

**A CRITICAL ETHNOGRAPHIC STUDY OF REPORT WRITING AS A
LITERACY PRACTICE BY AUTOMOTIVE ENGINEERS**

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Marcelle Harran

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ABSTRACT

This study describes the social practices involved in the situated activity of report writing in an engineering automotive discourse community in South Africa. In particular, the study focuses on the subjectivity of predominantly English Second Language (ESL) engineers writing reports by determining what literacy means to them and what meanings they give to dominant literacy practices in report writing, especially feedback in text production.

In the South African engineering workplace, because of the diversity and complexity of language and identity issues, the appropriation of the required literacy skills tends to be multifaceted. This context is made more complex as English is the business language upon which engineering is based with engineering competence often related to English proficiency.

Therefore, the study is located within the understanding that literacy is always situated within specific discursal practices whose ideologies, beliefs, power relations, values and identities are manifested rhetorically. The basis for this critical theory of literacy is the assertion that literacy is a social practice which involves not only observable units of behaviour but values, attitudes, feelings and social relationships. As the institution's socio-cultural context in the form of embedded historical and institutional forces impact on writer identity and writing practices or ways of doing report writing, notions of writing as a transparent and autonomous system are also challenged.

As critical ethnography is concerned with multiple perspectives, it was selected as the preferred methodology and critical realism to derive definitions of truth and validity. Critical ethnography explores cultural orientations of local practice contexts and incorporates multiple understandings providing a holistic understanding of the complexity of writing practices. As human experience can only be known under particular descriptions, usually in terms of available discourses such as language, writing and rhetoric, the dominant practices emerging in response to the report acceptance event are explored, especially

that of supervisor feedback practices as they causally impact on report-writing practices during the practice of report acceptance.

Although critical realism does not necessarily demonstrate successful causal explanations, it does look for substantial relations within wider contexts to illuminate part-whole relationships. Therefore, an attempt is made to find representativeness or fit with situated engineering literacy practices and wider and changing literacy contexts, especially the impact of Higher Education and world Englishes as well as the expanding influence of technological and digital systems on report-writing practices.

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ACRONYMS

ESL : English Second Language

HR : Human Resources

L1 : Language one

L2 : Language two

NLS : New Literacy Studies

NNS : Non-native speakers

NS : Native speakers

CHAPTER 1 Literacy as a social practice

1.1 Background to study

This study describes the social practices involved in the situated activity of report writing in an engineering automotive discourse community in South Africa. In particular, the study focuses on the subjectivity of predominantly English Second Language (ESL) engineers writing reports by determining what literacy means to them and what meanings they give to dominant literacy practices in report writing, especially feedback in text production.

The study is located within the understanding that literacy is always situated within specific social practices which shape and are shaped by the social actions undertaken in response to recurrent situations within discourse communities (Bazerman 1988, Paré & Smart 1994 in Parks 2001:407, Swales 1990, 1998). The basis for this understanding of literacy is the assertion that literacy is a social practice which involves not only observable units of behaviour but values, attitudes, feelings and social relationships (Street 1993:12). This understanding of literacy is supported by Parks' (2001:434) study which revealed how even appropriation of a minor genre may be "infused with complex ideological positionings". Therefore, when considering more complex writing genres such as engineering reports, the implications of the culturally-historically embedded practices at the micro- and macro-levels of institutional functioning will have implications for the writers of engineering report genres.

The social movement which understands literacy as socially embedded is now part of the field that has come to be known as New Literacy Studies (NLS) and is the result of a massive "social turn" away (Gee 1996) from focusing on individual behaviour and individual minds to focusing on social and cultural integration (Barton, Hamilton & Ivanic 2000, Gee 1996, Barton 1994, Street 1993). NLS are ethnographic and focus on the social nature of literacy, on micro-literacy events and the practices that shape them (Barton et al 2000, Barton 1991).

In the South African engineering context, English is more than just a business language, it is the technical language upon which engineering practice is based. Therefore, on the level of policy and administration, engineering companies advocate “English only” policies to be globally connected and competitive, reinforcing the importance of English proficiency (Hill & Van Zyl 2002:34). Therefore, five of the study’s participants as ESL speakers may be historically disadvantaged because of their linguistic competence and cultural backgrounds in the workplace, especially in the dense and formalised discourse of component engineering. This situation is made more complex as engineering competence is often related to English proficiency as English is increasingly used in meetings and documentation, especially when companies operate internationally.

However, the study recognises that the participants’ language and cultural backgrounds are important identity components and a source of writing ability. According to Spack (1997:768), ESL writers have “multiple identities and draw on multiple resources” in literacy activities. The study, therefore, does not view their writing as deficient but a means to acquire the discourse and so acquire appropriate resources of language as well as writing skills (Nightingale 1988:279). Bartholomae (1985) stresses that in order to write confidently, the appropriate discourses must be acquired, including language and, for Hinkel (2004:55), the number of systematic shortfalls in non-native speakers’ (NNS) academic writing can only “be addressed in detailed, focused and goal-orientated instruction”.

