Overview of data

The data for this analysis is based on transcripts of face to face lectures and tutorials presented to first year students at Charles Darwin University in the years 2004 and 2005. The recording of the sessions was organised by this researcher but the researcher did not attend the sessions to avoid the Hawthorn effect - inhibiting the presentation and students response to it. (Clark and Sugrue, 1991). The recordings were transcribed by a professional Hansard transcriber. The recordings did not attempt to capture the students' voices since the analysis was concerned with the lecture and tutorial as texts on their own.

5.1.1 Disciplines Represented

Because the aim was to examine samples of science, humanities and social science texts for comparison, lectures were recorded for first year units of study in ecology, the history of western philosophy and an introduction to sociology. For the comparison of different instantiations of the same source text recordings were made of the three different tutorial groups supporting the humanities lecture. Each of these was presented by a different tutor.
5.1.2 Student Demographic

It is useful to view the following analysis with an understanding of the students who are audience to the texts analysed. This provides insights into the way these particular students might respond to the texts and the way students with the same demographic profile at other universities might also respond. The interest in demographic profile in this context is relevant in providing insights about the levels of English, academic literacy and cultural capital the students might bring to the experience.

The CDU student demographic is typical of a small regional university with high numbers of first-in-family and equity students. Being a dual sector university it also attracts students to higher education from “feeder” VET courses. Added to these differences are factors relating to the numbers of students from low socio-economic, and rural and isolated groups. Each of these factors are characteristics of non-traditional students and each factor brings with it particular preferences, needs, and vulnerabilities. The Charles Darwin University, Annual Report (2010) confirms the following demographic spread in its student body: External mode 60%; Part-time; 32%; Indigenous 5%; LOTE 15%; male 33%; female 67%; overseas citizenship 6%; under 25 years 46%; mature age 54%; resident beyond the NT 39%. The percentage of students who enter the university through a VET feeder or alternative entry is approximately 24%. The minimum TER level for direct entry into the university is 60.

5.1.3 Situational Features

Situational features such as the physical environment, group numbers, time of day, gender of the teacher can all have an effect on the communicative event. In terms of the interpersonal aspects of communication, although these features are not analysed within the text, it should be acknowledged that
there is a natural advantage in the smaller group size and physical space of a tutorial setting. This more intimate space lends itself to eliciting feedback and input from students to mutually arrive at meaningful everyday explanations of concepts whereas the large group format of a lecture (in this instance, approx 210 students) and tradition encourage a more didactic approach (Biggs, 1999; Krause, 2005; Laurillard, 1993; Ramsden, 1992).

The duration of teaching sessions was between one and two hours long and they were recorded in a range of venues at the university. The lectures were held in three different designated lecture theatres as formal presentations in a large (350 capacity) tiered lecture hall to a large group of students (approximately 180), the lecturer was a long way from the students, in behind a lectern, using a microphone, overheads, power point and a video. These other modalities were not included in this analysis due to the complexity of controlling for variation in these additional variables and to allow time and space for a text analysis of sufficient detail.

Although students were asked two or three questions throughout the lecture these were rhetorical in nature so that essentially the students were expected to listen rather than interact with the lecturer or each other. The tutorials on the other hand were held in a small flat spaced classroom holding 15 to 20 students, with individual tables arranged in rows but portable enough to be moved to allow students to interact more informally and readily with the tutor and each other to flesh out the ideas presented in the lecture.

The timing of all three lectures in the semester was consistent with all being held in the last quarter of the semester.

The gender of the lecturers varied: Science Lecturer – male; Social Science lecturer – female; Humanities lecturer – male, Humanities Tutors – two male, one female.
The class sizes varied considerably: science with fifty students; social science with thirty students; the humanities lecture approximately 150 students; humanities tutorials with 11, 9 and 9 students respectively.

5.2 Analysis and discussion of discourse samples

The transcribed lectures and tutorials are analysed and discussed utilising the systemic functional linguistics framework described in Chapter 4. These will be summarised and then applied to each text sample to allow a discussion and comparison across texts and modes. The full analysed transcripts of the text samples are provided in Appendices A, B and C.

5.2.1 Language features analysed

The analysis of these texts considers the realisation of a number of linguistic features: abstraction & metaphor (lexical and abstraction & metaphoric incidence and density), periodicity, taxonomic relations, and conjunction. Each of these will be explored in turn in relation to how they are realised in each of the three texts. Complete transcripts of the analysed texts and student questionnaires will be provided as an appendix. Examples will be extracted from the text to illustrate the points being summarised and discussed.

As part of the examination of the language of these text samples, the incidence of abstraction & metaphor and lexical items as well as the overall extent of lexical and abstraction & metaphoric density in the texts is examined because it reflects what makes academic discourse harder or easier to understand in terms of the lexical choices made and where these choices sit on a continuum from congruent to abstract. In this way these factors also reflect the extent of cognitive load required for unpacking the discourse. (Martin & Rose 2003: 107).
The incidence of different categories of abstraction & metaphor will be compared including: grammatical metaphors, semiotic, generic, institutional, technical, quasi–technical abstractions. Additionally, the incidence and implications of *grammatical metaphor* compared with *abstractions* will also be noted in recognition that the derivation of grammatical metaphor is grammatical and therefore has meanings that are easier to infer/track (Halliday 1985, Gerot & Wignell 1994).

The pattern of *taxonomic relations*, for scaffolding meanings in sets of classes, qualities and parts, will be noted in relation to how this organisation of ideas reveals the employment of progressively more congruent terms to “build up a picture of them” and helps us understand how a “particular text [or instantiation] construes a field” (Martin & Rose 2003: 91-92). In this particular instructional mode, part of this occurs through defining/unpacking abstract meanings through the taxonomic relation of synonymy.

Other taxonomic devices we can expect for unpacking a concept (in this case the concept of postmodernism) are through classifying its parts according to relations of class to member or part to whole. So, for example, in the science text the kingdom *protista* is divided into two classes *unicellular* and *multicellular* and at the next level of of the taxonomy the characteristics of these two classes are described.

Wignell (2007: 61) suggests in humanities the logical structure of texts is more abstract, driven by the function of exemplification and the rhetorical organisation of the text rather than by concrete events being reported in the text. The less interpretive texts (social science and science) tend to be more grounded through frequent reference back to the ‘real’ world.
Additionally humanities text is harder for new students because the language, being a horizontal knowledge structure and not fixed in stable relationships with one another, tends to “float around”.

The features of periodicity and conjunction will be examined since they have the potential to further scaffold students’ recruitment to this unfamiliar discourse by making explicit the logic of the text, helping the reader to understand which ideas are the most important and how ideas in the text are linked and interact with one another. Those specifically identified in this analysis are hyper Theme and hyper New, conjunctions of addition, comparison, time, consequence, elaboration and parallelism.

5.2.2 Quantifying patterns

The examination of abstraction & metaphor and lexical density is quantified in tables that compare the incidence of these elements across the four instantiations of the sample of humanities discourse. These are later compared across these elements in lectures for the three different discourses: humanities, science and social science. The following aspects of the analysis are quantified:

- Average lexical item (LI), lexical density (LD), Abstraction & metaphor (A&M), abstraction & metaphor density (A&MD), abstraction & metaphor to lexical item ratio (A&M/LI)
- Frequency and extent of A&MD across each text is shown in a histogram
- Periodicity across the different text samples will be illustrated in a table comparing the patterns of “waves” of abstraction & metaphor density across the texts.
- Correlation between high A&M and period of low A&M is also shown through the periodicity table?
5.2.3 Comparison of humanities, science and social science texts

This section compares the text features of three lectures, each from a different discipline area: Humanities (Appendix A), Science (Appendix B) and Social science (Appendix C). This comparison will reveal, firstly, whether the spoken lecture version of texts in each discipline displays text patterns that are characteristic of their discipline. It will also reveal the differences in the textual features across the three disciplines and discuss how these may contribute to their relative differences in levels of accessibility. The same textual features will be examined as for the analysis of the four instantiations of the humanities text in the previous section.

5.2.3.1 Lexical and Abstraction & Metaphoric Density

Comparing the density of lexical items and abstraction & metaphor across disciplines is essential for ascertaining the varying degrees of difficulty for students in accessing these different academic discourses because it is unfamiliar, specialised terms that present the most glaring barrier to students understanding and engagement partly because they present a “new” language, because they are so prevalent in academic discourse and because so much meaning is packed into these terms that they hold the keys to understanding the whole discourse.

The following table indicates the average incidence and density of lexical items and abstraction & metaphor across the three texts.
Interestingly, the figures for lexical and abstraction & metaphor across the three disciplines did not differ greatly, especially with regard to the percentage of lexical items per text and the ratio of abstraction & metaphor to lexical items.

The social science text recorded the lowest score for abstraction & metaphor density (A&MD) and lexical density (LD). The humanities text had the highest overall average of lexical and abstraction & metaphor incidence of the three texts but the science text recorded the highest abstraction & metaphor density by a small margin of 0.06. This can be attributed to the high number of technical abstractions in the science text.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Humanities</th>
<th>Social Science</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>LI/CC</td>
<td>13</td>
<td>10</td>
<td>10.92</td>
</tr>
<tr>
<td>LD</td>
<td>5.3</td>
<td>3.5</td>
<td>4.64</td>
</tr>
<tr>
<td>A&amp;M/CC</td>
<td>4.09</td>
<td>3.30</td>
<td>3.70</td>
</tr>
<tr>
<td>A&amp;MD</td>
<td>1.67</td>
<td>1.20</td>
<td>1.73</td>
</tr>
<tr>
<td>A&amp;M/L</td>
<td>1:3.03</td>
<td>1:3.04</td>
<td>1:3.05</td>
</tr>
</tbody>
</table>

Table 5.1 Mean lexical and abstraction & metaphoric incidence estimated from texts from the discourses.

While this relative consistency in the number of lexical items and abstraction & metaphor across the disciplines is interesting to observe in these samples, it is not altogether surprising since academic discourse, being very “written”, tends to be less grammatically intricate and more lexically dense than spoken discourse in general and more inclined to abstraction (Wignell 2007:43).
Further, abstraction & metaphor enables description, classification and evaluation of social processes: the core business of each of academic discourse (Martin and Rose 2003: 107).

The following graph (Figure 5.1) indicates the proportion or concentration of abstraction and metaphor in each clause complex and how often these occurred. The highest proportions of A&M per CC were found in the humanities text (12, 15, 18). The social science and science text, on the other hand recorded lower counts of abstraction and metaphor more frequently. These texts had more clause complexes containing only 1.5 and 3 abstractions and metaphors.

![Graph](image)

**Figure 5.1 Comparing numbers/concentration of abstraction & metaphor per clause complex in lectures across discourses.**

This suggests that a tendency for higher concentration of abstraction and metaphor at the clause complex level is found in the humanities text. It also gives an indication of the relative concentrations of abstractions and metaphor at clause complex intervals and thus the extent of cognitive load that is sustained across each text.
5.2.3.2 Types of abstraction & metaphor across discourses

In recognition of the relative levels of abstraction (based on how far they lie on the concrete-abstract continuum) and familiarity (whether they occur in everyday language) of the abstractions and metaphors in the three text samples, each type was quantified and calculated as a percentage of the total abstractions and metaphors in the text. This provided an indication of the relative cognitive load presented by the language in each of the three disciplines. The comparison of the types of abstraction & metaphor occurring in each of the texts show the most striking variance. Further, these differences correlate with the predicted characteristics of texts for these disciplines. Each text has a quite distinct pattern with regard to the distribution of types of abstraction and metaphor as indicated in Table 5.2 below.

The **humanities text** is principally made up of an even distribution of abstractions and grammatical metaphors with only 0.84% of these technical abstractions and 8.5% quasi technical abstractions. By contrast, abstractions make up over two thirds of abstraction & metaphor in the **social science text** with the remainder made up of a similar number of grammatical metaphor and technical abstractions (10.67% and 10.84% respectively). Quasi technical abstractions are a minor feature with only 0.98% observed.

The **science text** on the other hand has a majority of technical abstractions (82%), the rest of the ideational metaphors being made up of 13.5% abstractions and the smallest number of grammatical metaphors compared to the other texts (4.5%). The science text had no quasi technical abstractions.
In summary, the science text is predominantly technical, the social science text is predominantly made up of abstractions with some technicality and the humanities text is made up of, equal numbers of abstractions and grammatical metaphors with virtually no technicality and some quasi-technicality. These patterns reflect the findings of analysis of geography texts (Wignell, Martin and Eggins, 1987) and humanities texts (Eggins, Wignell and Martin, 1987; Coffin, 2009) as well as the findings of Wignell (1997, 2007) in his analysis of social science discourse.

With regard to the lack of technicality in the humanities text, Eggins et al. (1987) confirm that history (being typical of a humanities text) utilizes abstraction rather than technicality as its framework for reinterpreting concrete events. Conversely, Wignell (2007:202) establishes, through his analysis, that the discourse of social science, which includes sociology, is a technical discourse, although the extent of technicality is less than in science.

<table>
<thead>
<tr>
<th>Type of A&amp;M</th>
<th>Humanities</th>
<th>Social Sciences</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%A&amp;M</td>
<td>No.</td>
</tr>
<tr>
<td>Institutional, Semiotic,</td>
<td>324</td>
<td>42.4</td>
<td>471</td>
</tr>
<tr>
<td>Generic Abstractions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammatical Metaphors</td>
<td>274</td>
<td>47.6</td>
<td>66</td>
</tr>
<tr>
<td>Technical Abstractions</td>
<td>8</td>
<td>0.84</td>
<td>65</td>
</tr>
<tr>
<td>Quasi-tech Abstractions</td>
<td>49</td>
<td>8.5</td>
<td>6</td>
</tr>
<tr>
<td>%A&amp;M/word count</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A&amp;M Total</td>
<td>655</td>
<td></td>
<td>608</td>
</tr>
</tbody>
</table>

Table 5.2 Total numbers and % of abstraction & metaphor in lectures compared across discourses.
He observes that the technicality in sociology texts is created from a combination of an initial framework of abstraction and existing field technicality. Wignell (2007: 205) further suggests that “grammatical metaphor appears to play a secondary role to generic abstractions as a source of technicality”. This sample sociology text appears to reflect this pattern with a high number of abstractions (77.5%) and grammatical metaphor (10.6%) serving to build the technicality (10.8%).

Martin and Rose (2003: 107) explain that abstraction & metaphor has evolved to “enable writers to generalize about social processes and to describe, classify and evaluate them”. This occurs through a reconstrual of ‘reality’ as relations between institutional abstractions – abstractions that are specialized to social institutions.

It would be reasonable to expect that a sociology text concerned as the discipline is with a critique of social institutions would contain a high number of abstractions (as opposed to grammatical metaphors) and that many of these abstractions would be institutional.

5.2.3.3 Taxonomic relations

An examination of taxonomic relations allows us an opportunity to compare the way ideas unfold in each text and the way they are unpacked, explained and organised. This is of particular interest since each discipline is said to have a particular knowledge structure which may be more inclined to hierarchical or horizontal(Bernstein, 1999). Although the lecture, being spoken, will utilise devices of everyday conversation (Swales and Burke, 2003), we can expect that the approach of each text maker for structuring and explaining ideas will mirror his or her discipline since lectures share the same purpose as text books for inducting learners into the discourse community (Camiciottoli, 2007).
According to Wignell’s (2007) analysis of textbooks samples for humanities, social science and science there are a number of common patterns we can expect across the three texts. The first one is that since a “lecture” tends to be similar in structure to a textbook, logogenetically they present the field from top down by presenting the basis of the field and deconstructing these for the initiate (Wignell 2007: 204). The second is that, in all three disciplines, taxonomic relations tend to be realised through a technical framework that explains and interprets (Wignell, 2007: 202).

However, the three discourses are expected to diverge taxonomically in two ways. One, the way they construct ideas in terms of the abstract/congruency continuum and, two, the extent to which they construct ideas hierarchically in terms of the number of categories and levels each idea is broken down to. These differences reflect both inherent historical precedence in the discourse structures and traditional modes of presentation as well as personal choices the lecturers make about how they will organise ideas and to what extent they will unpack them.

From the point of view of taxonomic relations, the humanities text neither unpacks nor builds up a picture of the meaning of its key ideas (Martin & Rose, 2005). It tends to either present a whole range of ideas tenuously related in class or part lined up on the same level of classification. In other words, the taxonomic relations of the lecture viewed as a whole reveal a number of key terms broken down to only a second level, and on occasions a third. This taxonomic pattern is consistent with Bernstein’s (1999:166) definition of horizontal knowledge structures where ideas are not presented hierarchically but rather alongside (but independent of) each other. Alternatively, where a concept is broken up into parts, each part remains metaphorically dense so that it is unlikely to further students understanding of the original concept.
In other words, even where there is evidence of a taxonomic structure in the lecture, students’ are rarely presented with an unpacking of concepts at a simplified congruent level of classification.

An example of this first tendency to present a series of tenuously connected ideas is found in the following paragraph which is explaining a term from postmodernism the “civilisation of the image”.

Para 38

1 The **civilisation of the image** is my next point; this is Barthe’s term, and I’ve talked to you about this before as well; that we are continually **bombarded** by images and that the written word or the verbal expression is being replaced, substituted by the image to some extent

2 We needn’t go too far down that track but to some extent I think that that’s true

3 And other people see in postmodernism a self-referential preoccupation with the narcissistic self; and what does all that mean?

3 We’re talking about language, **boundaries**, how do we penetrate that?

The diagram below vividly illustrates the complexity of the conceptual composition of the paragraph:

```
civilisation of the image
├── Barthes’ term
│   └── bombarded by images
│       └── verbal expression replaced by image
│              └── self-referential preoccupation with the narcissistic self
│                             └── penetrating language boundaries
```

This taxonomic representation, illustrates the lack of scaffolding and real explanation of the term **civilisation of the image**.
Before moving on to the next new point this term is “explained” with five new unrelated and abstract concepts each potentially as confusing as the original term.

An example of the second tendency is found in the following “defining paragraph” which breaks postmodernism up into parts at two levels but the third (lower) level is actually more dense in ideational metaphor dense than the second (middle) level.

**Para 10**
1 If we are going to try and define postmodernism, we can say that it defines itself by what comes after
2 Patti Lather, in an incredibly good feminist text called “Getting Smarter”, Patti Lather says, ‘It is a self consciously transitional movement, the boundary between the no longer and the not yet’, which has led some academics, particularly at Deakin, to call this the time of the now
3 The time of the now
4 Clearly, people are preoccupied with the emergence of a new epoch and what that means and where it leads

The increasing density of ideational metaphor is illustrated in the taxonomy of the defining terms below:

In this example, the original concept is classified according to three key principles and another layer of explanation is provided for each of these.
However, the explanations progress no further towards concrete terms and in fact go in the opposite direction by introducing new abstract notions. So, for example, just as students are comprehending the existence of a feminist called Patty Lather, they are confronted with the highly abstract and unfamiliar notion of a: “Self consciously transitional movement”

This pattern is also problematic from the point of view of learning theory relating to the importance of schema. The work of Hirsch (1987), Bransford (1972) and Cook (1978) tells us that our background knowledge is an inherent aspect of making meaning of text and that extra-linguistic inferences occur on our first exposure to material. More specifically in relation to how taxonomic relations are realised in a text such as this, Cook claims that in using past knowledge to interpret new knowledge/experiences we draw on categories in our schema that give new knowledge a function and a place.

The categories we use to interpret experience are ones that have been most useful in the past and tend to be middle level categories as they are general enough to include a range of items. A simple example is the middle level category of dolphin which will be most familiar, not the higher level cetacean nor the lower level bottle nose dolphin. These levels of categorisation can be illustrated as follows:

```
Cetacean
  - Whales
    - Dolphins
      - Bottle nose dolphin
      - Amazon river dolphin
      - Porpoise
```

The middle level category tends to be the most common everyday categorisation and therefore by pitching an explanation first at this familiar level of categorisation students are given a cognitive window through which to view knowledge.
Looking at the above samples of taxonomic relations no middle level category is provided. Examples of middle level categories for an explanation of postmodernism might be postmodernism in *literature, visual art, architecture*, names of fields of human experience and practice, which can be unpacked with concrete examples of how postmodernism manifests in these disciplines. For example:

```
  Postmodernism expressed in
  Literature
  Visual Arts
  Architecture
```

The *Social Science* text on the other hand reflects patterns of a discourse that sit somewhere between the science/humanities continuum diachronically in that its technical taxonomic patterns reflect its historical origins in science and humanities (Wignell 2007: 202). In this example, ideas are taxonomised initially according to parts which are abstract and then reclassified at the third and fourth level with increasingly congruent terms and examples again reflecting patterns for this discourse predicted by Wignell (2003: 202). The following example (Figure 5.2) extracted from a taxonomy of the social science text illustrates this.
Figure 5.2 Taxonomy of social science text showing reclassification towards increasing congruency.
The Science text, as we would expect, classifies ideas according biological taxonomies which are embedded in the technical framework of the text. Thus, the biological taxonomy influences the way the text is structured and in effect provides a ready-made taxonomy for scaffolding the ideas. Additionally, because the text deals with a subject concerned with the natural world most of the text relates to concrete concepts. Thus, we would expect by the third level of the taxonomy, reference to congruent entities would be made. The congruency of these entities is reinforced simultaneously through visual illustrations. Ideas are generally classified according to part or class. This is illustrated in the following example, of key concepts presented in a section of the science text:

![Taxonomy Diagram](image)

**Figure 5.3 Taxonomy from science text showing classification into class**

The science text represents a discourse with hierarchical knowledge structures that have been laid down historically to describe phenomena and are seen as simply as the development of theory more general and more integrating than the previous theory (Bernstein 1999). This is also true to some extent for the social science text which, according to Wignell (2007),
sits between the knowledge structures of humanities and science and therefore shares characteristics of both.

The humanities text, on the other hand, relies much more on the teacher to formulate their own ways of describing and recounting the knowledge. As an example of horizontal knowledge it lacks inherent hierarchical structures and reference points. According to Bernstein (1999:163), humanities discourse is organised according to a series of segmented, specialised languages whose knowledge structures are not translatable into generalised terms “since they make different often opposing assumptions, with each language having its own criteria for legitimate text, what counts as evidence and what counts as ‘legitimate questions or a legitimate problematic.” Thus, the ideas in this discourse tend not to be fixed in a stable relationship with one another. This makes it much harder for the student to contextualise ideas and understand how they relate to one another and to existing schema. Additionally, with the humanities text, there is much more scope for different instantiations of the same text to vary, according to choices made by the presenter, with regard to the way concepts are organised, labelled, classified and categorised taxonomically.

In summary, the way ideas are taxonomised across the three samples of spoken texts are predicted by previous analyses of written texts for these discourses (Wignell 2007 & Bernstein 1999). The science text is organised according to internal hierarchies for the knowledge which move consistently from abstract to congruent in consistent patterns of classification of class or part. The social science text adopts similarly consistent and predictable patterns of unpacking ideas. However, in the social science text, ideas generally remained in the abstract realm for at least three levels of the taxonomy. The science text tended to move to concrete representations after the second level. The humanities text
represents a sustained horizontal knowledge structure which provides no consistent hierarchies of knowledge and remains largely in the abstract realm.

5.2.3.4 Periodicity

For this comparison of spoken texts across disciplines, the examination of periodicity is useful as a reflection on whether the disciplines differ in the way ideas flow at whole text and a paragraph level. The periodicity also reflects the occurrence of abstraction and metaphor per clause complex, indicating at what points in the text these occur. This can be observed at the level of macro-Theme and macro-New as well as hyper-Theme and hyper-New. It is at these points in the texts unfolding where new concepts and terms are introduced and distilled and thus levels abstraction & metaphor tend to be higher. On the other hand, the congruent language used to explain abstract and metaphorical terms tends to occur after the concept is introduced. Thus, the extent and positioning of congruency can also be observed in these waves of information. Identifying these patterns, allows comparison across the texts with regard to the extent to which the concepts introduced are anchored in the real world. From this it is possible to surmise how accessible the texts may or may be to students.

Martin and Rose (2003: 194) suggest that humanities and social science text, will tend to have a high level of abstraction in the hyper-Theme and news compared with science texts. This is because in humanities and social science the hyper-Theme and new have more to predict and distil because there is so much information packed into the abstract terms in the discourse. Science texts (both lectures and textbooks) also utilise diagrams and other visual information extensively to explain and illustrate ideas. O’Halloran (2008) explains that visual imagery, in most cases, “reproduces our perceptual awareness of the world” and in this way provides the most congruent
representation of ideas in the text. This is certainly true in the case of this science text where images are consistently provided to exemplify either an organism and its parts, or a diagram of a process. However, the ideational count for this analysis has not included these visual representations of knowledge.

Figure 5.4 (p. 230) illustrates the periodicity across the three texts. This represents the mean number of abstractions and metaphors/clause complex (A&M/CC) at intervals of five (clause complexes). Intervals of five were chosen because they represented the average number of clause complexes per paragraph. The peaks represent a high number of A&M/CC and the troughs low numbers.

All three texts, being lectures, had similar phases at a macro level. These included an introduction with greeting and macro theme of text, elaboration in the body of the texts (including description a explanation and classification), and conclusion with macro new and closing commentary. Thus, the patterns of waves for the three texts display a regular rising and falling pattern, each text beginning a salutation in everyday language before moving into the abstraction and technicality of the field accompanied by various degrees of explanation at a concrete level. However, differences in the extent of troughs and peaks were observed across all three texts. The humanities text (blue line) seems to occupy less time at the concrete level than the other two texts. For example, the number of troughs to a relative congruency of three or fewer ideational metaphors is only nine for the humanities text, compared to fourteen in the social science text, and eleven in the science text. At the same time, the peaks of abstraction & metaphor above three per clause complex were in favour of the humanities text which had twenty compared to sixteen in the social science text) and twelve in the science text.
The science and social science text also appear to spend more sustained periods at the more concrete levels. For example, in the social science text, six troughs containing less than two abstractions and metaphors per clause complex were sustained for between five and fifteen clause complexes at the time. In the science text eight troughs were sustained for five to ten clauses at a time (if the incidence of illustration is counted as an extra clause) with an abstraction and metaphor count of below two. Conversely in the humanities text, there were only six observations of troughs with less than two abstractions per clause complex and these were only sustained for a maximum of five clause complexes at a time.

In reflecting on the peaks of abstraction and metaphor, it is important to note the proportions of different types of abstract metaphorical language found in the three texts (as illustrated in Table 5.2). This is particularly important when observing the peaks of abstraction and metaphor in the science text, which are relatively high. In this text these peaks are made up of 82% abstract technical abstractions. This technicality, as discussed previously, is in general less cognitively challenging for students because it is embedded and defined within the established technical framework of the discipline (for most students introduced in school) and often directly associated to the concrete world.

Conversely, in the social science and humanities texts, the count for abstraction and metaphor is very low for technicality and high for grammatical metaphor and non technical abstractions with approximately 90% being made up of a combination of these types of abstract metaphorical language. Thus the peaks for the humanities and social science samples illustrated in the following diagram (Figure 5.4), arguably represent greater cognitive loads than those peaks in the science text. Overall the patterns revealed are ones we might predict for these discourse types.
Figure 5.4 Pattern of incidence of abstraction and metaphor per clause complex across humanities, social science and discourses.
5.2.3.5 Conjunction

Conjunction helps to realise the logical connections in a text (Martin & Rose, 2005: 110). Major types of conjunction identified by Martin & Rose (2005: 113) are those that indicate “addition, comparison, time and consequence”. These have the potential to indicate the “flow” of meanings, what the author’s logic is, how a new piece of information relates to the previous piece and scaffold new phases in the text.

In the humanities text, a common pattern occurs where the narrator moves rapidly from one idea (couched in grammatical metaphor, generic and semiotic abstractions, and quasi-technical abstractions) to another without providing meaningful connections beyond and. This is illustrated in the following example from the text:

So we talked about how Man was at the centre in the Enlightenment period, and then in the period of modernism Man was shifted away from the centre again; and again the emphasis was on society and the societal structures built through the ideals of democracy and then capitalism, and now the emphasis is on economic rationalism and the emphasis is on technology.

Another form of conjunction is where certain phrases describe and “name” the new phases or new “waves” of information in the discourse (Martin & Rose 2004). For example: “A classic example of this...” “Her book argues...”. In this way the reader can anticipate the genre and/or the relationship between this phase of information and the ones on either side of it. However, even in examples where these devices are employed more meaningfully, it can be seen that when each clause has a high ideational metaphoric density, such meta language does little on its own, to make meanings more accessible.
As Martin & Rose (2004: 195) suggest, if “we’re not sure about these specialised terms or not used to them being used in conjunction with one another … then of course it will be difficult to recognise scaffolding even when it’s there”.

An example of a weakened effect of conjunction can be seen in the following paragraph from the humanities text which uses the conjunctions; whereby, thus, and, but, that is (underlined) but where each clause is highly abstract (abstractions, metaphors and technical terms highlighted in blue). As a consequence, while the conjunctions may help the reader understand the logical relationship between ideas, the ideas themselves remain out of reach.

**Structuralism**, in its more philosophical context, is a systematic way of thinking about whole processes and institutions, whereby each part of a system defines and is defined by the other parts. Thus, we can say that the world is seen as inherently structured, simply that it comes to us structured; whereas post-modernists would say that any structure that is apparent has been created by us, we have fitted the templates over this and structured it accordingly. And the classic example of this would, I imagine, be IQ testing, intelligence quotients, intelligence testing; which I would like to say is on its way out but still crops up in all kinds of situations, modified versions of it. But the invention, if you like, the reification; reification means to make a thing of something; the reification of this concept, this quality called intelligence, preoccupied educationalists and psychologists from about 1870 through to 1970. Thus, structuralism is accompanied by a belief, as I talked about before, in transcendent truths; that is, truths that are assumed to move on from one generation to the next, unalterable, absolute and universal. And it’s those three things, if you like, which are being called into question; this universality, this homogeneity, this sameness, this inalterability, being called into question in our own day.
The *Social Science* text on the other hand, takes a much more consistent approach in providing conjunctive devices that signpost the text’s leanings towards a scientific, inductive logic, each concept being presented and justified through a series of principles. This is illustrated in the following paragraph with metalanguage that indicates sequence in the text as well as logic. Additional metalanguage signposts a definition: “We call this …” and a reference back to previous knowledge, “…we’ve discussed that …”:

*Our third principle* is that *culture* is *learned*. Sometimes we speak of *culture* as if it has a *life* of its own, as if it sort of exists out there, it’s a *knowable* object; but it’s *learned*. *Culture is learned*. *We call this cultural reproduction*. *Cultural reproduction* is simply the *process* whereby *society* transmits *dominant knowledges* from one *generation* to another; and, of course, that occurs through the *process* of *socialisation* and we’ve discussed that in *detail* before. So that’s our *third principle; culture is learned*.

The *Science* text also used conjunctive devices extensively throughout to illustrate sequence in time and place (in the text), logical relations, classification and to signpost visual illustrations of concepts through the accompanying power point. The first example extracted from the text below illustrates (underlined) metalanguage for sequencing of ideas in the text (“firstly”, “secondly” etc) and for signposting the visual illustration (“this slide shows” etc). The sequence of discussion is previewed and then each point in the sequence is signposted as they occur:

But two things I would like to discuss with you today regarding *eucariotic cells*. Firstly, *the nuclei … envelope*, that house the *genetic material* or *chromosomes*, as one of the *members* of *class* has already mentioned to us, and secondly, I will discuss with you the *origin* of the *mitochondria* and the *chloroplasts*, so let us discuss those *issues* now.

(continued)
So first, this slide shows the origin of the nuclei. As you know, a procariotic cell will have the genetic material as ... which means that they are not enclosed within a nucleus. So in order to evolve from a procariotic cell to a eucariotic cell, the nuclear membrane has to be formed around the genetic material; and the theory is saying that the invaccination, as shown in this diagram, the invaccination meaning the moving inward of the cell membrane into the cytoplasm, forming many visicules; and these visicules gathered around the genetic material or as this ... shows, the accumulation of the visicule around the nuclei genetic material, resulting in the formation of the nuclear membrane.

The following example, from the Science text, illustrates the extensive use of metalanguage to describe logical relations between concepts and to describe the series of relationships between concepts as they are unpacked (or taxonomised). These relationships (underlined) are signposted below with: “so”, “resulting in”, “on the other hand”, “but instead”. Explicit signposting is also used in this example for introducing related pictorial information. The diagrams and photographs add congruency to the technical terms so that, while there are a large number of them, they are supported by visual cues and conjunction to explain relationships.

So we have a symbiotic relationship between the bacterium and the primitive eucariotic cell, and resulting in the formation of the present day mitochondria. Chloroplasts, on the other hand, follow the same theory or pathway as the mitochondria, but instead of the aerobic heterotrophic bacteria, the chloroplasts have the origin from the sino bacteria. This diagram shows the structure of the eucariotic cell, we already discussed. So the eucariotic cell has a nuclei here and this one has a chloroplast and many other organelles, and the pro-cariotic cell, as shown by this photograph or ... micrograph, it has no nuclei and no organs.

(continued)
And the diagram beside that shows the summary of the endo symbiotic theory regarding the mitochondria and the chloroplasts; and you can see here we started with a universal ancestor and this evolved into the aki which we discussed last week or before we went onto the break; and then it also evolves into the bacteria which, including the sino bacteria, as we already learned.

The final example illustrates the use of meta language to make explicit the reasoning that underpins scientific enquiry, the use of “evidence” to support a “theory”. This evidence in turn is presented with clear markers for diagrammatic illustration, reference to schema (“already explained before”) as well as logical relations between ideas (“because”, “which means”). These make explicit the text logic as well as the conceptual logic.

The second explanation or evidence supporting the endoselite-aunic theory is to look at the structure of the sino bacterium and the structure of algal chloroplasts. For example, the red algal chloroplast. The diagram in the middle of this slide shows the symbiotic origin of the mitochondria and the chloroplasts, as we have already explained before. On your left hand side, we have the characteristic of the sino bacteria which we discussed several weeks ago. We said that the sino bacterium has chlorophyll A because they are photosynthetic, or they need to be able to attract some light energy; and chlorophyll A allowed the sino bacteria to do so. And if you look at the photo-synthetic membrane of the coral, the photosynthetic membrane, you’ll find that they have single thyracoid, which means that it has only one thyracoid that appears singly in the cell. In addition to chlorophyll A, sino bacterium also has five … pigments.

In summary, in terms of conjunctive devices, the science and social science texts are far more consistent than the humanities text in the use of this form of metalanguage to signpost the sequence of ideas and logical relations between ideas, and illustrations in the text. These patterns reflect a number of predictable features of the discourses these texts represent.
Firstly, humanities discourse having a horizontal knowledge structure has less explicit logical relations between ideas and few definitions of ideas to signpost. Secondly, because it is higher on the continuum away from congruency than the other texts which are more dependent on a physical context, it does not lend itself to as many congruent illustrations. However, beyond these universal patterns that predict their use within particular discourses, to some extent the employment of conjunctive devices also reflects the design of any particular instantiation of any discourse and thus reflects choices made by the presenter about how ideas might be organised and explained.

5.2.4 Discussion and comparison of four instantiations of a humanities text

5.2.4.1 Introduction

This section will describe and discuss the findings of an analysis of four instantiations of a text introducing postmodernism in a first year course on the history of western ideas. As well as comparing four instantiations of a body of knowledge two modes of knowledge transmittal will be compared, a traditional didactically orientated lecture and the more interactive mode of tutorials.

A comparison of texts across three discourses suggests that humanities is likely to be the discourse that presents the most challenge for first year students because of its relatively higher density of abstract metaphorical language and less predictable and predicted logical connections between ideas. This being so, it is pertinent to examine the humanities sample more closely and to investigate the potential for repackaging it in more congruent and organised ways. Thus, this next stage of the analysis compares the humanities lecture discussed in the previous section in relation to three other
instantiations of the same body of information, i.e. three tutorials provided to support the lecture. It will ascertain whether the text has the potential to be presented in less abstract language and with more predictable structures and whether students find alternative instantiations more palatable.

With regard to the four instantiations of the knowledge in the form of lecture and the three accompanying tutorials, one tutorial is presented by the person who presented the lecture and the two other tutorials are presented by two different people. This provides an opportunity to observe different styles/modes of presentation and whether there are more and less effective ways of scaffolding students’ recruitment into the discourse. It reveals what the potential is for unpacking ideas in the abstract realm to explain them in concrete terms before repacking them in the accepted language of the discipline. The analysis explores transcripts of 1 lecture and 3 associated tutorials on “postmodernism” (see Appendix A). The texts will be referred to as: Lecture, Tutorial 1, Tutorial 2, Tutorial 3.

This text, from a history of western philosophy unit of study, is classified as an humanities text because being a history text, it “… has the potential to move from a tangible, concrete world to an abstract one … reconstrue experience through generic abstraction and metaphor” and elaborate on this reconstrued experience through semiotic abstraction (Wignell, 2007:209). As previously described, being a typical example of a text from the humanities it has an overall horizontal language structure which presents a series of segmented, specialised languages with knowledge structures that are not generally translatable or taxonomised into generalised terms. As Bernstein (1999) explains, horizontal knowledge structures “…make different often opposing assumptions, with each language having its own criteria for legitimate text, [and for] what counts as evidence and what counts as ‘legitimate questions or a legitimate problematic”.
As a consequence, for discourses which utilise horizontal language structures, there is no imperative to reference ideas or language back to a broader framework or paradigm. Because of this, the novice is confronted with an unfamiliar discourse with no frame of reference with which to make sense of the language and ideas.

5.2.4.2 Predictions about variation in text patterns from the context

These texts (especially the lecture sample which is more formal), being examples of the discourse of humanities, could be expected to have a high density of abstraction and metaphor, which as Martin and Rose (2003: 104) explain, “has allowed the expansion of the discourses of science, humanities and bureaucracies in the last decades”. This expansion in humanities has been propelled and accelerated by the arrival of postmodernism and its imperative to critique and redefine the ‘grand narratives’.

There are also a number of predictions about what patterns will occur in the texts based on, firstly, prior knowledge that the lectures and tutorials were presented in a certain “traditional” way. In other words, the lecture was a formal presentation in a large (350 capacity) sloped lecture hall to a large group of students (approximately 180), and the tutorials, on the other hand, were informal, more discursive and held in a small flat spaced classroom holding 15 to 20 students.

Second, the researcher’s familiarity with the presentation styles of the lecturer and tutorials has led to predictions about what the language patterns will be for each sample and consequently how students will respond. It was predicted that the lecture (because it represented a traditional formal lecture mode of “speaking like a textbook”) would have a higher number of ideational metaphors. Additionally it was assumed that the lecturer’s tutorial presentation (Tutorial 1) would also be higher in abstraction & metaphor
because of a general tendency of this person to communicate in the classroom using more formal academic style then the other two tutors. Thus, it was predicted that Tutors’ 2 and 3 would have lower rates of A&M and that tutor 3 would have the lowest because of third tutor’s tendency to be the most conversational in their communicative style.

From attending the lectures it was also observed that although the lecture sign-posted new definitions and concepts quite emphatically using devices of periodicity (hyper-Theme and hyper-New), engagement (parallelism and elaboration) and conjunction, there was throughout the lecture a high level of abstraction & metaphor and apparently few explanations of terms in the students language. Students’ unsolicited comments, about how hard they found the lectures to follow, suggested that the high abstraction and low congruency may be the critical factor in students comprehension. What this analysis attempts to gauge is whether the language of the lectures differed greatly in the lecture compared to the tutorials and whether this difference affected students comprehension of the ideas. This will be revealed through cross referencing the linguistic analysis with the students’ responses to questionnaires and interviews about their experience of the lecture versus tutorial.