However, although interest has grown in context-dependent writing, research is still far from understanding the relationship between the development of writing ability and the contexts in which it occurs. Therefore, it appears that MacKinnon’s declaration that “research of the what, the how, and the why of development of on-the-job writing ability has hardly begun” (1993:41) still appears to be relevant for literacy practice research in 2006. Ramanathan and Atkinson (1999:70) also support this conclusion in their article on ethnography approaches and Language one (L1) writing research by stating that research approaches which aim to characterise the rich complexity and particularity of

human experience deserve exposure especially as scientific approaches typically accomplish their goals at the direct expense of such knowledge. This is also true of Language two (L2) writing and applied linguistics where research activities and resulting applications are dependent on deep cultural understanding for their effective and equitable accomplishment (Ramanathan & Atkinson 1999:70).

As literacy practices are studied in the context of social and cultural practices of which they are part, they tend to show a convergence between appropriating work-specific genres and the criteria for good writing as identified by expert members of the discourse community. However, research also needs to include the voices of the writers so that the influence of human social behaviour on these practices can be understood (Nielsen 1990) and not only the larger social processes marked by relations of power (Schechter & Bayley 1997). In addition, identity issues may not only affect how writers appropriate available resources overtly and covertly in an effort to produce the required work-related genres, but they may also affect the degree to which writers are willing to invest in the mastery of a given genre (Parks 2001:243).

The research will, therefore, attempt to answer the following questions:

1. What literacy means to the group of automotive engineers responsible for the literacy practice of report writing?
2. What meanings these engineers attach to dominant literacy practices in the workplace?
3. What their perceptions are of the role of feedback in literacy practices?

Chapter 1 provides an overview of the influence of literacy claims on literacy models and on current literacy understandings and practices. Research on the impact of literacy has moved from an understanding that literacy is not unitary and independent of context to the situated perspective of NLS with multiple literacies only having meaning in various social, cultural and ideological contexts. These understandings are embedded throughout the thesis and are the particular focus of chapters 4 and 5.

1.2 Literacy historical perspective

The subject of literacy is immense and complex and can only be understood in terms of its historical development (Graff 1987:vii). Contemporary literacy practices are embedded in broader social goals and cultural practices and are influenced not only by the cultural history of three thousand years of literacy but also by “one hundred years of compulsory schooling in Britain, or several centuries of organised religion” (Barton & Hamilton 2000:13) or influences from the past decade. Therefore, literacy practices are “as fluid, dynamic and changing as the lives and societies of which they are part” (Barton & Hamilton 2000:13). As contemporary literacy is historically situated, a historical approach provides an understanding of some of the longstanding ideological claims that have dominated nineteenth and twentieth century political and economic debates over literacy and which still influence current literacy models and practices.

The supposed impact of literacy on lives, language, intellect and social outcomes has resulted in many sweeping claims and broad debates about the presumed consequences of literacy leading to many longstanding controversies. These claims have involved formal differences and similarities between spoken and written language which are supposed to underlie many educational problems as well as ongoing discussions of the role of literacy in economic betterment. Although these debates have been largely inconclusive (Collins & Blot 2003:9), the ideological claims influenced Street's (1984) early and influential autonomous model which conceptualised literacy as *doing* things to people regardless of context and leading, if not to general cognitive consequences, to social mobility and success in society (Fairclough 1989 in Black 2002:5). Within this discourse, literacy is considered a cognitive skill relatively autonomous of social context and which once acquired, leads to positive outcomes.

These literacy claims suggesting a relationship between literacy and economic and social progress and emphasising the transformative effects of literacy were termed the “literacy myth” by Graff (1987:3). Graff's (1979:19)

study in nineteenth century Canada found that the effect of literacy acquisition on deprived classes and ethnic groups was not statistically significant.

Although some groups gained through literacy acquisition, the effect was often further oppression as more literacy often did not correlate with increased equality but:

... contributed regularly as an element of the structure of inequality, reinforcing the steep ridges of stratification... It also served as a symbolic focus of other forces of equality: ethnicity, class, sex, and age.

Graff's (1979) findings are also reflected in other societies including South Africa. Prinsloo and Breier (1996) in their research project investigating literacy uses in a range of South African contexts also found that there is no clear divide between literacy and illiteracy and that one does not bring "uniform, positive effects to those who achieve it while the other is associated with marginalisation" (1996:31). For these societies, Gee (1996:59) describes literacy as rather serving as:

... a socialising tool for the poor, ... as a possible threat if misused by the poor (for an analysis of their oppression and to make demands for power), and ... as a technology for the continued selection of members of one class for the best positions in the society.