5.2.4.3 Abstraction & Metaphor and lexical density

While acknowledging the underpinning principle that language is meaningful only in the context of the whole text and all that this implies, since a high incidence of abstraction & metaphor is a principal feature of humanities discourse and a feature that increases its abstractness, formality and inaccessibility, it is appropriate to begin this discussion of the four instantiations of the humanities text by comparing the realisation of abstraction and metaphor across all four texts.
As part of this analysis of the impact of lexical density and abstraction & metaphor on comprehension, it is also useful to quantify their occurrence in the texts as a whole as well as at the clause and clause complex level. This provides a picture of the extent of cognitive load over the entire course of the one and a half hour lecture compared with tutorials for this lecture.

Table 5.3 provides the figures for the incidence of lexical items and abstraction & metaphor across the four text instantiations at the level of clause (LD & A&MD), clause complex (CC) and whole text. It is useful to view the incidence of lexical and abstraction & metaphor at these three levels to achieve a comprehensive (macro and micro) view of students’ exposure to these elements. The table also shows the ratio of abstraction & metaphor to lexical item for each text as a further indication of levels of cognitive load.

Because lectures tend to be presented in a more didactic, “formal academic” mode, it was assumed that the lecture would record higher levels of abstraction and technicality than the tutorials. However, what was unknown is whether these levels would differ greatly across the three tutorial presentations by three different tutors. The figures from this comparison will be compared later to students’ views of which instantiation they found the easiest to follow. To refine the measurement and establish the significance of the different counts for lexical density and abstraction across the three texts, an LSD Post Hoc test (Quinn and Keo, 2002) for least significant difference between the means was applied (Table 5.4).
Table 5.3 Lexical and abstraction & metaphor incidence.

<table>
<thead>
<tr>
<th></th>
<th>Lecture</th>
<th>Tutorial 1</th>
<th>Tutorial 2</th>
<th>Tutorial 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>LI/CC</td>
<td>13</td>
<td>10.23</td>
<td>9.47</td>
<td>9.47</td>
</tr>
<tr>
<td>LD</td>
<td>5.3</td>
<td>4.76</td>
<td>4.79</td>
<td>4.55</td>
</tr>
<tr>
<td>%LI/words</td>
<td>48.16</td>
<td>50.26</td>
<td>41.79</td>
<td>51.10</td>
</tr>
<tr>
<td>A&amp;M/CC</td>
<td>4.02</td>
<td>2.61</td>
<td>2.32</td>
<td>1.59</td>
</tr>
<tr>
<td>A&amp;MD</td>
<td>1.67</td>
<td>1.18</td>
<td>1.2</td>
<td>0.78</td>
</tr>
<tr>
<td>%A&amp;M/words</td>
<td>14.74</td>
<td>9.67</td>
<td>10.23</td>
<td>8.34</td>
</tr>
<tr>
<td>A&amp;M/L</td>
<td>1:3.03</td>
<td>1:3.82</td>
<td>1:3.58</td>
<td>1:2.78</td>
</tr>
<tr>
<td>%A&amp;M/L</td>
<td>30.60</td>
<td>23.05</td>
<td>24.47</td>
<td>16.80</td>
</tr>
</tbody>
</table>

Table 5.4 Comparisons of mean lexical density and abstraction & metaphor density between the four instantiations according to an LSD test. Probabilities of significant differences between the means are given with no significant difference denoted as ‘ns’.

The LSD Post Hoc test revealed that there was no significant difference in the lexical density (LD) across all four instantiations and in the abstraction & metaphor density between Tutorial 1 and Tutorial 2. There was however significant differences in the abstraction & metaphor density (A&MD) between the lecture and the tutorials, and the abstraction & metaphor density (A&MD) between Tutorial 3 and Tutorial 1 and Tutorial 2.
This implies that lexical density remains a constant and necessary feature of all four instantiations reflecting perhaps the “formality” inherent in academic discourse compared to everyday language. However, the significant difference between the levels of abstraction & metaphor density of the lecture compared to the tutorials was predicted, because of the inherent “informality” of tutorials. Of interest, was the significant difference between levels in Tutorial 3 (significantly lower) compared to Tutorials 1 and 2. Whether this difference affected a more positive response from the students’ to the tutorial will be examined in section 5.2.5. The remainder of this section will examine whether Tutorial 3 differed in respect to other language features.

5.2.4.4 Comparing incidence of lexical items across texts

High lexical density is largely a by-product of grammatical metaphor in that we utilise lexical items (in the form of nouns) for reconstruing processes as things (Halliday, 1993: 76-79). In this way a measure of lexical density includes the incidence of abstraction & metaphor as well as other content words. This analysis goes a step further by counting the number of ideational metaphors among these lexical items in the acknowledgment that content words in everyday use have less cognitive load than ideational metaphor. This distinction is illustrated in this extract from the lecture which has 15 lexical items (in italics) with 6 of these ideational metaphors (bold italics):

So that would suggest that no matter what our feelings about post-modernism, something is in fact occurring; that there is a groundswell of change, a radical philosophical turn, if you like, which is taking place in our younger generation.

The non-metaphorical lexical items are generally everyday terms whereas the metaphorical ones tend to be more specialised, captured in nominal groups and found in formal written texts.
As we progress away from concrete towards abstract through this conversion of being and doing to “thingness”, the proportion of grammatical words to content words and the number of clauses per clause complex reduces and the number of content words (lexical items), expressed as abstract metaphors in nominal groups, increases. Because of this increased abstraction it can get harder for the "reader" to keep a grasp on the concepts being discussed. If we look at the example below we see that the proportion of lexical items per total words in the clause increases as the text shifts towards abstraction:

**More Concrete**

She thought that she should be left alone so she could ponder all the things [[she had lost]].

LD 6/3 = 2

**More abstract**

Solitude was a requirement for facilitation of her loss contemplation.

LD 5/1 = 5

<table>
<thead>
<tr>
<th></th>
<th>Lecture</th>
<th>Tutorial 1</th>
<th>Tutorial 2</th>
<th>Tutorial 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LI/CC</strong></td>
<td>13</td>
<td>10.23</td>
<td>9.47</td>
<td>9.47</td>
</tr>
<tr>
<td><strong>LD</strong></td>
<td>5.1</td>
<td>4.74</td>
<td>4.75</td>
<td>4.56</td>
</tr>
</tbody>
</table>

**Table 5.5 Mean lexical incidence across texts (extracted from Table 5.1).**

Although the range in difference is relatively small (from 9.47 - 13), the average number of lexical items per clause complex and the average lexical density is higher in the lecture than in the tutorials. The higher lexical incidence and lexical density in the lecture can be attributed to the tendency for mass lectures (and particularly this one) to be presented as formal text and thus lean away from concrete expression towards abstract expression and a higher proportion of content words (lexical items).
Likewise Tutorial 1 which is also conducted by the lecturer has the highest lexical density of the tutorials because this person characteristically uses a more formal academic speaking style as a matter of course. However, it is significant that the lecturer still succeeded in shifting his language to being less lexically dense in the less formal and more interactive setting of a tutorial.

A further comment on the higher lexical density in the lecture is the observation that the lecturer seems to use lexical density combined with grammatical intricacy. This adds a further layer of complexity to the language and increases the difficulties with comprehension. This was expressed candidly to the lecturer by a student who commented: “… when you started explaining it got more complicated than what you’d said so I got totally lost.” An example of such complexity is found in the following clause complex from the lecture which has three clauses and a lexical density of $28/3 = 9$. However within each clause is a subordinate clause, so in effect, there are six independent but associated ideas presented without pause in one sentence or clause complex.

1 For those of you [[who are interested in the way [[postmodernism is affecting education]]]], I also have a copy of a chapter [from a recent book [[called “Moral Education and Pluralism”]]]
2 which I will put on short-term loan;
3 for those of you [[who are interested in the effects of postmodernism on the schools]]
that will be particularly applicable to teacher education students in the group.

5.2.4.5 Comparing Incidence of Abstraction & Metaphor across texts

The comparison of abstraction & metaphor across the four texts again reveals predictable patterns. These are illustrated in Table 5.6.
The table shows the comparison of average count of abstractions and metaphors per clause complex; the density of abstraction & metaphor; the percentage and average abstraction & metaphor per total number of words and the ratio of abstraction and metaphor to lexical items. This represents the way abstraction & metaphor is distributed in the texts and the proportion of highly abstract lexical items. In this way it is possible to compare the cognitive load imposed on the students across the three texts.

The lecture has a higher incidence and concentration of abstraction & metaphor which reflects the measures for lexical density. This can be seen at the level of:

- clause – with the lecture showing an average of 1.7 A&M/C compared with 1.2, 1.2 and 0.7 for Tutorials 1, 2 and 3 respectively,
- clause complex – and average of 4.3/CC for the lecture compared with 2.4, 2.5, 1.7 for Tutorials 1, 2 and 3 and
- whole text – a ratio of 1 A&M to 6.78 words in the lecture compared to 1 to 8.63, 1 to 9.78 and 1 to 11.98 in Tutorials 1, 2 and 3 respectively.

In fact the incidence of abstraction & metaphor is around twice as high in the lecture than it is in Tutorial 3 (the more conversational tutorial).
Of the tutorials, Tutorial 1 has a higher lexical and ideational density than the other two tutorials. Again, this is predictable because it is presented by the lecturer.

Measuring the incidence of abstraction & metaphor at these three levels, clause, clause complex and whole text, provides a more comprehensive picture of the extent of students’ exposure to abstract language which they often find harder to comprehend. If we view each clause as a discrete unit of meaning then a high density of abstraction & metaphor at this level is a significant indicator of cognitive load as each clause must be understood separately to make sense of the clause complex.

At this next level (clause complex/sentence) high density is combined with layers of embedded meaning provided by each clause, thus adding to the challenge of making meaning. For example the following clause complex extracted from the lecture contains 11 abstraction & metaphors (in bold) contained within 3 clauses and one subordinate clause:

> [It is anti-positivist] and [objects to any idea of a correspondent theory of truth]; [that we can [[through a positivist, scientific, measured, empirical investigation]], establish the truth].

Finally, the density of abstraction & metaphor at the whole text level gives some indication of how sustained the associated cognitive load is over a large volume of text over a long period (one and a half hour session).

The following histograms illustrate the frequency of abstraction & metaphor at a clause complex level (Fig. 5.5). These histograms clearly depict the data reported in Figure 5.4, showing the extent to which high abstraction & metaphor is sustained across each text, and the extent of abstraction & metaphor at a clause level.
Figure 5.5 Illustration of frequency of A&M counts per clause complex across the four instantiations.

From these histograms the higher incidence of abstraction & metaphor across the lecture can be seen. While Tutorials 1 and 2 have lower levels than the lecture, Tutorial three has considerably lower levels across the whole text and in each clause complex.
5.2.4.6 Comparing types of abstraction and grammatical metaphor across the texts

In the analysis the types of abstraction and metaphor: abstractions (semiotic, generic, institutional, technical and quasi technical), grammatical metaphors, in each text have been identified and the % of total abstractions and metaphors in relation to the number of words each text is calculated. These figures (Table 5.7) are compared across each text and reveal some interesting patterns, some predictable and some surprising.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Lecture</th>
<th>Tutorial 1</th>
<th>Tutorial 2</th>
<th>Tutorial 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;M Type</td>
<td>No.</td>
<td>%Total</td>
<td>No.</td>
<td>%Total</td>
</tr>
<tr>
<td>Generic, Semiotic, Institutional Abstractions</td>
<td>291</td>
<td>42.4</td>
<td>294</td>
<td>71.2</td>
</tr>
<tr>
<td>Grammatical Metaphors</td>
<td>284</td>
<td>47.6</td>
<td>94</td>
<td>22.8</td>
</tr>
<tr>
<td>Technical Abstractions</td>
<td>9</td>
<td>0.8</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td>Quasi-tech Abstractions</td>
<td>51</td>
<td>8.5</td>
<td>21</td>
<td>5.1</td>
</tr>
<tr>
<td>%A&amp;M/words</td>
<td>-</td>
<td>14.7</td>
<td>-</td>
<td>9.7</td>
</tr>
<tr>
<td>Total A&amp;M</td>
<td>597</td>
<td>413</td>
<td>430</td>
<td>367</td>
</tr>
<tr>
<td>Total LI</td>
<td>2173</td>
<td>2282</td>
<td>2027</td>
<td>3136</td>
</tr>
</tbody>
</table>

Table 5.7 Comparing types of abstraction and grammatical metaphor across the texts.

The comparison of combined abstraction and metaphors across the texts is predictable, the lecture being consistently the most abstract and formal of the four texts. Tutorials 1 and 2 tend to have a similar level of abstraction & metaphor and lexical density and Tutorial 3 has lower levels of abstraction & metaphoric language being the most conversational of the tutorials.
This is illustrated in the comparisons between the percentage of abstraction & metaphor recorded for each text: Lecture 14.74%, Tutorial 1 9.67%, Tutorial 2 10.23% and Tutorial 3 8.34%. However, when the specific types of abstraction and metaphor are compared the aggregated figures are less predictable.

**Abstractions and Grammatical Metaphor**

Martin (1996) suggests that abstract terms tend to be more ideational and relate to more unmarked uses than metaphors. This relative distance from congruence can be seen by comparing, for example, the institutional abstraction *positivist* with the grammatical metaphor *categorisation*. In terms of layers of abstraction and meaning, the term positivist, is significantly more complex to unpack, requiring two layers of explanation. The first layer might be, “a positivist is someone who believes truth can only be found by observation and positive facts”; and the second layer,” this means, the only things we can believe for sure are things we can see happening or facts we know are definite – like who the prime minister is”. Whereas, categorisation can be explained in more concrete terms and more simply as: “sorting things that are in some ways the same into groups and giving the groups a name. For example: all things with feathers can be categorised as birds.

Thus, because abstractions tend to be further removed in time from the congruent source than metaphors, and are consequently more difficult to realise in concrete terms, a heavier cognitive load is required for understanding abstract terms. This is an important consideration given the higher occurrence of abstractions in this Lecture and the increasingly lower literacy levels of first year students (see Chapter 2.2.5.1).

This said, it might seem surprising that the highest percentage of abstractions were found in Tutorial 3 (81%) then Tutorial 1 (71%), then Tutorial 2 at 63% and lowest in Lecture at 42%. However, when one notes the principal
The purpose of tutorials is to unpack the ideas presented in the lecture, one might predict that many of the abstractions in the tutorials are terms carried across from the lecture so that they can be defined and unpacked. In this way, the higher percentage of abstractions in the tutorials compared with lecture reflects the number of abstractions from the lecture that required explaining in the tutorials. These would include a considerable number of institutional abstractions which will be unfamiliar for many first year students. Some examples of abstractions from this Lecture include: critique (institutional), feminism (institutional), globalisation (technical), and economics (institutional).

Two other interesting and mitigating factors for the higher abstract metaphor count in the tutorials compared to the lecture are: one, the overall figures for abstraction & metaphor (A&M) which put the lecture as having almost twice as high a rate of A&M’s as Tutorial 3 and, two, the comparative number of grammatical metaphor for each text. The lecture having double the GMs as the Tutorials 1 and 2 and triple that of Tutorial 3. This comparison is particularly important because although we might predict the lecture to contain a high number of abstractions, particularly institutional, it should be noted that the layers of abstract complexity found in formal language is also expressed through grammatical metaphor. The lecture has an almost equal proportion of grammatical metaphor to abstractions which compound the abstractness of the text whereas the tutorials have considerably smaller proportion of grammatical metaphors: less than half the number.

The higher number of abstractions in the Tutorials reflects their explanatory function which requires a restating of abstractions from the lecture (particularly institutional ones) for the purpose of defining and elaborating. This, along with building the field (more institutional abstractions) as a context for understanding new terms, explains the concentrations of A&M as abstractions.
The relatively lower proportion of grammatical metaphor compared to the lecture supports the following discussion comparing taxonomic relations in the three texts. This discussion will show that concepts (particularly institutional abstractions) were explained through reference to processes involving concrete entities rather than being explained through reference to relations between abstract qualities of things.

As Martin and Rose (2003: 245) remind us, “…the key resource which unties texts from situations is grammatical metaphor because of its power to reconstrue activity as things.” Colloquial, non institutional language relies on the situational context and the tutorials in their effort to bring the ideas to the students situationally (to assist them to engage with their existing schema) move away from the devices of grammatical metaphor.

An example of this pattern of relative incidence of grammatical metaphor to abstraction is found in these samples of explanations for deconstruction from the lecture compared with Tutorial 1 and Tutorial 3.

Lecture: The goal of deconstruction is to intervene in ongoing movements, to keep things in process, to disrupt, to keep the system in play, to set up procedures to consistently demystify the realities we create, to fight the tendencies for our own categories to conceal. (6 grammatical metaphors, 2 abstractions), compared with,

Tutorial 1: So deconstruction is concerned with looking at all the structures that we’ve come to take for granted and all the structures which dictate our existence, like political ideology, the history that we take to be true; all of these things, and saying hang on a minute, are these believable, are these the only ways to see the world? (5 grammatical metaphor and 2 abstractions);

Tutorial 3: Okay, the notion of deconstruction; if you are taking or looking at someone else’s theory or someone else’s way of looking at the world, the universe or whatever, and you don’t agree with their overall kind of sorts of meaning, what
structuralist’s, do they sort of; they look to deconstruct it by looking at the circumstances, how it got to be like it is (0 grammatical metaphor and 6 abstractions - 2 institutional, 2 semiotic and 2 generic).

The much lower proportion of grammatical metaphor in Tutorial 3, 16% compared to the other two tutorials (Tutorial 1 22%, Tutorial 2 30%) reflects the significantly more colloquial style of Tutor 3 and the general trend across all observations for this tutorial to be situated in at the concrete end of the continuum. The high GM for Tutorial 2 compared to Tutorial 1 is mitigated by a lower proportion of abstractions and the fact that when the abstractions and grammatical metaphor are combined the three tutorials have almost exactly the same proportions, being: Tutorial 1 94%, Tutorial 2 93%, Tutorial 3 97%.

5.2.4.8 Technicality

In the lecture it is interesting to note the relative lack of abstractions: 0.9% technical abstractions, 8.75% quasi technical abstractions, the remainder being made up of 42.75% institutional, semiotic and generic abstractions and 47.60% grammatical metaphors.

Wignell (1997) defines technicality as occurring when a term is defined within the context of the discipline. Thus, the low level of technicality in the lecture is not surprising because a significant feature of the lecture is its tendency not to define terms. Rather, in the manner of the discourse of humanities, the lecture does not appear to attempt to reconstrue experience as technicality but instead to reconstrue it through generic abstraction and metaphor to arrive at semiotic or institutional abstraction. This pattern is reflected in the count of different kinds of abstraction & metaphor which show that only 0.84% of the abstractions are technical.
This lack of technicality and reliance on semiotic abstraction can be also understood in terms of Bernstein’s (1999) discussion of the nature of horizontal knowledge structures (which include humanities and social sciences). These are presented as a series of segmented, specialised languages with knowledge structures that are not translatable into generalised terms. Bernstein (1999:162) explains that this is because “they make different often opposing assumptions, with each language having its own criteria for legitimate text, what counts as evidence and what counts as ‘legitimate questions’ or a legitimate problematic”. Thus, the defining of terms and fixing of these definitions runs counter to the premise of these texts which challenge definition. In these disciplines the capital of horizontal knowledge structures is bound up with the successful defence and challenge of other languages.

In the tutorials by comparison, the highest percentage of technicality can be seen in Tutorial 2 at 3.72 %, then Tutorial 3 at 1.91 % compared to the lowest in the lecture at 0.84 % and Tutorial 1 at 0.97 %. This reflects the tendency of Tutorials’ 2 and 3 to focus much more deliberately and consistently on defining terms from the lecture and in doing so convert them from abstractions to field-specific technical abstractions. On the other hand, the lecture and Tutorial 1 tended to elaborate on them by introducing new, relatively obscure, undefined abstractions or equally obscure verbs formed from a prior abstraction like positivistic rather than specifically defining terms in a token/value relationship. The following explanation of modernism from the lecture illustrates this (abstractions in bold):

So what’s modernism or structuralism.
So I said in the lecture that,
and I’m trying to simplify it
so it may come out a bit over empty,
(contd)
part of the project of modernism which begins with that enlightenment period
was looking for universal rules, universal laws
which governed and structured all societies, okay?
Not simply the western ones but it was extended to and applied to all societies everywhere.
So the world was then seen as inherently structured
And some of you may still see it that way, and indeed,
I think we have to up to a point otherwise we wouldn’t be able to put one foot in front of the other.
We’ve got to have some expectations
This is part then of modernism,
and modernism is very positivistic,
it’s got a positive aspect to science;
science is seen as empirical or positivistic,
and so that’s associated with it as well.
So the world then is to be structured.
Now, that is then the modernist project

Thus modernism is explained using the key terms: Enlightenment period, universal rules, universal laws, societies, way, positivistic, empirical, modernist project.

Tutor 2, while also utilizing a number of abstractions in explaining the term modernism, by contrast, reduces these again to more concrete terms, so, for example, in the extract below, the modern technocratic age becomes “the age of machines and high rise buildings”:

Modernism is the period that was defined by these ideals of structuralism.
Okay you can look at the word structuralism quite literally in a way,
to help you interpret it.
So obviously, the root word there is structure.
The emphasis is on structures,
it’s on political structures,
and even on physical structures in the modern technocratic age;
that is, the age of machines and high rise buildings.
In this way students are provided with a definition of the abstract term in language that references familiar everyday concepts (ones students are likely to have existing schema for).

5.2.4.9 Quasi-technical Abstractions (QTA)

The other quite regular type of abstraction & metaphor in this lecture is the quasi-technical. An example where terms can be used in a quasi-technical way can be this can be seen in the context of the paragraph below:

Those of you who are interested in culture and semiotics, those of you who are interested in seeing how the postmodern body is sculptured ... could well spend a very interesting half an hour just wandering around through that [textiles] exhibition.

In this context the terms culture, postmodern body and sculptured are not meant to be interpreted according to their most common literal meaning but have taken on particularly meaning within the field that has not yet and will not be defined in the lecture. Specialist terms such as these are ones which tend to have been recently created and defined within the discipline and take on very specific meanings within that context. These quasi-technical abstractions are an example of a characteristic feature of the horizontal knowledge structures of the humanities whose currency lies in the ability to “offer the possibility of fresh perspective, new set of questions and apparently a new problematic, and most importantly a new set of speakers” (Bernstein, 1999: 6).

Thus, as the students attempt to decipher this clause based on their existing schema of more literal definitions they are confronted with an unexpected layer of metaphor that further confuses (unless, in this instance, they have been exposed to and understood the language and theoretical frameworks of
cultural studies at high school). The combination of abstraction and the highly specialised knowledge described by the abstract terms makes this kind of language particularly difficult to understand.

Comparison of the percentage of quasi technical abstractions across the texts shows the lecture with 8.54%, Tutorial 1 with 5.08 %, Tutorial 2 with 3.02 % and Tutorial 3 with 1.09 %. The quasi technical abstractions in Tutorial 2 and Tutorial 3 are followed by a definition as part of the unpacking/specifying process. So for example in Tutorial 3 the quasi technical term “notion of self” is immediately followed by a more concrete expression of the term:

The notion of self we sort of take for granted - that we are who we are, a poststructuralist would say well, how did you get to be you?

The relatively high appearance of quasi technical abstractions (QTA) in Tutorial 2 reflects repetition of quasi technical abstractions from the lecture in order to define them. It is predictable that Tutorial 1 has the highest percentage of QTA terms since this tutorial is presented by the lecturer. Unlike the other tutorials the quasi technical abstractions in this tutorial are not defined.

5.2.4.10 Combination Abstractions

Another form of abstraction & metaphor that occurs in this lecture is where a term is comprised of institutional, semiotic abstraction and technicality combined. For example: feminist post-modern thought. It is worth considering how these combined abstractions are derived and the implication of this on students’ comprehension. For the institutional abstractions, the congruent derivation lies in the specialist field of the particular social institution while the congruent realisation of the semiotic abstraction, although realised in different fields, is more commonly found in written
discourses (Martin & Rose 2007). Thus, the student in unpacking the phrase above, needs to have knowledge of a whole complex body of thinking from particular institutional fields, and then understand how this describes a type of “thought” (thought being an abstraction that has arguably the least potential for congruent realisation) to arrive at an understanding of what it is to think in a feminist, post-modern way. Added to this, the phrase requires these “readers” (who are uninitiated to the institutional fields) to work out how postmodernism might be reinterpreted by feminism or vice versa.

Where the student demographic arrives at university not skilled in the demands of academic literacy, minimal experience with abstract written texts and minimal cultural capital of the kind that predicts success at university, it’s not hard to imagine how difficult a phrase such as this would be to understand.

5.2.4.11 Comparing the incidence of different types of Abstraction & Metaphor within the texts

A final view of occurrence in these four instantiations is a view of how “abstraction & metaphor type” is distributed within each text which builds on the previous discussion comparing abstraction to grammatical metaphor. As established earlier in the discussion, Martin (1996) suggests that because abstractions tend to be further removed in time from the congruent source than metaphors there are more layers to unpck in realising their meaning. Quasi technical abstractions are arguably even further removed because they are abstractions whose meaning is specific to a particular discipline and characteristic of what Bernstein (1999) calls horizontal language structures where terms are not traced back through a hierarchy but rather invented and replaced as part of a process of readjusting a notional gaze.
The lecture is made up of mostly grammatical metaphor and then abstractions, almost half of each. There was a very small percentage of technical terms at 0.4 and quasi technical abstractions made up only 2.35%.

Of the tutorials, Tutorial 2 has the highest grammatical metaphor and the highest technicality. The higher percentage of technicality (T) reflects the more structured tutorial which sets out specifically to define terms. The higher grammatical metaphor may reflect the less colloquial style of this tutor compared to Tutorial 3. Compared to Tutorial 1 the higher number of grammatical metaphor’s (GM) is countered by a lower percentage of abstraction (Ab) then Tutorial 1 (difference 7.7%) which indicates a less “academic” tenor and mode. Quasi technicality (QT) was lower in Tutorial 2 (by 2.06%) but higher than Tutorial 2 by (1.93). This reflects the focus on defining technical and abstract language in everyday terms.

Interestingly, Tutorial 3 predicted to be the most accessible in terms of language, had a very high % of Ab compared to other A&M’s at 81%. This can be attributed to this tutor’s high repetition of Ab from the lecture as part of a process of defining and explaining and, as part of these explanations, the employment of new institutional metaphors as historical reference points. Relative to LI Tutorial 3 still had the lowest % of Ab of the 4 samples. Next was GM at 16% and the T with only 2%. QT was very low at 1% which reflects the strong focus in this tutorial on defining T and Ab in everyday terms. Relative to words, Tutorial 3 had the lowest % of A&M at 8% compared to the highest at 15% so the high percentage of Ab needs to be understood in the context of the highly accessible non A&M language used to unpack the Ab. When these abstraction & metaphor measures are correlated with the other language features, taxonomic relations, periodicity, engagement and conjunction we see how the challenges at the lexical level can be alleviated or exacerbated at a broader textual level.
5.2.4.12 Taxonomic Relations

From the point of view of taxonomic relations the lecture tends to either present a whole range of ideas tenuously related in class or part lined up on the same level of classification. In other words, the taxonomic relations of the lecture viewed as a whole reveal a number of keys terms broken down to only a second level, and at best, on occasions a third. This taxonomic pattern is consistent with Bernstein’s (1999) definition of horizontal knowledge structures where ideas are not presented hierarchically but rather alongside (but independent of) each other.

Alternatively, where a concept is broken up into parts each part is so metaphorically dense it does nothing to further students understanding of the original concept. In other words, even where there is evidence of a taxonomic structure in the lecture, students are rarely presented with an unpacking/specifying of concepts at a simplified congruent level of classification.

An example of this first tendency is found in the Paragraph 36 of the lecture transcript which is attempting to explain an aspect of postmodernism, the civilisation of the image. The taxonomy below representing the key concepts in the paragraph illustrates this horizontal knowledge structure:

- civilisation of the image
  - Barthes’ term
    - bombarded by images
    - verbal expression replaced by image
    - self-referential preoccupation with the narcissistic self
    - penetrating language boundaries

An example of the second tendency is found in the following taxonomy of a “defining paragraph” (Paragraph 10).
This can be seen to breaks postmodernism up into parts at two levels but the lower level is actually more metaphorically dense than the middle level.

Post-modernism

- Defines itself by what comes after
- Feministtext – Patty Laver - Self consciously transitional movement
- Deacon – Boundary of the no longer & the not yet - Time of the now

This pattern is also problematic from the point of view of learning theories relating to the importance of schema. The work of Hirsch (1987), Bransford (1972), Cook (1978) and Ausubel (1968) tells us that our background knowledge is an inherent aspect of understanding texts and that extra-linguistic inferences occur on our first exposure to material. More specifically in relation to how the information is categorised and how the ideas unfold in a text such as this, Cook claims that in using past knowledge to interpret new knowledge/experiences we draw on categories in our schema that give new knowledge a function and a place.

The categories we use to interpret experience are ones that have been most useful in the past and tend to be middle level categories as they are general enough to include a range of items. An example is the middle level category of *dolphin* which will be most familiar, not the higher level *cetacean* nor the lower level *bottle nose dolphin*. The middle level category tends to be the most common everyday categorisation and therefore by pitching an explanation first at this familiar level of categorisation students are giving a cognitive window through which to view knowledge. Looking at the above samples of taxonomic relations no middle level category is provided. An alternative explanation of postmodernism which utilises middle level categories might, at the first level, classify postmodernism into classes: *literature, visual art, architecture.*
These are technical abstractions but familiar terms, which can be unpacked with concrete examples of how postmodernism manifests in these disciplines.

The taxonomic relations in the tutorials reflect a more conscious attempt at explaining key abstract terms from the lecture in more concrete terms, but within the tutorials there are variations to how well this is achieved. These variations reflect the communicative style of the tutors as well as the extent of formal structure in the facilitation of the tutorials. **Tutorial one** has a taxonomic pattern that more consistently classifies each concept to at least three levels. However, it does not consistently represent the concepts in increasingly congruent terms, more often, they are classified with alternative forms of abstraction & metaphor as the example above illustrates. Even at the fourth level concepts are expressed as abstractions (blue) and quasi-technical abstractions (red). This can be seen in the following Figure 5.6 which presents a taxonomy of a section in the tutorial explaining the attack on anthropology by postmodernism.

![Figure 5.6 Taxonomy illustrating three levels of unpacking without a move to congruent explanations.](image-url)
Tutorial two, on the other hand, takes a much more deliberate and consistent approach to how concepts are classified, the third or fourth level of classification representing the concepts in everyday congruent terms drawing from examples from the world the students occupy, for example in the first paragraph of the section describing the positions of postmodernism where anti-foundationalism is described. This move towards congruency is illustrated in the following Figure 5.7 which presents a taxonomy of key concepts in the paragraph:

![Figure 5.7 Taxonomy illustrating three levels of unpacking/specifying towards congruent explanations.](image)

Tutorial three displays yet a different taxonomic pattern, with a far less consistent structure than the other tutorials. Some but not all key terms are bought across from the lecture and defined and, those that are, tend to be unpacked in congruent everyday language by the second or third level and with a regular use of with examples from the students social context.

The overall approach for this tutorial is to provide a more or less general definition and discussion of two key concepts from the lecture - postmodernism and post-structuralism using the tutor’s own terms for explaining these rather than referring to all of the terms raised in the lecture as part of the discussion of these key ideas.
This spares the students from what may be seen as unnecessarily confusing concepts raised in the lecture but has the disadvantage of perhaps leaving unanswered questions from the lecture. The following Figure 5.8 illustrates the introduction of congruency at the second level of the taxonomy and the use of examples from the students’ world to illustrate ideas. Notice too, the frequent use of the second person pronoun, at the second and third levels of classification, immediately placing the students as the agents and revealing agency.
Figure 5.8 Example of unpacking of abstract metaphorical term towards increased real-world congruency.
5.2.4.13 Periodicity

Periodicity refers to devices which help the reader follow the flow of ideas, the waves of information presented in summary as a “peak of textual prominence” and then detail and then summary again, presented as tightly packed metaphor then in more concrete terms and then packed again in metaphorical language. Thus periodicity refers to the predictable wave-like patterns of discourse which make the text organisation more predictable and easier to follow. (Martin and Rose 2003).

The following (Figure 5.9) illustrates the periodicity across the four texts at intervals of seven. The mean abstraction & metaphor is shown in the vertical axis. The horizontal axis indicates the clause complex number. The pattern illustrates the mean abstraction & metaphor incidence at intervals of five (every 5 sentences). The period of seven is chosen because the average number of sentences per paragraph across the three texts is seven. Thus the pattern of waves of abstraction & metaphor should rise and fall at the intervals of paragraph: high abstraction & metaphor (A&M) to introduce the concept at the beginning and low to unpack it.

The trend for the lecture (black line) is a consistently higher A&M than the tutorial sessions. As well, the dips away from A&M and towards congruency are not as low and not as sustained as the tutorials. In other words the waves are steeper and spikier and occupy the abstract levels far more than the concrete. The peaks of abstraction illustrated in Figure 5.4 are associated with phases in the text where abstract concepts are introduced. The relatively short troughs at concrete levels are an indication of the minimal amount of congruent explanation of these concepts.
On the other hand, the tutorials have much longer periods of congruency in between peaks of abstraction indicating the explanation of terms from the lecture on everyday language.

When comparing the three tutorials, Tutorial 1 (green line) has a more even pattern of highs and lows, especially in the first half where periods of low A&M are equally sustained as the periods of high A&M. Tutorial 2 (red line) starts with even peaks and troughs of A&M at relatively lower levels but builds up to high peaks matched by sustained periods at lower levels. Tutorial 3 (blue line) has the least extreme, most even patterns of high and low with periods of very low and sometimes no A&M.

This graphic view provides a vivid illustration of the pattern of waves of information from abstract to concrete experienced by the students in the different instantiations of the text. It illustrates with high sharp peaks and troughs the sustained abstractness of the lecture. By contrast, it also indicates a distinct pattern of very high abstraction and metaphor followed by more sustained language at concrete levels in the tutorials, as abstract language is introduced at the beginning of each paragraph, (hyper-Theme) explained in concrete terms and distilled (hyperNew).

Tutorial three (green line) was the most “spoken” of all the instantiations and the approach of introducing a concept and then illustrating it at length in the students own terms can be seen in the steep peaks and the broad troughs at a low level (between zero and one) of abstraction. By contrast, the more formal language used in the other instantiations, even when unpacking abstraction and metaphors, can be seen in tutorial one and two which, at their lowest, tend to hover between a density of two to three A&M per clause complex.
Figure 5.9 Patterns of abstraction and metaphor occurrence across four instantiations illustrating the rise and fall or periodicity across texts.
To examine these patterns of periodicity more closely and in the terms of Martin and Rose (2004), the macro and hyper-Themes and new of each text were identified and analysed.

Although these devices are employed in this Lecture, it fails to employ them in a way that assists students in following the flow of ideas and/or interpreting new expressions and concepts in a meaningful way. This is in part because of the high density of abstract metaphor in the hyper-Theme and new. Martin and Rose (2003: 194) in their discussion of “hard reading” suggest that highly metaphorical discourse (like that of a lecture in humanities or social sciences) necessarily employs hyper-Theme and new that have densely packed grammatical metaphor because there is more information to predict and distil than in texts dealing with more concrete concepts (e.g. Science). Thus, the potential of predictive devices to help to sign post meaning in the text may be countered by the difficulty in unpacking the meaning behind their dense metaphorical content.

Additionally, in this lecture, the densely metaphoric hyper-Theme and new were followed by a series of equally abstract metaphoric language by way of elaboration and explanation whereas the tutorials tended to use more concrete everyday examples in unpacking ideas.

Macro theme and Macro new

Although the Lecture offers a clear macro structure of Intro (including macro theme), Body and Conclusion (including macro new), this is immediately confused, after the macro theme is introduced, by a digression for four paragraphs on topics unrelated to the theme “postmodernism”. Once the theme is reinstated at paragraph five the lecturer adheres to the macro theme for the rest of the Lecture.
Hyper-Theme and Hyper-New

Martin and Rose (2003, 181) explain that the hyper-Theme “orientates the reader to what is to come” in the paragraph – it provides a “frame of reference”. As the following clauses elaborate on the theme, new information accumulates which is often summarised or distilled in the hyper-New at the end of the paragraph (182).

In the lecture an interesting variation on this predicting, elaborating, distilling occurs. Although the lecture has a fairly consistent pattern of hyper-Theme at the beginning and hyper-New at the end, there are a number of factors in the lectures approach which are inconsistent with the ideal:

The first lies in what happens in between the hyper-Theme and new. Instead of elaborating (through example and definition) on the hyper-Theme before distilling this in the hyper-New the students are presented with a series of points that are not explicitly related to the theme and do not elucidate it. This is an example at the micro level (paragraph) of what Bernstein (1999) refers to as horizontal discourse where concepts, rather than being presented hierarchically, are presented as discrete unrelated pieces of information within complex clauses that have a high metaphorical density. The second inconsistency is where the new implicitly refers back to the theme/given but, because it doesn’t utilise key terms from the hyper-Theme nor relate explicitly to the elaboration, it does nor reinforce the key ideas clearly.

The following example where the lecturer attempts to define postmodernism illustrates both of these patterns. It shows that the lecturer, rather than succeeding to elaborate on the hyper-Theme (grey highlight) and then distilling the elaboration in the hyper-New (yellow highlight), instead presents the listeners with a series of abstract ideas (bold italic) not explicitly...
connected to the hyper-Theme and new. It also represents the theme with hyper-New information that utilises a high density of new metaphors.

Para 10

1 If we are going to try and define post-modernism, we can say that it defines itself by what comes after

2 Patty Lather, in an incredibly good feminist text called “Getting Smart”, Patty Lather says, ‘It is a self consciously transitional movement, the boundary between the no longer and the not yet’, which has led some academics, particularly at Deakin, to call this the time of the now

3 The time of the now

4 Clearly, people are preoccupied with the emergence of a new epoch and what that means and where it leads

Finally, in some paragraphs a new theme is introduced, no elaboration is provided and the new introduces a range of undefined institutional and grammatical metaphors such that the A&M density in the example below averages 1:2.3 per clause complex:

For example:

Para 23

1 The critique of the human subject, which actually begins in modernist times, gets pulled through into post-modernism

2 The agency or autonomy of the subject, to what degree the human subject is in fact controlled by structure; this is all, the whole question of subjectivity which I told you last time, that all comes up here.

Para 24

1 It’s marked too by the celebration of difference

2 So the celebration of difference, celebrating difference; that difference was not something bad, not something to be avoided, that people did not have to be normalised and surveyed and policed so that they occupied a normal position
Para 15

1 So I’m arguing that deconstruction, the process of deconstruction, is closely aligned with post-modernism.
2 It doesn’t have to be, of course, but for the sake of this presentation, that’s what I’m assuming.
3 A number of you who have left school recently within the last seven or eight years will, I imagine, have been exposed to deconstruction, particularly in fine arts classes, in literature classes, and in some social education and social science classes.
4 The goal of deconstruction is to intervene in ongoing movements, to keep things in process, to disrupt, to keep the system in play, to set up procedures to consistently demystify the realities we create, to fight the tendencies for our own categories to conceal.

Para 20

1 It is anti-positivist and objects to any idea of a correspondent theory of truth; that we can through a positivist, scientific, measured, empirical investigation, establish the truth.