Although the literacy myth no longer serves as a satisfactory explanation for the place of literacy in society, policy, culture or economy, the debates about the nature of literacy have been politically important, as they have often involved claims about "great divides". Research in this field has often presumed dichotomies such as literate versus illiterate, written versus spoken, educated versus uneducated, and modern versus traditional (Collins & Blot 2003:3), making claims about fundamental differences in humankind, in particular, in the social, cultural and cognitive development of literates and nonliterates (Collins & Blot 2003:9). These literacy claims support fundamental differences or "great divides" in human intellect and cognition, "differences tied to stages of civilisation, grammatical elaboration, or racial order" (Collins & Blot 2003:10). Most notable in a period recognised as the modern era is the work of classicists such as Goody and Ong. Goody (1986 in

Collins & Blot 2003:17) argued that that literacy is a “technology of the intellect” which leads to basic changes in thinking as well as providing the foundations for basic “transformations of social organisation”. Ong (1982 in Prinsloo & Breier 1996:17) also made a case for literacy as a “socially determining technology, the pivot around which major differences between oral and literate cultures are drawn” with writing enlarging the potentiality of language “almost beyond measure” and “restructures thought”.

The view that literacy is essential for economic and political development depended on a particular cognitive and dispositional infrastructure, and represented a shift from a primitive to a modern self. This view has also been reflected in the neoliberal arguments about literacy and a modern workforce with Goody and Watts (1963 in Collins & Blot 2003:23) equating literacy with civilisation and modern states of mind. For Collins and Blot (2003:25) this represents the “bias” argument, with its:

... historical construction of the semiotic underpinnings of a modern style of thought, and its bipolar contrast between text-based and utterance-based modes of thinking, presents a fairly blunt statement of a cognitive “great divide” wrought by literacy.

The contrast between text-based mode of thought considered to be modern and scientific, and utterance-bound mode of thought considered to be premodern and prescientific is supposed to underlie many educational problems. On one side of the divide, is the nonliterate with a tendency towards concrete perception and expression, awareness of contextualised meaning and lack of awareness of language form. On the other side of the divide, is the modern, alphabetic, print-based literate, with a tendency towards abstraction in perception and expression, awareness of autonomy or strictly literal meaning of language form as well as language function. The bias argument has led to many sweeping claims for substantial and universal cognitive skills resulting from literacy acquisition. However, these literacy debates have been largely inconclusive with critics noting “numerous serious problems” with literacy claims (Bauman & Briggs 1990, Foley 1997, Street 1984 in Collins & Blot 2003:25). Gee also questions this deterministic

perspective of literacy as he found that “there is precious little evidence that literacy in history or across cultures has had this effect either” (1996:58).

The NLS response to autonomous model of literacy has been to argue that literacy does not necessarily lead to any of the social outcomes attached to it. By focusing on micro-literacy events and practices rather than on measuring the extent to which different individuals or groups possess a particular set of literacy skills, NLS shifted the focus from standardised skills to literacy practices. NLS analyse how literacy is used and valued by people in different social contexts as seen from their own perspective (Black 2002:4) and often focus on the central role of power relations (Street 1993:2). Barton and Hamilton (1998:7) also point out that these practices are often “patterned by social institutions and power relations, and some literacies become more dominant, visible and influential than others”.

For example, Scribner and Cole’s (1976) study of literacy among the Vai in Liberia was a major contribution to the literacy divide debate by presenting a practice account of literacy. The researchers found three different literacies operating among the people, with only English literacy being school-linked and the indigenous Vai script and an Arabic literacy used for religious purposes. Scribner and Cole (1976) found that illiterate adults particularly in urban areas shared some of the skills and attitudes usually only associated with literate persons. They concluded, “cognitive attributes were the outcome of particular social practices such as schooling and not direct results of the acquisition of literacy” (in Prinsloo & Breier 1996:18). In their extensive investigations of the psychology of literacy, Scribner and Cole (1981:234) also scaled down the usual generalisations about the “impact of literacy on history, on philosophy, and on the minds of individual human beings” to the more modest conclusion that “literacy makes the difference to some skills in some contexts”.