Para 21

1 It is anti-representational.
2 Maybe that’s putting too strong a gloss on it but let’s say, it calls into question representational systems; the way in which we represent the body, the discourses we choose, the language that we choose.
3 Those of you who will go ahead into research careers and a lot of you will, those of you who will be engaged in project work in your third year, you will have to frame your problem, you will have to frame your project; and the way that you frame it, the way that you frame the investigation, will inevitably alter the outcome to some extent.
By contrast *Tutorial 2* has a much more orthodox approach in its flow of predicting, elaborating and distilling in each paragraph. For example the following paragraph introduces in the theme the key preoccupation of anti-foundationally – the lack of reliability of existing foundations. Then it elaborates on what this means and synthesises and distils the point in the new which posits that the people who helped establish the existing foundations only represented a particular voice or way of seeing things. Thus the reader is scaffolded through one particular idea and then on to the next.

**Para 19**

1 So anti-foundationalism was basically saying that we cannot rely on the pre-existing foundations of society.

2 And when we talk about foundations we’re talking about political, historical narratives and meta-narratives on which we run our lives.

3 So, in Western society, the ideas of all those important scientists and philosophers like Freud, Darwin and Marx etc. etc cannot be entirely relied on as being the right “foundation”, or being the only way.

4 All of this is based on the premise that their views are not the only way of seeing things and they do not include everybody’s voice.

*Tutorial 3* also illustrates this structure in the following paragraph, however as a general pattern Tutorial 3 is less consistent in moving from hyper-Theme at the beginning of paragraphs to hyper-New at the end. Generally the hyper-New is elaborated on or unpacked in concrete terms but not always distilled at the end in the hyper-New:

(contd)
1 What do you think about that video tape you saw in the lecture that [the lecturer] said was an example of pastiche?
2 Collage and that; do those words make sense?
3 I looked up pastiche.
4 It comes from like originally from classical music.
5 You know in a piece of music is an imitation of the style of one of the sort of master composers; but it sort of extended the meaning to become copying or doing something in someone else’s style; which may or may not involve parody or sending that up.

Tutorial 1 succeeds in a much more consistent structure of Hyper-Theme, elaboration in more concrete terms and hyper-new but still contains a considerable number of paragraphs where the “elaboration” simply adds more ideas leading to a new set in the hyper-New. For example:

Para 7

1 Ethnographers would claim that you can in fact, you know, unpack all that garbage and leave it to one side.
2 But whether you actually can, and I have done some classroom observer work in schools and all that sort of thing.
3 And whether you can actually leave all of your prejudices, preconceptions, assumptions, previous histories, outside of the door when you go in, is another question.

Conjunction

At the clause and clause complex level the lecturer does occasionally use explicit and deliberate specific conjunctive terms. However as discussed in the previous section, in the case of the humanities lecture, the dense abstraction & metaphor with a lack of coherent and congruent unpacking and exemplification of terms at a paragraph level renders the conjunctive devices virtually obsolete in assisting students to follow the logical relations in the
For example in the following paragraph the concept introduced in the hyper-theme, “a reliance upon single explanations” is only extended at the end, in the hyper-new “there are profound shifts, profound changes” rather than explained/elaborated on. The body of the paragraph introduces an opposing point of view using equally obscure abstract terms and examples that are not unpacked or exemplified, so the use of a number of conjunctive devices (underlined) is of little help:

1 In the current time, there is no longer a reliance upon single explanations and cause and effect
2 Some people still say, though, that postmodernism is an invention, an invention of academics, an invention of the fringe that inhabits the festival scene; that in fact, we really have an extension of modernism which Giddens has called ‘high modernity’
3 In other words, there’s no real significant break or change; it’s merely a higher level, if you like, or an extended development of what we’ve already looked at, the period of modernism
4 I don’t want to particularly buy into that debate
5 I think it is important, nevertheless, but it could occupy me for the rest of the tA&Me here, and I don’t particularly think that that’s going to be particularly worthwhile
6 Let’s just accept that there are profound shifts, profound changes; some of which are disturbing, some of which are exhilarating and exciting, going on around us at the moment

In the context of tutorials where breaking down ideas is a principle objective, conjunctive devices may be particularly helpful in marking the classification or taxonomy of ideas which in turn helps students to understand the connections between layers of meaning and integrate the ideas into their own schema (from abstract to concrete) at whatever level they have access and in turn recall the levels of ideas. Because the tutorials analysed are by nature of their purpose more concerned with unpacking ideas in a careful, scaffolded way, they do reveal more consistent patterns of conjunction.
By the same token, each tutorial reveals its own idiosyncratic approach to conjunction. **Tutor Three** tends to use repetition of key terms to refer forward to the next point. In the following example we see the term “*grand theory*” carried through from the new of the previous paragraph to the hyper-theme of the next one:

**Para 19**

And then you go back even further into the mid-1600s and you get people like Thomas Hobbes who sort of developed the *grand theory* of human behaviour and human political social behaviour.

**Para 20**

But where that *grand theory* came from, and we’re back to, not square one; but it was actually the enlightenment.

The tutor also quite regularly use conjunctive terms to mark the discussion flow:

**Para 31**

1 And also corresponding with that, you get a really fast increase in the pace of change of society or change in the world.

2 Like beginning with the industrial revolution, the pace of change in society from then has been continuously accelerating.

3 Before that, if we go back through the middle ages or even before that, you get very long periods of stability, generation after generation after generation, just doing much the same as their ancestors had done.

**Tutorial One** is much more conversational and informal in style than the lecture and thus it includes regular use of repetition of colloquial forms of conjunctions, such as “so”, okay, no, as well as the repetition of key terms.
For example:

Para 4

1 **Okay**, there’s this whole discourse of progressivisms, too, and once you’ve filled that in then you’re moving from primitive to sophisticated, from traditional to modern, and that in itself is very loaded and very offensive.

2 **So**, you’ve got this incredulity towards meta-narratives and you’re kind of illustrating that in what you’re saying; so that’s part of it.

3 How do anthropologists work, field anthropologists I mean?

4 “**By integrating themselves into a society.**”

5 Ah, now that’s a really good question.

6 To what extent can they integrate themselves into those societies?

7 **I mean**, it’s assumed that they can.

8 It’s assumed that they can go and live amongst a community and if not integrate into that society, at least not be all that visible; blend in with the society, anyway.

9 **Now**, people would say –“Is this possible?”

What are the effects of outsiders going into a community like that?

In this example, these conjunctive devices are only helpful to the extent that the rest of the text is accessible in terms of language and logico semantic relations.

**Tutorial Two**, in contrast to all the other sessions, much more consistently and deliberately presents conjunctive devices that signpost quite clearly the logic and order of each point being made. As a result the information is arguably easier to follow even if the predictability of these devices may render the text more prosaic and potentially less engaging.

For example:
Para 6

1 And so I think there are three really important terms related to postmodernism.

2 One is structuralism.

3 Another one is deconstruction.

4 And then we’ve got poststructuralism and postmodernism.

5 And these are all terms that you will come across in relation to this philosophical movement we’re discussing, this postmodernism.

Thus, in terms of conjunction the lecture tended not to employ these devices, whereas, the three tutorials did employ them to varying degrees of consistency and formality. The extent of their usefulness will clearly be affected by the text around them, however they do have an important part to play in assisting students to understand the ontogenesis and logo genesis of ideas and to integrate the ideas into their own schema.

5.2.5 Students’ responses to the four different text instantiations: correlating the figures

As a way of correlating the linguistic analysis, and educational and language theory with students’ responses to the effectiveness of each instantiation of the text a questionnaire relating to the lecture experience and the tutorial experience was administered (see Appendix D).

At the beginning of the tutorial session on this topic, “Postmodernism” the students attending the three tutorial groups were asked to respond to aspects of the lecture judged to ascertain their understanding of the information presented. At the end of their tutorial session they were asked to respond to the same questions but this time in relation to the tutorial session they had just experienced. This provides a comparison between the effectiveness of the lecture and the tutorial in conveying ideas on the topic.
Additionally, by calculating students’ mean response to key questions, this data also provides an indication of which of the three tutorials most effectively explained the ideas from the lecture.

5.2.5.1 Variables

Variables recorded through the questionnaire included demographic data: age range, gender, first language English, year in degree and experiential data.

Demographic Variables

The demographic variables provide important perspectives about students’ attitudes, motivation, cultural literacy and command of English (James 2002, Hillman 2005). Mature, female students tend to be more motivated and perform better than younger students especially males (Tyler, 2004). Students with English as an additional language, unless they have native-like proficiency, will find comprehension of texts (especially spoken texts) more difficult. Finally, year of study will impact students’ prior knowledge, confidence and possibly motivation. The percentage of students in each demographics category: gender, age, ESL and year of course is shown in Table 5.8.

<table>
<thead>
<tr>
<th>Tut No.</th>
<th>Gender</th>
<th>Age (years)</th>
<th>EAL</th>
<th>Year of course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>Abstain</td>
<td>&lt;25</td>
</tr>
<tr>
<td>1</td>
<td>22</td>
<td>22</td>
<td>56</td>
<td>77</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>82</td>
<td>0</td>
<td>73</td>
</tr>
<tr>
<td>3</td>
<td>66</td>
<td>33</td>
<td>0</td>
<td>56</td>
</tr>
</tbody>
</table>

Table 5.8 Percentage of students in each demographic category for each instantiation.
The high number of females in Tutorial 2 (Table 5.9) is a potentially confounding variable for Tutorial 2’s higher rating, however the equal high number of students under 25 in this group potential cancels out the advantage of gender with the disadvantage of youth in first year university competence (Tyler and Rolls, 2005).

Contextual Variables

Contextual data relating to students’ prior knowledge and the auditory, kinaesthetic, visual and interpersonal aspects of their experience of the texts was gathered through the questionnaire with students responding on the following scale from 1-5:

[ _____1_____ | _____2_____ | _____3_____ | _____4_____ | ____5_____ ]

Not at all Somewhat Very Much

Table 5.9 below shows the mean responses of all students to the lecture and mean responses of students in the 3 tutorial groups to the tutorials.

<table>
<thead>
<tr>
<th>Question</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Familiar with ideas</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior reading</td>
<td>2.90</td>
<td>2.38</td>
<td>2.24</td>
<td>3.76</td>
<td>3.69</td>
<td>3.62</td>
<td>3.17</td>
<td>3.21</td>
</tr>
<tr>
<td>Understood reading</td>
<td>3.00</td>
<td>2.00</td>
<td>2.22</td>
<td>3.89</td>
<td>3.44</td>
<td>2.44</td>
<td>2.56</td>
<td>3.44</td>
</tr>
<tr>
<td>Clear voice</td>
<td>4.00</td>
<td>2.36</td>
<td>2.55</td>
<td>4.55</td>
<td>4.36</td>
<td>4.27</td>
<td>4.27</td>
<td>4.00</td>
</tr>
<tr>
<td>Friendly manner</td>
<td>3.44</td>
<td>2.56</td>
<td>2.33</td>
<td>4.22</td>
<td>4.44</td>
<td>2.89</td>
<td>2.56</td>
<td>3.56</td>
</tr>
<tr>
<td>Audio visuals helpful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physically comfortable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.9 Mean responses to contextual survey questions.
**Additional Variables**

Before viewing the data, there are a number of additional variables not accounted for in the survey that need to be acknowledged:

- Although the tutors have the same overall brief: to unpack the ideas from the lecture, the focus and accuracy of their interpretations of the lecture may not be the same.

- The (relatively minor) input of students (not recorded in the transcripts) could have affected their understanding of the ideas.

- The correctness of students’ understanding (comprehension) of the tutorials was not tested.

The following table, Table 5.10, summarises the mean response to those questions which reflect most directly the extent of students’ understanding of the concepts in the tutorials (T) compared with the lecture (L). For each group, 1, 2 & 3, The mean scores for their response to the lecture appears in the first column and those for the tutorial in the one along-side it.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean response and difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L1</td>
</tr>
<tr>
<td>1. How well did you understand this week’s lecture/tutorial?</td>
<td>2.78</td>
</tr>
<tr>
<td>2. Did you understand the language/vocab used by the</td>
<td>2.89</td>
</tr>
<tr>
<td>11. Do you feel you know more about the topic now than you did</td>
<td>2.78</td>
</tr>
</tbody>
</table>

**Table 5.10 Mean scores of the extent of comprehension of tutorial concepts as compared to the lecture for each student group.**
When comparing the mean score for the responses to the lecture and tutorial from each tutorial group (T1, T2 & T3), a consistent shift towards increased comprehension is shown for all tutorials in comparison to the lecture. This is consistent with our predictions that the students will find the ideas less easy to understand in the lecture compared to the tutorials because of the way the language is presented in the lecture. It is also consistent with the findings of the linguistic analysis of the texts which show that the lecture has higher levels of abstraction & metaphor and a less consistent and predictable organisation of ideas (taxonomy), flow (periodicity) of ideas and use of engagement and conjunction.

When comparing the difference or extent of shift in comprehension between students’ experience, of the lecture compared to their tutorial, for the three instantiations (T1, T2, T3), Tutorial 2 consistently scored a greater difference/increase in comprehension than the other two tutorials. The exception was question 7 regarding tutors friendly manner, where Tutorial 3 scored higher by 0.12 of a point. For key question 11. Do you feel you know more about the topic now than you did at the beginning, Tutorial 2 indicated a shift in comprehension of 1.15 points compared to 0.52 for Tutorial 1 and 0.46 for Tutorial 3.

However, it is important, in comparing the gain in understanding across the three tutorials, to note students’ relative level of pre tutorial understanding gained from the lecture. If it is high then the shift will be less marked. For example, although Tutorial 3, appears to have made a smaller increase in comprehension than Tutorial 1 the students in T3 said they understood the lecture better so the gain in comprehension from the lecture to the tutorial is less. Considered from this point of view, Tutorial 1 stands out as being the least effective in assisting students understanding of the concepts introduced in the lecture.
To examine the mean differences in comprehension across the three texts in more detail, the mean response to the questions for each tutorial group was and calculated and the differences in the students mean response across the three groups was compared.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean response for each tutorial group</th>
<th>Difference between mean response for groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1</td>
<td>T2</td>
</tr>
<tr>
<td>1. How well did you understand this week’s tutorial/lecture</td>
<td>3.60</td>
<td>4.45</td>
</tr>
<tr>
<td>2. Did you understand the language/vocab used by the tutor?</td>
<td>3.30</td>
<td>4.30</td>
</tr>
<tr>
<td>11. Do you feel you know more about the topic now than you did at the begin</td>
<td>3.30</td>
<td>4.60</td>
</tr>
<tr>
<td>3. Were you familiar with the main ideas presented in the tutorial?</td>
<td>3.44</td>
<td>4.00</td>
</tr>
<tr>
<td>6. Was the tutor’s voice clear (easy to hear)?</td>
<td>3.89</td>
<td>4.55</td>
</tr>
<tr>
<td>7. Was the tutor’s manner towards the audience friendly?</td>
<td>3.44</td>
<td>4.36</td>
</tr>
</tbody>
</table>

Table 5.11 Mean scores of the extent of comprehension of tutorial concepts compared across the three tutorials

Tutorial 1 mean is compared with Tutorial 2 and 3, Tutorial 2 is compared with 1 and 3 and Tutorial 3 is compared with 1 and 2. This data is summarised in Table 5.11. The mean scores for individual tutorials reflect the scores for shift in comprehension/experience between the lecture and tutorial discussed above. Thus, Tutorial 2 scores are higher on the scale of 1-5 than the other two tutorials, except for a .08 difference in friendliness of manner.
compared to Tutorial 3. Tutorial 1 consistently scores lower than the other
two tutorials on all the questions.

These scores corroborate the findings of the linguistic analysis that overall
Tutorial 1 had a higher abstraction and a less predictable (periodicity), logical
text structure and less consistent use of conjunctive devices than the other
two tutorials. Additionally, the linguistic analysis reveals that Tutorial 2 is
more deliberate in its attempts to taxonomise key terms to increasing levels of
congruency. It also adopts devices that render the periodicity of the text more
predictable and consistent, thus, providing students with essential
scaffolding to move students through the zone of proximal development to
the “new knowledge”. This deliberate taxonomising of ideas is an essential
component of meaningful learning because by being explicit about the
structure of the relationship of ideas to one another allows the new
information to be fitted into a larger pattern or whole (Ausubel and

However another non-linguistic factor for higher comprehension in Tutorial
2 comes into play when one compares responses across the tutorials for
question 3. The higher score for T2 (1.00 more than T3 and .44 more than T1),
for the question: 3. Were you familiar with the main ideas presented in the
tutorial?, is interesting in the context of the significantly higher scores (.70
more than T3 and 1.30 more than T1) for: 11. Do you feel you know more about
the topic now than you did at the beginning.

In terms of learning theory, this suggests that the fact that T2 students
claimed to be more familiar with the topic than students in the other tutorials,
may have assisted them to gain a greater understanding of the ideas in the
tutorial. This could be a reflection of the importance of existing schema to
augment comprehension (Hirsch 1987, Cook 1994).
In terms of the significance of difference between students experience of the difference texts, results were tested using a one-way ANOVA at 5% level of significance. Table 5.12 gives data describing the occurrence of significant differences between mean rankings for all survey questions (Q1-11), comparing lecture with tutorials.

All tutorials were found to be significantly different from the lecture in provision of audio visuals (i.e. the lecture utilised these more extensively). Students in Tutorial 2 had a significantly better experience of helpful audio visuals (Q.9) than those in Tutorial 1 and Tutorial 3. Tutorial 2 students also had a significantly more improved understanding of the concepts (Q. 11) than Tutorial 1 students.

<table>
<thead>
<tr>
<th>Lect</th>
<th>Tut 1</th>
<th>Tut 2</th>
<th>Tut 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>-</td>
<td>8</td>
<td>1, 2, 3, 8, 9, 11</td>
</tr>
<tr>
<td>Tut 1</td>
<td>-</td>
<td>9, 11</td>
<td>NS</td>
</tr>
<tr>
<td>Tut 2</td>
<td>-</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>Tut 3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 5.12 Questions that were significantly different in student’s response to questions regarding their experience of the lecture versus the tutorials.

Because sample sizes for the tutorial groups were relatively small (9-11 students in each), the validity of the results for these questionnaires relies on their corroboration with the linguistic analysis of the texts and the literature review. When considering the triangulated body of evidence, it seems reasonable to conclude that the increased measure of overall comprehension for Tutorial 2 recorded in students’ questionnaire responses are a valid indicator that a tutorial session where concepts are explicitly scaffolded, taxonomically, verbally and visually is more likely to assist students to
connect the ideas introduced with their existing schema and to extend this schema.

5.3 Conclusion

To conclude, this chapter analysed and compared first the discourses of science, social science and humanities and then four instantiations of humanities spoken text and students’ response to these. A number of predictable and not so predictable patterns have emerged from these analyses as well as some useful indications about what makes text harder or easier for students. In terms of the comparison across discourse the three sample texts revealed discourse patterns in terms of levels of abstraction, periodicity and taxonomic structures similar to the revelations of Wignell’s (2007) analysis of discourse from written texts from these disciplines and Martin and Rose’s (2003) exploration of academic discourse.

The exploration of taxonomic relations also served to confirm Bernstein’s (1999) observations about the hierarchical and horizontal knowledge structures of vertical discourse although a slight variation was suggested in the placement of the social science text as belonging somewhere in between a hierarchical and horizontal knowledge structures. Like Wignell’s (2003 and 2007) investigation, this analysis found the social science text retained some reference to its diachronic origins in science which were reflected in the way ideas were unpacked hierarchically. With regard to the instantiations of the humanities text and students response to these, not surprisingly, students understanding increased the more abstraction was translated to congruency and the more deliberately structured and illustrated ideas were in terms of periodicity, conjunctive devices and unpacking of ideas into taxonomies of class or part at levels of increasing congruence.
Thus, in simple terms, it is possible to conclude the following from this investigation. Firstly, a lecture is like a spoken text book in terms of patterns and levels of abstraction and metaphor and the way the knowledge is structured. Second, Humanities, being the most horizontal knowledge structure, is the one most “floaty”, hard to pin down and hard to track back to congruency and for these reasons is likely to be the most challenging. Science is the opposite being the most hierarchical and technical. The social science text lies somewhere in between with a more hierarchical consistent reference back to congruency than the humanities, and a predominance of abstractions rather than metaphorical language. Thirdly, the comparison of four instantiations of the humanities texts, reveal that the humanities text does have the potential to be rendered more accessible by using consistent metalanguage to show historical and conceptual links between abstract and metaphorical terms while at the same time unpacking these terms to their concrete realisation.
Chapter 6

Conclusions and Implications for University Teaching

This thesis has provided a comprehensive, multi disciplinary view of why and how academic discourse can be challenging for first year students, especially non-traditional students. It has also explored the potential of language and learning theory to inform new pedagogies for enhancing students' access to the discourse and knowledge of academia. Chapter Two provided the context and questions to be addressed by the thesis, namely the nature of universities and students in the 21st century in terms of their aspirations, and abilities for learning as well as their vulnerabilities. The other component of the context relates to the nature of the discourses students are required to participate in at university. The nexus between the 21st Century student and academic discourse is an essential aspect of framing the questions posed by this thesis in terms of how knowledge in academic discourse is structured, shared and advanced and how it is perceived, processed and learnt by students.

With the context established in Chapter Two, Chapter Three examined current theories about how students learn and Chapter Four the connection between learning and language and a framework for analysing the discourse of academia. Finally, in Chapter Five, samples of discourse from three disciplines and four instantiations were described and analysed (according to a Systemic Functional linguistic framework), to ascertain the effect of academic discourse on a 21st century cohort of students and to understand what features of this discourse set it apart from everyday language. Students'
perceptions of academic discourse were also explored though surveys (Chapter Five).

From this context, the relevant literature and analysed samples of texts and students’ reaction to them, this final chapter will sum up the key findings and propose a way forward - pedagogies that promote the successful apprenticeship to academic discourse for the 21\textsuperscript{st} century student.

6.1 The context for university learning in the 21\textsuperscript{st} century

The first important assertion of this thesis is that current economic, social, educational, and philosophical conditions of university learning in the 21\textsuperscript{st} century are unique, resulting in a disjuncture between traditional academic discourse and the culture, literacy and the learning modes of the current student cohort. Driven by the knowledge economy and technology, governments have encouraged the massification and globalisation of university education and continue to promote access to university for non-traditional students. Consequently, our student demographic, particularly in regional post-Dawkin universities, is more diverse than ever before, spanning age groups from 18-75, cultures, socio economic and educational backgrounds.

Thus, students now arrive with an enormous variance in aspirations, knowledge, English language proficiency and academic experience and literacy. Added to this, the increasing pervasiveness of technology in the day-to-day lives of students from an early age brings with it different kinds of literacies, while at the same time providing a disincentive for the development of the traditional literacies of reading and writing text.

Further, recent research suggest our current cohort of school leavers (the net generation) tends to learn and process knowledge in different ways,
favouring visual, collaborative, experiential and problem based learning. They are less inclined to reading long, dense texts and their prior experience of the language and knowledge on which academic texts is based is minimal compared to university students of fifty years ago. Additionally, research suggests students who enter university from alternative pathways and/or with low TER scores may not have sufficient foundations in reading and writing texts to operate at the highly abstract level of comprehension, thinking and writing required at university.

Given the diversity in students’ backgrounds and the effect technology has had on literacies, academic discourse may present something of a challenge if presented in traditional ways. The comparatively higher attrition rate at regional universities with high intakes of non-traditional students is evidence of the difficulty these students have in adapting to academic culture, a major component of this culture being encapsulated in the discourses of academic learning.

This wide variance in literacies is generally not accounted for sufficiently in current pedagogic approaches which, despite their increasing commitment to flexibility, tend not to address the complexities of understanding and working critically with the traditional texts of academic discourse, although these remain a central vehicle for transmission of knowledge in academia.

The insights provide by Bernstein (1990, 1999), Cassirer (1996), Young and Muller (2007), Maton (2007) and Rose (1999, 2004, 2006, 2010) into the mechanisms of academic texts and how they can exclude those who are not privileged with the same cultural capital as their authors, help us understand why academic texts are difficult for the uninitiated and why these texts, if not appropriately scaffolded, perpetuate educational inequalities.
Rose (1999) suggests inequality is inadvertently perpetuated by a schooling system that assumes all students have had access to vital preparation for reading and writing (exposure to story reading, books and language scaffolding) before beginning school. He warns us that the current system rarely provides the opportunity for students to catch up the vital understandings of texts and abstraction students from highly literate homes enjoy.

Bernstein (1999) also recognises that the knowledge people possess tends to reflect social standing and this can, in turn, prohibit access to other knowledge systems, lock people into their social position and limit their professional options. He refers to: “theoretical knowledge for professional qualifications, technological knowledge for vocational qualifications, and everyday forms of practical knowledge” for those in manual occupations. Australian research (Hillman 2005, DEST 1996 & James et al., 2004) confirms that students’ professional choices are generally influenced by their social background, which in turn reflects the discourse they have mastery over.

The work of Bernstein (1990, 1999), Cassirer (1996), Young and Muller (2007), in analysing the structures of academic discourse and the rules for transmission and advancement of knowledge in different discourse systems, helps us to understand the extent of the leap required by our students from the discourse of everyday knowledge to the discourse of the academy (theoretical knowledge). The former deals with the world in concrete practical terms, and the latter in symbolic, abstract terms.

Because theoretical knowledge has either an explicit and systematically principled structure (science) or knowledge structures which take the form of a series of specialised languages with specialised interrogation for the production and circulation of texts (social sciences), students need to be
familiar with and understand these structures to read and write academically. Theoretical knowledge has strong distributive rules which regulate its access, transmission and evaluation (Bernstein 1999). Thus, students whose experience and educational background limits them to the discourse of everyday knowledge will find theoretical knowledge and its rules of production a considerable challenge.

6.2 Approaches for optimal learning

Current understanding of how we learn helps explain why 21st century students might be less able to engage critically with university discourse. A number of complementary theories of learning prevail in the current educational literature drawn from the seminal works of Piaget, Bruner, Vygotsky amongst others. Those that have provided the most pertinent frameworks for this study are theories that describe how knowledge is built and retained: scaffolding; schema theory, concept mapping; and how knowledge is shared through experiential and social learning or constructivism.

We need to devise pedagogies for contemporary learners that respond to diversity and utilise and incorporate the increasing technological literacy of our students. Additionally, the literature suggests that, in order to assist our students to understand and engage with traditional university texts, we need to ensure they possess adequate cultural literacy.

Schema theory (Anderson 1977, Cook 1989) and theory about advanced organisers and concept mapping (Ausubel et al., 1978, Novak and Canas’s 2006), suggest that effective comprehension cannot take place if students have insufficient prior knowledge from which to understand new concepts. In fact, research suggests that we accommodate new knowledge according to
our existing frameworks, thus the propensity for misinterpretation is high where students are non-traditional (Cook 1994:9).

The implications of this are that we must ensure we have an understanding of what prior knowledge our diverse body of students’ possess, in order to provide the necessary schema building they need to understand academic texts. We can then establish appropriate pedagogy to build students’ cultural literacy/knowledge and scaffold new knowledge. As a matter of course, current practice at universities should incorporate pedagogy that assumes students possess a wide variation in cultural capital and discipline knowledge. Further, these pedagogies should include specific schema referencing and schema building strategies. Section 6.5 will elaborate on how these strategies might be incorporated into current practice.

Ausubel’s theories of cognition and the importance of referencing existing conceptual frameworks for assimilation of new concepts have informed Novak and Canas’s (2006) work on concept maps. Concept maps visually represent our conceptual understandings of the world and thus can be used to capture students’ existing conceptual understanding as well as the disciplinary conceptual understandings we require them to develop. Translated to an SFL perspective, conceptual mapping describes the taxonomic relations in a text. These are the qualities, classes and parts ascribed to concepts and participants, and the relations between these elements. In their illustration of taxonomic relations at a textual level, concept maps make conceptual relations visually explicit and clearly map the concrete, real-world origins of abstract concepts where these exist in a text. Where these references to the real world don’t exist in the given text, they can be introduced through shared knowledge construction that traces the concrete origins of the abstract.
Scaffolding theory confirms our understanding of how we apprentice students in the building of knowledge. Based on the work of Vygotsky (1986) and Bruner (1973, 1983), it promotes the idea that learning occurs through interaction between students and between students and teacher through the exchange of ideas rather than a one way transmission of knowledge. Further, it identifies the ideal conditions for learning (zone of proximal development) where the balance of challenge and scaffolding promote engagement, empowerment and learning as opposed to a situation where students are over or under challenged.

Constructivist theory, interpretations of which have become an integral component of modern pedagogy, has been informed by these bodies of work relating to schema, advanced organisers, and scaffolding (Jones et al 2002; Davis et al 1990). This widely accepted approach to teaching and learning fosters pedagogy based on enquiry-based and collaborative learning. It promotes a philosophy of working with what students already know and scaffolding them towards new learning through constructing shared understandings and shared knowledge. While there are some legitimate concerns that the more extreme interpretations of constructivism abandon students to the task of building knowledge on their own, More integrated approaches stress the importance of teacher facilitation and scaffolding as being an essential aspect of the process. Despite this promise, given current high non-traditional student enrolments, we would be wise to examine whether the levels of scaffolding provided in constructivist classrooms is sufficient. If constructivist and scaffolding theory are going to be effective, an inclusive pedagogy that incorporates specific strategies for addressing inequalities in cultural literacy is required.
The notion of learning styles and experiential learning (Kolb 1984, 2002, 2004, Fleming and Baume 2006) are additional components of constructivist learning theory. These promote the recognition of individual preferences for modes of receiving knowledge and also the importance of learning through experience rather than a passive reception of knowledge. The value of these theories is in reminding us to acknowledge diversity and to create learning experiences that are meaningful to these diverse groups of students.

Rose (2004, 2005, 2006 and 2007), Martin & Rose (2007) Rose, Gray & Cowey (1999) have developed pedagogy that embraces scaffolding and collaborative approaches to learning and addresses problems with educational inequality by bridging the gaps in students' literacy development in the context of existing school curriculum. This pedagogy does not require students to be removed from the mainstream to attend remedial classes, but rather it aims to present knowledge in such a way that all participants have a more equal access to meaning and achievement. This scaffolding literacy has been developed for higher education contexts by Rose (2004, 2005, 2006 and 2007) and is encapsulated in the “Reading to Learn” (R2L) methodology he describes.

This approach, after (Bernstein 1990) assumes that the ability to interpret academic texts is the central activity of academic life, for, reading skills allow students to access the pedagogic meaning and social relations embodied in academic text. Reading is, thus, viewed as both the conduit to knowledge and the model for how to speak and write about that knowledge.

Beyond the traditional written texts of learning, the stages and principles of the “Reading to Learn” approach provide a sound basis for approaches to scaffolding knowledge represented by the increasing range of alternate “texts” utilised in modern learning. Regardless of the mode of presentation; written,
verbal, graphic, or online, the knowledge structures represented by the language, share specific features of the discipline and each would benefit from similarly comprehensive, systematic and effective scaffolding to make their codes more visible.

Scaffolding, in the “Reading to Learn approach” involves a three stage cycle of preparation, identification and elaboration which assists students to learn how to interpret texts and then apply what they have learned about the patterns of written meaning in these texts to their own writing. Through these stages, students are enabled to interpret ideas in the context of their own experience and that of the academic field they are studying, to critically analyse how meanings are constructed by authors and to recognise, comprehend and use meanings, to construct their own texts (Rose 2004).

Collaborative learning is an important aspect of this approach and students are organised into groups and encouraged to work together in building their understanding and rewriting of texts. The emphasis is on understanding the genre, the structures and language within the texts and using these to interpret the writer’s intentions and to identify key information in the text before using this to construct their own summaries of the information. These skills enable essential aspects of university learning, critical comprehension and note-taking, summarising and paraphrasing.

The potential for adapting aspects of this cycle (elaborated on in 6.5) for the presentation of lectures face-to-face and online is an exciting opportunity to ensure engagement and comprehension in all modes of learning and to ensure that each complements and builds on the other.
6.3 How understandings of language inform our learning

The work of the Sydney School (of SFL), assumes the inextricable relationship between language and learning. It incorporates key elements of the learning theories previously described while at the same time providing essential tools for describing and understanding how language works.

The SFL view of language as a social semiotic, and discourse as an actualisation of the two key components of this social semiotic: social relationships and human experience provides an important theoretical starting point for proposing the inextricability of language and learning. Further the metafunctions: ideational, interpersonal and textual identified by Halliday (1996:1) frame the lexicogrammatical and discourse semantic systems which allow particular meanings to be realised. This perspective informs the understanding and identification of the features of academic texts of three disciplines and builds a pedagogic framework that makes these metafunctions explicit.

The notion of instantiation is also important in describing how the same text can be presented by different people in different circumstances. Metafunctions and textual features which allow variations or instantiations of a generalised meaning were examined. These included periodicity; ideational and interpersonal meaning; generalisation as it relates to classificatory relationships of hyponomy and meronomy (taxonomic relations); nominalisation; abstraction; grammatical metaphor; lexical metaphor; and the infusion of lexical verbs (see Chapter 4, sections 4.2-4.3)

These also represent the specific features of the samples of academic texts that make them “academic”. Thus, it is these which have framed the language analysis and allowed a tangible explanation of how we transmit academic knowledge through language by transforming everyday
experience into abstract meanings. This then serves as the framework for making the structure and content of academic texts explicit to students as part of the scaffolding approach.

6.4 Language challenges faced by contemporary students: what the evidence tells us

Texts for this analysis were drawn from transcribed first year lectures from the humanities, social science and science. They revealed patterns in structure and language that were predicted by the literature regarding written text for these disciplines. The analysis of samples of the social science text presented in different modes (lecture and tutorial) and by different teachers, also revealed predictable patterns which were corroborated by both the literature, describing the devices that make texts easier or harder to follow, and students’ assessment of the accessibility of the texts.

The patterns of abstraction, periodicity and taxonomic structures in the sample texts were predicted by those identified in Martin and Rose’s (2003) exploration of academic discourse, Wignell’s (2007) analysis of the origins of social science text and Bernsteins’ (1999) definitions of knowledge structures in vertical discourse of the academy.

In terms of levels of abstraction and metaphor, and technicality (Chapter 5.), the science text was predominantly technical, the social science text consisted predominantly of abstractions with some technicality. The humanities text had equal numbers of abstractions and grammatical metaphors with virtually no technicality and some quasi technicality. These patterns reflect the findings of analysis of geography texts (Wignell, Martin and Eggins, 1987) and humanities texts (Eggins, Wignell and Martin, 1987) as well as the findings of Wignell (2007).
The way ideas were taxonomised (Chapter 5.) across the three samples of spoken texts was also predicted by previous analyses of written texts for these discourses (Wignell 2007 & Bernstein 1999). The science text was organised according to internal hierarchies for the knowledge which move consistently from abstract to congruent in consistent patterns of classification of class or part. The social science text adopted similarly consistent and predictable patterns of unpacking ideas, although ideas tend to remain in the abstract realm for at least three levels in the taxonomy, whereas the science text tends to move to concrete representations after the second level. By contrast, the humanities text represented a sustained horizontal knowledge structure which provided no consistent hierarchies of knowledge and remains largely in the abstract realm.

The science text was clearly hierarchical in structure while the humanities text was clearly vertically oriented. However with regard to the social science text, a slight variation was suggested in terms of its definition as a vertical or hierarchical horizontal knowledge structure. Like Wignell’s (2007) investigations, this analysis found the social science text displayed characteristics of both. While presenting ideas as a series of segmented abstractions it was still seen to retain some reference to its diachronic origins in science which were reflected in the way ideas were unpacked hierarchically.

In terms of the periodicity or information flow (Chapter 5.), the three texts appeared to display a regular rising and falling pattern. However, the humanities text occupied less time at the concrete level than the other two texts and had more peaks of abstraction and metaphor. This indicated a stronger tendency towards congruent explanations in the science and social science text.
In terms of conjunctive devices (Chapter 5.), the science and social science texts were far more consistent than the humanities text in the use of this form of metalanguage to signpost the sequence of ideas and logical relations between ideas, and illustrations in the text. These patterns reflect to some extent choices made by the presenter about how ideas might be organised and explained but equally they were predicted by our understandings of the knowledge structures of these disciplines.

With regard to the instantiations of the humanities text and students' responses to these, not surprisingly, understanding increased the more abstraction was translated to congruency and the more deliberately structured and illustrated ideas were in terms of periodicity, conjunctive devices and unpacking of ideas into taxonomies of class or part at levels of increasing congruence (Chapter 5).

While the lecture was predictably more abstract and less conversational than the tutorials, the three instantiations of tutorials also differed in their levels of congruency and approach to organising and explaining concepts. The patterns of periodicity and taxonomic relations described these variations and students' responses were most positive where a combination of scaffolding devices were utilised. These included: abstract concepts described in everyday language, ideas taxonomised at least three levels of classification towards congruency and conjunctive devises consistently deployed to show relations between ideas.

From the analysis of the discourse samples across the disciplinary texts and the four instantiations of the humanities text, a number of conclusions were reached. Firstly, a lecture tends to read like a spoken textbook in terms of patterns and levels of abstraction and metaphor and the way the knowledge is structured. Second, Humanities, being the most horizontal knowledge
structure, is the one that is the most difficult to track back to congruency and for these reasons is likely to be the most challenging. *Science* is the opposite, being the most hierarchical and technical. The *social science* text lies somewhere in between with a more hierarchical consistent reference back to congruency than the humanities, and a predominance of abstractions rather than metaphorical language. Thirdly, the *humanities* text does appear to have the potential to be rendered more accessible by using consistent metalanguage to show historical and conceptual links between abstract and metaphorical terms while at the same time unpacking these terms to their concrete realisation.

The levels of complexity in the structure and the lexical and metaphoric devices of abstraction, technicality and quasi-technicality, revealed through this analysis, confirms the importance of pedagogy that makes explicit the mechanisms of academic discourse as a way of helping students gain mastery over it. This includes the need to unpack abstract, technical and metaphoric language and apply a degree of vigilance in anticipating language that students’ may have no prior experience of. Of the instantiations compared for this thesis, those that carefully scaffolded texts, by not only referencing and building on students’ prior knowledge, but also explicating the mechanisms of the discourse, were most favourably received by students.

### 6.5 Proposing a comprehensive pedagogy for 21st century university students

The proposed first year university pedagogy incorporates the key findings of this thesis and suggests a pedagogy that is experiential; references the students’ world and everyday language; utilises visual cues, particularly concept maps to make discourse and knowledge structures visible; unpacks
and repacks abstract, metaphorical and technical language; uses discourse markers to indicate the flow of ideas and, finally, scaffolds and paces students so that they work from less to more difficult texts over the period of their course.

The principal aim of this pedagogy is to be inclusive, democratic and effective in apprenticing our students to become successful participants in academia and the new knowledge world in general. These strategies are encapsulated to a large extent in the “Reading to Learn” scaffolding literacy approach described in Chapter 3 of this thesis. However, they aim to go beyond systemic functional and scaffolding theory to incorporate more explicitly stages that acknowledge the importance of schema, concept mapping and experiential learning and our understanding of proclivities of the net generation. Suggestions about how this can be adopted for different text types and modes of learning are described below.

With regard to other modes of learning, I suggest the “Reading to Learn” approach could be reframed as a methodology for not only unpacking written academic texts, but also for packaging and presenting the “texts” of lectures, tutorials, textbooks and online learning guides. An additional layer to this approach would be the representation of texts through concept maps that are built with the students existing schema (normally based in the concrete world) as the starting point.

Concept mapping (originating in the sciences) serves as vehicle for adding a hierarchical as well as visual dimension to the horizontal knowledge structures of humanities disciplines by classifying concepts according to qualities, classes and parts and tracing them back to concrete experience. The findings of this thesis suggest, at a first year level, it is possible and preferable to adopt a scientific framework for discourse in the humanities.
and the social sciences as a way of scaffolding students’ understanding of abstract concepts. By adopting a hierarchical approach to taxonomising knowledge, abstract concepts can be traced back to their concrete “real world” origins which relate to students’ existing schema. In this way, students have access to increased comprehension and recall while at the same time building their mastery of the language and knowledge of the discipline.

Additionally, adopting a strongly visual approach to reading academic texts, breaks down the barriers the younger cohorts of our students may have to large volumes of uninterrupted text. Further, by adding an experiential dimension to understanding text, i.e., linking texts explicitly to meaningful context both conceptually (importance of the topic under consideration) and pragmatically (assessment and curriculum), the purpose and value of engaging meaningfully with texts is emphasised. A constructivist dimension builds on this understanding of the context for learning, utilises what students know and encourages students to approach texts actively and work together, to consider their purpose, the author’s purpose and uncover the structures of ideas within texts. In this way students become engaged readers, writers and speakers of the discipline, who are in control of the process.

In summary, some general principles for 1st year university pedagogy supported by the findings of this thesis are;

- Recognise the centrality of reading and writing to knowledge building by ensuring that students engage with texts meaningfully, with critical comprehension.
• As part of this, change the order of reading engagement so the lecture prepares the students for the core weekly reading and the tutorial unpacks and scaffolds the reading and associated assignments.

• Engage learners in the first instance, through an experiential and constructivist approach that references their cultural literacy and existing schema, and encourages shared construction of knowledge.

• Apply a scaffolding approach such as “Reading to Learn” to all text engagement with additional specific concept mapping activities at the preparation and unpacking stages to build schema.

• Recognise lectures and online learning guides as reflecting knowledge structures of the discipline and apply similar preparation, mapping and unpacking/specifying techniques.

• Apply a principle of “less is more”: fewer texts comprehended well rather than many texts barely comprehended.

• Scaffold reading levels over the course of the semester building students schema/field knowledge through texts that have strong real world references before moving onto more abstract conceptual texts.

• Make readings purposeful and enquiry based: link them explicitly to unit and course learning objectives and assignments.

• Building on Bernstein’s knowledge structures, SFL understandings of taxonomies, periodicity, and schema and concept map theories – utilize visual representations of text structures to help students access horizontal language structures in the humanities.
• Borrowing from science – assist students’ apprenticeship into understanding this abstract discourse by unpacking the knowledge hierarchically and referencing back to the concrete.

• Adapt an integrated approach to other media and learning modes, including online learning materials, other materials for distance learning, and PC and wireless enabled classrooms so that knowledge both within and between each mode is sequenced and scaffolded appropriately.

These stages elaborate on Rose’s (2004, 2005, 2006 and 2007) “Reading to Learn” cycle by including visual concept maps at the preparation stage to reference and integrate students’ schema and illustrating the structure of ideas taxonomically and providing students with a visual map of concepts. Equally they reference the experiential learning cycle (Kolb, 1984, 2002, 2004, Fleming and Baume, 2006) which recognises the importance in engaging students with texts by actively involving them in conceptual and practical way.

6.5.1 Integrating the stages

Figure 6.1 illustrates the relationships between each approach showing how each complements and affirms the other. Thus, at the first stage of the cycle, preparing before reading, schema referencing and concept mapping provide the “concrete experience” stage of Kolb’s cycle of experiential learning. At the second stage, detailed reading and note-making, and schema and concept map building provide for Kolb’s “observation and reflection” stage. At the third stage, joint and individual rewriting allows the integration of new schema and Kolb’s stage of “forming abstract concepts”. Finally, independent writing allows students to apply new schema and Kolb’s “testing in new situations “stage.
For each stage reference to “text” assumes written or spoken or online text and reference to “read” assumes the reading of written and spoken words and graphics.

The cycles of learning can occur at the level of the whole curriculum as well as within each learning session. The cycles at the whole curriculum, lecture, tutorial and assignment level are illustrated in Figure 6.2a-d.
Figure 6.1 Illustration of relationship between three scaffolding approaches (Adapted from Rose 2004 and Kolb 1984).
a) Whole curriculum cycle

Lecture prepares

Independent application assignment

Tutorial elaborates

b) Lecture cycle

Prepare with concept map

Independent application students’ summarise

Elaborate with detail

c) Tutorial cycle

Prepares through readings

Independent application summary & assignment

Elaborates through note-taking

d) Assignment cycle

Tutorial prepares unpacks and models

Concept map elaborates generic structure

Independent application writing assignment

Figure 6.2 a-d Cycles of learning at each level of curriculum.
6.5.2 Putting it into practice

An integration of these approaches to learning is proposed for lecture and tutorial mode. The sequence of activities is based on the “Reading to Learn” approach (Rose, 1999, 2004, 2005, 2006 and Martin and Rose, 2005) with the addition of explicit schema referencing, reinforcing and building activities. These are provided as visual concept maps interleaved with each stage of the “reading to learn” phases. These map students existing knowledge with the knowledge being introduced allowing students to understand and retain concepts more effectively.

The brainstorm at the beginning of each session is the key to evoking students existing schema and laying the groundwork for the abstract concepts to be covered in everyday concrete terms that the students know. From this, a basic taxonomy is built that shows the relationship between what students already know and the abstract concepts to be introduced in the lecture or reading to be presented. After the lecture/detailed reading has been completed, the taxonomy is reviewed to check understandings and add elaborations gleaned from this detailed stage.

The following table summarises how these stages align and might unfold in a traditional face-to-face lecture tutorial scenario where students attend a lecture then a tutorial where an associated reading is discussed. The translation of this approach to the development of written textbooks and online learning modes is a feasible adaptation currently being investigated. It is important to note that these stages assume a minimum two-hour lecture and two hour tutorial. All independent writing phases can be completed as homework in the students’ own time. Additionally, alternative versions of activities where time constraints exist are suggested.
<table>
<thead>
<tr>
<th>Experiential Learning Phase</th>
<th>Scaffolding Literacy</th>
<th>Lecture mode</th>
<th>Application of stages</th>
</tr>
</thead>
</table>
| Concrete experience        | **Reading to Learn:** Prepare before reading/lecture | 1. Introduce and summarise topic in everyday language and explain the purpose of the lecture.  
2. Brainstorm with students in pairs what they know about the topic in everyday language & write on board  
3. Add abstract labels and build a taxonomy that reflects the headings and structure of the to be lecture presented | |
| Observation Reflection     | **Reading to Learn:** Detailed “reading”/presentation of lecture  
**Schema building:** Unpacking and repacking concepts and language | 4. Present the lecture, explaining each abstract concept in concrete terms.  
5. Throughout lecture reinforce, logical connections between ideas and discourse structure using the taxonomy as a reference point to provide a visualise map for students schema, the discourse structure and to trace abstract back to concrete. | NB Present with the support of power point, utilising images where relevant elaborate |
| Forming abstract concepts  | **Reading to learn:** Notemaking - practising vital, note making, summarising skills  
**Schema building:** Integrating new with old.  
**Reading to learn:** Joint/individual rewriting | 6. As a whole group summarise the lecture by reviewing the taxonomy and adding further elaborations from the lecture.  
| | NB Activities beyond this point can be continued in tutorial time  
7. Students use taxonomy of key ideas as a cue for note-making and rewriting.  
8. Students, individually or in pairs, write a summary of key points from lecture. (Assign different sections of lecture to groups). Students read summaries out in lecture or take to tutorial. | |
| Testing in new situations  | **Reading to learn:** Independent writing creating own discipline appropriate text.  
**Schema building:** Applying new schema | 9. Incorporate notes, summary and comment from lecture in producing academic assignment.  
10. Students asked to propose relevance to local overall unit/course/disciplinary considerations on the topic (tied in with related assignment question where there is one related). | |

Table 6.1 An experiential learning approach for lecture mode, integrating explicit schema building and literacy scaffolding.
<table>
<thead>
<tr>
<th>Experiential Learning Phase</th>
<th>Scaffolding Literacy</th>
<th>Application of stages</th>
</tr>
</thead>
</table>
| **Concrete experience**    | **Reading to Learn:** Prepare before reading | 1. Introduce title, topic, author and purpose of reading in everyday language.  
2. Brainstorm with students what they know about the topic in everyday language  
3. Explain the genre and structure of the text. |
| **Observation Reflection** | **Integrating schema:** concept mapping & schema referencing  
**Reading to Learn:** Detailed reading of text | 4. Ask student in small groups to create a preliminary taxonomy of the headings and subheadings in the text on A3 paper.  
5. Work through the text paragraph by paragraph:  
   - first introducing each in everyday language  
   - read out aloud and then,  
   - identify, unpack (in everyday terms) and highlight key terms with the students.  
6. Transfer highlighted text to taxonomy (rather than line by line on the board)  
7. Add highlighted words to the next level of taxonomy to visualise structure of ideas in reading.  
**Integrating schema:** schema referencing & building  
**Reading to Learn:** practising note making, summarising skills  
**Integrating schema:** Building genre & text knowledge and logical connections between ideas.  
**NB** Use the taxonomy as a reference point for text and conceptual structure throughout detailed reading phase. |
| **Forming abstract concepts** | **Reading to Learn:** Joint/individual rewriting | 8. Ask students, in groups, to summarise key points in the reading, after first modelling this process with the whole group on the board. (Assign different sections of reading to groups to save time)  
9. Ask each group to read out their summary of section in sequence of text.  
**NB** In a normal 2 hour tutorial situation this summary phase may be restricted to a joint rewrite on the board of a key paragraph or section in the text.  
**Integrating new schema**  
**Applying new schema**  
**Reading to Learn:** Independent writing | 10. Use taxonomy of key ideas as the cue for summaries.  
11. Students asked to propose relevance to local overall unit/course/disciplinary considerations on the topic (tied in with related assignment question where relevant)  
12. Create own discipline appropriate text by applying knowledge, language and understanding of discourse structures to own academic assignments. |

Table 6.2 An experiential learning approach for tutorial mode, integrating explicit schema building and literacy scaffolding.
6.6 Qualifications and conclusion

The implementation of such approaches into mainstream teaching and learning practice would require the development of a clearly articulated theoretical framework and approach for designing curriculum according to this pedagogy. As well, the integration of multi modal insights into how meaning is reconstrued, within and across semiotic artefacts and events, is necessary to establish a comprehensive pedagogy for all learning modes.

Further, university teaching staff are time-poor and would need to be convinced of the value of changing existing pedagogy and reassured that such practices do not constitute a dumbing down of curriculum. They would require training in understanding and utilising the metalanguage that describes disciplinary discourse. Thus, it would be valuable to pilot the introduction of this approach, test its efficacy and utilise this evidence for encouraging changes in practice. In the current university climate where two competing imperatives, providing access for non-traditional students and, ensuring retention and success, have become the major currency for the survival of universities, pedagogies need to change if our students are to succeed.

This thesis is inspired by an interest in the discourse of academia and how it is received by students in the 21st century. Most of all it is inspired by an interest in ensuring all first year students have equal access to knowledge and learning regardless of their educational and cultural background. Unless the current intake of students are skilled and confident enough to “dive deep” into academic discourse and engage with it meaningfully, a central charter of university, to inspire critical enquiry and the development of ideas, may be seriously compromised.
More importantly the student success in the main will continue to be the privileged of those from advantaged educational and social backgrounds. By systematically building and understanding of academic discourses, language and learning theory and who our students are now, the preceding chapters inform pedagogy for the apprenticeship of university students into discourse communities.
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Appendix A
## Key to Analysis

<table>
<thead>
<tr>
<th>Organisation of text</th>
<th>The lecture is divided into numbered paragraphs; each sentence (clause complex) in a paragraph is numbered (starting from 1 in each new paragraph).</th>
</tr>
</thead>
</table>
| Periodicity          | INTRODUCTION, BODY, CONCLUSION are indicated with these headings CAPITALISED & **BOLD**. Mac
                      | ro Themes (MT) and Macro News (MN) are indicated by **pink parenthesis** in the border. Periodicity – hyper-Themes and hypernew are illustrated in line graphs in the thesis text. |
| Taxonomic relations  | The qualities, classes and parts ascribed to the participants which “build up a picture of them” are illustrated graphically at the end of the text. |
| Conjunctions         | Meta language: conjunctions; circumstances of time and place are **underlined**. |
| Engagement           | Parallelism (of wording) and elaboration (of meaning) is in bold *italic*. *Grammatical metaphors*, *Semiotic, generic, institutional abstractions*, Technical terms *Quasi-technical terms* |
| Technicality and Abstraction | The number of content words in a clause complex (sentence) is divided by the number of clauses. 9/3 = 3.0 (the higher the number the higher the density). |
| Lexical Density (LD) | Incidence of technicality and abstraction per clause (ideational metaphors) – ratio of the number of ideational metaphors to the no. of lexical items in a clause. E.g. IM = 5, Clauses = 2, 5:2 = 2.5 (the closer the ratio to 0 the lower the density of ideational metaphor) |
Lecture: Post-modernism

INTRODUCTION
This afternoons lecture is on postmodernism

Para 1
1 Before I start, my apologies for the delay but this room was not vacated in time for me to set up the equipment

Para 2
2 I feel that I’ve sort of lost contact with all of you with the numerous breaks and holidays and disruptions that we’ve had and I apologise for that
3 For some of you it will probably be difficult for you to get your heads back around the topic
4 So it will be pretty difficult I think

Para 3
1 Those of you who are getting your heads around the critique, and we will be talking to you in tutorials this week about critique, might like to be reminded of a couple of exhibitions that are currently taking place at the museum
2 Both of them are well worth looking at and could well provide for you the topic for your critique.
3 The first of these which ends in a week’s time is the 20th National Craft Acquisition Award and the second is the 14th Tamworth Fibre Textile Biennial called Frisson
4 I was dragged along to see that by a friend of mine and was really quite rapt with the whole thing

<table>
<thead>
<tr>
<th>Para 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Those of you who are interested</strong> in culture and semiotics, <strong>those of you who are interested</strong> in seeing how the postmodern body is sculptured (generic abstraction a+ quasi technical), <strong>those of you who</strong> have just a general <strong>interest</strong> in the glamour of fashion and design, could well spend a very interesting half an hour just wandering around through that exhibition.</td>
</tr>
<tr>
<td><strong>2 I have the catalogues</strong> here and I will put these catalogues into short term loan in case anybody would like to do their critique on that exhibition.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Para 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Looking ahead now to the major assignment,</strong> I’m starting to get phone calls as I’m sure all of the tutors are, can you give us some extra reading about feminism, globalisation, whatever it happens to be.</td>
</tr>
<tr>
<td><strong>2 An external student from Semester Zero came over to see me the other day,</strong> she’s a third year student in accountancy, and she said I’ve got something here which you should tell your students about, particularly if they’re doing business or accountancy, and she gave me a very, very interesting article: “What does feminist postmodern thought (institutional + semiotic abstraction) have to offer feminist economics – lessons from accounting”</td>
</tr>
<tr>
<td><strong>3 So if you are thinking of doing your major assignment in the area of feminism and/or postmodern thought,</strong> then this article I think would be of particular interest to those of you who may be studying in economics, business or accounting.</td>
</tr>
</tbody>
</table>
4 If you’re interested in this, you can approach me afterwards and I will give you (the URL)

Para 6
1 *For those of you who are interested* in the way *postmodernism* is affecting *education*, I also have a copy of a chapter from a recent book called “Moral Education and Pluralism” which I will put on short-term loan; *for those of you who are interested* in the effects of *postmodernism* on the schools that will be particularly *applicable* to teacher education students in the group

Para 7
1 You can always tell when a new *philosophy* or a new *turn of thought* is taking place because it gets appropriated or taken over by *business* and *commerce*; and it’s very *interesting to see how* the term *postmodernism* and to a lesser extent *poststructuralism*, it’s *interesting to see how* the term *postmodernism* is now getting into *business* and *commerce*

2 Most of the quality papers at the weekend will manage to fit in something on *postmodernism*; books, films, videos all tend now, if they can, to claim that the particular *text* is *postmodernist*. 
So that would suggest that no matter what our feelings about postmodernism, something is in fact occurring; that there is a groundswell of change, a radical philosophical turn, if you like, which is taking place in our younger generation.

BODY

Para 8

1 So I do think that although postmodernism defies definition, there is clearly something else, something out there which is going on around us.

2 Postmodernism implies an insistence on multiple readings and competing meanings; in other words, when we look at a text, when you go to the museum to have a look at what people are saying about culture and textiles and the body, there are multiple readings of that body and those meanings are in fact competing, competing against each other.

3 Maybe, as far as you’re concerned, there’s nothing too much surprising about that; but I think there is now a tolerance for alternative narratives.

Para 9

1 In the current time, there is no longer a reliance upon single explanations and cause and effect.
2 Some people still say, though, that *postmodernism* is an *invention*, an *invention of academics*, an *invention of the fringe* that inhabits the festival scene; that in fact, we really have an *extension of modernism* which Giddens has called ‘high modernity’.

3 *In other words*, there’s no real significant break or change; it’s merely a *higher level*, if you like, or an extended *development* of what we’ve already looked at, the period of *modernism*.

4 I don’t want to particularly buy into that *debate*.

5 I think it is important, nevertheless, but it could occupy me for the rest of the time here, and I don’t particularly think that that’s going to be particularly worthwhile.

6 *Let’s just accept* that there are *profound shifts, profound changes*; some of which are disturbing, some of which are exhilarating and exciting, going on around us at the moment.

**Para 10**

1 If we are going to try and define *postmodernism*, we can say that it defines itself by what comes after.

2 *Patty Lather*, in an incredibly good *feminist* text called “Getting Smarter”, Patty Lather says, ‘It is a *self consciously transitional movement*, the boundary between the *no longer* and the *not yet*, which has led some academics, particularly at Deakin, to call this *the time of the now*.

3 *The time of the now*

4 Clearly, people are *preoccupied* with the *emergence* of a new *epoch* and what that means and where it leads.

**Para 11**
1 Rosenau gives us a more detailed explanation which you have in front of you on the tiles that I’ve distributed; and for Rosenau, postmodernism is a radically new and different cultural movement, that is coalescing in a broad-gauged re-conceptualisation of how we experience and explain the world around us.

2 She goes on to have two versions; an extreme and a moderate version.

3 In its most extreme formulations, postmodernism is revolutionary; it goes to the core of what constitutes social science and radically dismisses it.

4 In its more moderate proclamations, postmodernism encourages substantive redefinition and innovation.

5 So a radically new and a different cultural movement, then, which is going on around us.

**Para 12**

1 Now, some of you will be saying well, when did this thing start?

2 And you can expect the same slippery answer, I imagine.

3 You just can’t put a date on it; some people have tried.

4 For one leading architect in America, it began with the implosion of one of those ugly big urban living townscapes.

5 You know what I’m getting at?

6 Those huge blocks, 20, 30 storeys high of little concrete boxes; obscenities in the world of architecture; the apogee, if you like, of structuralism.

7 Structuralism writ large on every horizon; the grammar of architecture reduced to concrete, steel,
glass and plastic bolted together in prefabricated structures

| Para 13 | 1 Very often, postmodernism is aligned with poststructuralism | 5 | 1 | 2 |
| Para 13 | 2 The two things are not the same but the differences between them needn’t concern us in this lecture | 10 | 2 | 1 |
| Para 13 | 3 Part of post-modernism is destroying, if you like, or deconstructing, deconstructing structuralism, these structural forms; and I’ve just given you an example from architecture | 13 | 2 | 6 |

| Para 14 | 4 Structuralism, in its more philosophical context, is a systematic way of thinking about whole processes and institutions, whereby each part of a system defines and is defined by the other parts | 16 | 2 | 7 |
| Para 14 | 5 Thus, we can say that the world is seen as inherently structured, simply that it comes to us structured; whereas postmodernists would say that any structure that is apparent has been created by us, we have fitted the templates over this and structured it accordingly | 20 | 5 | 4 |
| Para 14 | 6 And the classic example of this would, I imagine, be IQ testing, intelligence quotients, intelligence testing; which I would like to say is on its way out but still crops up in all kinds of | 36 | 5 | 15 |
situations, modified versions of it; but the invention, if you like, the reification; reification means to make a thing of something; the reification of this concept, this quality called intelligence, preoccupied educationalists and psychologists from about 1870 through to 1970

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<tbody>
<tr>
<td>7</td>
<td>Thus, structuralism is accompanied by a belief, as I talked about before, in transcendent truths; that is, truths that are assumed to move on from one generation to the next, unalterable, absolute and universal</td>
<td>7</td>
<td>8</td>
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<tr>
<td>8</td>
<td>And it’s those three things, if you like, which are being called into question; this universality, this homogeneity, this sameness, this inalterability, being called into question in our own day</td>
<td>13</td>
<td>17</td>
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Para 15

1 So I’m arguing that deconstruction, the process of deconstruction, is closely aligned with postmodernism | 1 | 8 | 3 |
2 It doesn’t have to be, of course, but for the sake of this presentation, that’s what I’m assuming | 4 | 1 | 0 |
3 A number of you who have left school recently within the last seven or eight years will, I imagine, have been exposed to deconstruction, particularly in fine arts classes, in literature classes, and in some social education and social science classes | 22 | 2 | 7 |
4 The goal of deconstruction is to intervene in ongoing movements, to keep things in process, to disrupt, to keep the system in play, to set up procedures to consistently demystify the realities we create, to fight the tendencies for our own categories to conceal | 24 | 6 | 9 |
### Para 16

1. The process of categorisation and of classification are associated with **modernism** and **structuralism**; the **continuing need to classify**; you know, *that tearing your hair out when you can’t find what to do with all those items you stick in the miscellaneous column; the bits that don’t fit*

2. Very interesting work has been done on the decisions handed down by the Supreme Court, decisions made by magistrates in local courts, the **way** in which police categorise, the **way** in which the Australian Bureau of Statistics classifies for **statistical** information; and it’s really interesting to see that these categories that are chosen do in fact conceal, and that at times, executives and managers and planners force incidents into certain **classificatory groups**

3. **Structuralism** admired *tidyness* and *efficiency* and there shouldn’t be things left over that don’t fit

### Para 17

1. Now, just by way of **revision**, I know I told you this in the first or second **lecture**; many of you though were pretty much gob-smacked at that **time** by the language of this topic and probably still are; although I do feel that those of you who have survived to this stage now feel at least you can deal with the **lecturers** and the **tutors** on their own terms

2. But let’s have a look then at some of the **positions** which are associated with or adopted by **postmodernism**; and I won’t spend too long on them because I have mentioned them before

### Para 18

1. First of all, its an **anti-foundational movement**: *it resists the idea that there are any*
**rock solid foundations that were provided in some primordial period** before the advent of human life; **no absolute moral rules, beliefs or conducts that are God-given in any form**

So it is anti-foundational

**Para 19**

It will agree that **there are forms of foundations**, very much like the piles of buildings driven into the silt in Amsterdam, for example; that **there has been sedimentation and silting;** that human detritus has accumulated and gives the appearance of being foundational; and of course, the foundational, under that description, becomes political

**Para 20**

1 It is anti-positivist and objects to any idea of a correspondent theory of truth; that we can through a positivist, scientific, measured, empirical investigation, establish the truth.

2 Maybe that’s putting too strong a gloss on it but let’s say, it calls into question representational systems; the way in which we represent the body, the discourses we choose, the language that we choose

3 **Those of you** who will go ahead into research careers and a lot of you will, those of you who will be engaged in project work in your third year, **you will have to frame** your problem, **you will have to frame** your project; and the way that you frame it, the way that you frame the investigation, will inevitably alter the outcome to some extent
Para 22

1 Postmodernism is **anti-disciplinary**
2 Now, that *isn’t meant in the sense of disregarding the need for rule of law*
3 What we’re talking about here is **it opposes those sometimes very rigid divisions and barriers and boundaries** that exist between the **disciplines**, **between history and philosophy or sociology**; **between medicine and law**
4 And in a **sense** the **postmodernist** period is all about that pulling down and permeating those kinds of boundaries
5 And that’s why **postmodernism** has been fought out in the universities
6 The **universities in a sense are that battleground**; because universities particularly like this one are **set up and organised materially to protect the constituted, vested interests of those in the discipline**
7 And anyone who doubts that should go along to a university planning meeting or a **finance** meet-night

<table>
<thead>
<tr>
<th>Para 23</th>
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<tbody>
<tr>
<td>1 <strong>The critique of the human subject</strong>, which actually begins in <strong>modernist</strong> times, gets pulled through into <strong>postmodernism</strong></td>
</tr>
<tr>
<td>2 <strong>The agency or autonomy of the subject</strong>, to <strong>what degree the human subject is in fact controlled by structure</strong>; <strong>this is all, the whole question of subjectivity</strong> which I told you last</td>
</tr>
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| 355 |
time, that all comes up here

Para 24
1 It’s marked too by the *celebration of difference*  
2 So the *celebration of difference, celebrating difference*; that *difference was not something bad, not something to be avoided*, that *people did not have to be normalised and surveyed and policed so that they occupied a normal position*

Para 25
1 And of course, Leotard’s famous comments...of *incredulity* towards meta narratives; an *incredulous position or stance is adopted towards any explanation which is considered to be total*, which is *considered to apply in all situations to all things; these meta narratives*
2 And we can rehearse them yet again; I’m sure we’ve done it in the tutes, *the kind of meta narratives we’re talking about are Freud and Freudianism, Marx and Marxism, the whole of the religious leaders, absolutist leaders and so forth*
3 These are the kinds of *meta narratives; narratives* which have guided our lives in ways that we may not and you may not be aware of but are embedded *within your consciousness* and are *embedded within the consciousness* of the group
4 *Ways of thinking which have been laid down for us by the master story tellers*

Para 26
1 Now, as you’re well aware because a lot of you have expressed these *concerns* to me,
**postmodernism is not without its problems**, not by any means; not least the fact that the way some people talk

2 **Postmodernism is becoming another meta narrative**: that we are expected by some groups, some people, some quarters, to react in a post-modernist way because it is the only one left available to us

3 So it is rapidly becoming a postmodernist, sorry, rapidly becoming a meta narrative in itself

---

**Para 27**

1 But what are some of these **concerns**? [2:1=2]

2 One is associated with what Bill talked about last week in his globalisation lecture, the problem of **localism and fragmentation**

3 If postmodernism rejects the meta narrative and value-urises the “petite racie”, the small, local, **regional story**, then some of the gains made by people, oppressed people in particular, in the past, may be in danger of being lost

4 I’m talking about things like organised labour here, and very often it is in fact neo-Marxists, trade unionists and so forth who put up this argument most, because the gains that were made on the part of the group through organised labour, for instance, are suddenly questioned and questionable

---

**Para 28**

Another major concern is the **reliance on free play**, which I haven’t spoken to you about in the earlier part of this paper

2 So the **reliance on free play**: I haven’t spoken to you very much about this but one of the
**aspects of post-modernism** links up with that whole business of *socio-drama* that we've mentioned before and it comes out in Garda

3 *The idea* that *everything should be kept in free play*, the idea of the *carnival*; and interestingly enough, “Carnival” was on television the other night

4 I don’t know whether any of you saw that, the French production; but the idea of the *carnival*, that *life ought to be lived as if it were a game*, that we are involved in *game playing*

3 Serious it may be; nobody’s denying its serious *aspects*, or serious sides, but it is in fact part of a game and that *things* should not be but *kept in free play*; hence the *reliance on analogous thinking, thinking which makes analogies*

**Para 29**

1 Another *concern*, particularly to the *feminists*, is that *post-modernism can be a threat to unified feminism*; it goes back to this whole business of *fragmentation* that *feminists* are, very reluctant; some groups of *feminists* are very reluctant to embrace a whole-hearted *postmodernist thesis* for that *reason*

**Para 30**

1 Now, in about *10 minutes time*, I’ll want you to look at some footage from *Rage*, the ABC program that’s broadcast on a Saturday and Sunday night and morning; because I want now to move on, to have a look and see if we can detect elements of *post-modernism* in the *everyday life*

2 I mean, if this *exists*, how do we know that it exists in our *everyday life*?
3 What features are there which we can identify?

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<th>Para 31</th>
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<tbody>
<tr>
<td>1 The first of these features is what is known as <strong>pastiche,</strong> or the <strong>imitation of local styles; a mixture, a mixed up collection of local styles</strong></td>
</tr>
<tr>
<td>2 Do any of you know that stretch of the river that goes up from Fremantle to Mossman?</td>
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<tr>
<td>4 There’s a gorgeous footpath along there that I love to run and it takes you past all these <strong>new housing developments</strong></td>
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<td>5 You know the places I mean, the six bedroom, three and a half bathroom houses with eight cars in the drive and two children.</td>
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<tr>
<td>6 And it’s amazing to just sit back and see <strong>the complete mixture of architectural styles</strong></td>
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<td>7 There are glimpses of Scandinavian architecture amongst all of this, there are glimpses of Berlin, there are glimpses of the Greek Islands; you know, it’s all thrown in together</td>
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<td>8 It is absolutely fascinating; there are Japanese houses amongst them, or at least Japanese theme or period houses amongst them</td>
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<tr>
<td>9 And <strong>this is what we mean by pastiche, this lumping together of all these styles</strong></td>
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<tr>
<th>Para 32</th>
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<tr>
<td>1 Many people speak of <strong>fragmentation and disconnection; this is not an unusual</strong></td>
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experience

3 I mean, it would be silly to say that’s post-modernist because right throughout western history anyway, European history, this has always been a problem, this problem of feeling fragmented, feeling disconnected, feeling schizophrenic, feeling of not being in touch; anomia, to use the Durkheim term; anguish and anxiety and all this kind of thing

4 But it seems to be, I don’t know, particularly emphatic at the moment, particularly prevalent

Para 33

1 It’s also associated with this emptying out of space and time that I talked to you about before, the dispersal or emptying out of the space and time

2 Space and time, as we’ve said before, are social constructs; they are constructed, they emerge anew in each of the epochs in which we’ve looked at

3 Partly that is driven by technological and scientific advance; but if you look, for example, at the stock market, if you look at how the stock market in real time is continuously available, you get some idea of the demands that this emptying out of space and time bring

Para 34

1 How many of you saw Memento?

2 Again, one or two hands going up

3 This film absolutely defeated me

4 I got into the car afterwards and I said to my partner, it must have been the wine I had before I got in there to see it, but I just didn’t know where I was from the moment it began to the moment that it
ended

| 5 And she said yes, you did understand the film | 4 | 2 | 0 |
| 6 And indeed, if you look at *Memento*, *Memento* is about the destruction of memory | 6 | 1 | 1 |

---

**Para 35**

1 Traditionally in the western world, in *western philosophy*, one way of organising what we know is the narrative  
2 If we can destroy the narrative or the narrative sense or the narrative organisational process, then we can destroy any sense of belongingness amongst people

|  | 11 | 1 | 3 |
|  |  |  |  |
| 11 | 1 | 3 |

---

**Para 36**

1 So *Memento* I found an absolutely fascinating film
2 The illness, disease, brain damage, whatever it is this guy is suffering from, the main character has lost his immediate short term memory; and so like many of you sitting here, particularly those of you who are here today on release from business, and who hold down full time top level jobs; like many of us the only way to get by is to write it down in a notebook, in a personal organiser; on your shirt sleeves, on the back of your friends, in some sort of enigmatic, symbolic, iconic way to help you remember down the track; things are so intensified
3 And it does seem that we are experiencing a crisis of memory
4 Now, is that sort of just me who's experiencing that
5 Is it shared by everybody?

|  | 5 | 1 | 0 |
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|  |  |  |  |
| 53 | 2 | 13 |

---
I’m not sure

But I think there’s enough reason for **doubt** and enough reason for **worry** in all of that

**Para 37**

1. Then we have, in art particularly, the **emphasis on montage and collage**
2. You know, **collections of items which are mounted for display or glued together for display**; and again, if you go to the Craft Acquisition Award, there are some wonderful examples of **collage** here
3. Quilting, and there is a really exciting quilt there in **appliqué**, which you might like to go and have a look at

**Para 38**

1. The **civilisation of the image** is my next point; this is Barthe’s term, and I’ve talked to you about this before as well; that we are continually **bombarded** by **images** and that **the written word or the verbal expression is being replaced, substituted by the image** to some extent
2. We needn’t go too far down that track but to some extent I think that that’s true
3. And **other people see in post-modernism a self-referential preoccupation with the narcissistic self**; and what does all that mean?
4. We’re talking about **language, boundaries, how do we penetrate that?**

**Para 39**
1 Well, *preoccupation* I think; *preoccupied*, we know what we mean by that

2 *Self-referential* refers to ourselves, so when we see something, *when we go to an exhibition* and when we see a film, *we are preoccupied with that which refers to us; we use ourselves as a first reference point to respond to it very often*

3 *But* narcissism, *the narcissistic self*. narcissism of course gives it another slant because *the narcissistic self* is one which loves and admires and preens itself

4 So some critics say that post-*modernism* in our everyday life is *associated* with those things

5 Consequently, *the narcissistic self* *is a particular feature of our current generation*

6 We might, when we have a look at the video, you might look to what extent *Madonna is a narcissistic self in full-frontal expression*

---

**Para 40**

1 Post-*modernism* is also associated with this *idea of interchangeability*, a theme which comes out in *Memento* in actual fact, but where *people become interchangeable* and *things become interchangeable*

---

**Para 41**

2 *Permeation* of boundaries I’ve already mentioned and lastly, the last characteristic, is *irony*

3 *Things are highly ironic*, that things should happen; *they’ve got a cruel, ironic twist to them*, that things work out in that particular way

---

**Para 42**
1 I just want to wrap this up quickly, five minutes now before we get onto the video

2 The literature presents two versions of post-modernism

3 These have come out in our discussions on other occasions

4 One is a sceptical version and some of you will say; “yes, Mike, I was telling you in that essay on rationality that it’s all about scepticism, this isn’t anything new”; but it’s a scepticism which is tinged with pessimism and negativity, a gloomy assessment of the world; fragmentation, disintegration, meaninglessness, and things become meaningless; vagueness, the absence of moral parameters, and indeed, social chaos

5 The alternative version, of course, as you might imagine, is much more optimistic and affirmative

6 People can see the possibility for positive political action on a local scale; the chance of coalitions and building new communities and new forms of communities; the chance to affirm a particular ethic; the opportunity to make normative choices, however local they may be

7 So there are two sides to the way people see it

Para 43 CONCLUSION

1 I’d like to close this lecture with a quotation from Rosenau

2 She says that post-modernism refocuses on what has been taken for granted

3 Well, critical theory did that; Habermas was suggesting that, so that in itself is not terribly new, and Habermas is decidedly the greatest apologist for the Enlightenment that we have living

4 But it refocuses too on what has been rejected; on regions of resistance, on the...
**forgotten and the irrational, the insignificant and the repressed and the borderline; the subjugated and the rejected; the non-essential, the marginal, the peripheral, the excluded, the tenuous; the silenced and the accidental; the dispersed and dispossessed; the disqualified, the deferred and the disjointed**

5 And to my way of thinking, that is a beautiful summary, credo if you like, of what post-modernism has to offer

(Okay, can you just give me a couple of minutes while I get the video going)

**Para 44**

1 This video of Madonna performing America Pie shows a *successive juxtaposition* of image

2 I’ve argued that language is now *devalued* to considerable extent and replaced by the image; that in fact, some of us have lost the facility with language and have replaced it, very effectively in some cases and in some jobs, in sections of the community, with image

3 Okay, you might say that’s a very *simplistic argument* and I’d certainly need a lot more time to justify it to you

4 So have a look at the *symbolisms* that are used here and have a look too, we’re talking about free play, we’re talking about carnival, we’re talking about sending things up; so we’re also talking about *parodying, the ability to parody oneself*  

5 Have a look at this and see what you think

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## Tutorial 1 (T1): Postmodernism

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<tbody>
<tr>
<td>1. So, we... yesterday, is there such a thing as post-modernism?</td>
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<tr>
<td>“Maybe ... what came first, like every other ... has a main ... influence, and saying how post modernism doesn’t have any of those influences or...”</td>
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<td>2. Okay, what do the rest of you think; you are confused?</td>
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<td>2.5</td>
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<tr>
<td>“Well, in some respects, I’m ... related to anthropology, and I find especially this year, and ... against the same point so ... certain... and there’s a lot of changes.”</td>
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<td>3. Why in particular do you think that post-modernism targeted anthropology?</td>
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<td>“I think the transition that has ... into the ... ... what they basically told the ... and anything outside of that was very much ... pushed to the outer and sometimes people can’t ... or go ... ... with the main aims and stuff I guess. So I need to think that...”</td>
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<td>4. So you’re arguing that post-modernists in general and that ... as I said to you yesterday are doubtful about anthropology, attack anthropology, because it only began about a hundred years ago roughly, or one hundred and fifty years ago, so it’s a very recent thing.</td>
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<td>5. But I mean, one of the intellectual arguments against it is, you have said that it doesn’t allow people to work in the field, that it excludes people.</td>
<td>13</td>
<td>2</td>
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<td>6. But what are the major kind of, who can find five points as to why post</td>
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**modernists** find **anthropology** as currently practised **unacceptable**?

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<td>7.</td>
<td>What would those five points be?</td>
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<td>8.</td>
<td>And anyone can ask, get into this <strong>debate</strong>, because it really goes back towards the features of <strong>post-modernism</strong> that we talked about.</td>
<td>12</td>
<td>2</td>
<td>6</td>
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**Para 2**

“Isn’t post-modernism just a general attack on everything? Isn’t it like sort of now the trend to be antisocial, not antisocial but just anti conformity, anti, originally?”

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<tr>
<td>1.</td>
<td>Well, I think that’s a very good <strong>point</strong>.</td>
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<td>2.</td>
<td>It certain contests, okay, and investigates or explores and deconstructs <strong>established thinking</strong>; so it’s to that extent it’s a <strong>radical movement</strong> and it does those things; but in particular, <strong>anthropology</strong> has come in for quite a bit of <strong>criticism</strong>.</td>
<td>19</td>
<td>3</td>
<td>6.3</td>
<td>6</td>
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<td>3.</td>
<td>Now, it’s fairly obvious in a <strong>sense</strong> why.</td>
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<td>4.</td>
<td>What’s <strong>anthropology</strong> about?</td>
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<td>5.</td>
<td>What has <strong>anthropology</strong> been about <strong>traditionally</strong>?</td>
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<td></td>
<td>“<strong>Evolution, cultures.</strong>”</td>
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<td>6.</td>
<td>It’s the study of those things by whom, generally speaking?</td>
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<td>“<strong>Established, European… western middle aged men.</strong>”</td>
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<tr>
<td>7.</td>
<td>Okay, well I can think of some really successful women like Margaret Mead and others; but I mean, yes, it’s basically been a <strong>Euro-centric</strong> form of study in the way that it’s been conceived in the <strong>discipline</strong>.</td>
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<td>2</td>
<td>6.1</td>
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<td>8.</td>
<td>All right, so why then would it attract the attention of the <strong>post-modernists</strong>?</td>
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**Para 3**
1. Paul, I don’t see why everything should rest on you … just because you’re doing it.
2. This is a fairly general question we’re talking about.
3. So why the attack on *anthropology*, the undermining of *anthropology*?
4. I mean, what are some of the characteristics of post-modernism which would expect us to see this occur?
   “*Anthropology is an old school and white dominated and it doesn’t really …* much, and the old values are all out of whether you are … and that’s not about equality and…..”
5. Now, I said that one of the major characteristics of post-modernism is incredulity towards *meta-narratives*; that we just chuck our heads in the wood and how can people assume that these *meta-narratives* dominate everything.
6. And you’ve mentioned it here, you’ve mentioned the evolutionary *theory* of Darwin which is still a *meta-narrative* and one which most of us would believe in to some extent or accept some of the *principles* that are there.