Although sweeping claims for substantial and universal cognitive skills resulting from literacy have not been sustained by research, as with many complex and consequential debates, there are no easy solutions (Collins &

Blot 2003:4). A historical perspective has not settled the issue of what literacy is nor have ethnographic field studies. Although it has been over two decades since Graff (1979) coined the term “literacy myth” and revisionist historical research has “deflated and undermined the grander claims” (Collins & Blot 2003:5) about the consequences of literacy, the abiding significance of ideas and practices involving literacy in modern Western societies still have to be accounted for. Research on the consequences of literacy continue to reveal that there are various complex political, economical, social, personal forces that either foster or hinder literacy’s potential to bring about change, as can the variety that is practiced (Lankshear & Lawler 1987, Sahni 1992, Street 1984 in Hull 1997:13). However, literacy claims continue to rhetorically mask economic and social problems of marginal groups as literacy/human capital rationale acts as a discourse technology for blaming victims, for shifting responsibility from systematically constituted inequality to already marginal individuals and groups (Freebody & Welch 1993:2). These misconceptions lead to the view that literacy is essentially the same thing for everyone, is simply a technical skill, and as such is intrinsically neutral and separate from its social context and uses to which it is placed (O’Connor 1993:198).

So, literacy often continues to be viewed as the singular cause of technological, social and economic developments that “privileged one social formation as if it were natural and universal” (Scribner & Cole 1981 in Gee 1996:58). The assumed literacy outcomes suggested by studies concerned with literacy, cognition and development, therefore, continue to emphasise the transformative effects of literacy in spite of conclusions that “literacy is neither the major problem, nor is it the main solution” (Graff 1979). Even where such evidence exists, the role of literacy is always “much more complex and contradictory, and deeply intertwined with other factors, than the literacy myth allows” (Gee 1996:26). However, although deep questions have been raised about the literacy myth, the question still remains, “What good does (could) literacy do?” (Gee 1996:33).

1.3 Literacy models

Literacy is still an important focus in contemporary society from being seen as a set of autonomous skills with deterministic consequences to recognising that there are multiple literacies embedded in various social contexts (Prinsloo & Breier 1996:19, Collins & Blot 2003:xi). The autonomous (Street 1984, 1993), universalist or independent literacy models assumed that there is a clear, cumulative distinction between literacy and orality and in initial and subsequent formulations, argued that the literacy of the West is somehow exceptional to other literacies. It also claimed that literacy has cognitive effects apart from the context where it exists and the issues to which it is put in a given culture (Gee 1996).

The autonomous or universalist models conceive of literacy as a uniform set of techniques and language use as having “identifiable stages of development and clear predictable consequences for culture and cognition” (Collins & Blot 2003:4). They sharply divide speaking and writing and initially placed much emphasis on the alphabet lining up with the “phonics camp” in current reading controversies. Lankshear and Lawler (1987:39 in Freebody & Welch 1993:198) identify three misconceptions related to this view of literacy, namely that “literacy is unitary; that it is a neutral process or tool; and that it is an independent variable”. These misconceptions lead to the view that literacy is intrinsically neutral and separate from its social context and uses.

Therefore, emerging from anthropological and historical criticism of claims made for a unitary or autonomous literacy, literacy’s causal role in social and cognitive development was questioned and the situated study of multiple literacies was developed. The situated perspective focusing on the diversity and social shaping of literacy was developed by revisionist historical scholarship which framed the debate about literacy and social development in the West (Graff 1981 in Collins & Blot 2003:4). The situated perspective is best exemplified in detailed ethnographic studies of inscription and discourse, which undermine the notion of separate domains of orality and literacy loosely

supporting a “whole language” (Edelsky 1996 in Collins & Blot 2003:4) view of literacy.

Street’s (1984) ideological model, therefore, called the autonomous model into question and challenged the decontextualised view that literacy produces “particular universal characteristics and giving rise to particular good effects” (Breier & Prinsloo 1996:17) regardless of context. The ideological model rather recognises that what matters is the social practices into which people are apprenticed as part of a social group and offers a more “culturally sensitive view of literacy practices as they vary from one context to another” (Street 2001:7). Therefore, the ideological model rejects the professed intrinsic qualities of literacy and attempts to understand literacy in terms of concrete social practices and theorises literacy in terms of the ideologies in which the literacies are embedded and not simply as a technical and neutral skill. For example, Lankshear and Lawler (1987 in O’Connor 1993:198) describe the ideological view as focusing on the specific social practices of reading and writing by considering:

... the forms reading and writing practice actually take, and the ways reading and writing skills are used, rather than as some abstracted technology

The literacy models proposed by Heath (1983), Finnegan (1988) and Street (1993) are also “practice models” providing alternative, flexible means for understanding literacy practices and literacies in both traditional and complex societies. They deal with literacy in action and focus on what can be done with literacy and accomplished with the use of texts, shifting the emphasis from the consequences of literacy for society to the study of its uses by individuals and its functions in particular groups. Gee also argues that abstracting literacy from its social setting to make claims for literacy as an autonomous force in shaping the mind or a culture “simply leads to a dead end” (1996:58). Literacy can only have consequences and meaning if it acts together with other social and cultural factors, including political and economic conditions, social structure and local ideologies. Literacy, therefore, has no effect and meaning apart from its use in particular cultural and social contexts and it also has

different effects and outcomes in different contexts. For Prinsloo and Breier (1996:29), these are starting points that engage with important literacy forms that characterise modern society and show the advantages of recognising the diversities and dynamics of social literacies whose origin is not necessarily in the school but other forms of social practices.