Para 4
1. Okay, there’s this whole *discourse of progressivisms*, too, and once you’ve filled that in then you’re moving from *primitive* to *sophisticated*, from *traditional* to *modern*, and that in itself is very *loaded* and very offensive.
2. So you’ve got this incredulity towards *meta-narratives* and you’re kind of illustrating that in what you’re saying; so that’s part of it.
3. How do *anthropologists* work?
4. Have you ever thought about that?
5. How do **anthropologists** work, field anthropologists I mean? 6 1 6 3 1 3
   “By integrating themselves...”

6. What’s that? 1 1 1 0 1 0
   “By integrating themselves into a society.”

7. Ah, now that’s a really good question. 4 1 4 1 1 1
   “By integrating themselves into a society.”

8. To what extent can they integrate themselves into those societies? 7 1 7 1 1 1

9. I mean, it’s assumed that they can. 3 1 3 1 1 1

10. It’s assumed that they can go and live amongst a **community** and if not integrate into that **society**, at least not be all that visible; blend in with the **society**, anyway. 16 3 5.3 3 3 1

11. Now, people would say is this possible? 4 1 4 0 1 0

12. What are the effects of **outsiders** going into a **community** like that? 5 1 5 2 1 2

---

### Para 5

1. Although, I’d say that argument is not necessarily a post-modernist argument but it is an argument about the difficulties of doing field based anthropology. 15 2 7.5 8 2 4

2. Now, the course here has been all along pretty cultural rather than going out and doing field work; but what do **anthropologists** actually do? 16 2 8 4 2 2

3. Here we are, sitting amongst our **community**, right, somewhere in east New Brittain perhaps, amongst a group of people in a village, okay. 13 1 13 1 1 1

---

### Para 6

1. What does the **anthropologist** actually do? 3 1 3 1 1 1
   “Watches the people.”

2. So he’s a **participant observer**, and he watches and he talks to people and what is he trying to do, or she? 7 2 3.5 2 2 2
3. Let’s be careful about this; what is the *anthropologist* trying to do?  

|   |   |   |   |   |   
|---|---|---|---|---|---
|   | 6 | 1 | 6 | 1 | 1 |

4. What are they watching?  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 2 | 1 | 2 | 0 | 1 |

5. What are they observing?  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 2 | 1 | 2 | 0 | 1 |

6. What kinds of differences?  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 3 | 1 | 3 | 1 | 1 |

7. *… differences to ….*  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   |   |   |   |   |   |

8. What are they observing?  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 16 | 2 | 8 | 5 | 2 |

9. *Might look at the behavioural ….*  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 16 | 2 | 8 | 5 | 2 |

7. **So belief, norms, morals, behaviours**, all these kinds of things are going down, and what is the *anthropologist* looking for in all of that stuff?  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 2 | 1 | 2 | 0 | 1 |

8. Meaning, okay.  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 4 | 1 | 4 | 2 | 1 |

**Para 7**

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   |   |   |   |   |   |

1. According to their own personal belief system... because they couldn’t remember....”  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 2 | 1 | 2 | 0 | 1 |

2. **Ethnographers** would claim that you can in fact, you know, unpack all that garbage and leave it to one side.  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 12 | 1 | 12 | 1 | 1 |

3. But whether you actually can, and I have done some **classroom observer** work in schools and all that sort of thing.  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 12 | 2 | 6 | 2 | 2 |

4. And whether you can actually leave all of your **prejudices, preconceptions, assumptions**, previous **histories**, outside of the door when you go in, is another question.  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 15 | 2 | 7.5 | 4 | 2 |

**Para 8**

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   |   |   |   |   |   |

1. **Okay, so anthropologists** you can say are looking for **meaning**.  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 5 | 1 | 5 | 2 | 1 |

2. Now, what form would they, how do they arrive at, what are they looking for in their data, in their **field notes**?  

|   |   |   |   |   |   |
|---|---|---|---|---|---
|   | 10 | 1 | 10 | 2 | 1 |
“… the society different to theirs, which they must have kind of lost and that’s basically… so people can … from a situation … Yes, something that they’ve lost.”

3. Some of you are so quiet this morning.

4. I don’t know whether it’s that … or you can’t just make the connection with anthropology or you know nothing about anthropologists.

5. And I would have thought that you would have known something about anthropologists just from the docs that are on TV from time to time.

6. I mean, what do you think we would be looking for in all of this meaning?

7. I think we’re looking for patterns and we’re trying to find patterns in the data.

Para 9

1. But what we said was yesterday, was that one of the things that the post-modernists rejected is the imposition of those patterns; that they are imposed by human beings; that they’re not necessarily there.

2. They are a construction … for us to understand that kind of meaning.

3. So the anthropologist then is trying to interpret this stuff.

4. Now, post-modernism challenged that and said well, how can you interpret it?

5. What right have you got to interpret it?

6. What are the problems in interpreting the data, what are the problems in interpreting the data?

7. What are the problems in the interpretation of any language, for example?

8. What are the problems?
Para 10

"… … *I mean, it’s difficult because …*"

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<tr>
<td>1.</td>
<td>Well, you’ve got these different <em>objectivities</em> coming into play.</td>
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<td>2.</td>
<td>You can’t be sure that you’ve found the correct <em>expression</em> in that language.</td>
<td>6</td>
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<td>3.</td>
<td>If you happen to be using <em>translators</em> then that’s even more room for error.</td>
<td>7</td>
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<td>4.</td>
<td>But there’s the prime question about whether we should, anybody should, put themselves up as <em>interpreters</em> of other people’s <em>culture</em>.</td>
<td>10</td>
<td>1</td>
<td>10</td>
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<td>5.</td>
<td>If anybody is going to interpret the <em>culture</em> who should it be?</td>
<td>6</td>
<td>1</td>
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<td>1</td>
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<tr>
<td>6.</td>
<td><em>The people in that culture.</em> That’s right.</td>
<td>4</td>
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<tr>
<td>7.</td>
<td>They are the ones.</td>
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Para 11

1. Now, of course, *anthropologists* would say that’s what we do, we go and ask these people in fact how they see it; we try and get their interpretations of it. | 15 | 3 | 5 | 1 | 3 | 0.3 |
| 2. And there’s something called an *ethnic perspective* where you work from the perspective of people, and an *ethnic perspective* where you work from the perspective that you bring. | 14 | 2 | 7 | 4 | 2 | 2 |

Para 12

1. So radical *post-modernism* or extreme *post modernists* wouldn’t support that at all, they would say you still have no right to do so. | 14 | 2 | 7 | 4 | 2 | 2 |
2. They don’t mind if you simply inscribe the story; and they use the word inscribe rather than describe in the same sense that you might chisel a message into a rock or tree, so it’s actually inscribed; and simply that they would inscribe for posterity for the future, rather than simply describe the content and comment upon and interpret.

Para 13
1. All right, in the closing session, in the lecture I did an activity based on Rage and its implication on post-modernism.

2. To what degree did that convince you?

3. Did you believe that that was a worthwhile activity to try to elucidate some of the factors concerning post-modernism?

4. Note that this was simply speaking shown as a learning activity, I mean, as opposed from a timed information piece it was meant to be a learning activity, so what would you?

“I don’t think we were expecting Madonna, but … film clip … that was good because it was a demonstration of the ideas and…."

5. Yeah, I think there’s some thought behind it.

6. Whether it is hers is another question.

7. But I think in order to be able to act it out in the clip, she’s certainly got to understand it and understand it very well.

“Not necessarily. They could just tell her what to do or, like, you know, … choreograph… it could just be acting.”

8. Yeah, I’m just wondering.

9. I guess I am looking at myself, whether I could act on anybody’s instructions in that way, without understanding what I was doing or why.

10. 28 4 7 1 4 0.25

11. 11 1 11 3 1 3

12. 4 1 4 0 1 0

13. 10 1 10 2 1 2

14. 14 2 7 3 2 1.5

15. 5 1 5 1 1 1

16. 2 1 2 1 1 1

17. 12 1 12 0 1 0

18. 3 1 3 0 1 0

19. 10 2 5 1 2 .5
10. But yes, it could be.  

11. Yeah, and that is right isn’t it?  

12. But certainly if you read the Madonna biographies, I think you do end up with somebody who is a very thinking person and who is very well aware of the changes that are taking place.  

13. But as you said, also aware of the way it may be cast back at her as well so there’s a commercial side to it as well.  

14. Well, yes, ... in that theatre, in that auditorium, I was surprised how well it came over and the sound reproduction I thought was really, really good.  

15. Yeah, so from that point of view artistically, aesthetically, it was quite a clever move?  

Para 14

1. Yeah, so it’s exactly the irony running through the whole thing, this sense of irony, puzzlement, contradiction going through the whole thing; and how come the picture shows disease and the almost sick humour with regards to it all.  

“... all sorts of statements, ... freedom ... .”
something, … the music as well so it was like her interpretation of the song, … There was a line about hope and they showed a pregnant woman and then the next thing they showed after that was just this fat woman and you thought she was pregnant but she wasn’t; so it’s like a degeneration I suppose of hope; but then there was also another one where they showed … people come around working out and they may have a fat guy as well, … an old guy. So it was like, people are kind of… to what they’re getting … and losing weight.”

2. Right, which will sit in with that **pessimistic, sceptical** view of **post-modernism** I guess.

Para 15

1. That section was to try to get you to see some of the things that are associated with **post-modernism** as they affect our everyday life.

2. And I talked in the lecture about **pastiche**, and I said that this was the **imitation** of local styles, and this could be literature, it could be in music, it could be in art, or … where **pastiche** is an **imitation** of those local styles where you paste them all side by side; so you’ve got all these different … **forms**.

3. I think you can see it most of all in **architecture** in some of the major cities, where you’ve got a **conglomeration** of all kinds of architectural **forms** alongside each other.

4. Where all **cultures** if you like, all aesthetic traditions, all **stylistic traditions**, are just muddled up together and this again has been a **characteristic** of **post-modernism**.

5. Now, two of you said that you don’t understand **post-modernism**, so we’re not trying to attack that, ok.
Para 16

“… You’ve lost me completely, your explanation.”

1. Right, so my explanation of it in the lecture lost you completely?  
   “Yeah, it was … when you started explaining … it got more complicated than what you’d said so I got totally lost.”

Para 17

1. Okay, all right, thanks for that.
2. Well, let’s try and define it for ourselves then without relying upon what other people are saying about it.
3. Given the fact that there is certainly some significant change going on in our society, seen that from the point of view of globalisation.
4. We’ve seen it or we will see it in the area of feminism.
5. So given these facts that these changes are going on, that technologically, from the point of view of information technology, the world wide web, the net, all of these things that are happening around us, there is definitely a change of some kind going on all right?

Para 18

1. What is the nature of that change?
2. Basically what comes to be believed.
3. What have we in the past relied on?
4. If we look at Sophie’s World, what are the kinds of things that the philosophers and the philosophies that Garder deals with that we have relied on, and let us for the sake of argument just call that modernism, okay?
5. So that’s **modernism** or **structuralism**.

---

**Para 19**

1. So I said in the lecture that, and I’m trying to simplify it so it may come out a bit over empty but I’m trying to over-simplify it, part of the project of **modernism** which begins with that **enlightenment** period was looking for universal rules, universal laws which governed and structured all societies, okay?

2. Not simply the **western** ones but it was extended to and applied to all societies everywhere.

3. So the world was then seen as **inherently structured**.

4. And some of you may still see it that way and indeed, I think we have to up to a point otherwise we wouldn’t be able to put one foot in front of the other.

5. We’ve got to have some **expectations**.

---

**Para 20**

1. This is part then of **modernism**, and **modernism** is very **positivistic**, as I say; it’s got a positive aspect to science; science is seen as **empirical**, as **positivistic**, and so that’s associated with it as well.

2. So the world then is to be structured.

3. Now, that is then the **modernist project** we could draw a list of.

4. We could put up in fact a list on the board; we could divide this up into two columns and we could have on one side **modernism** and on the other side the changes that have taken place as a result.
1. Let’s have a look at that and see if it made sense.

2. So *modernism* we were saying goes back to the eighteenth century *enlightenment*.

3. Over here, we’ve got what we are calling the *new period* and we really don’t know what to call that *period*.

4. That’s the *problem* I think.

5. So we’ve just given it, people have just given it this term ‘*post-modernism*’.

6. So *post* here simply means something that comes after; so it’s something which has come after this period here.

7. And we’ve just said that one of the characteristics of the *modernist period* was that things were *structured*, that the world was *inherently structured* and that we were trying to find that *structure*, we were trying to find those patterns so we could say that it was *inherently patterned* as well.

---

**Para 22**

1. That *modernism* relied on certain *transcendental truths*.

2. That goes without saying.

3. These structures are there and these patterns are there.

4. If we believe they can be identified there has to be something which is *absolute, unchanging*; and these things are *transcendental truths*.

5. Now, this word *transcendental*, or you can call it *transcendent truth*, simply means a very easy, it just simply means it goes from one generation to the next, it transcends those generations; that’s all it means.

6. So these absolute *truths* transcend across kind, they’re always there so they transcend from one generation to another.
Para 23
1. I’ve said too that it’s positivistic, empirical; now, these words go with the science of this period, it’s a positivistic science; and we can say that it is looking for certainty and it’s looking for cause, effect and actions.

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2. Simply, that the people at this period believed that there were direct relationships between causes and effects and that they could be established, we could establish those.

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3. And they are expecting certainty, they have belief in certainty as a result of establishing these cause and effect connections.

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4. So it’s practical experiment.

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Para 24
1. Now, if we move over; there’s a lot more we can say there as well and we will get back to that; but if we move over to this section, all right, you can see what we are actually saying, and you can see this in these other terms which we use sometimes with post-modernism, ‘post-structuralism’, ‘post-modernism’.

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2. So we have now got beyond the period, we have now got beyond the period where things were seen as inherently structured.

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3. The structure was imposed or has been imposed here.

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4. So there is nothing which is necessarily essentially structured; so we’ve got beyond this to a post-structural period, a period beyond these structures.

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Para 25
1. Similarly we can talk about formal rules, formal behaviour and informal;

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accidental, incidental behaviour, okay.

2. Now, over here this is very much a formal part; these rules, these truths could be formalised and were, in fact, if you look for instance at Kant and the other philosophers and so forth as well, these truths about man were formalised.

3. So now we get to a period where that formalisation has been disturbed or unbalanced and so we’re now in a post-formal period, a period which does not pay very much attention to this kind of approach to life, which is structured.

Para 26

1. So in the same way we come down to no transcendental truths, according to this theory; there are only truths which have been sedimented over the years, that groups of people have decided are truths.

2. So truth then is highly relative.

3. It is simply what people in a particular position of power say that truth is; so it’s relative, it is variable, it changes according to those in power.

Para 27

1. I guess, you know, a glance at history would suggest that there is something which is true about this; truths are contested, fought over.

2. We come down to here and we say that in the modernist period we believe in absolute truth and unchanging situations; well, what do we find in the post-modernist group?

3. We have constant change, endemic, rapid, constant change.

4. Everything, change in social life, change in morality, change in technical advance, everything is changing.
“So …”

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<td>5.</td>
<td>It is today.</td>
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<td>6.</td>
<td>Now, one of the <strong>problems</strong> is because this <strong>reaction</strong> that you had is no longer unusual, part of it is that you have come to be in this <strong>period</strong>.</td>
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Para 28

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<td>1.</td>
<td>For many of you in the room now, this kind of thing is part of your <strong>thinking</strong>, part of your <strong>consciousness</strong>, okay.</td>
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<td>2.</td>
<td>There’s been a <strong>shift</strong> from this and you’ve grown up in that <strong>shift</strong> so you’re part of it.</td>
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<td>2</td>
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<td>3.</td>
<td>It’s like some people have grown up in the <strong>age</strong> of television, you had television around from the day they were born, or they were touching their favourite characters on the screen at two years old.</td>
<td>17</td>
<td>3</td>
<td>5.6</td>
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<tr>
<td>4.</td>
<td>Okay, so they have grown up with it.</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>5.</td>
<td>For those who did not know what television was, their <strong>conception</strong> of the world is very, very different</td>
<td>7</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>Okay, so you’ve come up through this <strong>period</strong> and I think this is why, you know, people say well, so what.</td>
<td>11</td>
<td>2</td>
<td>5.5</td>
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</table>

“**How do you mean….**”

Para 29

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<tbody>
<tr>
<td>1.</td>
<td>No, what I’m trying to say is I think it’s difficult for some people to come to grips with it because they’ve come through the whole <strong>period</strong>.</td>
<td>14</td>
<td>2</td>
<td>7</td>
<td>1</td>
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<tr>
<td></td>
<td>“<strong>We don’t sort of see the difference.</strong>”</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>2.</td>
<td>That’s right, don’t see the difference, it’s always been.</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3.</td>
<td>The television’s always been there for those kids, and … I can remember the very first television coming into our street, right, and I remember</td>
<td>41</td>
<td>6</td>
<td>6.8</td>
<td>0</td>
</tr>
</tbody>
</table>
seeing an FA Cup in 1952 on television; and all the kids in our scruffy little shorts, we sat in line in this lounge room facing this black and white television, just like as if you’re going to the cinema; because nobody else knew how to set it out in any other way.

4. It was a new kind of, a new **invention**, a new **experience**, a new **media**, and people didn’t know how to handle it.

<table>
<thead>
<tr>
<th>Para 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. So yeah, you’ve grown up with it.</td>
</tr>
<tr>
<td>2. And I think this is one of the problems, and that’s why, you know, it does not in some ways interest the younger generation because they are basically saying well, so what, we’ve grown up with this, so what are you saying, why is it important?</td>
</tr>
<tr>
<td>3. Now, it is only important from this <strong>point of view</strong>; that it would appear that these things are <strong>sedimented</strong> in people.</td>
</tr>
<tr>
<td>4. All these previous <strong>philosophical movements</strong> that we’ve talked about are within us.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Para 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There are some people who are highly <strong>structured</strong> and highly <strong>formal</strong> in their thinking, okay.</td>
</tr>
<tr>
<td>2. For example, let’s look at <strong>standards</strong> in <strong>education</strong>, and what are <strong>standards</strong> in <strong>education</strong>?</td>
</tr>
<tr>
<td>3. Now, people coming out of this <strong>period</strong> who believe in unchanging <strong>truths</strong>, who believe in a great degree of <strong>structure</strong>, would find the way that I teach, for example, very, very disturbing.</td>
</tr>
<tr>
<td>4. It would unnerve them because I’m saying, you know, <strong>truth</strong> is not,</td>
</tr>
</tbody>
</table>
**knowledge is not linear.**

5. I’ve talked to you like this before, it doesn’t come in a line, okay; it’s not serial, it’s not a question of building upon previous things that you had to be taught.  
6. It’s not a question of banking information in the head and storing it and using it to gain interest as you would with a bank; it’s a whole different process.

<table>
<thead>
<tr>
<th>Para 32</th>
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</thead>
<tbody>
<tr>
<td>1. So the very fact that I showed you that clip there of Madonna, those people would say oh, that’s just Mickey Mouse, that’s just a waste of time, that’s devaluing education, that’s reducing standards.</td>
<td>12</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2. You see, they are coming out of this kind of field; it’s a very conservative reaction or a neo-conservative reaction but they’re coming out of that.</td>
<td>12</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>2</td>
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<table>
<thead>
<tr>
<th>Para 33</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. There’s certain things you wouldn’t think to question that is popular culture, okay, and for some people it’s only the higher forms of culture that are important.</td>
<td>13</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2. So it’s Beethoven and Tchaikovsky and Bach and Marlow and Brooke and Brookner and Stravinsky and all these other people are the important ones.</td>
<td>11</td>
<td>1</td>
<td>11</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3. Those are the names they remember.</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4. It’s interesting that the names I’m coming out with, I couldn’t tell you any of the names of those thirty-five clips that I saw, except for the ones I used yesterday because I was actually using them.</td>
<td>18</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>5. That’s interesting.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
### Para 34

1. So people actually criticise that; people coming out of this area will criticise that kind of approach, okay.  
   - Length: 11  
   - Confidence: 2  
   - Similarity: 5.5  
   - Novel: 0  
   - Rhetorical: 2  
   - Informal: 0  

2. Part of this too, coming back here, this is a bit of an aside, and it’s that also that as you are doing science it’s very important that you understand that it is that there are rules for what we might call the hard sciences, the hard-nosed sciences; chemistry, physics, mathematics and that kind of area, right.  
   - Length: 25  
   - Confidence: 2  
   - Similarity: 12.5  
   - Novel: 9  
   - Rhetorical: 2  
   - Informal: 4.5  

3. There are fixed rules that people operate on, there are theorems and formulas and so forth; there are things like tables, etc. etc.  
   - Length: 8  
   - Confidence: 2  
   - Similarity: 4  
   - Novel: 4  
   - Rhetorical: 2  
   - Informal: 2  

4. So there are rules.  
   - Length: 1  
   - Confidence: 1  
   - Similarity: 1  
   - Novel: 1  
   - Rhetorical: 1  
   - Informal: 1  

### Para 35

1. Now, when you come to social and cultural events, right, some people think that we should subject those things to the same kinds of rules; that we should be able to find in our interaction with each other in business and in commerce, we should be able to find similar rules, unchanging rules, which apply to the way people behave.  
   - Length: 29  
   - Confidence: 3  
   - Similarity: 9.3  
   - Novel: 10  
   - Rhetorical: 3  
   - Informal: 3.3  

2. Now, this leads to a lot of problems for the social sciences generally.  
   - Length: 7  
   - Confidence: 1  
   - Similarity: 7  
   - Novel: 2  
   - Rhetorical: 1  
   - Informal: 2  

3. Some universities, for instance, will not allow forms of research like action research; I won’t devolve into all this in any great depth, but action research is a way of researching your own practice, okay, which requires, you know, keeping your journals and your interpretation of those journals and so forth; it’s an action research process.  
   - Length: 30  
   - Confidence: 5  
   - Similarity: 6  
   - Novel: 9  
   - Rhetorical: 5  
   - Informal: 0.8  

4. Now, some institutions like Batchelor Institute in Batchelor have a long tradition of action research.  
   - Length: 9  
   - Confidence: 1  
   - Similarity: 9  
   - Novel: 2  
   - Rhetorical: 1  
   - Informal: 2
5. Here, we have done action research in education in schools that we’ve written about.

6. Now, there are still a number of leading universities in the world, particularly in America, that will not admit, will not accept the action research that I’ve mentioned because it’s seen as too vacuous, empty, vacuous, not of sufficient merit.

   “Is that because they’re still …”

7. Yeah, they’re still heavily influenced by a modernist view.

8. Yes okay, I was just pushing on, I thought in fact we might finish a bit early but I’ll see if I can find out how to stop this thing.

Para 36

1. We’ll have to change the tape … very good comment here.

2. Would you like to just share that with the group and see what they make of it?

   “Isn’t youth’s rejection of post-modernism just their own form of post-modernism?”

3. Isn’t young people’s rejection of post-modernism post-modernism?

   “Even if they reject it, just saying that there is no such thing as … changing.”

   “As you said … youth have rejected the idea; well, couldn’t it just be that we’ve got another … and it’s the way we think and do things?”

   “… talking it sounds like it’s just something that’s happening all the time but we just don’t pay attention to it and you just learn to adapt and … and if something happens it’s like okay and you just move along. Especially computers and stuff like that, you buy one this week and next week it’s already old.”

4. Yeah, so the whole succession of models.
5. And you can see that in a variety of ways.

6. But my immediate response is yes, I think it is, because I think it’s when academics like myself put it over theoretically that people reject it.

7. Because I’ve said in the lecture, some people think it’s a bit of a con, and why make so much fuss about something that is part of us and so forth.

8. My answer to that would be we have to keep questioning what we consider is natural and what we consider that we are, we need to keep questioning that.

<table>
<thead>
<tr>
<th>Para 37</th>
<th>1. So yeah, as I say, I’ve just filled in a couple of these other things.</th>
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<tr>
<td></td>
<td>7 1 7 0 1 0</td>
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<table>
<thead>
<tr>
<th>Para 37</th>
<th>2. They’re taken up here because clearly yesterday I didn’t have enough time to get into them in sufficient depth, but I talked about the emptying out of space and time, for instance, in the lecture yesterday.</th>
</tr>
</thead>
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<tr>
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<td>18 2 9 4 2 2</td>
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<table>
<thead>
<tr>
<th>Para 37</th>
<th>3. Now, in this period of time and space and place, for that matter, the meaning of place; time and space could be accepted as fairly constant and unchallenging.</th>
</tr>
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<tr>
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<td>13 1 13 7 1 7</td>
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<thead>
<tr>
<th>Para 37</th>
<th>4. After all, many people never ever left the village that they were born in.</th>
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<tr>
<td></td>
<td>10 1 10 0 1 0</td>
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<thead>
<tr>
<th>Para 37</th>
<th>5. That’s right, and so the event particularly of rail travel, started to bring about changes in the relationships between places.</th>
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<td>10 1 10 2 1 2</td>
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<table>
<thead>
<tr>
<th>Para 38</th>
<th>“What you said yesterday that natural… was that … That he believed that the origin of … was in the 1950s … the 60s. If you look back at movies that he is represented in, his perfect … Then the 60s sort of start and everyone is sort of travelling about and hippies and … cities, and then going everywhere and just</th>
</tr>
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|         | 386 |
... all this wholesomeness and trying all these things; ... starting …”

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<tbody>
<tr>
<td>1.</td>
<td>Yes, the <strong>problem</strong> of actually when it starts is a very, very difficult one and I’ve only give you a couple of <strong>ideas</strong> there.</td>
<td>13</td>
<td>2</td>
<td>6.5</td>
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<tr>
<td>2.</td>
<td>But it’s interesting that all along, right from this <strong>period</strong> we are <strong>enlightened</strong>, you’ll find <strong>voices</strong> speaking out against this.</td>
<td>11</td>
<td>1</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>Like from very, very early on but it tended to be simply <strong>anti-modernism</strong>, and the difference between <strong>anti-modernism</strong> and <strong>post-modernism</strong>.</td>
<td>13</td>
<td>1</td>
<td>13</td>
<td>6</td>
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Para 39

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<tbody>
<tr>
<td>1.</td>
<td>Yes, and rightly so too, a good <strong>point</strong>.</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Particularly as we know associated with the nineteenth century’s <strong>industrial revolution</strong>, okay, so you’ve got people reacting against that.</td>
<td>12</td>
<td>1</td>
<td>12</td>
<td>2</td>
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<tr>
<td>3.</td>
<td>Heidegger in the thirties was talking about <strong>ennui</strong>, that feeling of <strong>disconnection</strong>, that factory workers in industry, for instance, felt about society.</td>
<td>12</td>
<td>1</td>
<td>12</td>
<td>2</td>
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<tr>
<td>4.</td>
<td>You got Wordsworth even in the eighteenth century, I forget which of the sonnets it comes in, it’s a long time since I’ve studied Wordsworth, but it’s all that stuff about getting the ... you know.</td>
<td>14</td>
<td>4</td>
<td>3.5</td>
<td>0</td>
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<tr>
<td>5.</td>
<td><strong>This consumerism</strong> that he saw taking place even in those early years of the <strong>industrial revolution</strong>, that it was <strong>materialist</strong>; and so you’ve got this <strong>anti-modernist</strong> form of <strong>expression</strong>.</td>
<td>14</td>
<td>2</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>6.</td>
<td>But we’re looking at something a little different, <strong>post-modernism</strong>.</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>There are some <strong>anti-modernists</strong> around and they write in the newspapers quite frequently but they are attacking and attacking and attacking all this stuff and undermining and throwing <strong>suspicion</strong> on it.</td>
<td>16</td>
<td>2</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Post-modernists</strong> I think have moved beyond that, although they still question it, obviously</td>
<td>8</td>
<td>2</td>
<td>4</td>
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</tbody>
</table>
Para 40

1. So you’ve got this emptying out of space and time.

2. And we’ve talked about this before I think; if you are into the stock exchange, for example, then you work 24 hours a day, if you want to make money anyway; you’ve got to be on the ball 24 hours a day or you’ve got to have your computer programmed to throw certain switches at certain times when stocks hit a particular level.

3. You’ve got to pre-program it to know when to sell automatically and when to purchase.

4. So that’s meant that time’s kind of emptied out or collapsed if you like, or compressed together, and one of the terms that people have used in the text on this is the emptying out of time and space, whereas here you could accept it.

Para 41

1. Now, that’s not denying what you’ve just said, that these changes, this beginning of this emptying out go right back to the age of steam and railways; and, of course, we’ve got the supersonic flights, so that adds to the changes.

2. We’ve got modular telephones, cordless telephones and whatnot, and so those things too help in creating change.

3. It’s still going to intensify; there is intensification between this between here and here there’s this intensification that goes on.

Para 42

1. So we go back to the ideas of science, and we have this belief in absolute certainty.
2. Now we’ve got an **acceptance of uncertainty**, an **acceptance of indirection** and that things are not as **directed** as they were; that we don’t have control over the direction of how **civilisation** will develop.

### Tutorial 2 (T2): Postmodernism

<table>
<thead>
<tr>
<th>Para 1 Macro Theme</th>
<th>LI/CC</th>
<th>no.C</th>
<th>LD (LI/CC)</th>
<th>IM/CC</th>
<th>no.C</th>
<th>IMD</th>
<th>IM: LI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 In general, what was your <strong>impression</strong> of the lecture?</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1:3</td>
</tr>
<tr>
<td>2 Did you feel like you came away with a bit of a <strong>handle</strong> on what <strong>post-modernism</strong> is?</td>
<td>8</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3:8</td>
</tr>
<tr>
<td>3 You had to read up on it from other <strong>sources</strong>?</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1:5</td>
</tr>
<tr>
<td>4 What other <strong>sources</strong>?</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1:3</td>
</tr>
<tr>
<td>5 That’s a good way to do it, to go away and define all the <strong>terms</strong> that you haven’t understood.</td>
<td>8</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1:8</td>
</tr>
<tr>
<td>6 But yeah, the language is quite difficult and particularly difficult with <strong>post-modernism</strong>.</td>
<td>8</td>
<td>1</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2:8</td>
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<tr>
<th>Para 2</th>
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<tbody>
<tr>
<td>7 And in fact, one of the <strong>criticisms</strong> of <strong>post-modernism</strong> is that it’s actually introduced its own language.</td>
</tr>
<tr>
<td>8 This is <strong>ironical</strong>, because although <strong>post-modernism</strong> is the great champion of letting everyone’s <strong>voice</strong> be heard, it actually shuts people out in a way because it uses a whole new <strong>language</strong> to describe itself, if that makes <strong>sense</strong>.</td>
</tr>
</tbody>
</table>
3 So to be honest, I know many academics who read **post-modernism** and find it difficult to **comprehend**.

4 So if you’re having a bit of trouble getting your head around it, you’re not alone in that if it’s any **consolation**.

5 But it’s obviously a really important **philosophical movement** to understand.

---

**Para 3**

1 How many of you have come across this **concept** of **post-modernism** before this course?

2 Have any of you?”

3 Through **art**?

4 In high school, okay, how is **post-modernism** expressed in **art**, can you remember?”

5 Okay, it relates to **contemporary** art, doesn’t it?

6 Yeah, and it sort of, in art it dictates the **idea** that anything can be art.

7 So you think of Marcel Duchamp who you could say was the first **post-modernist** and one of his most famous **works** was basically a toilet bowl, and this is his **art**, this object, the lines, the curves; this can be **art** just as much as a painting can.

8 And the interesting thing about **post-modernism** in art is that there’s now an **expectation** that with any art work, there’s a whole **personal explanation** for what the artwork is.

9 So if you go to any **exhibition** of **contemporary** art, there’ll often be quite
<table>
<thead>
<tr>
<th>Para 4</th>
<th>22</th>
<th>Okay, so yes, you talk about post-modernism in art, and are there any other areas people have... anywhere else come across the terms?</th>
<th>1</th>
<th>1</th>
<th>15</th>
<th>4</th>
<th>1</th>
<th>4</th>
<th>4:15</th>
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</thead>
<tbody>
<tr>
<td>23</td>
<td>No one’s come across it in any other courses?</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1:6</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>You were doing philosophy in high school?</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1:4</td>
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<tr>
<td>25</td>
<td>Okay. It actually influences everything now.</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>26</td>
<td>It influences all the academic disciplines; architecture, even science to some extent, which, you know, in a way is the last bastion of structuralism.</td>
<td>13</td>
<td>2</td>
<td>13</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>6:13</td>
<td></td>
</tr>
<tr>
<td>Para 5</td>
<td>27</td>
<td>So it’s a really important concept to get your head around because you’re going to be hearing a lot about it.</td>
<td>10</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>.5</td>
<td>1:10</td>
</tr>
<tr>
<td>28</td>
<td>Mike used the example of the movie, anyone been to see Memento?</td>
<td>5</td>
<td>2</td>
<td>2.5</td>
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<td>29</td>
<td>It was a post-modern movie for a number of reasons, and one of the chief reasons was that it didn’t follow a narrative plotline.</td>
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<td>6:12</td>
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<td>30</td>
<td>And you all understand that narratives have a beginning, a middle and an end, yeah, and have a plot, and you have a plot resolved at the end, yeah?</td>
<td>26</td>
<td>2</td>
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<td>3</td>
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<td>1.5</td>
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<td>31</td>
<td>But in post-modern films, and there’s more and more of them around, there is not necessarily any ending.</td>
<td>10</td>
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<td>2:10</td>
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<td>32</td>
<td>So reality doesn’t exist in a sort of lineal way; it’s all over the place; there isn’t that sense of resolution.</td>
<td>10</td>
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<td>3.3</td>
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<td>3:10</td>
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<td>33</td>
<td>It’s challenging everything about how we’re used to seeing the world.</td>
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<td>1</td>
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34 7 Post-modernism is saying it’s not necessarily the only way that things work out; stories don’t always have a beginning, a middle and an end.

35 8 And it brings in a whole lot of other more obscure things.

Para 6

36 1 Another one was that one Traffic that won the awards, did anyone see that?

37 2 Yeah, now that was classically post-modern because there wasn’t a beginning in the sense of goodies or baddies.

38 3 The Matrix is another example of a movie playing with our standard version of reality and what is real and what isn’t, and boundaries shifting all the time between here and now and then and before, etc.

39 4 You never were quite sure who the goodies were and who were the baddies.

40 5 There wasn’t a sense of resolution at the end because there wasn’t anyone who lived happily ever after.

41 6 So that’s the classic post-modern approach to things.

42 7 So keep your eyes out for that sort of thing happening.

Para 7

43 1 Just to kind of help us understand and I’m a great person for wanting to define the terms, I just find it so much easier to move forward once I’ve got my head around the terms.

44 2 And so I think there are three really important terms related to post-
### Para 8

<table>
<thead>
<tr>
<th>45</th>
<th>One is <strong>structuralism</strong>.</th>
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<tr>
<td>46</td>
<td>Another one is <strong>deconstruction</strong>.</td>
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<td>47</td>
<td>And then we’ve got <strong>post-structuralism</strong> and <strong>post-modernism</strong>.</td>
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<tr>
<td>48</td>
<td>And these are all terms that you will come across in relation to this <strong>philosophical movement</strong> we’re discussing, this <strong>post-modernism</strong>.</td>
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**Para 8**

<table>
<thead>
<tr>
<th>49</th>
<th>Now, <strong>post-structuralism</strong> and <strong>post-modernism</strong> you could say are, arguably, very closely <strong>related</strong>, because <strong>structuralism</strong> and <strong>modernism</strong> go hand in hand.</th>
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<tbody>
<tr>
<td>50</td>
<td>Can you relate to that, with regards to what we’ve been talking about in <strong>terms</strong> of <strong>modernism</strong>?</td>
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<td>51</td>
<td><strong>Modernism</strong> being the <strong>age</strong> where the <strong>structures</strong> of society are emphasised as what’s important.</td>
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<td>52</td>
<td>So we talked about how <strong>Man</strong> was at the centre in the <strong>Enlightenment period</strong>, and then in the <strong>period</strong> of <strong>modernism</strong>, <strong>Man</strong> was shifted away from the centre again; and again the <strong>emphasis</strong> was on <strong>society</strong> and the <strong>societal structures</strong> built through the <strong>ideals</strong> of <strong>democracy</strong> and then <strong>capitalism</strong>, and then the <strong>emphasis</strong> on <strong>economic rationalism</strong> and the <strong>emphasis</strong> is on <strong>technology</strong>.</td>
</tr>
<tr>
<td>53</td>
<td>So <strong>modernism</strong> is the <strong>period</strong> that was defined by these <strong>ideals</strong> of <strong>structuralism</strong>.</td>
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**Para 9**
1 Okay you can look at the word **structuralism** quite literally in a way, to help you interpret it.

2 So obviously, the root word there is **structure**.

3 The emphasis is on **structures**, it’s on **political structures**, and even on **physical structures** in the modern technocratic age; that’s the age of machines and buildings.

4 And, in a way, it highlights this **idea** that man has become controlled by the **physical** and **political** and **historical structures**.

5 So man becomes defined by those things.

6 In a sense, the **age** of **structuralism** is still very **prevalent**, isn’t it?

7 We’re still very much defined by our **reliance** on machines and **societal structures**.

8 How many of us feel a **sense** that we’re not, we’re quite **disempowered** in a way because the **bureaucratic structures** in which we operate are so strong and so **prevalent** that really we are just tiny, tiny, tiny little cogs in the wheel?

9 So this is where it starts to get quite confusing because right at the same time, right now, all of these **ideals** are in **existence**; the **ideal** of **structuralism**, **deconstructionism**, **post-structuralism**, and **post-modernism**, are all happening right now.

10 It’s a very **dynamic time**, with all these **philosophies** pulsating and reacting to each other.

11 Although when you think about the **characteristics** of the previous
### Para 11

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<td>65</td>
<td>2 Okay, even Aristotle and Plato and Socrates were challenging each other.</td>
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<td>66</td>
<td>3 So it kind of makes sense, where there’s one thing happening, there’s going to be a reaction to it.</td>
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<td>4</td>
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<td>67</td>
<td>4 Hopefully you’re a bit clearer on what structuralism is.</td>
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### Para 12

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<tr>
<td>72</td>
<td>1 A classic example of deconstruction is Mabo, okay?</td>
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<td>73</td>
<td>2 The Mabo decision, which was a decision that gave groups of Indigenous people a right to land, was based on the simple recognition that Australia is not or was not terra nullius, an empty land, when the British arrived.</td>
<td>21</td>
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<td>74</td>
<td>3 So for all those years, over 100 years, the whole country had been run on the premise that when the English arrived, Australia was an empty land,</td>
<td>21</td>
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and on that **basis**, many of the **injustices** towards the Indigenous people were **justified**.

"**Even in primary school we were taught about … There was nothing mention about the Aboriginals at all… (Inaudible)… I imagine how different it would be now but …**"

| 75 | Yeah, I mean, it’s extraordinary when you think of it from the other side but that’s what, that’s the sort of thing **deconstruction** has been **concerned** with. |
| 76 | Hey, what is this Australian history that does not mention the Indigenous people or the **atrocities** that were wreaked against them. |
| 77 | How many of your history books as kids mentioned any of these things? |
| 78 | So it starts to question and all the **questioning** of **deconstructionism** is based on the **premise** that we’ve come across before in this course, that **truth** is **subjective**; okay? |

**Para 13**

| 79 | So really that is the bottom line of **post-modernism**, it’s recognising, its saying hang on a minute, your **viewpoints** are fine, but you must realise that anything, any **decisions** that are made, any **ideas** that are put forward, are coming from a **subjective** place. |
| 80 | So therefore, any history that’s written is a **subjective** history. |
| 81 | Can we think of the sort of things that would influence what the historian would put down as what happened, you know, so take yourself to a historian writing about the course of the second world war.” |
| 82 | "**History is written by the victor.**" |
Okay good, history is very often written by the *victor*, by the people that won; or the history that’s heard, the history that’s told, is the one that the government of the day wants told.

So that’s a very good point.

The historian, he or she is going to be influenced by what sort of things? His bias. which might be their cultural, racial background, their own history, their own personal history.

Yeah, so the information that they’ve been given is going to reflect how they see things.

They’re not going to necessarily get the whole picture or write the whole picture.

Who’s paying them is going to influence what history is told.

So if you actually stop and think about it, it’s very easy to see that even if someone consciously doesn’t want to be biased and wants to be objective, as a historian, for example, or as a politician, they are going to be influenced by their own personal history.

So, and a really good example actually that leaps to mind is the whole issue of euthanasia in the Territory, and how Marshall Peron, the ex leader of the opposition in the NT, was one of the leading proponents of euthanasia.
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<td>92</td>
<td>3 But he was supporting it because he had watched his mother die in agony.</td>
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<td>93</td>
<td>4 So for him, <strong>euthanasia</strong> was the only way because of his very <strong>personal</strong> experience.</td>
<td>6</td>
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<td>A23</td>
<td>“Like that lady, she did a commercial but then she went into remission and then she came out again, saying that it was wrong … (Inaudible)…”</td>
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<tr>
<td>94</td>
<td>5 Yeah, so her <strong>view</strong> actually shifted?”</td>
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<tr>
<td>95</td>
<td>A24</td>
<td>“Because she actually wanted to die and she went into remission and …”</td>
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<tr>
<td>96</td>
<td>6 Yes it makes you realise how difficult it is to come to the right <strong>decision</strong> on something <strong>crucial</strong> like that because our <strong>perspective</strong> changes so easily.</td>
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<td>97</td>
<td>7 You know Dale Spender said <strong>truth</strong> is a very slippery thing; it just shifts around all the time.</td>
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**Para 16**

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<tr>
<td>98</td>
<td>1 So that’s what <strong>deconstruction</strong> is interested in and when things have been <strong>deconstructed</strong> then we have a time of <strong>post-structuralism</strong>, a time when the <strong>structure</strong> has been pulled away and torn down and challenged.</td>
<td>17</td>
<td>2</td>
<td>8.5</td>
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<td>99</td>
<td>2 Of course although we’re talking about <strong>literal</strong> structures - <strong>deconstructionism</strong> is concerned more with the <strong>metaphorical</strong> structures, so <strong>non-literal</strong> structures.</td>
<td>12</td>
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<td>12</td>
<td>7</td>
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<tr>
<td>100</td>
<td>3 And so <strong>post-structuralism</strong> and <strong>post-modernism</strong> are <strong>synonymous</strong>.</td>
<td>5</td>
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<td>101</td>
<td>4 Okay, so has that left you with a clearer picture of where we’re coming from with <strong>post-modernism</strong>?</td>
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<td>9</td>
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<tr>
<td>102</td>
<td>A25</td>
<td>“Mmm.”</td>
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**Para 17 (house keeping)**

Okay. We’ll just look at a couple of other things that Mike pointed out;
and his lecture notes are available in the library, in the short term loan, all the lecture notes for this course are actually. I haven’t photocopied them every week for you, because it takes a lot of paper and I’m sort of thinking of the trees, if people aren’t necessarily going to read them; but if you especially want lecture notes, let me know because I’m happy to make copies for individuals, okay. Some of you might want to do your essay on this section. By the way, some people have approached me for the essay questions for the major essay. I don’t think many of you did, funny enough.”

A26“(Inaudible)…”
Q27“Yes, they are on Learnline. Has everyone got access to Learnline?”
A27“(Inaudible)…”
Q28“You can’t?”
A28“I don’t know why…”
Q29“Check up at the library at the help desk and get them to help you.”
A29“(Inaudible)…”
Q30“Yes. You’re finding it a little bit hard? Actually next week, you might have noticed there’s no lecture next week, but what we’ll actually do is spend the whole session, as long as people like; looking at first of all referencing, because I think we need to revisit that, because you will be marked on your referencing in this essay coming up, and we’ll also look at the actual essay questions. I’ll get you to analyse them, do some brainstorming and planning for them, just so I can make sure that you’re on the right track, okay. So we’ll have a bit of a workshop on that.”
A30“And we’ve still got our…”
Q31“Tute next week, yeah.”
Okay, so let’s look at some of the major things that Mike discussed. I don’t want to go through all his ideas, but what he did which I thought was quite useful, was he summarised the positions adopted by post-modernism.

So let’s look at them, and again, they’re using quite sort of tricky terms. But here are the positions and a lot of this will be repetition. Let’s put them in little boxes on the whiteboard.

Anti-foundationalism, Anti-positivism, Anti-representational.

So anti-foundationalism was basically saying that we cannot rely on the pre-existing foundations of society. And when we talk about those foundations we’re talking about political, historical narratives and meta-narratives on which we run our lives. So the ideas of all those amazing scientists and philosophers like Freud, Darwin and Marx etc. etc cannot be entirely relied on as being the right “foundation”, or being the only way. All of this is based on the premise that these do not include everybody’s voice.

So if all of this, the foundations, the representations, the disciplines, on which we based our lives, has not been made with everyone’s contribution, whose voices have been excluded, do you think? Who do you think decided, for example, what was recorded in the history books?
“Those people that were conquered.”

115  3 Okay, and who were they generally?  2 1 2 0 1 0 0

“Minorities.”

116  4 Minority voices were not heard.  4 1 4 0 1 0 0

117  5 So who are the minorities, say, in western society that we look at in the lecture?

“Those conquered by the English, Commonwealth.”

118  6 Yeah, and let’s just look at a western example; and we’ve looked at an example of the Indigenous issues.

“Anyone who’s not white…”

119  7 Okay good, anyone who’s not white tended not to get heard.

8 The American constitution certainly didn’t include any black American slaves on its formation committee.

8:10

Para 21

120  1 Okay, anyone who’s not white.

121  2 Anyone else?

“Female.”

122  3 Female, that’s right, they weren’t allowed a voice back then.

4 We are now but they weren’t then, when the foundations were established.”

“Gays and Lesbians.”

123  4 Yeah, good, anyone who’s non-heterosexual, their perspective on how to view the world wasn’t included.”

“Non Christians.”

124  5 Yep, good, different religions.

401
| 127 | 7 So in **western society** it was all based on Christian **ethics**. | 6 | 1 | 6 | 3 | 1 | 3 | 3:6 |
| 128 | 8 The everyday person, the **non-educated** person, anyone without basically the **wealth** or **position** to have an education wouldn’t be up there.” | 11 | 1 | 11 | 4 | 1 | 4 | 4:11 |
| 129 | “So the people in power had the say” | 9 | 1 | 9 | 0 | 1 | 0 | 0 |
| 130 | 9 Yeah, the people in power and then you have to think about well, who were the people in power and why. | 9 | 1 | 9 | 0 | 1 | 0 | 0 |
| 131 | **Para 22** | 7 | 1 | 7 | 0 | 1 | 0 | 0 |
| 132 | 1 So basically, in the words of Dale Spender, the”dead white males”. | 7 | 1 | 7 | 0 | 1 | 0 | 0 |
| 133 | 2 All the rules were made by the dead white males, **middle-class** white Anglo-Saxon males. | 10 | 1 | 10 | 2 | 1 | 2 | 2:10 |
| 134 | 3 That’s generalising of course, but in essence it’s a fairly safe **generalisation** to make. | 7 | 2 | 3.5 | 1 | 2 | .5 | 1:7 |
| 135 | 4 So that’s why **post-modernism** is saying hang on a minute, how reliable are those foundations that have been the **underpinning** of the **establishment** because they haven’t included all the voices. | 14 | 2 | 7 | 4 | 2 | 2 | 4:7 |
| 136 | **Para 23** | 3 | 1 | 3 | 2 | 1 | 2 | 2:3 |
| 137 | 1 Now for **anti-positivism**. | 3 | 1 | 3 | 2 | 1 | 2 | 2:3 |
| 138 | 2 Okay, so **anti-positivism** basically goes hand in hand with science. | 6 | 1 | 6 | 2 | 1 | 2 | 2:6 |
| 139 | 3 It’s the idea that basically, unless something can be observed, and unless **reality** can be observed and is **non-metaphysical**, it can’t be a valid **truth**. | 14 | 1 | 14 | 4 | 1 | 4 | 4:14 |
| 140 | 4 So **anti-positivism** goes hand in hand with that idea of **positivism**. | 7 | 1 | 7 | 2 | 1 | 2 | 2:7 |
| 141 | 5 You have to be able to physically observe and measure and quantify something before it can represent **reality**, before it can be seen as a valid piece of information. | 11 | 1 | 11 | 1 | 1 | 1 | 1:11 |
6 And what post-structuralism is saying is hang-on, the metaphysical, in other words non-physical, truth should also be considered.

7 Things like, you know, female-intuition, emotional-intelligence, all those sorts of ideas should be considered.

8 Post-modernism is saying we need to include those viewpoints because we’re limiting ourselves if we say the only important truths are the ones we can measure.

9 So that’s kind of interesting and I’m sure you will all relate to this idea.

“*But all these ideas from the dead white men are still a part of our lives so how do we decide which are right or wrong*”

Para 24

1 Okay, so that’s quite an interesting point.

2 How do we decide what’s the best thing to believe?

3 What are the prevailing ideas at the moment, would you say, about what people look for in life?”

“materialism”

4 Yep, so materialism, although again I think, more and more society is starting to think oh my goodness, particularly western society, we’ve got it all now; nearly every single one of us has a comfortable house and television and all of those things and we can afford fashionable clothes, but are we happy.

“Even if they’ve got 16 cars they’re still not content with what they’ve got …”

5 Yeah, eventually people might reach a point where they think we’ve got material possessions but it’s not enough.

6 The superstars, the Madonnas of this world, have reached the top of the materialistic heap and realised that’s not all there is.

7 How many of you feel that sense of awareness, that having the latest car

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<td>140</td>
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<td>Things like, you know, female-intuition, emotional-intelligence, all those sorts of ideas should be considered.</td>
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<td>142</td>
<td>8</td>
<td>Post-modernism is saying we need to include those viewpoints because we’re limiting ourselves if we say the only important truths are the ones we can measure.</td>
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<td>143</td>
<td>9</td>
<td>So that’s kind of interesting and I’m sure you will all relate to this idea.</td>
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</table>
|      |      | “*But all these ideas from the dead white men are still a part of our lives so how do we decide which are right or wrong*”
|      |      | **Para 24**
| 144  | 1    | Okay, so that’s quite an interesting point. | 4  | 1   | 4   | 0   | 1   | 0   | 0   |
| 145  | 2    | How do we decide what’s the best thing to believe? | 5  | 1   | 5   | 0   | 1   | 0   | 0   |
| 146  | 3    | What are the prevailing ideas at the moment, would you say, about what people look for in life?”
|      |      | “materialism”
| 147  | 4    | Yep, so materialism, although again I think, more and more society is starting to think oh my goodness, particularly western society, we’ve got it all now; nearly every single one of us has a comfortable house and television and all of those things and we can afford fashionable clothes, but are we happy.
|      |      | “Even if they’ve got 16 cars they’re still not content with what they’ve got …”
| 148  | 5    | Yeah, eventually people might reach a point where they think we’ve got material possessions but it’s not enough. | 11 | 1   | 11  | 0   | 1   | 0   | 0   |
| 149  | 6    | The superstars, the Madonnas of this world, have reached the top of the materialistic heap and realised that’s not all there is.
| 150  | 7    | How many of you feel that sense of awareness, that having the latest car | 12 | 1   | 12  | 2   | 1   | .5  | 2:12|
or material **wealth** in general is not enough?"

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<tr>
<td>151</td>
<td>8 Well some people have tried to avoid <strong>materialism</strong> altogether and experiment with surviving with only the <strong>essentials</strong>, like the Amish movement.”</td>
<td>12</td>
<td>2</td>
<td>6</td>
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**Para 25**

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<tbody>
<tr>
<td>152</td>
<td>1 So <strong>anti-positivism</strong> is saying other voices, other <strong>non-tangible</strong> explanations of things, are valid.</td>
<td>11</td>
<td>1</td>
<td>11</td>
<td>4</td>
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<tr>
<td>153</td>
<td>2 There’s a very interesting book, if anyone’s got the time or <strong>interest</strong>, called Women’s Ways of Knowing by Belenky.</td>
<td>11</td>
<td>1</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>154</td>
<td>3 It’s in the library and the whole book, it’s quite a thick one, is dedicated to an <strong>appreciation</strong> of the way females view the world and speak to the world and understand it and operate in it.</td>
<td>16</td>
<td>2</td>
<td>8</td>
<td>1</td>
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<tr>
<td></td>
<td>“I just read an interesting book about the witches, I never thought of them being like that, like they were doctors and … …”</td>
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<tr>
<td>155</td>
<td>4 Yes, its very interesting isn’t it.</td>
<td>3</td>
<td>1</td>
<td>3</td>
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**Para 26**

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<tr>
<td>156</td>
<td>1 So <strong>anti-representational</strong>, and what that’s really talking about is language and saying that language cannot be relied on to represent <strong>reality</strong>.</td>
<td>12</td>
<td>2</td>
<td>6</td>
<td>3</td>
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<tr>
<td>157</td>
<td>2 And that’s quite obscure but … it means you have to first of all understand how <strong>fundamental</strong> language is, in influencing how we see the world.</td>
<td>11</td>
<td>2</td>
<td>5.5</td>
<td>1</td>
</tr>
<tr>
<td>158</td>
<td>3 And that’s why <strong>political correctness</strong> has become so important.</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>159</td>
<td>4 <strong>Political correctness</strong> is borne out of not only <strong>feminist</strong> but also <strong>post-modern</strong> ideas and it’s saying that our language and our <strong>policies</strong>, for example, must be inclusive and respectful of all people.</td>
<td>18</td>
<td>2</td>
<td>9</td>
<td>6</td>
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</table>
1 The final one is anti-disciplinar, and it’s not talking so much about being disciplined at school or whatever, although I’m sure it is anti that.

2 It’s talking about anti the boundaries between disciplines or areas of thought.

3 That is the boundaries between humanities and science, between business, law, education, all those disciplines within the university.

4 What its saying is that, how crazy to create these false boundaries around things because they don’t really exist.

5 There are aspects of psychology and law and education, for example, and technology in business and so on and so forth in all the disciplines.

6 So this actually recognises the connections between them which will then give us a much truer picture, and we will reinforce the strength of what we’re talking about if we acknowledge the connections.

7 Because I don’t know if you’re aware … but traditionally there’s always been a kind of stand-off between the different disciplines; which if you think about it, seems silly, doesn’t it.

8 It’s like “they’re engineering students and you’re just education”, “we’re sciences, you’re just humanities” and our way of looking at the world is the right one.

“**In Education they talk about multidisciplinary**”

9 Yes and so now that this multi-disciplinary approach is a bit of a buzzword.

10 And that’s what the common units are about funnily enough; they’re about recognising that there’s common knowledge and skills that everyone takes into everything they do.
“I didn’t see the relevance to my course when I first started this common unit”

Para 28
170 1 Given that you have to do them, it much better to take a more positive approach isn’t it. 7 1 7 1 1 1 1:7
171 2 Hopefully you realise now in this **philosophy** introduction course whatever we’ve talked about underpins everything you’re learning in your **disciplines**, doesn’t it; the **history** of all the ideas that you’re dealing with. 16 1 16 3 1 3 3:16
172 3 So it gives you a **depth** of understanding hopefully, or a deeper **understanding** of what you are doing. 6 1 6 3 1 3 3:6
173 4 But we won’t go on about that. 3 1 3 0 1 0 0

Para 29
174 1 The other thing about **post-modernism** is it’s also very **compatible** with; it goes hand in hand with, the ideas of **globalisation** in some ways. 13 1 13 4 1 4 4:13
175 2 Because **globalisation** is very much to do with breaking down **boundaries** and, you know, viewing things from a **multicultural perspective**, for example. 12 1 12 4 1 4 4:12
176 3 Also, **postmodernism** and **feminism** go hand in hand, okay; because **feminism**, like **post-modernism**, has been a great **champion** of the **underdog**, in a way, of the **minority**. 13 2 6.5 8 2 4 8:13
177 4 I guess you’ve come across this idea a little bit with our previous lecture that mentioned Foucault because he was one of the great **post-modernists**, the original ones. 16 2 8 1 2 .5 1:16
Para 30

<table>
<thead>
<tr>
<th>Line</th>
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<tbody>
<tr>
<td>178</td>
<td>1 However, like everything, there are always disadvantages or concerns about post-modernism.</td>
<td>8 1 8 4 1 4 4:8</td>
</tr>
<tr>
<td>179</td>
<td>2 Can you think of them?</td>
<td>2 1 2 0 1 0 0</td>
</tr>
<tr>
<td>180</td>
<td>3 What about personally.</td>
<td>2 1 2 0 1 0 0</td>
</tr>
<tr>
<td>181</td>
<td>4 What do you think about post-modernism?</td>
<td>4 1 4 2 1 2 2:4</td>
</tr>
<tr>
<td>182</td>
<td>5 Are you thinking it’s a great thing?”</td>
<td>3 1 3 0 1 0 0</td>
</tr>
<tr>
<td></td>
<td>“(Inaudible)… It sounds like they’re trying to open it up to everybody but the language is so hard so it’s opened up only to everyone who can understand it.”</td>
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<tr>
<td>183</td>
<td>6 Yes, very good point.</td>
<td>4 1 4 0 1 0 0</td>
</tr>
<tr>
<td>184</td>
<td>7 It contradicts itself by using a language that excludes anyone that’s not in the club.</td>
<td>8 1 8 0 1 0 0</td>
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Para 31

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<tbody>
<tr>
<td>185</td>
<td>1 Anything else that springs to mind?</td>
<td>4 1 4 0 1 0 0</td>
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<tr>
<td>186</td>
<td>2 I remember a couple of students in one of my tutes who were discussing it got quite emotional and upset about post-modernism, and I understood where they were coming from.</td>
<td>14 2 7 4 2 2 4:14</td>
</tr>
<tr>
<td>187</td>
<td>3 What they were saying is well, what is there left, in terms of a definition about how our lives should be or what the truth should be, or what’s morally right or wrong?</td>
<td>15 1 7.5 3 1 3 3:15</td>
</tr>
<tr>
<td>188</td>
<td>4 If post-modernism is saying sorry we’ve got to question all of that stuff that we’ve based our lives on, all those truths, what’s left to guide us, in a way?</td>
<td>17 2 8.5 3 2 1.5 3:17</td>
</tr>
<tr>
<td>189</td>
<td>5 Its very anarchic, in a way, isn’t it, a kind of anarchy.</td>
<td>5 1 5 2 1 2 2:5</td>
</tr>
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<td>190</td>
<td>6 Does that occur to you?</td>
<td>1 1 1 0 1 0 0</td>
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Para 32

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<tr>
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<tbody>
<tr>
<td>191</td>
<td>And so those views, anyone here study science or whatever you study,</td>
<td>13</td>
<td>13</td>
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<td>what principles are we going to base things on, if we’re questioning</td>
<td>2</td>
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<td></td>
<td>everything.”</td>
<td>2</td>
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<tr>
<td></td>
<td>“It’s part of life … (Inaudible)…”</td>
<td></td>
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<tr>
<td>192</td>
<td>Yeah okay, so you think those structures will always be structures and</td>
<td>16</td>
<td>16</td>
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<td></td>
<td>historical structures but it’s just questioning them a bit more or</td>
<td>1</td>
<td>2</td>
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<tr>
<td></td>
<td>being a bit more critical.</td>
<td></td>
<td>.5</td>
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<td>193</td>
<td>Any other thoughts? (Pause.)</td>
<td>2</td>
<td>2</td>
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<td>1</td>
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Para 33

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<thead>
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<tbody>
<tr>
<td>194</td>
<td>Okay, let’s just look at what Mike put up there as major concern.</td>
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<td>195</td>
<td>So we had localisation and transmutation as one major concern, and</td>
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<td>that was if we think, if everyone talks about the localisation as</td>
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<td>seeing things as local, and what that’s really saying is let’s</td>
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<td>focus again on the individual and individual views as being</td>
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<td>important, as being the most important.</td>
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Para 34

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<tbody>
<tr>
<td>200</td>
<td>The reliance on free play is really that idea that anything goes.</td>
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<tr>
<td>201</td>
<td>You might have noticed with fine art some people say that the quality of what art is has been seriously affected by this idea that anything goes.</td>
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<tr>
<td>202</td>
<td>Anyone can be an artist, this table can be a piece of art; this arrangement of papers an installation.</td>
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<td>203</td>
<td>Contemporary artists often write essays just to justify that their work is art.</td>
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<tr>
<td>204</td>
<td>So the idea of free play can actually mean we get this kind of amorphous kind of nothingness so the tension and checks and balances go, in a way, from what we’re doing, and the quality is affected.</td>
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<td><strong>Para 35</strong></td>
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<td>205</td>
<td>The lecture talks about the threat to community and this comes from the two previous points, because again, there’s a focus on individuals rather than the collective and then the community gets fragmented.</td>
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<td>206</td>
<td>It talks about the threat to feminism.</td>
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<td>207</td>
<td>So while there are schools of feminism that are great supporters, post-modernism feminism, there are also feminists who are very concerned that the feminist voice will be lost because there’s a questioning of any voice or any truth, so they will lose their effectiveness.</td>
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<td><strong>Para 36 Macro New</strong></td>
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<td>208</td>
<td>Okay, so did everyone get a copy of this quote?”</td>
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<td>209</td>
<td>This quote now, is a good summary, as M said in the lecture, of what post-modernism is about.</td>
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<tr>
<td>210</td>
<td>It says “Postmodernism personalises and refocuses on what has been taken for granted...”</td>
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<tr>
<td>211</td>
<td>Ok what has been rejected, all the voices that have been not heard have</td>
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The lecture talks about “…regions of resistance, the forgotten, the irrational, women’s voices, the insignificant, the oppressed, the borderline, the subjugated, the rejected, the non-essential, the marginal, the peripheral, the excluded, the tenuous, the silenced, the accidental, the dispersed, the disqualified, the deferred and the disjointed”.

And that kind of captures what post-modernism is all about.

Its saying let’s hear every ones voices, let’s look at things again and let’s hear all the voices that were not listened to.

OK lets leave it there but remember there are also heaps of things about post-modernism on the web.

If you just type in post-modernism, there’s lots and lots there, lots of definitions, essays, demystifications etc.

So if anyone wants to do it, the essay question, if I remember rightly, is asking you basically to talk about how post-modernism has influenced the particular discipline that you are involved in.
## Tutorial 3 (T3): Postmodernism

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<tr>
<td>9. What do you think about that video tape you saw in the lecture that M said was an example of <em>pastiche</em>?</td>
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<td>5.5</td>
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<tr>
<td>10. <em>Collage</em> and that; do those words make <em>sense</em>?</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>2</td>
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<td>11. I looked up <em>pastiche</em>.</td>
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<td>12. It comes from like originally from <em>classical music</em>.</td>
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<td>13. You know in a piece of music is an <em>imitation</em> of the style of one of the sort of master composers; but it sort of extended the <em>meaning</em> to become copying or doing something in someone else’s <em>style</em>; which may or may not involve <em>parody</em> or sending that up.</td>
<td>25</td>
<td>3</td>
<td>8.1</td>
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<tr>
<td>1. So doing another <em>version</em> of American Pie is like that <em>pastiche</em>, like, she’s taken a song or a <em>text</em>, because to a <em>post-modernist</em> everything is a <em>text</em> whether it’s written or not. (why text in two colours?)</td>
<td>16</td>
<td>3</td>
<td>5.2</td>
<td>6</td>
<td>3</td>
<td>2</td>
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<td>2. If we talk about how you view this room, as I said, that would be, that <em>expression</em> is how you “read” it as a <em>text</em>.</td>
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<td>11</td>
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3. So she’s taken like a **text** which is a **cultural icon**, like a song that everyone knows, and there would be hardly anyone, like, probably above the age of six or seven who hasn’t heard of American Pie.

   “I haven’t”

4. You haven’t heard of American Pie?

   “… by Don Maclean…”

5. True?

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Para 3

1. Like, his **version** was serious.

2. Hers is a bit **semi-serious**, but she’s sort of sending herself up as well.

3. Madonna is like the kind of, she’s like the true **post-modern performer** because she’s.

4. I don’t know if she’s like that at all but I give her credit for being really smart because every couple of years she recreates herself in a different image.

5. There’s no kind of **constant**.

   “No same style, it’s always forever evolving.”

Para 4

1. You take bands that are old farts like the Rolling Stones, they’re still kind of playing the same.

   “They never change.”

2. The same stuff, or the same songs, as they were 30 years ago, in fact people expect them to.

3. But Madonna kind of recreates herself every couple of years, you know, she sort of went through the **material girl phase**, and the **undies on the**
4. I don’t know what phase the American Pie sort of thing is, but she looks like she’s sort of recreating the blue collar working class girl heroine or something.

5. Heroine not heroin.

6. So she redoes herself over and over.

7. And whereas the song itself is like a pastiche or an imitation, that, in connection with the images was kind of like a collage, a sort of a patchwork of a whole lot of different images which may or may not have a theme to it.

Para 5

"Hasn’t it categorised the people then like, you know, those groups that pretend they’re ABBA and Elvis impersonators and that.”

1. They would be like pastiche and … to an extent, depending on; some people do it dead serious, and other people do it as a send up, they’re trying to get a laugh.

2. So that’s trying to cash in on a big icon, whether you actually…

“… perfectly, I mean, they take on so many different bands.”

3. Who’s that?

“Chunky Custard.”

4. I’ve never heard of them, but there’s Elvis impersonators and ABBA impersonators, there’s even Jon Farnam impersonators.

“I haven’t seen a Liberace impersonator, though.”

5. Actually he was being a total send up.

“Yeah, of himself.”
Para 6

1. Of himself, yeah.

2. You probably wouldn't remember but there's a famous quote of his, that he was asked how do you get on all that gear and get up on the stage and make a complete goose of yourself and he said 'I laugh all the way to the bank'.

3. But that was too quick, I missed most of it but there seemed to be juxtaposing or putting next to each other images of the American family and then images of black guys or blue collar kind of guys.

4. Has anyone got any of the point of that?

"I don’t know, I thought maybe she was trying to make a statement about how American society was all of these aspects or maybe that it used to have the old image of the family like the family group and a certain class and then she had all these other ones where there were different types of family groups that weren’t the usual American style or idea of the family."

There was a couple of family shots that looked like the Cleavers and the Brady Bunch might see a couple of …, but then.

"And then there was just like the two homosexual families, the female ones and the male ones."

“There was also one…”

There were a couple of Catholic nuns.

“And then he started talking about it and I was like hold on.”

I thought it was a couple of guys and a couple of women. … gay.

“It was the family that was the half negro and half white…”

I didn’t notice that.
“And then you had all the sort of sports like the … and the football and then you had the firemen and.”

“They didn’t have baseball, I would have thought they would have had to have baseball.”

“They had football. (different students commenting).”

“And they had basketball… I was being asked … football.”

You know, and somebody … put that video put together and selected those images but it probably you’d have to watch it heaps of times to figure it out. My … is the father, son and the holy ghost one, there’s a big black dude in the middle and two other … (inaudible).

I guess she was playing around with the notion of the American Dream. Because I didn’t even notice the patches on the flag either.

“No, I didn’t notice that.”

Or … whether the flag was touching the ground or?

“Yeah.”

I mean, is that like disrespectful?

“Yes, it is, that’s why the … when they’re folding it, it never touches the ground; it’s always folded on a certain…”

So that could well be deliberate?

“Could be. And especially … around it, … units, maybe that was sort of the imagery as well, maybe … or coming out from behind the flag…”

Sort of wrapped up in it? I think … at the end if it was a statement against sort of, as fashion item …
“(Inaudible)"… around too much...”

I’m amazed with what … that track because her top was a bit.

“Yeah, somebody said that the guys were waiting for her to pop out.”

“She’s a babe, though, for … She’s about 45 isn’t she.”

“Oh, she’s older than that. … But she’s got a personal trainer for God’s sake… Good for her.”

And there is something ironic too, to me anyway, about someone who’s kind of made a whole lot of money out of society, turning around and then sort of thumbing their nose and sending things up.

But that’s just my view.

Para 7

1. I guess we should get back to the lecture, was that lecture clear, or clear as mud? 8 2 4 0 2 0

   “No, … But I did the reading beforehand and that helps, because then the lecture sort of helps put things together for you a bit too.”

2. Were the readings ok to understand? 3 1 3 0 1 0

   “I know I read about post-modernism and structuralism and that beforehand so I don’t know whether it was in the readings or whether, because I’ve been doing some extra readings like Roger Screten’s, from DesCartes and Rubinstein and I got another one, the New Left Thinkers or something and that’s got Minchkin, … … I’m kind of in the dark in this course, this unit.”

Para 8

1. No, the more you, you know; to go to tutes and read around a bit, that’s the whole idea. 10 2 5 1 2 .5

   “Yes, well the first … I was thinking, I’m talking to these guys talking about it
2. That’s also kind of predictable because things, no, truly, I mean, if you haven’t got a **background** in that area you’d kind of be like not, actually not knowing it because you don’t **know** a whole lot anyway; you come in not knowing about that particular **discipline** or the way things are.

   “Yeah, it’s like a whole foreign language…”

3. Yeah, and it’s still something that there’s a whole lot of bits which actually all fit together and it takes a few weeks to have enough bits, so that they then start to fit together and fit into each other; and I hope that’s kind of happening now seeing as it’s getting into the semester.

4. If it doesn’t it will in a couple of weeks.

   “Well I’ve … together because I’ve found out I’ve got another … unit next to me I suppose.”

5. … unit?

   “No, it carries on.”

6. What’s it do?

   “It follows on… communication … Is it?”

7. That’s a good unit, … ?

   (Laughing and comments).

Para 9

1. Well, if you want me to take a moment to explain, I thought we might just run over some of the **fundamentals** of **post-modernism** and **post-structuralism** and get back to where it actually came from.

2. Because I reckon you can’t really figure something out like how something is now, unless you’ve got some sort of understanding of how
it came to be that way.

3. And then we might do a bit of a practice exercise in deconstruction and we can all pretend we’re post-modernists ourselves.  
4. I’m not one of them.  
5. I’m not a real committed sort of, I’m an old fashioned structuralist.  
6. A sceptical structuralist, at that.

Para 10

1. And the two terms, we might use both of them.  
2. We use both post-modernism and post-structuralism, is there any difference between those two or?  
3. I mean, I take that to be synonymous, interchangeable.  
4. Whether the difference … of what those two things are looking at; post-modernism sort of arose out of the theory of art and architecture.  
5. Okay, you get to the post-modernist artist, as opposed to modern art, and I think the art… going back, like, realist pop art where the picture tended to be a reasonably accurate representation of some scene; and then what was sort of modern.

“Surrealist.”

6. Yeah, surrealist and it took, it to a place that was unreal but it is still kind of structured in a way.  
7. And then there’s the sort of modernism like abstract art, which is Picasso, cubism, which is still.

Para 11

“And Pollack...”

1. That’s kind of getting towards post-modern actually.
2. But anyway, Picasso’s art is still structured.  

3. It was still, it was an **abstract representation** of some; there was still an image but it was an **abstraction of the image**.

4. **Post-modern art** is more like a **collage**, where you take bits and pieces of everything and stick them together.

5. I mean, it’s based on that.

### Para 12

1. I’m trying to draw threads that Mike talked about because it kind of; if you’ve got no **unity**, no overall structure or theory that explains everything, you’re kind of left with disconnected fragments; and that’s where the idea of **collage** comes in.

2. You take fragments of things which may or may not be related, and stick them together.

### Para 13

1. The other, you’ve heard of Andy Warhole?

2. He was another sort of New York **post-modern** artist and he did things like he took a photograph of a Campbells soup can.

3. **A Campbells soup.**

   “**A tin of soup?**”

4. Yes.

5. But … an image of a Campbells soup can and then made up, stuck that in an exhibition like, this is great art.

6. The point he was trying to make is that art is about the presentation of images and one image is equal to another image as an **artistic form**.

7. You can attack my **logic** if you like.
If there’s, if everything is just sort of all fragments and there’s no over-
riding sort of theory or principle which gives value to things, then
everything is of equal value; so the point is, well, a picture of Campbells
soup can is equal value to the Mona Lisa; they’re just different visual
images.

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<th>Para 14</th>
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| 1. He took a photograph of the Mona Lisa and then just copied it like a
thousands of times so you’ve got, you know, you’ve got at one end all his
photographed images and at the other the original and it’s sort of like the
most valuable painting.|
| 2. And what happens when you have thousands of images of it?
“Is it a thousand times as valued.”|
| 3. Or is it valued less and how do you decide.|

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<th>Para 15</th>
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| 1. And he just put a camera outside the Empire State Building, a movie
camera and he filmed the entrance for 24 hours.|
| 2. It must have been easier to focus in those days.|
| 3. He’s the guy who came up with the expression one has 15 minutes of
fame.|
| 4. Like the French philosophers, he must have spent way too much time
hanging around coffee shops.|

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<th>Para 16</th>
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| “I read somewhere recently about the French philosophers, the café was the place
of the revolution not the Academy.”|
1. Yes...and they’d hang out in coffee shops and drink sort of high caffeine coffee and smoke cigarettes.

2. That’s probably enough to get your thinking pumping anyway.

3. Because there were some pretty smart dudes.

4. But it’s a good point.

Para 17

1. Most of the post-modern or post-structuralism, most of the early post-structuralists were French and that … had to do with the art and architecture originally; and the post-structuralism critiques of the social sciences; from the idea of structuralism.

2. So it was a critique of structuralism in the social sciences but they were saying much the same thing, only in different ways; it was a critique of ideas.

3. What did he say about it?

4. I like this guy’s name.

5. He is Leotard, he rejected the idea of meta-narratives.

Para 18

1. You know what a narrative is, like a story.

2. Meta means like above or beyond; so meta-narrative is like the story that explains a story.

   “Like Marx and Grant, social reform.”

3. Yeah, exactly, things like Marx, Freud, okay, so a grand theory of human psychological behaviour.

4. Marx’s is the grand theory of economic behaviour and of history.

5. There are a few others.
### Para 19

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<tbody>
<tr>
<td>1.</td>
<td>Even going back a bit past Marx.</td>
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<td>2.</td>
<td>Marx’s <strong>grand theory</strong> was kind of a <strong>critique</strong> or a <strong>reaction</strong> against Adam Smith’s <strong>grand theory</strong> of economic behaviour.</td>
<td>13</td>
<td>1</td>
<td>13</td>
<td>8</td>
<td>1</td>
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<tr>
<td>3.</td>
<td>And then you go back even further into the mid-1600s and you get people like Thomas Holtz who sort of developed the <strong>grand theory</strong> of human behaviour and human political social behaviour.</td>
<td>21</td>
<td>2</td>
<td>10.1</td>
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### Para 20

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<tr>
<td>1.</td>
<td>But where that <strong>grand theory</strong> came from, and we’re back to, not square one; but it was actually <strong>enlightenment</strong>.</td>
<td>10</td>
<td>2</td>
<td>5</td>
<td>3</td>
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<td>2.</td>
<td>As you’re going back a bit further to the <strong>rennaisance</strong> and … where you’ve got huge changes in <strong>theory</strong>.</td>
<td>9</td>
<td>1</td>
<td>9</td>
<td>2</td>
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<tr>
<td>3.</td>
<td>Changes in the <strong>physical sciences</strong>.</td>
<td>3</td>
<td>1</td>
<td>3</td>
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<td>4.</td>
<td>Newton, Galileo and physics, people like that; and people who developed <strong>natural laws</strong> of the <strong>behaviour</strong> of physical objects; which themselves have been sort of critiqued and reformulated over time, but at the time, they were totally <strong>revolutionary ideas</strong>.</td>
<td>21</td>
<td>2</td>
<td>10.1</td>
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<td>5.</td>
<td>And people who were sort of interested in human behaviour and social behaviour and economic behaviour.</td>
<td>9</td>
<td>1</td>
<td>9</td>
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### Para 21

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<tbody>
<tr>
<td>1.</td>
<td>“<strong>Are they sort of the structuralist phase?”</strong></td>
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<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
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<tr>
<td>2.</td>
<td>That’s the origins of <strong>structuralism</strong>.</td>
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<td>2</td>
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<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>“<strong>Because they were trying to find structure in the nature and in behaviour and politics and everything?</strong>”</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
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</table>
2. Yeah, the analogy they were using was that there’s these great natural laws which explain the behaviour of physical objects, which explain the natural world.

3. The logical leap then is oh, there must be similar laws which explain human action and then they set about searching for those natural laws of human behaviour; which, if they could be discovered, could lead through to the notion of progress from, you know, human progress to a sort of Utopian or perfect society.

4. You know, if we could work out the natural laws of human behaviour, give it a bunch of … then everything will be… “Hunky dory.”

5. Yeah, everything would be just fine.

Para 22

“Yeah but human nature didn’t want it anyway because no one likes to be pigeon holed.”

1. Well, if you’re a post-modernist, you know, there’s no such thing as human nature; that’s constructed as well.

2. For the post-modernist everything is a human construction.

3. Not everything, every meaning.

4. Every meaning that we attach to anything is constructed by a human activity.

“Right through social life, fashion, culture.”

Para 23

1. Yeah, the idea of even myself, and this comes from the Freudian …, I mean, post-modern, people that do post-modern psychotherapy, Lacan I
think is one of the main ones, I mean, they’d argue that there’s no such thing as an essential you or me; that what we are is constructed by the relationship between ourselves and others over time and changes, and changes over time.

2. So the you that was 20 years ago is not the you that’s 10 years ago is not the you that’s now, and also it’s not the you that’s you in this time and place if you change your role.

3. If you behave and do things in a particular way in one situation, are you the same you when you change roles to another situation?

4. Are you the same you as a parent as you are a student?

5. Are you the same you as a boss or as a worker?

Para 24

“I always got the impression that we were sort of … many people living in the one space.”

1. That’s pretty close to a post-modern.

2. And it’s not just in that situation how you behave but how other people behave towards you.

3. Even when I was a manager, people approached me and treated me differently than if you were just one of them; you’d meet the same people at a party afterwards and they’d be different again.

4. That sort of stuff on social roles has been around in sociology for donkey’s years, whether it’s actually a different you each time.
<table>
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<th>Para 25</th>
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<tbody>
<tr>
<td>“Or is it just an aspect of you that’s different in a different situation.”</td>
</tr>
<tr>
<td>1. That’s probably a bit closer to the truth, great theories are usually in the middle as it were.</td>
</tr>
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<td>2. If you take two extreme positions the answer is usually somewhere around about there.</td>
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<th>Para 26</th>
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<tbody>
<tr>
<td>1. So even something like the notion of self which we sort of take for granted that we’re us, a post-structuralist would say well, how did you get to be you?</td>
</tr>
<tr>
<td>2. How did you get to be you?</td>
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<tr>
<td>3. Is there any sort of essence?</td>
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<td>4. I mean, it goes back to the notion of, a lot of people who are Christian or most religions, the idea of a soul which is like, in Christian tradition, you know, a soul is kind of the essential you; the bit that in that theological system continues on after your body has gone.</td>
</tr>
<tr>
<td>5. Same as if you’re in the Islamic tradition or; whereas in Hindu or Buddhist tradition, you just keep going and going and going and your soul is reincarnated.</td>
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“Yeah...”