The shift from a conception of literacy located in individuals to ways in which people utilise literacy so that literacy becomes a community resource, realised in social relationships rather than the property of individuals, is important. The shifting away from literacy as an individual attribute, however, is one of the most important implications of a practice account of literacy and one of the ways in which it differs most from more traditional accounts (Barton & Hamilton 2000:13). This conceptual shift moves the focus away from the individual, discrete skills of reading and writing as cultural practices to a concern with the extent to which literacy tasks are jointly achieved and the implications of collaborative activities in particular social circumstances (Prinsloo & Breier 1996:19) through procedures and practices such as apprenticeship and literacy mediation.

The terms apprenticeship and literacy mediation describe the slow processes of exchange and transaction between individuals through which skills, both cognitive and technical, are transferred from one person to another (Morphet 1996:260) and through which people actually learn to read and write text. This means that at micro-levels, literacy refers to the fact that in particular literacy events there are often several participants taking on different roles and creating something more than their individual practices. For example, the extent to which literacy tasks are jointly achieved has implications for collaborative activities in particular social circumstances. At macro-levels, literacy refers to the ways in which communities use literacy including social regulation of text through social rules about who can produce and use particular literacies. For example, there is the frequent historical correlation of female gender with restricted access to literacy and schooling. The recognition that there is no single literacy but rather “multiple jostling literacies” (Ivanic 1998:68) with a multiplicity of practices and values differing

according to social and cultural contexts signals a shift in academic approaches to the field of literacy.

Although historical perspectives and ethnographic field studies have not settled the issue of what literacy is, detailed field studies of how people actually practice and value reading and writing as part of their wider conduct and communication have rather demonstrated that social life is not easily divided into spoken and written domains. They have also shown the extent to which speaking or writing are understood and valued has much to do with politics and economics, “with institutions, resources, and struggles to obtain, impose and resist authority - as with any given technique or technology of inscription” (Collins & Blot 2003:4). Although the autonomous model of literacy claims have been systematically criticised, echoes of these claims continue to inform policy and scholarship about literacy. However, all the debates about the nature of literacy have been politically important because they have involved “great divide” (Gee 1996:49) claims regarding fundamental differences in humankind, in particular, the social, cultural and cognitive development of literates and nonliterates (Collins & Blot 2003:9). The removal of these classificatory grids allows a far more complex range of communicative practices to become visible and available for interpretation (Morphet 1996:258). However, an understanding of why flawed perspectives have such a hold on current thinking has practical value and gives insight into why the field of literacy pedagogy is so politically polarised and why whole language and phonics pedagogy are seen as polar opposites.

1.4 New Literacy Studies (NLS)

The situated perspective which emerged from anthropological and historical criticism of claims made for a unitary or autonomous literacy was developed by revisionist historical scholarships and reframed the literacy debate and social development in the West (Graff 1979,1981 in Collins & Blot 2003:4, Scribner & Cole 1981, Heath 1983, Fingeret 1983, Street 1984, Levine 1986). The shift to plural literacies in the 1980s and the reconceptualisation of literacy based on literacy practices and sociocultural contexts is referred to as

NLS as already noted. NLS carefully document how literacy practices vary from one cultural and historical context to another basing literacy on real texts and lived practices located in time, space and Discourse and not in terms of skills and competencies. These studies were one movement among many that took part in the “social turn” away from focusing on “individual behaviour and individual minds towards a focus on social and cultural interaction” (Gee 2000:180) and challenged the dominance of the more traditional autonomous model of literacy.

In the past decade, many more academic studies have contributed to NLS, all challenging the autonomous literacy model and continuing the debate about the importance of theorising literacy as social and cultural practices rather than as decontextualised skills and competencies (Gee 1990, 1996, Barton & Ivanic 1991, Hull 1993, Street 1993, 1995, Collins 1995, Barton 1994, 1995, O'Connor 1994, Baynham 1995, Lankshear, Gee, Knobel & Searle 1997, Luke & Freebody 1997, Barton et al 2000, Black 2002).

In NLS research, the term literacy is treated as “a shorthand for the social practices of reading and writing” (Street 1984:1 in Prinsloo & Breier 1996:18) and examines the wider context within which literacy practices are framed. Therefore, a key element of literacy in social practice is its location as communicative practice. Street (1993) and Grillo (1989) define communicative practice as the social activities through which language or communication is produced including the ways in which these activities are embedded in “institutions, settings or domains which in turn are implicated in other, social economic, political and cultural processes” (Grillo 1989 in Prinsloo & Brier 1996:21). Such a focus necessitates attention to “the ideologies which may be linguistic or other which guide the processes of communication production” (Street 1993a:13 in Prinsloo & Brier 1996:21). Therefore, in the study of literacy as a social practice, although literacy is understood as “concrete human activity”, the focus is not just what people *do* with literacy, but also their *understandings* of what they do, the *values* they give to their actions, and the ideologies and practices that encapsulate their use and valuing of literacy.

This perspective introduces the concepts of *literacy events* (Heath 1983) and *literacy practices* (Street 1984, 2000, Barton & Hamilton 1989) which provide a lens, a methodology and a literature to see behind the surface appearance of reading and writing to underlying social and cultural meanings (Collins & Blot 2003:xi). Academic literacy, for example, consists of a multiplicity of more-or-less context-specific literacy events and a multiplicity of practices available for participating in those events and not the monolithic ability to use written language or the ability to speak or read (Ivanic1998:68).

1.4.1 Literacy events

The notion of *literacy events* stresses the situated nature of literacy which always exists in a social context. Heath (1982:50 in Street 2001:10) further characterises the term as “any occasion in which a piece of writing is integral to the nature of the participants’ interactions and their interpretive processes”. For Street (2001:10), the concept of literacy events is useful because it enables researchers to focus on particular situations where things are happening and can be seen. Literacy events, therefore, are observable episodes that arise from practices and are shaped by them or occasions where written language is part of a participant’s interactions and their interpretive processes and strategies (Heath 1983). Heath’s (1983) study showed how divergent orientations to literacy and learning from differing cultural and communicative traditions initiate children into “ways of knowing”, including the incorporation of literacy in culturally specific ways. As some traditions were closer to the ways of schooling than others, some children had an advantage over others at school. These close studies of the ways in which people work with texts in various settings reveal great differences in ways of taking and making use of literacy, which are “sometimes at odds with mainstream definitions of literacy” (Zubair 2001:189).

Central to this view of literacy are the activities where literacy has a role, and the people and actions which constitute them (Ivanic1998:63). These actions may involve written text, or texts central to an activity and discussion around the text or texts. Some literacy events may also be regular, repeated activities linked to routine sequences that may be part of formal procedures and

expectations of social institutions like workplaces (Barton & Hamilton 2000:8). Other events may be structured by more informal expectations and pressures of various groups (Barton & Hamilton 2000:9).

However, if the concept of a literacy event is used on its own, it becomes problematic as it remains descriptive and does not tell how meanings are constructed. Therefore, although written language is the focus in a literacy event (Ivanic 1998:57), it often encompasses more than language itself as it is not just about texts, but all the actions around texts. In this process, language may be peripheral to the total event as people can be incorporated into the literacy practices of others without reading or writing a single word (Barton & Hamilton 2000:13). Kress and van Leeuwen (1986; 2001 in Collins & Blot 2003:xiii) also argue for a shift in emphasis away from language as a major focus in communicative practices towards a range of modalities including visual, gestural, oral as well as written.

1.4.2 Literacy practices

Street (2001:11) develops the social approach to literacy with the more “robust” concept of literacy practices which are a person’s or group’s responses to a particular life demand which involves written language in some way (Ivanic 1998:67). Literacy practices are also a broader concept than literacy events and attempt to include both the literacy event and the knowledge and assumptions about what the event is and what gives it meaning. According to Street (2001:11), literacy practices “attempt both to handle the events and patterns around literacy and to link them to something broader of a cultural and social kind”. Included in the “broadening” is that people bring to a literacy event concepts, social models regarding what the nature of the event is, that make it work and give it meaning. Literacy practices refer to this broader cultural conception of particular ways of thinking about and doing reading and writing in cultural contexts.

Baynham (1995:1) defines literacy practices as “a concrete human activity” which involves not just the objective facts of what people do with literacy, but also what they associate with what they do, how they construct its value and

the ideologies that surround it. These practices refer to particular ways of thinking about and doing reading and writing in different cultural contexts and include the general cultural ways of utilising written language which people draw upon in their lives and what they *do* with literacy. This cannot be wholly contained in observable units of behaviour or activities but the resultant activities and behaviour associated with written texts will involve values, attitudes, feelings patterns of privileging and purposes and social relationships (Street 1993:12) which are often processes internal to people. Therefore, literacy practices are pitched at higher levels of abstraction and refer to behaviour and social and cultural conceptualisations that give meaning to the uses of reading and/or writing.