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<th>Para 27</th>
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<tbody>
<tr>
<td>1. There’s a notion that post-modernists and post-structuralists are essentially atheistic.</td>
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<tr>
<td>2. They believe there’s no overall “grand theory of me” including a</td>
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<tr>
<td>精神上的大理论。</td>
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<tr>
<td>3. 我不是说我在同意，我只是说那是他们说的。</td>
</tr>
<tr>
<td>4. 所以如果没有总体的大理论，你会剩下什么？</td>
</tr>
<tr>
<td>5. 我的意思是，在极端的情况下，你会剩下一种道德和道德真空，因为那里没有主导或引导原则，所以所有选择都是有效的。</td>
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<tr>
<td>6. 人类不需要那样工作，但那是对那种观点的极端解读和那种右翼个体主义者的观点。</td>
</tr>
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**Para 28**

|1. 这种寻找大理论，大统一，那种将帮助我们所有人成为更好的人和一个更好的社会的尝试，只是通过自然法则的应用；这...事情。| 17 2 8.5 7 2 3.5|
|2. 这个巨大的破裂然后将是第二次世界大战，简单地说，整个欧洲被一大片破坏，从那...事情。| 19 3 6.3 1 3 0.3|

**Para 29**

|1. 一个是将右翼思想家和左翼思想家分开，前者占据了欧洲东部，很多思想家和这个社区的人，特别是法国，他们非常中左，也就是说，东欧的占领并不被很多人看作是件好事，但不...人。| 41 4 10.2 11 4 2.75|

---

人类不需要那样工作，但那是对那种观点的极端解读和那种右翼个体主义者的观点。
2. But then the various sort of communist countries like Hungary, Checkoslovakia, in the sixties, were disillusioned a bit as the grand period of Marxism was seen not to be working.

Para 30

“It wasn’t defined.”

1. Well, that’s one reason, we know that the application wasn’t working.

2. But all those sort of, and this is strictly European, because things were happening in China and other places; but what you get is sort of a complete disillusionment in a lot of cases with the promises of enlightenment and the promises of modernism that weren’t seen to be being delivered.

Para 31

1. And also corresponding with that, you get a really fast increase in the pace of change of society or change in the world.

2. Like beginning with the industrial revolution, the pace of change in society from then has been continuously accelerating.

3. Before that, if we go back through the middle ages or even before that, you get very long periods of stability, generation after generation after generation, just doing much the same as their ancestors had done.

4. People lived in essentially kinship based societies, where most people were rural people living in a village environment where they were in some way related to almost everyone else in the village.

5. You never went more than sort of five miles from home for most of your life.

6. And that kind of society went on, evolved for hundreds of years.
7. It was very stable, not much *change* apart from when the crazy guys on horses started riding out of the steppes and chopping everyone up.  
   |     | 14 | 2 | 7 | 1 | 2 | .5 |

8. And then you get the *enlightenment*; changes in *technology; agricultural technology; industrial technology*; the whole structure of society changed.  
   |     | 12 | 2 | 6 | 6 | 2 | 3 |

9. That’s the *kinship-based* society that all our ancestors lived in.  
   |     | 6  | 1 | 6 | 2 | 1 | 2 |

**Para 32**

1. Whereas when it fell apart, people became much more *urbanised*, the structures of society became much more fragmented, the idea of the *nuclear family* or *slightly extended nuclear family* came into the world with the *industrial revolution*.  
   |     | 22 | 3 | 7.3 | 9 | 3 | 3 |

2. The pace of *technological change* grew and it has been picking up ever since, so things moved faster in the 19th century than they did in the 18th, and they moved faster in the first half of the 20th century than they had ever done before, and they moved even faster in the second half of the 20th century; and in the last quarter of the 20th century they probably moved faster than they’d ever done in the *history of humankind*.  
   |     | 41 | 5 | 8.2 | 4 | 5 | 08 |

**Para 33**

1. So you’ve got these two strands; loss of sort of *values, grand theories* and trying to account for a society which is changing as the people who are analysing it or looking at it, are looking at it; it’s like change going on before your very eyes.  
   |     | 21 | 2 | 10.5 | 3 | 2 | 1.5 |

2. I mean, even … in my lifetime, the internet was sort of unthinkable 10 years ago.  
   |     | 8  | 1 | 8  | 0 | 1 | 0 |
3. It wasn’t imaginable.

Para 34

“It wasn’t predicted to be a thing with a huge…”

1. No, even the people involved in it in the early development of it; originally it was for defence use, and so if one mainframe went down the other computers were still connected. 16 2 8 1 2 .5

“Back in the sixties.”

2. Yeah. No one … in universities like with research and … 5 1 5 0 1 0

3. No one predicted the sort of current severe use of the internet. 7 1 7 0 1 0

4. So you get a society with a loss of faith, and fragmentation of society. 6 1 6 2 1 2

5. But now and in western Europe, Australia, US, western countries even though we’re not really that west; but in western countries you’ve got like a higher percentage of people living on their own than have ever lived; in urban western society you have a higher percentage of people living on their own that either have small or no families. 32 2 16 0 2 0

6. It would have been unthinkable in rural society to live by yourself. 4 1 4 0 1 0

7. Or it didn’t happen.

Para 35

“Yeah but there’s a higher emphasis on marriage and having children in…”

1. People may have fewer offspring than, … in middle class urban societies, and this is where all those people come from, there are no aristocratic post-structuralists and there’s no blue collar structuralists. 18 4 4.5 9 4 2.2

“The … developing different … but you hear now that there’s talk about the net
society rather than a club, it’s being actually classed as a society now or a family.”

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<tr>
<td>2. People are so isolated from individual human contact that they may only socialise through a computer, that’s the same sort of.</td>
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“Well, they're actually courting and arranging marriages and relationships and all sorts of things through the net without actually seeing them until just before the day or even actually getting married on the net; and they don’t actual meet each other and catch up with each other and consummate the marriage until after.”

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<td>3. There’s plenty of cultures where people marry people they’ve never met.</td>
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“Yeah, arranged marriages. A lot of arranged marriages actually work if the match makers do the job properly.”

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<td>4. Well, think of the disasters that a lot of people make picking their own… … marry people who know you really well, …</td>
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5. So fragmentation, as I say, when you’re a collective type of society too, is when it becomes a society more of individuals interacting with each other.

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<td>6. So post-structuralists and post-modernists try to account for that.</td>
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Para 36

“So how do the structuralists, would they be … … back to a structuralist society where we do have to…”

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<tbody>
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<td>1. No, that’s hippies.</td>
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<tr>
<td>2. I mean, people do that.</td>
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<tr>
<td>3. You get small groups of people that actually go and live on the beach.</td>
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<tr>
<td>4. That’s an example of trying to go back, to try to go back to an alternative</td>
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type of society, hippie communes.

5. Those survivalist groups that spring up every now and then, they’re another, the most paranoid kind of version of the same thing.

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<th>Para 37</th>
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<tbody>
<tr>
<td>1. But that’s not; a hard core structuralist would just simply say no, the structure has changed, and then try to account for the reasons why it’s changed.</td>
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<tr>
<td>2. A hard core post structuralist would say well, there’s never been any structure in the first place.</td>
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<td>3. But whatever we call structures, they’re not things that exist; they’re things that humans have made.</td>
</tr>
<tr>
<td>4. So the name of the thing, you know what I mean, it’s only recognisable and given existence because someone has named it.</td>
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<thead>
<tr>
<th>Para 38</th>
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<tbody>
<tr>
<td>“There’s a saying that if you can name something you have power over it or something, is that what post modernists are against?”</td>
</tr>
<tr>
<td>1. What they’re saying is that the name of things, there’s not necessarily correspondence between the name of something and the thing itself.</td>
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<tr>
<td>2. The name of something is something given by someone.</td>
</tr>
<tr>
<td>3. Yeah, the name isn’t the reality.</td>
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<tr>
<td>“The thing is the reality.”</td>
</tr>
<tr>
<td>4. Whatever it is still exists but the fact that you call it something is what gives it meaning.</td>
</tr>
<tr>
<td>5. It’s the name of the thing that gives it meaning in how it’s named in</td>
</tr>
</tbody>
</table>
relation to other things.

Para 39

“Like, you could call that pen a big stick.”

1. You could call it a stick or something that’s very obscure.

2. But the name is given mainly by a kind of **consensus** that more or less everyone agrees to, almost everyone calls it that.

3. If you say give us a pen, I know what you mean.

4. If you say give us a squirt rock or whatever it is a bit confusing.

5. You know, we don’t sort of have equal naming rights.

6. I can’t call everything and anything I want, because not a lot of people know what they.

Para 40

“You could always try and usurp your own term for it. The Biro name, it wasn’t a Biro until the fellow invented the Biro.”

1. Yeah, another is the **notion** of **power**, the **power** to name.

2. Mr Biro got to call it a Biro because when, and that comes back to the **notion** of private property.

3. I mean, it’s his **invention** so he can call it what he wants.

4. And the naming of animals and species, the person, or the European person who finds it has the right to name it.

Para 41

“Irrespective of it has a name by some other culture.”

1. Yeah, it’s probably got lots of names.
2. Animals that live in different parts of the world have probably got heaps of different names but someone has to name it in Latin and give it two names to fit it into a system of classification that someone else in 1600s or something has invented.

3. The power to name; I can’t say that’s not a wallaby any more, that’s a chook.

4. Some biologists somewhere could do a DNA test and say no, this isn’t a wallaby, it’s in fact something else.

5. How much wood can a woodchuck chuck …

6. What’s a woodchuck?

   “Like a beaver or… a little bird…”

7. Is it an animal or bird… like a gopher or chipmunk?

8. So do how post-modernists work, or post-structuralists?

9. It’s a good question, who has the power to name.

Para 42

   “People who have the power, have the power to name.”

   1. Your parents named you didn’t they?

   2. What are your parents named after?

   “What are my parents named after? I told my children that if they don’t like the name they’re given they’re quite within their rights to change it.”

   3. But if they did change it; once your parents name you that becomes an official legal document.

   4. You can call yourself anything you like but you’ll still be listed, unless you go through another legal process to change it.
**Para 43**

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<tbody>
<tr>
<td>1.</td>
<td>Okay, the notion of <strong>desconstruction</strong>; if you are taking or looking at someone else’s <strong>theory</strong> or someone else’s way of looking at the world, the universe or whatever, and you don’t agree with their overall kind of sorts of meaning, how do you get out of it?</td>
<td>22</td>
<td>1</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>What kind of <strong>structuralists</strong>, do they sort of, you’d have <strong>structuralism</strong> which implies a structure or a construction; they look to deconstruct.</td>
<td>9</td>
<td>2</td>
<td>4.5</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>If everything is a <strong>product</strong> of some kind of <strong>historical circumstances</strong>, if everything is the way it is because of how it happened in a particular time and place, you look at the hard fact of the <strong>text</strong>, because <strong>text</strong> can be anything, and you pull it apart.</td>
<td>21</td>
<td>2</td>
<td>10.5</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>You look at the <strong>circumstances</strong>, how it got to be like it is; you kind of try to demystify it.</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5.</td>
<td>Look at the meanings that are in the <strong>text</strong> and what they imply.</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>6.</td>
<td>And it’s a kind of a useful <strong>strategy</strong> and we might have a little go with all of us for deconstructing something.</td>
<td>10</td>
<td>2</td>
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“**Well, it’s handy for … That’s what I find hard is trying to break down the hidden meaning or images behind what they’re saying.”**

**Para 44**

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</thead>
<tbody>
<tr>
<td>1.</td>
<td>What a <strong>post-structuralist</strong> would say is that there’s no one single <strong>reading</strong> in any <strong>text</strong>; there’s <strong>multiple readings</strong> depending on where you’re coming from.</td>
<td>11</td>
<td>2</td>
<td>5.5</td>
<td>6</td>
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<tr>
<td>2.</td>
<td>So you can put up, I can put up a reading or <strong>interpretation</strong> of a text and then you could challenge that <strong>interpretation</strong> by putting up a different one, and I’d just pick it to pieces.</td>
<td>14</td>
<td>2</td>
<td>7</td>
<td>2</td>
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<tr>
<td>3.</td>
<td>I mean, what a lot of <strong>post-structural academics</strong> tend to think is, I’m kind</td>
<td>11</td>
<td>1</td>
<td>11</td>
<td>4</td>
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</table>
of one of the intellectual snipers.

4. You wait for someone else to do the research and then…

   *And shoot them down.*

5. Then attack them with arguments about what voices they have missed out.

6. To deconstruct something, you work out what it is, what it is we’re looking at.

7. Is it a work of art, a social situation, a piece of written text, a theory?

8. You dig in and you develop an interpretation of that, a bit like when you’re doing your critique.

9. Then you start questioning; you look at the assumptions that underly that; like we did with the critical reading.

10. You look at where is this coming from.

11. What kind of situation produced this thing.

12. Who has benefited because it is like this, who wins and who loses because of things of like this.

13. Look at something, give an interpretation, question your own interpretation, look at the assumptions and then challenge the assumptions.

### Para 45

1. To take the notion of something, let’s deconstruct where we live, the notion of the Top End, okay; so the top of the Northern Territory from Katherine up.

   *So the Katherine line not the Berrimah line.*

2. No, the Top End, they draw the line at Katherine, yeah.
3. They sort of draw the camel trail line.

|   | 5 | 1 | 5 | 0 | 1 | 0 |

4. Why are we called Top Enders?

|   | 4 | 11 | 4 | 1 | 11 | 1 |

   “I don’t know, considering that the Cape York on the map is actually higher than us, I don’t know why.”

5. Yeah, but Darwin’s the most northern Australian city, we’re north of Cairns, so you know, what’s above, who makes maps, first?

|   | 13 | 3 | 4.3 | 0 | 3 | 0 |

6. Well, who made maps?

|   | 2 | 1 | 2 | 0 | 1 | 0 |

7. Who made the map we use?

|   | 3 | 1 | 3 | 0 | 1 | 0 |

   “The British started off.”

8. Well, the Europeans, white people.

|   | 4 | 1 | 4 | 0 | 1 | 0 |

9. Who lives at the top of Cape York?

|   | 4 | 1 | 4 | 0 | 1 | 0 |

   “Aboriginal.”

10. And Torres Strait Islanders.

|   | 3 | 1 | 3 | 0 | 1 | 0 |

11. So in respect of the people that name things, name parts of Australia, they don’t count.

|   | 9 | 1 | 9 | 0 | 1 | 0 |

12. They’re actually top of the, there’s the bit, there’s only a little bit of the Cape York that, I don’t know why people live there.

|   | 13 | 2 | 6.5 | 0 | 2 | 0 |

13. So they don’t get to be the Top End; we get to be the Top.

|   | 6 | 2 | 3 | 0 | 2 | 0 |

14. But if you look at the map of the world, where’s the Top End?

|   | 5 | 2 | 2.5 | 0 | 2 | 0 |

15. Actually it’s in the middle.

|   | 2 | 1 | 2 | 0 | 1 | 0 |

16. We’re about 12 1/2 degrees south of the middle of the world of the earth.

|   | 7 | 1 | 7 | 0 | 1 | 0 |

17. So why aren’t we the Middle End, why?

|   | 5 | 1 | 5 | 0 | 1 | 0 |

18. We can get to the be Top End if you look at us as being part of Down Under.

|   | 8 | 1 | 8 | 0 | 1 | 0 |
| Para 46 |  
| --- | --- | --- | --- | --- | --- | --- |
| 1. So we're the top of the Down Under, but where does the notion of Down Under come from? | 8 | 2 | 4 | 0 | 2 | 0 |
| “I don’t know, that’s what the British call it now, …?” |  |  |  |  |  |  |
| 2. Yeah, Terra Australis, I think, I don’t know who called it Southern Land; which isn’t actually …, it is southern. | 11 | 2 | 5.5 | 0 | 2 | 0 |
| 3. If you’re in space, well I’ve never been there but if you’re in space, the top is wherever your head is. | 6 | 1 | 6 | 0 | 1 | 0 |
| “So it’s … wherever you stand and.” |  |  |  |  |  |  |
| 4. Exactly, what the top and what the bottom is depends on where you’re looking from and your perspective. | 9 | 1 | 9 | 1 | 1 | 1 |
| “….north and south.” |  |  |  |  |  |  |
| 5. No not in space because north and south’s to do with magnetic … to the earth. | 7 | 1 | 7 | 0 | 1 | 0 |
| 6. But … on earth. | 2 | 1 | 2 | 0 | 1 | 0 |
| 7. The fact we call them north and south is sort of naming them, but there are. | 6 | 1 | 6 | 0 | 1 | 0 |

| Para 47 |  
| --- | --- | --- | --- | --- | --- | --- |
| 1. So we’re taking a European point of reference. | 4 | 1 | 4 | 2 | 1 | 2 |
| 2. And in fact now is there’s the Top End Aboriginal, so there’s various Aboriginal groups with the Top End in it. | 10 | 2 | 5 | 0 | 2 | 0 |
| 3. Now, 100 years ago that would not have been conceivable because. | 5 | 1 | 5 | 0 | 1 | 0 |
| “… people?” |  |  |  |  |  |  |
| 4. Originally, there wouldn’t have been western bureaucratic Aboriginal organisations. | 6 | 1 | 6 | 2 | 1 | 2 |
5. No, that would have been impossible.

   “Because before it was racism, wasn’t it. Because before, 100 years ago, is…”

6. I mean, before white people arrived here the notion of the Top End would have been inconceivable because people were simply living where they live.

7. It wasn’t, they weren’t Europeans so they didn’t see Europe as the top of the world and the bottom.

<table>
<thead>
<tr>
<th>Para 48</th>
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<tbody>
<tr>
<td>1. If you look at American maps you see the US and north and south America in the centre and the rest of the world is peripheral.</td>
</tr>
<tr>
<td>“Even on our maps for Australia, Australia is the middle of the whole map and everyone else is peripheral to us.”</td>
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<tr>
<td>2. Yeah, sometimes you get Western Australia on that side and the east of Australia on that side, we get cut in two and spread out.</td>
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<td>3. And then Africa has to be in the middle too because that’s like under Europe…</td>
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<tr>
<td>4. … So Europe’s the west even though it’s east of us; or actually it’s both east and west of us isn’t it?</td>
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<tr>
<td>5. We read westerns and watch westerns, even though they’re east of us.</td>
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<tr>
<td>“They’re from the west of America.”</td>
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<tr>
<td>6. Yeah, they’re from the west of America which is the east of us.</td>
</tr>
<tr>
<td>“It doesn’t matter where America is in relation to us.”</td>
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<tr>
<td>7. No, it’s still a western map.</td>
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| Para 49 |

| 438 |
“And something also, people call westerners as well…”

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<tbody>
<tr>
<td>1.</td>
<td>Yeah, people from, people of European <strong>origins</strong> are usually called Western even if they’re from Eastern Europe.</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>1</td>
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<tr>
<td>2.</td>
<td>Because that’s so ingrained into the way of, it’s so permeated into the way of thinking of seeing themselves that.</td>
<td>7</td>
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“So why do say European and white people except from … call themselves Western because and people call them Western?”

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<tbody>
<tr>
<td>1.</td>
<td>It must come from the <strong>cultural origins</strong> of people rather than their physical location.</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>2</td>
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<tr>
<td>2.</td>
<td>Because I mean, I think it’s still a <strong>majority</strong> of the Australian population has its <strong>cultural origins</strong> in Europe, so you know, so that sort of … we’re Westerners even though we’re living in the East.</td>
<td>14</td>
<td>2</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>It depends where you’re coming from.</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>0</td>
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<tr>
<td>4.</td>
<td>If you’re not coming from Europe, if you’re looking from Australia we’re in the middle and everything’s east and west of us.</td>
<td>9</td>
<td>2</td>
<td>4.5</td>
<td>0</td>
</tr>
<tr>
<td>5.</td>
<td>It’s who has the <strong>power</strong> to make the maps.</td>
<td>4</td>
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Para 51

“It was all joined at one stage and it broke away.”

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<tbody>
<tr>
<td>1.</td>
<td>There’s a couple of super continents that broke up like … there’s the northern hemisphere land mass and the southern hemisphere ones.</td>
<td>10</td>
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439
“There was one … fractured, was that Gondwana, the first one, and then it split up into little.”

2. And they’re still moving around.

“Directly above us, directly … become Cape York and.”

3. You can make a sort of jig saw out of the world.

4. And the lines of volcanos and earthquake **activities** were mostly tectonic **plate activity** which is another …

5. So viewed from Europe, viewing Europe at the top of the world, Australia is at the bottom and we’re Down Under, so how do we get there.

6. So we get to be Top Enders because viewed from a **southern Australian perspective**, ..., **settlement, migration conquest** of Australia, that’s a bit ...

7. In the south east corner.

8. So that’s down, so when things spread out from there, that becomes up, so for a **point of reference**, we’re the top and the **point of reference** for the people at the bottom, who were the original Europeans …

9. So we’re still, it’s a following on of … of how we’re **constructed** as being in the Top End when in fact we are the middle of the world.

“Like the Tasmanians call us islanders and they’re the mainland.”

10. And the north east island and the south east island of Australia and somebody’s called Australia the west island.

**Para 52**

1. And that’s kind of trying to get the idea of the ways of picking and looking at the **values** behind that.
2. What makes us see ourselves that way.  
3. That’s one thing a lot of post-structuralists, they take the sort of commonplace, the things that are just like assumed and no one worries too much about, and turn it into a problem.  
4. Okay, what’s going on here, how did this get to be like that.  
5. And that’s what I was kind of trying to do a bit, looking at how post-modernism and post structuralism came about, looking at a really brief sketch, how the social conditions of one time have influenced that of another time which led to certain philosophical, intellectual and practical movements; and how people are looking from here look back and say hey, that didn’t work, or that’s not working; what are we left with?

### Para 53

<table>
<thead>
<tr>
<th></th>
<th>1. Unfortunately they don’t say where we go from here because that would be introducing another grand theory.</th>
<th>4</th>
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<th>4.5</th>
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<td></td>
<td>2. It’s sort of laissez faire kind of.</td>
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<td>4</td>
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<td></td>
<td>“So is their primary role they play like a devil’s advocate basically to keep people ...”</td>
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<td>3. I don’t know about primary role but that’s certainly one function.</td>
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<td>1</td>
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<td></td>
<td>4. That’s one thing that like; post-structuralism kind of exists in universities and in sort of the world of art, for instance, and in popular culture, in pop music; but it’s not something that’s kind of.</td>
<td>19</td>
<td>1</td>
<td>19</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5. According to post-modernists we live in a post-modern world so that experience of the world is one of fracture and fragmentation, but it doesn’t make us by definition post-modernist.</td>
<td>17</td>
<td>3</td>
<td>5.6</td>
<td>8</td>
<td>3</td>
<td>2.6</td>
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<tr>
<td></td>
<td>6. But the main influence is in the art world and academic.</td>
<td>5</td>
<td>1</td>
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<td>0</td>
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7. There are a lot of popular songs that have got a fair bit of the notion that if you take away some kind of higher level of organisation or higher level of values, then you’re left with a bunch of bits and a bunch of fragments.

| Para 54 |
|-----------------|---|---|---|---|---|
| 1. But I think what troubles me with the post-modern interpretation is that where they’re saying you’ve got to value difference and value diversity, things are not better or worse because they’re different; they’re simply different. | 18 | 2 | 9 | 5 | 2 | 2.5 |
| 2. But how do you account for the fact that, if everything’s equally different, how come some things are privileged and some aren’t? | 13 | 1 | 13 | 0 | 1 | 0 |
| 3. And where does the power to decide what’s privileged and what isn’t come from? | 8 | 1 | 8 | 0 | 1 | 0 |
| 4. If we’re a lot of fragments, which fragments dictate to the others what’s. | 5 | 1 | 5 | 0 | 1 | 0 |

| Para 55 |
|-----------------|---|---|---|---|---|
| 1. For example, one of the first things we … tell you, is how they speak, whether they’re native English speaker or not, what kind of accent they’ve got, and we can then decide social status of people according to how they speak. | 20 | 2 | 10 | 2 | 2 | 1 |
| 2. Now, why is it that the Queen’s English which is a dialect spoken by even a fairly small minority, in Britain; why is the Queen’s English the standard or the benchmark against which other forms of English are judged, why? | 20 | 1 | 20 | 2 | 1 | 2 |
| 3. That’s right, that’s exactly right; because she represents power, privilege and all of that sort of social, or the French sociologist … would say pronunciation, … would be called cultural capital. | 14 | 1 | 14 | 4 | 1 | 4 |
4. You know economic capital, money, ... production.

Para 56

1. Cultural capital is the kinds of things that give you status in a community, sort of your personal buying power depending on where you were born into.

2. Were you born into a privileged family or a non privileged family?

3. Did you get to attend elite schools or did you go to the normal local state school?

“So it’s a bit like saying you went to Cambridge or”.

4. Yeah, that kind of thing, those things that give you cultural capital which then impresses your buying power in the world’s sort of market place and because you’re the right sort of chap.

“Or the right ...”

5. Oh, she comes from a good family.

6. You know, she speaks like a lady.

7. Those kind of social judgements of the world.

8. But why is it that the Queen’s English is standard?

9. Simply because of the cultural capital attached to that.

10. If the majority was the standard we’d be all speaking kind of a version of north eastern United States English.

11. Or north eastern mid western US English.

12. Or ... talking Indian because there’s more English speakers in India than there are in Britain.

13. True, there’s a billion people in India and about 100 million of them
speak English to some degree and about 60 to 70 million speak English really proficiently.

**Para 57**

“So what is the definition of post structuralist?”

1. You can’t define it.  
2. It’s a way of looking rather than being; a way of sort of looking at society and looking at history.
3. And I’m just saying what I think they think; by doing away with the grand explanation and looking at more smaller localised scale.
4. Looking at fragments and then trying to work out relationships between; particularly the power, really the incidence of power relationships, who has the power to dictate other people’s behaviour; what are the dynamics of power.
5. How do the powerful try to exert their authority?
6. And how do those others resist you know, the strategies of, the negotiation between exerting power and the strategies of resisting it.

**Para 58**

“So where would Foucault come into that? He did those sorts of things.”

1. He was kind of pre-post-structuralist.
2. He was looking at the same kind of thing, resistance to domination, yeah and also the kinds of ways that the oppressed are oppressed and how people allow themselves to be.
3. Yeah, I wouldn’t call him a post, he was more a Marxist than a post-structuralist but he was asking the same kinds of questions.
4. A **post-structuralist** is likely to come up and say well, this is what’s going on but I don’t know the answer.

“It all seems like a bit of a futile exercise then if you’re not going to come up with something.”

5. That’s kind of what, I find it a really **bleak** kind of **outlook**.

“That’s what M said, pessimism and…”

“…hunky dory, you’ve got to have something criticising…”

6. The … is that then that nothing’s, that everything’s stopped.

7. Because if you look at **popular culture**, you’ve got music, dress.

8. I mean, in terms of **fashion**, what you get is you get old styles **recycled** but you don’t get much of a new style emerging.

9. If you went through from the **fifties** through to the late **eighties** you didn’t get that sort of **repetition** of styles; you got things coming and being replaced and constantly changing; we went from short skirts to long skirts to.

“Yeah, and then back to short skirts.”

10. And now it’s like the line’s stopped and it just goes in a circle; like you get flares and hipsters and platform shoes.

“I haven’t seen any flares yet? Has anyone seen the flares? They’re around…”

11. Madonna’s hipsters …

“Yeah that’s right… Just Jeans.”

12. And those little tight tops, you get the same with.

“Yeah, the … have come out really big time now and they were in the seventies that we had to design and create and literally sew our own baggies to get them; and now.”
13. I always thought women were pregnant who were wearing them ten years ago...

Para 59

1. Other popular culture, like pop music; have you ever seen sort of when people stole black American music in the early fifties, you had like various threads of music changing and different styles evolving, but now you get to a point again where it’s sort of going in a circle.

   “Yeah, it basically sounds like we’re going back to Motown in some of today’s.”

2. You get bits of a mixture of styles in one, you actually get bits of individual songs stuck together like a collage or pastiche of songs, but some go … with … with a bit of turntable in the middle of it; and that seriously wrecks your records eh. … my records.

   “Yeah, with the music I’ve noticed a lot of old songs being rehashed and put out so the kids these days think it’s a new song and you say sorry, but that’s about forty years old.”

3. Yes, songs going back, write that down; where I lose my baby, the good lord took her away from me and styles, like, what’s that band, those brothers that kept fighting?

4. Their music called most of, its style has a direct link to the Beatles from about 1967 to 1968, they wrote different songs but they’ve used the same.

5. Well, that’s about it.

6. Sorry if I rave on too much.

   “No, that’s very good.”
Appendix B
INTRODUCTION – Macro Theme- para 1

Para 1
14. Good morning, welcome back, I trust you have had a nice and productive break. 8 3 3
15. Today we will learn something about the kingdom protista. 4 3 1
16. Animals of this kingdom are very interesting because they are very diverse; from the amoeba to seaweeds and, more importantly, in the evolution at some point, they are the first eucariotic organisms that appear on earth, about 1.5 million years ago. 19 6 3

Para 2
6. You may recall that before the break we learned that pro-cariotic cells appear on earth about 3.5 billion years ago. 12 5 3
7. They are the bacteria and the sino bacteria. 3 3 1
8. These organisms have no true nucleus and have not had any organelles such as mitochondria and chloroplasts. 7 5 2
9. But today you will consider the approaches which are the first new eucariotic organisms that appear on earth. 9 4 2
10. They have two nuclei, and organelles. 3 2 1
11. We often wonder how did these nuclei and organelles originate. 4 3 1
12. So today we will discuss the diversity of the eucariotic cell and also the origin of the nucleus and the organelles. 8 6 2
13. And in order to appreciate the kingdom protista, I propose that we will learn this together by considering the characteristic, the origin of the eucariotic cells and the calcification of proteas. 14 9 3

Para 3
6. Firstly, we need to define the term protista. 5 3 1
7. What are the members of, what are the characteristics of the members of the kingdom protista. 7 5 1
8. So this slide shows that the kingdom protista is the diverse group of eucariotic organisms. 8 6 1
9. The word eucariotic here means the organisms that have nucleus and organelles, and those organisms which have the nutrition characteristics. 9 7 2
10. Either they are heterotrophics, which we have already discussed this 12 6 3
term, which means that they use organic carbon as the source of energy, and also as a source of carbon.

**Para 4**

8. The kingdom protista can also carry out photosynthesis and this term means that they use some light energy as a source of energy and inorganic carbon, or organic carbon as a source of carbon.

9. Most of members of the protista are unicellular, which means that it has only one cell or a single cell organism.

10. And if they are multicellular, meaning they have many cells in the body, they are very simple; in other words, they are not organised into complex tissues as some animals including ourselves.

11. Now, if you find a protista which you cannot fit into either plant, animal or fungal kingdom, we put them into the kingdom protista.

12. In other words, members of kingdom protista possess characteristics which are different enough from multicellular plants, fungi or animals.

13. You can see from this definition that the kingdom protista is very diverse and an interesting group of protista.

**Para 5**

1. Now I would like to discuss with you the origin of the eucariotic cells.

2. Can anyone tell me the major distinction between procarotic and eucariotic cells?

3. Any volunteers, Yes?

   - “Organelles, or … organells and eucariotics are a smaller size.”

4. Yes, yes.

   - “So pro-carotic is smaller than eucariotics in size.”

5. Yes, yes

   - “So pro-carotic smaller than eucariotic, much smaller.”

**Para 6**

6. Yes, okay, good.

7. But two things I would like to discuss with you today regarding eucariotic cells.

8. Firstly, the nuclei … envelope, that house the genetic material or chromosomes, as one of the members of class has already mentioned to us, and secondly, I will discuss with you the origin of the mitochondria and the chloroplasts, so let us discuss those issues now.

9. So first, this slide shows the origin of the nuclei.

10. As you know, a procarotic cell will have the genetic material as … which means that they are not enclosed within a nucleus.

11. So in order to evolve from a procarotic cell to a eucariotic cell, the nuclear membrane has to be formed around the genetic material; and the theory is saying that the invaccination, as shown in this diagram, the invaccination meaning the moving inward of the cell membrane into the cytoplasm, forming many visicules; and these visicules gathered
around the genetic material or as this … shows, the accumulation of the visicule around the nuclei genetic material, resulting in the formation of the nuclear membrane.

12. And moving with the first six weeks, we learned that the nuclear membrane is not continuous; they are disrupted by pores, and these are the pore of the nucleus.

<table>
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<tr>
<th>Para 7</th>
<th>3. The remaining membrane or visicule in the cytoplasm will, fill from the membranes of the cytoplasm, and part of the membrane are the endoplasmic reticulan, or the ER, and you by now know the function of these endoplasmic reticulum.</th>
<th>17</th>
<th>9</th>
<th>3</th>
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<tbody>
<tr>
<td>Para 8</td>
<td>4. They are the site for the synthesis of protein or carbohydrates.</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>8. And in addition to endoplasmic reticulum, there’s a gloti-apparatus which is not shown in this diagram, and you by now know the function of the gloti-apparatus.</td>
<td>12</td>
<td>7</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>9. The gloti-apparatus there is to receive the prolapse from the ER and quickly …, modify it into a visicule that can be transported to various sizes of the cytoplasm and the moving membrane.</td>
<td>14</td>
<td>6</td>
<td>3</td>
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<thead>
<tr>
<th>Para 9</th>
<th>7. So this is one of the theories about the origin of the nuclei, through the accumulation of the visicule resulting from the membrane invaccination around the … nuclei.</th>
<th>11</th>
<th>7</th>
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<tbody>
<tr>
<td>8. We use the term pro-cariotic nuclei here, when we discuss these pro-cariotic cells, namely the bacteria and the sino bacteria. So that’s the origin of the nuclei.</td>
<td>16</td>
<td>10</td>
<td>3</td>
<td></td>
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</table>

| Para 10 | 8. The second issue is regarding the origin of mitochondria and chloroplasts, they arise in different fields. | 9 | 2 | 2 |
| 9. We are now accepting the theory we call endo-symbiotic theory, and this theory explains that in the distant past, the aerobic heterotrophic pro-cariots, another word, they require oxygen, they require oceanic carbon for their source of energy, and a source of carbon. | 26 | 8 | 4 |

| Para 11 | 6. These pro-cariots, they are actually bacteria as we already discussed; and these aerobic heterotrophic pro-cariot are endloss, meaning they are checking in to the primitive eucariotic cell, as we already discussed before. | 18 | 10 | 5 |
| 7. Usually these aerobic heterotrophic pro-cariot will be destroyed by the host cell but some will survive, and with passic-jopin, the surviving aerobic heterotrophic pro-cariot or bacteria evolved into the present day | 25 | 13 | 4 |
mitochondria, so it is what we term endo-symbiotic theory.

**Para 12**

3. So we have a **symbiotic relationship** between the bacterium and the **primitive eucariotic cell**, and resulting in the **formation** of the present day mitochondria.  
4. Chloroplasts, on the other hand, follow the same **theory** or pathway as the mitochondria, but instead of the aerobic heterotrophic bacteria, the chloroplasts have the **origin** from the sino bacteria.
5. This diagram shows the **structure of the eucariotic cell**, we already discussed.
6. So the **eucariotic cell** has a **nuclei** here and this one has a **chloroplast** and many other **organelles**, and the **pro-cariotic cell**, as shown by this **photograph** or … **micrograph**, it has no nuclei and no organs.
7. And the diagram beside that shows the summary of the **endo symbiotic theory** regarding the **mitochondria** and the **chloroplasts**; and you can see here we started with a **universal ancestor** and this evolved into the aki which we discussed last week or before we went onto the break; and then it also evolves into the **bacteria** which, including the **sino bacteria**, as we already learned.

**Para 14**

4. Further **evolution** from the nuclear line of the pro-cariotic cell and they’re followed by an increase in size, as what a **member** of your class has already mentioned.
5. And then there’s formation of the **nuclei** as we already discussed before, and then the **endo-symbiotic theory** comes in regarding the **origin** of the mitochondria and chloroplasts.
6. So … by the dashes lines, the **mitochondria** is the **symbiotic** object of a non-phototrophic cell, from … mitochondria, and the chloroplasts, by their **symbiotic offset** of a phototrophic cell, from the … chlorophylls.

**Para 15**

5. I would like now to present to you some of the **evidence** about symbiotic relationships.
6. We know though that at the present day, we have many animal cells that house algae.
7. For example, in this slide we shall view the sea-squirt, a sea anenome which **brim**, because they contain many **bacteria**; sino bacteria or other **brim bacteria** that are shown in this diagram.
8. And you probably know about corals.
9. Coral are **symbiotic** in the **relationship** between animals and **dynoflatulate**, which **we will discuss**, which you will later, and you probably heard about **coral bleaching**.
10. When the surface temperature increases, through **global warming**, the coral, some of the coral will cease **dynoflatulate**, resulting in the
bleaching of the coral, and this bleached coral, if they’re not … the
dynoflatulate in time, they will die.

11. So there’s a lot of examples of symbiotic relationships between animals
and algae in the aquatic environments.

Para 16

5. The second explanation or evidence supporting the endoselite-autic
theory is to look at the structure of the sino bacterium and the structure
of algal chloroplasts.

6. For example, the red algal chloroplast.

7. The diagram in the middle of this slide shows the symbiotic origin of the
mitochondria and the chloroplasts, as we have already explained before.

8. On your left hand side, we have the characteristic of the sino bacteria
which we discussed several weeks ago.

9. We said that the sino bacterium has chlorophyll A because they are
photosynthetic, or they need to be able to attract some light energy; and
chlorophyll A allowed the sino bacterium to do so.

10. And if you look at the photo-synthetic membrane of the coral, ah, the
photosynthetic membrane, you’ll find that they have single thyracoid,
which means that it has only one thyracoid that appears singly in the cell.

11. In addition to chlorophyll A, sino bacterium also has five … pigments.

12. I’ll re-look at that in the practical class and you’ll separate the pigments
out.

13. And it has rijelzomes at 70 S …, which we have already discussed several
weeks ago.

Para 17

6. And if you look at the characteristic of the red algal chloroplasts; we will
discuss the red algae later; but now, I just want to discuss with you the
characteristics of the red algal chloroplasts.

7. The red algal chloroplasts also has chlorophylls in it.

8. It also has a single thyracoid and is fico bearing and also has 70 S …

9. So you see, there are similarities in characteristics between the sino
bacterium and the red algal chloroplasts, so the theory is that the red
algal chloroplasts arise from the endo-symbiosis between a sino
bacterium and a primitive procarotic cell, and it is a reasonable one.

10. So this is the evidence of that endo-symbiotic theory.

Para 18

6. Now let us look at the transmutation of the kingdom protisoa.

7. As I mentioned to you before, kingdom protisoa has very diverse living
organisms, and we will look at this kingdom protisoa by dividing them
into several groups.

8. The first one we call it a photosynthetic protus, or the algae.

9. So by the word photosynthetic that means that they can attract some
light energy and use that to process synthesis of other cellular materials; the ovialate, the heteroconprotus, … and cytonoplast, and the slymo, and other food as well, which is along the way.