As literacy practices are specific practices manifested in different contexts whose meanings are more dependent on the processes by which they are acquired than on the specific skills applied, they are not merely technical transportable means unchanged across sociocultural contexts (Collins & Blot 2003:65). So, literacy (in the sense of ability to use written language) is not a technology made up of a set of transferable cognitive skills but a constellation of practices which differ from one social setting to another. The notion of *literacy practices*, therefore, offers a powerful way of conceptualising the link between reading and writing activities and the social structures in which they are embedded and which they help shape (Barton & Hamilton 2000:7). People attempt to make each of these practices meaningful and valuable each in themselves and as a configuration of elements all related to each other in a specific meaningful way. However, the individual elements in a configuration are meaningful and valuable only as they are related within that configuration (Gee 1996). Literacy practices, therefore, straddle the distinction between individual and social worlds and exist in relations between people, within groups and communities, rather than being just a set of properties residing in individuals. Literacy practices include both the social processes that connect people with one another, and the shared cognitions represented in ideologies and social identities (Barton & Hamilton 2000:8).

As people do not assume simple, singular identities but rather inhabit multiple identities (Gee 1996:ix), acquiring certain literacy practices may involve becoming a certain type of person. This will include not only mental processes and strategies but decisions such as whether to employ written language at all, which types of reading and writing to engage in, discourse choices, feelings and attitudes, and practical, physical activities and procedures associated with written language (Ivanic 1998:67). These decisions and choices, discursive resources available and competing discourses of street, school and workplace construct identity (Gee 1996) and often shape and are shaped by various literacy practices. Identity, therefore, becomes a crucial factor in literacy practices as it is implicated and constructed by the literate activities and linguistic and other choices of people.

The process involved in taking up discourse positions, however, may involve “a vicious circle fraught with conflicts of identity” (Ivanic 1998:68) as these positions combine practices, values, and forms of language in recognisable “ways of being” (Gee 1996) in the world. This may require a change of identity when attempting to take up membership of a community, or making do with partial acquisition and utilising “mushfake Discourse” (Gee 19996:147), which may be at odds with aspects of a person’s identity. In this endeavour, a literacy practice may be encountered which belongs to people with different social identities and to take on these new identity aspects when engaging in these practices, there is often a mixed desire for and resistance to insider status depending on how far a person is “colonised” (Gee 1996) or “appropriated” (Bartholomae 1985:135). Therefore, multiple literacy models reveal not only conditions contributing to approved literacy practices, they also reveal subversive practices which result in damaged identities, writer inadequacies and the “self-defined in tension with authorised literacies” (Collins & Blot 2003:xviii).

Foucault (1970, 1972) expands on identity conflict by arguing that all literacy practices are embedded in and controlled by discursive fields of power and knowledge. This power is manifested not only in top-down flow, but “extends itself in capillary fashion becoming part of daily action, speech and life”

(Foucault 1970 in Kumaravadivelu 1999:460). Power and knowledge are expressed in terms of regimes of truth which are sets of rules, statements and understandings that define what is true or real at any given time. The configuration of power, knowledge and truth are what Foucault (1970, 1972) calls discursive practices which are used in certain typical patterns to form discursive formations. As it is difficult for individuals to think outside of discursive formations, they are also exercises in power and control. However, individuals do not always comply with the dictates of dominant institutions, but reject the demands placed on them institutionally and operate according to their own desires, in a way that presents itself to them as personally empowering (de Certeau 1984 in Kumaravadivelu 1999:461).

Therefore, although some in-depth studies may contradict dominant discourses, studies closely involved with literacy issues often continue to maintain dominant discourses highlighting the central role of power relations which result in some literacies becoming more dominant, visible and influential than others (Barton & Hamilton 1998:7). In addition, most people are unaware that their beliefs involving literacy form part of the discourse and this has ideological and political implications. Their beliefs become naturalised, taken-for-granted, commonsense understandings and accepted by most people as apolitical truths (Fairclough 1989). This illustrates how literacies as communicative practices in a practice account of literacy (Scribner & Cole 1981) are often inseparable from values, senses of self, forms of regulation and power relations.

However, as texts are a crucial part of literacy events, the study of literacy is partly a study of texts and how they are produced and used (Barton & Hamilton 2000:9). Therefore, in a social theory of literacy, literacy is best understood as a set of social practices that are observable in the events mediated by written texts (Barton & Hamilton 2000:8-9). Practices, events and texts then are the three components that provide the first proposition of a social theory of literacy.

1.5 Literacy approaches and model constraints

As with many complex and consequential debates, there are no easy resolutions; facts and information, and new research perspectives, do not always support arguments. Literacy studies have demonstrated that literacy meanings and valuing of reading and writing have much to do with politics and economics embedded in institutions and resources as well as “struggles to obtain, impose and resist authority as with any given technique or technology of inscription” (Collins & Blot 2003:4). These studies have revealed the complexity of literacy, but they have often not been relevant to the agendas of policy makers who, for example, continue to support the autonomous model claims regarding the superiority of Western culture and intellect. An understanding why “flawed perspectives” continue to inform current thinking has practical value as it necessitates an investigation of “why historical and ethnographic cases are necessary but insufficient, for rethinking inherited view points” (Collins & Blot 2003:5).