<table>
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<th>Para 19</th>
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<tbody>
<tr>
<td>4. So let us begin the kingdom protisoa with the photosynthetic protus.</td>
<td>6 4 1</td>
</tr>
<tr>
<td>5. Again, we would like to know the characteristic of the whole kingdom of this group of the kingdom protisoa, that is photosynthes protus.</td>
<td>11 6 2</td>
</tr>
<tr>
<td>6. This diagram shows the aquatic environment, so the first characteristic of this group, of kingdom protisoa, are that they are all aquatic which means that they require water, either marine or fresh water, as its environments.</td>
<td>18 8 3</td>
</tr>
<tr>
<td>7. They all have chlorophyll A. You now know the reason for chlorophyll A, you’ve already learned in SBI111 and from the practical class.</td>
<td>11 3 3</td>
</tr>
<tr>
<td>8. Chlorophyll A is there to attract some light energy for photosynthesis, and this slide shows that algae are extremely important ecologically.</td>
<td>13 4 2</td>
</tr>
<tr>
<td>9. Can anybody give me a reason why they are so important?</td>
<td>4 0 1</td>
</tr>
<tr>
<td>10. Any volunteers?</td>
<td>1 0 1</td>
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(Pause.)

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<th>Para 20</th>
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<tbody>
<tr>
<td>6. Okay, just think about photosynthesis.</td>
<td>2 1 1</td>
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<tr>
<td>7. The photosynthesis process is when an organism attracts some light energy and converts inorganic carbon into organic carbon, in oxygen.</td>
<td>11 7 2</td>
</tr>
<tr>
<td>8. We all know that we require oxygen for our survival, and most of the oxygen or indeed, all the oxygen comes from photosynthesis on the … and a very small amount of oxygen comes from chemical reaction.</td>
<td>15 8 3</td>
</tr>
<tr>
<td>9. So that’s number one, that’s why they are very important.</td>
<td>5 0 2</td>
</tr>
<tr>
<td>10. So these photosynthesis protus, the algae, together with … , they contribute to the atmosphere, the oxygen that all aerobic oxygen requires.</td>
<td>9 7 3</td>
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<th>Para 21</th>
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<tbody>
<tr>
<td>3. Secondly, they make the open carbon from inopen carbon; in other words, they produce a lot of biomass and those biomass are used by other living things, other animals including human, so in that way, they are extremely important because they are pro… …, they are the basis of the food chain.</td>
<td>25 6 5</td>
</tr>
<tr>
<td>4. So producing their oxygen and the primary …</td>
<td>3 1 1</td>
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<th>Para 22</th>
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<tbody>
<tr>
<td>5. As this diagram shows, there’s two groups of photosynthetic protus or the algae.</td>
<td>7 2 1</td>
</tr>
<tr>
<td>6. This group here, they are all unicellular organisms, and they are floating in the water column; and the other are much larger called the seaweed which are attached to such … as green, brown and red seaweeds here,</td>
<td>31 6 7</td>
</tr>
</tbody>
</table>
and they possess different photosynthetic pigments because the water absorbs some light energy and this brings away from….

7. So … into the water column.

Para 23
5. There’s only blue or green light, so the photosynthetic protus has got to evolve with the photosynthetic pigment to take that energy off the blue and green radiation.
6. Near the surface, there’s a lot of red radiation, red light and orange light, so the photosynthetic organism appears to have not evolved such complex pigments.
7. So they can be multicellular, but as I mentioned before, if they are multicellular, they are very simple.
8. There’s no stem, leaf and roots and they can also be unicellular, as shown by this diagram.

Para 24
6. We divide the eucariotic algal group into several phyla or divisions.
7. We have the green algae, the brown algae and the red algae.
8. And you may ask the question, how do we distinguish between the green, the brown and the red algae.
9. Well, we use pigments, storage product, cell wall component and whether they previously possess flatular or not; and we use those characteristics to distinguish them.
10. The green algae has chlorophyll A and B and betacarotine Astasanthin as you already learned in practical class.
11. So they are very similar to terrestrial plants.

Para 25
3. Because of this, sometimes we say that terrestrial plants arise from green algae, but there’s evidence against that.
4. The storage product is starch, cell wall is cellulose and they can produce cells which have flatula.
5. Phelophyta or instead of chlorophyll A and B they’ve got chlorophyll A and C and …, it has lunganairin and manetal as storage products, cellulose and also has mortalic cells.
6. But rodophyta or red algae has chlorophyll A and sometimes chlorophyll B and phicobili.
7. So the rodophyta are very different from the phelophyta and the chorolphyta.
8. It has starch but the starch is different from the green algal starch.
9. It’s foreign being starch.

Para 26
7. Before the break we’ve discussed the phelophyta so now let us discuss
8. **Rodophyta** or red algae, it has **cellular** cell walls, and mostly **multicellular**, all right.

9. And by **multicellular** we mean that they are, they are having many cells resulting from the **division** of the **existing** cell, as we already explained.

10. But there’s one difference in **rodophyta**, is that the cell wall between the cell is not complete.

11. Instead of the cell wall, they will ray across to meet the other part of the cell wall, it stops short, and forming what we call a **pip plug** there.

12. It is that part of the cell wall which is not completely **formed** but in order to prevent the movement of **cytoplasm** from one cell to the other, it forms a plug called **pip plug**.

13. **Now**, the **function** of which we are not too sure, but from this we **know** which cell arise from which cell, so which are the mother cell and which cells are the daughter cells.

**Para 27**

3. It has **chlorophyll A, B** and **phytobilin**, but in many textbooks, the **chlorophyll B** is not **mentioned**.

4. The reason for not mentioning **chlorophyll B** is that there’s a lot of **disagreement** regarding this pigment here, that may be a degradation of **chlorophyll A** rather than a new.

5. In addition to **chlorophyll A and B**, it has **phycobilic protein** which are the water soluble **protein**, colour either blue or red.

6. **So it’s the phycobilic** protein that gives the red algae the reddish tinge, but don’t be confused about this term, because some red algae can be blue-green like …

7. **So it all depends on the amount of phycobilic protein**, the blue **phycobilic protein**.

**Para 28**

3. **So when you go for a swim in the sea, or walk along the sea shore**, sometimes you’ll find a blue green red algae.

4. It stores starch but it also has in the cell wall has **agar** and **carotina**, that’s two compounds that you may be **familiar** with, except especially the **agar** which is the material that you used in the practical before we left for the break; in the **agar plates**, in the practical class.

5. **And the origin of the chloroplasts** is from the **sino bacteria** because we already discussed before, there’s so much similarity in **characteristics** of the red algal chloroplasts and the **sino bacteria**, so that’s why we tend to accept that **theory**.

6. **So I cannot stress any stronger** by saying that the **origin** of the red algal … chloroplasts is through the **endosymbiotic** relationship between the **sino bacteria** and the distant past **primitive procariotic cells**.

**Para 29**
1. As I mentioned before, that the *rodophyta* do not form *motyse*, ... and that’s an important characteristic of *rodophyta*.

2. They don’t form *motyse* cells at all.

3. And the life cycle therefore has to be relatively complex to compensate for the *non motyse spore* present.

4. Because you know in the *aquatic* environment, if the ... are *motyse* they can seek each other out by singing to each other, so from the process of flirting with danger, they can attract chemically *attraction*, and so on.

5. But when the red algae do not form *motyse* or the *fertilisation* between the red and the sperm is purely by chance, purely by the current that bring them together.

**Para 30**

1. *So* that means that the chance of having a sperm and egg fertilised is less in the case of *non motyse* animals, than in the case of *motyse* animals.

2. *So* the relatively complex *life history* allows it to compensate for that lesser *fertilisation*.

3. *So* instead of having only one or two plants, the red algae have more than two, so it had the ... *chlorophyte* and the *tetra sporophyte* in addition to the *gametophyte*.

**Para 31**

3. *Gametophyte* are plants that produce the *gamas*, okay?

4. *And again* in this unit you’ve become accustomed to, gone into detail of this, but to remember that it is very complex and the *complexity* is due to the *non-motility* of the *gamas*.

5. *And now* I’m showing you the complexity of the red algal ... *history*.

6. In fact, *before* that I’m showing you an Australian red alga from a *temperate* region here, *soliaria*.

7. You’ll also find this species in Darwin as well if you go to this Cullen Bay and look at the platform, you maybe able to see this species.

**Para 32**

1. This slide shows the *life history* of an algal chloroplast.

2. As you can see it’s complex but I want to stress this, rather than asking you to remember all of these, at this stage.

3. Complex because it has *gametophyte* and they’ve got male and female *gametophyte*.

4. The female *gametomi* will be producing the egg and the male *gametophyte* will be producing the sperm and remember, the sperms are not *mobile* as in green or brown algae.

5. Their sperm are mobile but in red algae it’s not.

6. So the *fertilisation* of the sperm and the egg to form the *zygote* is purely by chance, by the current that flows not by a chemical attraction or
anything like that.

Para 33

1. So the number of zygotes that are formed will be very low, so to compensate for that, the red algal form another plant called the catbosporophyte; and the catbosporophyte form many of these spores, to compensate for the small number of the zygotes; and these then form another plant called pectrasporophyte which undergo mineosis to form the petraspore, and the petraspore then form these two gametophytes.

2. So in summary, this diagram shows the life cycle of red algae.

3. It’s very complex, producing many different plants, and the reason for the complexity or many different plants is to compensate for the low number of zygote present; and the low number of zygote present is due to the non-mobile state of the sperm, so that’s why.

4. At this level, that’s what we want to show to explain that to you, rather than asking you to remember all of it.

Para 34

1. As you know, seaweeds and indeed, unicellular algae or indeed, all photosynthetic protus are very useful to use because they have produced many different products.

2. And you can see here, showing a great variety of products from seaweeds, from fertiliser to health products, cream, soap and so on.

3. So the reason is because seaweed can use carbon dioxide in the sea and sunlight to produce the biomass.

4. And as a result it produces oxygen, as we already mentioned, and by growing it takes in a lot of nutrients, so we can use seaweed to reduce the pollution, nutrient pollution, in the environment, and that’s important to us.

Para 35

1. And in addition to that, seaweed can, the biomass from seaweed, we can extract them, the product, to get phycocloroid and biochemicals.

2. The phycocloroid are …., this agar, the product … that I use in pharmaceutical products, I use in paint, I use in icecream, and so on; because they are water soluble.

3. So they can be used in pharmaceutical products, for example, cortozone.

4. We can ferment with biomass to get methane, that’s a gas, alcohol, asper and other acids.

5. At the moment, this is not quite a … production of the biomass.

6. Or we can use heat pyrolysis, is the production using heat to form gas, chemical, coalite product or fodder, that’s food; fertiliser and; sorry, get pyrolysis from gas, chemicals and coalite product; or firstly we can use this biomass as …, fresh or dry biomass, fodder for animals, fertilisers, or human food.
## Para 36

1. Regarding human food, we use these seaweed ... a lot, or ... and ..., agar products.  

2. The agar are produced from red seaweeds, the cell wall from red seaweeds; the paraglena also from red seaweeds; and the algenic from brown seaweeds; and all of these are currently being used in industry, in paint, whisky, food, and pharmaceutical.  

3. So the demand for seaweeds are very high.  

4. Usually in the past we would harvest the seaweed from natural environment; but it seems these natural seaweeds are being over harvested so now there’s a lot of country going to seaweed cultivation.  

5. Like Asian countries, Philippines, Indonesia, and also other countries in Europe, America as well, that grow these algae, aquaculture them, for food, for chemical and also for biomass; and you can see especially in tropical seas, the temperature is high, the water is very clear or penetration of sunlight to grow these seaweeds is very easy; and there’s species of seaweeds that can produce these chemicals for us.  

   So this slide shows the relationship between the seaweed and other groups of living things, and you can see here seaweed, the green algae, are closely related to plants and the red algae; but the brown algae has evolved before the red and the green algae.

## Para 37

1. That leads to the end of part two.  

2. Let’s go to part three.

## Para 39

1. This slide shows the group where we call the alveolates, which is the second group of the kingdom protista.  

2. The first group is the photosynthetic protus and this is the alveolates.  

3. They all have characteristics that are common to each other.  

4. And we have the dynoflagellates that we mentioned before; they can be symbiotic algae of the corals and other invertebrate, the phylum apicomplexa and the phylum siliophyta.  

5. They come up, the group, in photosynthetic protus, because some of these have no pigments at all.  

6. Some dynoflagellates don’t have any photosynthetic pigment at all, and the apicomplexa and the siliophyte don’t have any photosynthetic pigments at all.  

7. That’s why they come up with the group in the photosynthetic protus, because they have other characteristics.  

## Para 40

1. So let us look up the dynoflagellate.  

2. The dynoflagellate can be either photosynthetic or heterotrophic.
3. That’s why the dynoflagellate is according to your textbook, they have moved away from the algae but in other textbooks, the dynoflagellates may be classified with the algae because of their photosynthetic ability.

4. They’ve got cellularin in the membrane, they are unicellular, and they have chlorophyll A, C and carotin starch, storage product; and some are seen beyond of marine animals like corals, giant clams.

5. Others can form neurotoxin where it causes parasytic shell fish poison.

6. That’s why it’s very important to our aquaculture industry, and also very important to those who come to collect clams or oysters for eating.

Para 41
1. All dynoflagellate has this structure here.
2. It has two valves, the top one and the bottom one, and the two valves are separated by a groove here, so they all have this structure here.
3. You can call them a dynoflagellate.
4. And as the word flagellate suggests, it has flagella.
5. And in dynoflagellate, it has two flagella.
6. One oscillates in this groove here, the groove that separates the two valves; and the second flagellum trails behind the animal; so they have two flagella which allow them to move in the sea.

Para 42
1. This slide shows the diversity in forms of dynoflagella.
2. You can see here that it has a different shape and sizes but they all have these common characteristics, the two valves separated by the groove here, the grooves, that one here and this one here.
3. So…. the other characteristic is that the nuclei, this is the nuclei of the dynoflagellate, it’s called misolcariotic nuclei.
4. That means that the chromosomes are always in a cellular (?) form.
5. Dealing with 8, we explained to you that the chromosome only appears during cell division.
6. After cell division, chromosome disappears in the interface, we call that.
7. In dynoflagellate, the chromosomes are always there, regardless whether they are undergoing cell division or not.

Para 43
1. Dynoflagellates are a very important group of algae in the aquatic environment and this is an example of a sample of water collected from the Top End; that’s from Broome to the Gulf of Carpentaria.
2. And we found out that they have a lot of dynoflagella, this group of organisms in the circle here.
3. So they are a fairly important group of protus in the aquatic, marine aquatic environment.
4. This is a photo showing a photograph of a seratium, a dynoflagellate.
Para 44

1. Dynoflagellate can form red tides so it’s very important to the community living along the coastline.

2. This photograph shows a remote sensing of the red tide, the area appearing red, shows a very high density of these dynoflagella.

3. And red tide can be very toxic to many animals in the environment, and if they are not toxic to the animal they can, the toxin can be accumulated in the animal, and if the human consumer consumes, or eats, those animals that contain these toxic ... then it can affect the; food poison, for example, especially in the ... and other ... valves.

4. So this one here, this dynoflagellate, is from the Australian coast.

5. Whether it’s in tropical or temperate, we do have the species and if the population density is very high, it can accumulate; neurotoxin can be accumulated in the shell fish poison, and that’s neurotoxin.

Para 45

1. Going away from the dynoflagellate, we look at the AB complexa.

2. They are non-motile animals, they are intra-cellular parasites, they have very complex life cycle.

3. And some of the examples of AB complexa are the plasmodium which causes malaria and other motor pollution, like the cryptal sporidium that’s remember in Sydney during the Olympic 2000, before that Sydney water was affected by this AB complexa crypto sporidia.

4. This slide shows the plasmodium... to show the complex life cycle with some of the ...

Para 46

1. I will not ask you to remember all of these but just to say that these plasmodium, this is the other plasmodium, non-motile cells, are living within the mosquito, and if the mosquito bites human it can transfer the plasmodium to human, going through the liver first and then to the blood system, and affecting the red blood cell, giving you the symptom of malaria.

2. And then if another mosquito bites this human host then the larvae of the plasmodium can be transferred to the mosquito which then develops into the other.

3. As you know, malaria is a fairly serious disease so in order to prevent this disease, one of the ways is to prevent from biting by mosquito, and the government also are trying to keep these mosquito's diseases to a low level.
Appendix C
# Social Science Text: Sociology Lecture on culture

## INTRODUCTION

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<th>Para 1</th>
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<tr>
<td>17. Okay, what we’re talking about today, I thought it would be a good idea to go back to the lecture that we missed on culture and identity because I think that’s a really important one.</td>
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<td>18. It’s not to say that other topics, the environment and this society or social change, aren’t important.</td>
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<td>19. It’s just I think for the purposes of our sort of completing our semester’s work, cultural identity is a really good one for me.</td>
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<td>20. You do have handouts on this, I gave them to you a couple of weeks ago; so if you do have them, you might want to sort of glance at them.</td>
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<td>14. The first task, of course, is just to define what culture is.</td>
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<td>15. When we attempt to do this, though, there are certain challenges.</td>
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<td>16. People attempt to define it, and we often use the term ‘culture’ as if we know what it means, but I don’t think many or us, or most of us have our own peculiar definition of it.</td>
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<td>17. From a sociological perspective, though, there are a few challenges in trying to provide a good definition of culture; and the first challenge, of course, is describing a culture.</td>
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<td>18. Now, how is it possible?</td>
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<td>19. How may we describe a culture?</td>
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<td>20. So that’s our first challenge.</td>
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<td>11. The second challenge is determining who belongs to a particular culture; so what are the defining characteristics we need to fulfil in order to say we belong to a particular culture.</td>
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<td>12. So we have the problem with defining what a culture is, then we have the problem of assignation, so to speak; so how do we say that this person belongs to a particular culture.</td>
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<td>13. That’s our second challenge.</td>
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<td>14. And our third challenge is identifying characteristics that set one culture apart from another, which is a major challenge as well.</td>
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<td>14. We’ll look at what’s called cultural universals in a minute, but I think it’s</td>
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a good idea to sort of look at the **principles**.

15. If we’re going to be studying **culture**; and by the way, just because this is being taped doesn’t mean you can’t interact – just be nice in your **interactions**; there are certain **principles** that should guide us in our study of **culture**; and the first **principle** is that **culture**, we need to recognise that **culture** consists of both **material** and **non-material components**.

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<td>13. Now, the <strong>material culture</strong>, of course, or I should say, <strong>material culture</strong>, of course, refers to all the <strong>material</strong> or <strong>physical</strong> objects to which people who belong to a particular group consider to be important.</td>
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<td>14. They attach <strong>meaning</strong> to those <strong>physical</strong> objects.</td>
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<td>15. This includes, for example, buildings; it could be artwork; literature; it could also include such things as plants, animals and so on, because people in particular groups may attach particular <strong>meanings</strong> to those things as well.</td>
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<td>16. So that’s <strong>material culture</strong>.</td>
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<td>17. <strong>Non-material culture</strong> basically means our <strong>beliefs</strong> and our <strong>values</strong> and our <strong>norms</strong>; so the things that we hold <strong>true</strong>, if you like.</td>
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<td>18. That’s the first <strong>principle</strong>.</td>
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<td>19. So we recognise that <strong>culture</strong> is made up of both <strong>material</strong> and <strong>non-material components</strong>.</td>
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<td>4. The second <strong>principle</strong> is we need to acknowledge that <strong>culture</strong> is shaped by <strong>geographic</strong> and <strong>historical forces</strong>.</td>
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<tr>
<td>5. If we look at the first <strong>principle</strong> and we recognise that <strong>culture</strong> is made up of <strong>material</strong> and <strong>non-material components</strong>.</td>
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<td>6. When we look at the way in which <strong>history</strong> and <strong>geography</strong> actually determine or shape the <strong>character</strong> of <strong>culture</strong>, we realise that the <strong>material</strong> and the <strong>non-material components</strong> of <strong>culture</strong> are actually just people’s ways of responding to particular things.</td>
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<td>7. They are things that people have worked out over <strong>time</strong> to meet their <strong>needs</strong>.</td>
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<td>8. Now, that could be <strong>environmental challenges</strong>, so people may invent a new object to help them cope with a particular <strong>environmental change</strong>. It could be just in terms of adapting to particular <strong>climatic change</strong> or adapting to particular <strong>social circumstances</strong> that occur within the <strong>culture</strong>.</td>
<td>6</td>
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<tr>
<td>9. So both <strong>history</strong> and <strong>geography</strong> shape <strong>cultures</strong> as well.</td>
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<td>10. That’s incredibly important because, as we’ve discussed before, <strong>culture</strong> is never <strong>static</strong>, and that’s an incredibly important <strong>point</strong>.</td>
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<td>5. Our third <strong>principle</strong> is that <strong>culture</strong> is <strong>learned</strong>.</td>
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<td>6. Sometimes we speak of <strong>culture</strong> as if it has a <strong>life</strong> of its own, as if it sort of</td>
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exists out there, it’s a knowable object; but it’s learned.

7. **Culture** is learned.

8. We call this **cultural reproduction**.

9. **Cultural reproduction** is simply the process whereby society transmits dominant knowledges from one generation to another; and, of course, that occurs through the process of socialisation and we’ve discussed that in detail before.

10. So that’s our third principle; culture is learned.

---

**Para 8**

10. The fourth principle, people are **products** of cultural experiences but they’re not cultural replicas of each other.

11. I’ll say that again.

12. People are **products** of cultural experiences but are not cultural replicas of each other.

13. We’ll look at that in more detail a bit later.

---

**Para 9**


10. People borrow material and non-material culture from other cultures, and this is important as well.

11. So cultures, not only do cultures not stay static, they’re constantly changing, but they change as a result of interaction from people of other cultures as well.

12. In our discussions about colonisation, globalisation etc., we used the word hybridisation, and I think hybridisation is a good example of what that principle refers to.

---

**Para 10**

10. **Hybridisation** is simply the mixing or blending of cultures.

11. So we may, for example, go to Mindil Beach markets, you know, and eat Asian food.

12. But the Asian food doesn’t really taste like, I mean, the Singapore Noodles aren’t probably the same, going to have the same taste, as the noodles that they actually sell, the vendor sells in the streets of Singapore, for example; because it’s become hybridised.

13. So there’s a mix of, say, Western and Asian foods, but we call it Singaporean Noodles, for example.

14. **Cultural diffusion** is the term we use to refer to the way in which other cultures diffuse into our own culture.

---

**Para 11**

8. Our final principle in the study of culture is that the home culture is usually the standard by which people judge other cultures.

9. The home culture is usually the standard by which people judge other
10. Now, of course, the most extreme form of that is ethnocentrism.

11. I think you’re familiar with that term?

12. Ethnocentrism?

13. What does it mean?

“... your culture or your ... ...”

14. Yeah, yeah, yeah, so you consider, you judge other cultures according to your own culture.

15. But not only do you do that, but you also consider your culture to be somehow superior.

16. So we base our knowledge of other cultures on our own cultural background, okay.

17. So we look through a cultural lens, in other words.

18. You can almost see it, can’t you, like, this is our cultural lens.

19. Of course, an even more extreme form is cultural genocide, which is an attempt, of course, by one culture to completely eradicate signs of the other culture; and of course, if we look at the history of Australia, well, since the colonial period, we can certainly see that there were very concerted attempts to eradicate Indigenous culture; and that’s what we call cultural genocide.

20. It’s not something that just happened in the past, however, though.

21. It’s worthwhile thinking about the ways by which governments even today attempt to eradicate aspects of certain minority cultures.

Para 12

8. Cultural relativism is another term which is used in sociology a lot as well, and that just simply means the recognition that things should be judged in their cultural context and not by the standard of the home culture.

9. Okay, so it’s a recognition that there are ways of overcoming, if you like, ethnocentrism; so if we judge another’s culture not through our own cultural lens but in the context of their own culture.

10. And that of course poses problems sometimes, because straightaway, as soon as I said that, I started thinking about female genital mutilation, okay.

11. We are judging a particular cultural practice through our own cultural lens when we judge things such things as that.

12. That goes beyond I think that, though.

Para 13

9. Ethnocentrism, and we’re looking more at human rights issues; but then, when we say that we sort of think hey, wait a minute, hang on, what if another culture used their cultural lens on us and started judging some of the things we do here?

10. I wonder how we’d like that?
3. Well, it is, isn’t it?

“Western culture through the … their own converted culture, … don’t like it.”

“…. How do you change it.”

4. The discourse of terrorism is fascinating in that respect, isn’t it?

5. Do you know what I mean?

6. Like, we have the axis of evil, we have the terrorist, or we have the freedom fighter, I mean, which is it?

7. Language is incredibly powerful, isn’t it?

8. A really powerful tool.”


“The axis of evil… ...”

10. Exactly, yeah.

11. Well, again, it’s because they’re looking through their own cultural lens.

“That’s right.”

12. Yeah, yeah, but it does raise that interesting question as to what right does one culture ever have to judge another culture, even if it is in terms of human rights.

13. I mean, that’s yeah.

“Does that mean that the culture and religion’s mixed ...”

15. Religion is certainly an aspect of culture; yeah, yeah, definitely.

16. That’s one of the non-material components of culture that is a belief system and that can be a religion, a formalised religion, or it could just be a belief in totemism, or animism or something.

17. Yeah.

Para 14

7. Okay, very final principle; in every society, some groups posses distinctive traits that set them apart from the main culture.

8. Now, we’ve looked at this in tutorials before, and we’ve had some difficulty in actually defining some of these but some of these; some of the terms we’ve used are sub-cultures and counter-cultures.

9. And remember the difficulty we had in trying to figure out whether one group was actually a counter-culture or a sub-cultural group, and I think there is some overlap sometimes; but generally speaking, a sub-culture is a group that shares some things with the dominant culture, but they have distinct norms of their own or a distinct language.

10. So we can call ethnic groups, for example, sub-cultural groups.

11. Counter-cultures are those groups whose cultural patterns differ sharply or strongly oppose those which are widely accepted or the dominant ones.

12. But that’s where the trouble comes, because yeah, remember we drew the Venn diagram, trying to split them into sub-cultures and counter-
cultures, and sometimes there’s a bit of overlap I think between the two.

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<tr>
<td>12. Okay, <strong>cultural universals</strong>.</td>
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<td>13. So they’re the <strong>principles</strong> by which we sort of, the <strong>principles</strong> we should use in order to sort of study <strong>culture</strong> from a <strong>sociological perspective</strong>.</td>
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<td>14. <strong>Cultural universals</strong>; that term just simply refers to <strong>common</strong> things, or things I should say, things that all <strong>cultures</strong> have in <strong>common</strong>.</td>
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<td>15. Can anyone think of one?</td>
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<td>16. What’s something that is shared by all <strong>cultures</strong>?</td>
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<td>“Funerals.”</td>
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<td>14. Pardon, funerals, exactly.</td>
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<td>15. So funeral <strong>rituals</strong>.</td>
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<td>16. Now, of course, the way in which the <strong>ritual</strong> occurs would differ across <strong>cultures</strong>, but every known culture has some kind of funeral <strong>rite</strong>.</td>
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<td>17. Every known <strong>culture</strong> has some kind of <strong>marriage ceremony</strong>.</td>
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<td>18. Though many, many of them; I think it was George Murdoch many, many years ago, I think it was in the <strong>fifties</strong>, he attempted to count the <strong>cultural universals</strong>, to actually quantify them; and I think he came up with something like 550.</td>
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<td>19. I can’t think of all of them, of course, and I’m not going to go over them, but <strong>wedding ceremonies</strong>.</td>
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<td>20. <strong>Humour</strong> is another one; <strong>humour</strong> is shared by all <strong>cultures</strong>.</td>
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<td>21. <strong>Family units</strong>, that’s another <strong>cultural universal</strong>; because even though the family is defined very differently and is constituted very differently across <strong>cultures</strong>, there is something called a <strong>family unit</strong> which is common to all <strong>cultures</strong>.</td>
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<td>22. So they’re <strong>cultural universals</strong>.</td>
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<tr>
<td>11. Okay, that brings us to the real topic of the day which is <strong>culture</strong> and <strong>identity</strong>, because we’ve been talking about <strong>globalisation</strong> in particular, and we’ve been looking at the effects of the <strong>media</strong> on individuals and groups and so on.</td>
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<td>12. Now, if we look at <strong>identity</strong>, it seems strange to study <strong>identity</strong> because we all feel as though we have a <strong>sense</strong> of <strong>identity</strong>.</td>
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<td>13. We know who we are – or do we?</td>
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<td>14. Was that Alice, Carrol, Alice in?</td>
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<td>15. Alice in Wonderland, where Alice meets the cat, the Cheshire Cat, and the cat says which <strong>direction</strong> are you going in; and she says well, I could go left and I could go right; and he said well, if you go right you’re going to run into the Mad Hatter, and if you go left you’ll run into the March</td>
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Hare; and she said well, which direction should I take and he said well, either way you’re going to meet someone who’s mad, but that’s okay because you’re mad too; and Alice says I’m not mad; and he says well, what are you doing here.

“… (laughing)”

Para 18

10. Just a story about identity, because Alice didn’t consider herself mad.
11. But social identity, if we look at the definition of social identity, and this is taken from your textbook and that’s Macionis and Plummer; it’s simply our understanding of who we are and of who other people are, and reciprocally, other people’s understanding of themselves and others.
12. We looked at that in first semester.
13. My perception is based on your perception of me.
14. You had the looking glasses on. …, yeah.
15. Identity of course tends to group individuals according to something they share with others.
16. So for example, I am a woman so I share with other women certain characteristics.
17. I am a man so I share certain characteristics.
18. I am Australian, I am tall, I am large, I am a vegetarian, or whatever, okay?

Para 19

11. So identity therefore, as Simon During says, is won at the price of reducing individuality.
12. I’ll just say that again, identity therefore is won at the price of reducing individuality.
13. In other words, we base our identity on something we share with others but the cost of that is that we lose our individuality.
14. Individuals, it’s really important to remember though, do not just have an identity.
15. We have identities.
16. So my identity at this moment is Sue Hunter, lecturer; not your friend.
17. I can be.
18. But we have a role to play and the constitution of my identity at the moment is because of the role that I’m playing.
19. But perhaps later, tomorrow, my role will be something different and my sense of identity may be something different as well.
20. So we have identities, not an identity.

Para 20

11. Identity politics is a fascinating topic.
12. It’s an absolutely fascinating topic.
13. When we look at politics, which is usually based on behalf of subjugated people, people who feel they’re disadvantaged or marginalised or whatever, we’re talking about identity politics.

14. Now, some examples of identity politics, well, I wish David was here; feminism.

15. Feminism, of course, because feminism is based on a notion that there is a group called women and there’s a group called men.

16. Now, if you take away that sort of form of classification, you actually don’t have a politics left, do you?

17. So if you cannot recognise that there are certain characteristics that women share and certain characteristics that males share, you do not have a thing called feminism.

Para 21

5. Any of those forms of identity politics; there are lots and lots of them, of course, but they’re all based on the notion that we can somehow separate this group from that group.

6. And as soon as you try and, like, disintegrate those groups, you really are left without a politics at all, and we’re going to pick that up in our tutorials this week.

3. Identity politics are not a politics shared, or based, I should say, on shared philosophies, for example, or shared goals for actions, sometimes.

4. They’re merely based on this perception that there is a thing called an identity which those people have in common.

Para 22

8. Now, there’s lot of problems with identity politics.

9. They tend to erase internal differences.

10. So, for example, the second wave feminists were heavily criticised by women in less developed countries, because they argued that what was called feminism was really just an identity politics originating from educated middle-class western white women and it excluded other women.

11. So identity politics, by their very nature, tend to exclude and tend to destroy, conceal, I should say, conceal any internal differences.

Para 23

9. The second problem is that they often assume that identity is some kind of essence.

10. Now, you know, good examples of that are arguments that there is an authentic way of being a woman and there are inauthentic ways of being a woman.

11. Radical feminists tend to sort of adopt that line of thinking.

12. The real Australian; there was a survey done and I wish I could find it for you actually because it’s really interesting; these researchers went around and they asked people what they considered to be un-Australian.
13. They didn’t ask the question what is a real Australian, they simply asked people to identify what they considered to be un-Australian.

14. And it’s fascinating, you know; people who barracked for rugby are un-Australian because it should be AFL; or you know, a whole range of things that people consider goes outside the bounds of that, you know, being able to hold that particular identity.

Para 24

12. So identity politics are based on the assumption that identity is somehow an essence; it’s somehow natural and within and definable and discernible.

13. Identity politics work by exclusion.

14. A good example there, and I wish David was here, but all men are sexist, and I would like to know, by the way, who put into my pigeon-hole a little pink book, it didn’t have a note attached to it or anything, while I was away last week; and it’s just simply entitled Female Chauvinist Pigs.

Para 25

10. So identity politics tend to work by exclusion as well.

11. All whites are racist would be another one.

12. They tend to invent or at least over-emphasise what’s called legitimising, histories or traditions are legitimised.

13. Now, Simon During actually argues that this is most notable in terms of identity politics which are based upon national identities.

14. Now, think about in Australia in times of strife, okay; we start driving out what we call the legitimising histories.

15. Now, that could be the Anzac image, you know, the mateship, the courage, you know, the bravery that’s embedded in the image of the Anzac person.

16. So we’ve looked to history and we try and sort of find things that legitimate our own sort of identity.

17. We are Australian after all.

18. You know, that’s typically Australian, we say so.

Para 26

14. I think it’s interesting to sort of think about, to go back to some of our original lectures and to think about especially the lecture on community here; Tonnies, mourning the loss of community, Durkheim, talking about the shift from what was it, mechanical to organic solidarity; those theorists.
15. It’s a good idea to look back there, because when we look at **culture** and we look at **identity**, we can see significant changes into the way in which people perceive even **culture**.

16. And if we look at **pre-industrial societies**, for example, they are what’s called, or what David Rizon at least calls, **tradition directedness**.

17. **Tradition directedness**; and this simply means, it’s pretty much Tonnies’ **Gemeinschaft**.

18. It’s rigid **conformity** to time-honoured ways of doing things, time-honoured ways of behaving.

19. So we can distinguish ourselves because we have these particular **traditions**, okay.

20. That’s in **pre-industrial societies**.

**Para 27**

| 8. | In **modern societies**, we are **other directed**; so other than being **tradition directed**, guided by **tradition**, or bound by **tradition** in many respects, we’re now **other directed**; and this is simply a **receptiveness** to the latest **trends** and **fashions** which is often expressed in the practice of imitating others. |
| 9. | We flip over again to our discussions about **globalisation**, many of the **fears** that have been expressed about **globalisation**; and one of the main **fears** that we examined in class was the fear of **cultural imperialism**, sometimes known as **Americanisation**. |
| 10. | In other **cultures**, it’s probably described as **westernisation** rather than **Americanisation**, so much. |

**Para 28**

| 7. | There are **fears** that we are becoming a **global culture**, we are becoming **homogenised**; all **cultures** are becoming alike, in other words; and people are expressing great **fear** about this, and as a result we see the **resurgence** of lots of **local movements**. |
| 8. | We see increased **fundamentalism** across the world, and that’s a fascinating analysis in its own right, **fundamentalism**. |
| 9. | From a **western perspective** or looking through the western **cultural lens**, we tend to see **fundamentalism** as inextricably, you know that word, linked, linked to **Muslim religion**, to **Islam**. |

**Para 29**

| 6. | There’s a difference between maintaining **cultural rights**, though. |
| 7. | **Localisation**, that term generally refers to the way in which local groups resist **cultural imperialism**, through various techniques, by holding onto their own **tradition**; by rejecting sort of **western notions**, **western ideals**, **western practices**, for example. |
| 8. | **Fundamentalism** though is more extreme than that and it’s almost like a rigid role reversal, if you like, to I guess what Torrey would call **Gemeinschaft**. |
| 9. | So it’s sort of like a rigid holding on to **tradition**, which is slightly |

| 5 | 17 | 3 |
| 3 | 13 | 5 |
| 2 | 8 | 3 |
| 2 | 11 | 1 |
| 2 | 6 | 1 |
| 1 | 3 | 3 |
| 8 | 26 | 13 |
| 6 | 20 | 7 |
| 2 | 5 | 3 |
| 6 | 21 | 9 |
| 2 | 9 | 2 |
| 4 | 17 | 8 |
| 2 | 4 | 2 |
| 4 | 24 | 10 |
| 4 | 13 | 2 |
| 3 | 8 | 1 |
10. One’s a more extreme form than another.

11. But looking through our western cultural lens, we see fundamentalism as linked to Islam.

12. Americans, for example, would fail to recognise their own fundamentalism as somehow being linked to Christianity; and that’s somehow different isn’t it, because we’re looking through different, you know, through our own particular, our own specific cultural lens.

### Para 30

4. But anyway, the whole process of globalisation is leading many people to fear that we will become a global culture, we will become one culture; and of course, they quite often talk or point to cultural or material aspects rather than the non-material aspects, the material aspects of culture, in order to support their argument.

5. E.g. we go to South Korea, we see a South Korean young fellow munching on a Maccas, drinking Coca-Cola, wearing a Nike T-shirt and Adidas shoes; that kind of thing.

6. We’re watching too many Hollywood movies; our kids are all dressing American, etc.

7. Very rarely does the debate go any further than that, so very rarely do we see debates about, about the non-material components of culture becoming Americanised or becoming westernised.

8. We see it sometimes but not as much.

9. It’s usually the non-material components that people are referring to when they mount these arguments.

### Para 31

8. The concept of hybridity, though, we mentioned that word before, hybridisation, that concept.
Appendix D
The aim of this questionnaire is to find out how you feel about the delivery of information in tutorials for the Common Unit: Reading and Writing the World of Ideas. This information will form part of a larger study which aims to insure that this subject is accessible to students. It would be helpful if you put your name on the questionnaire so that we can compare your views with your final grades. As the principle researcher no one else will have access to this information. However, you are not obliged to provide your name if you do not wish to do so.

The following questions ask for your response to various aspects of the tutorial you attended this week for CUC102. Please read the questions carefully before circling a response on the five point scale explained below.

[ _____1_____ | _____2_____ | _____3_____ | _____4_____ | _____5_____ ]
Not at all                                        Somewhat                                     Very Much

Circle One

1. How well did you understand this week’s tutorial on ........ 1 2 3 4 5
2. Did you understand the language/vocab used by the tutor? 1 2 3 4 5
3. Were you familiar with the main ideas presented in the tutorial? 1 2 3 4 5
4. Had you read the recommended readings for this tutorial? 1 2 3 4 5
5. Did you understand the recommended readings? 1 2 3 4 5
6. Was the tutor’s voice clear (easy to hear)? 1 2 3 4 5
7. Was the tutor’s manner towards the audience friendly? 1 2 3 4 5
8. Was audio/visual equipment (video, overheads, tapes, whiteboard) used to present ideas in the tutorial? 1 2 3 4 5
9. Did the above visual information help you understand the ideas being discussed? 1 2 3 4 5
10. Was the physical environment of the tutorial venue comfortable? 1 2 3 4 5
11. Do you feel you know more about the topic now than you did at the beginning of the tutorial? 1 2 3 4 5
12. Do you have any other comments about this week’s tutorial?
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Thankyou for your participation
Nicola Rolls

**PERSONAL INFORMATION**
Name...........................................................................................................................................
Age..............................................................................................................................................
First language..............................................................................................................................
Course of study (e.g Bachelor of Business)...................................................................................
Year enrolled in present course...................................................................................................
Previous Tertiary Study...............................................................................................................
Student Response to delivery of CUC102 Reading and Writing the World of Ideas
Questionnaire for Lectures

The aim of this questionnaire is to find out how you feel about the delivery of information in the lectures for the Common Unit: Reading and Writing the World of Ideas. This information will form part of a larger study which aims to insure that this subject is accessible to students. It would be helpful if you put your name on the questionnaire so that we can compare your views with your final grades. As the principle researcher no one else will have access to this information. However, you are not obliged to provide your name if you do not wish to do so.

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[ ____1____ | ____2____ | ____3____ | ____4____ | ____5____ ]
Not at all                                                    Somewhat                   Very Much
Circle One

1. How well did you understand this week’s lecture on .... 1 2 3 4 5
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..........................................................................................................................

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