While historical and ethnographic studies are necessary, Collins and Blot (2003:4) conclude that they do not settle the issue of what literacy is. They argue that although revisionist historical research has questioned the grander claims about the consequences of literacy (Collins & Blot 2003:5), the abiding significance of practices involving literacy in modern Western societies still needs to be accounted for. The detailed ethnographic studies have shown how people actually practice and value reading and writing as part of their wider conduct and communication and that social life is not easily divided into spoken and written domains. In addition, although they have linked the pluralities of literacies to various contexts, they still have to account for general tendencies that hold across diverse case studies, like the correlation between women and restricted access to literacy. These literacy claims have often operated “out of the same categories as autonomous studies, making it difficult for them to change the terms of the debate” (Collins & Blot 2003:4) and they continue to inform policy and scholarship about literacy.

In addition, critics of NLS accuse it of relativism with the rejection of the autonomous literacy model in ways that have “potentially dangerous consequences” (Street 2001:12). For instance, promoting local practices that are no longer appropriate will exclude people from varying backgrounds from access to the language and literacy of power requiring higher communication skills including formal literacy and new writing practices such as email, instant messaging, text messaging, blogging and social network websites (Brandt & Clinton 2002). Local everyday home literacies are often seen as “failed attempts at the real thing and as inferior versions of the literacy demanded by the economy, educational institutions and politics of centralising and standardising tendencies” (Collins & Blot 2003:xii). However, as the “interdependence and integration of social, cultural, political and economic processes across local, national, regional and global levels” (Starke-Meyerring 2005:470) increase, more local writing practices will be diffused to other locales and contexts and take on new generic patterns. This emphasises the importance of cross-cultural communication in technical communication research, as digital writing practice just cannot be local any more in this age.

In addition, although NLS researchers continue to describe a variety of literacy practices in their chosen sites of study, supporting “the imperatives of anthropological fieldwork” (MacCabe 1998 in Collins & Blot 2003:xii), the values from policy perspectives are often defined by “dominant interests that benefit their own narrow cultural standards under the guise of representing universal values” and inappropriate values in a plural and multicultural society are often inculcated. Therefore, a position which validates the variety of literacy brought to school, in practice often privileges those who already have the cultural capital associated with dominant groups in society and continues to exclude those whose home literacy practices vary from the mainstream (Delpit 1986 in Collins & Blot 2003:xii).

Policy debates, according to NLS scholars, need to be linked to sound theoretical principles to inform policy issues and researchers must not be viewed simply as relativists “romanticising local practice against the dominant

culture” (Collins & Blot 2003:xii). NLS have perhaps hit a deadlock in failing to account for the local while still recognising the general, or the global. Local studies tend to compare and contrast local differences without linking them to the impact of globalisation and its digital networks across the globe.

Therefore, Brandt and Clinton (2002:343) suggest that the field of NLS is in need of revision as there are “limits to the local”. With the fast development of digital networks in the age of globalisation, an emerging writing practice is diffusing rapidly across the globe. Starke-Meyerring (2005:483) points out that most research has been interested in examining the “local situatedness of communication practices” which ignores “local-global interplay” and so also fails to recognise that “(m)ore is going on locally than just local practice” (Brandt & Clinton 2002:343).

More ethnographies of literacy are also not the answer although these were necessary when educational institutions were reverting to narrower decontextualised, culturally insensitive and often ethnocentric views of literacy. Collins and Blot (2003:5) suggest that a way out of the universalist / particularist deadlock is close attention to issues of “text, power and identity”. They suggest that these key themes can lift the account of local literacies towards a more general, theoretically comparative set of terms while not losing the specificity that NLS have brought to the field as a way forward.

As a field of study, literacy entangles some of the most difficult problems in social analysis, especially the question of text as language, situation and meaning.

1.6 Text, power and identity

Many dichotomies in literacy research remain unresolved and historical and ethnographic cases illustrate how texts, power and identity frequently intertwine and complicate the debates. An understanding of these concepts, each and together, are central to the debates around the meaning of literacy and literacy practices in modern Western societies.

1.6.1 Literacy and texts

Significant in literacy debates are post-structuralist or practice-theory arguments about the role of writing or text in intellectual traditions as well as in social life (Collins & Blot 2003:5). In these literacy debates, *text* is central as it has no meaning separate from the contexts in which it is produced and consumed, whether a written document or any other form of transcription. Within the debate, the meaning of *text* is also particularly relevant as new modes of computerised and digital representation become widespread and new theoretical perspectives on modes of representation emerge (Brandt & Clinton 2002:343; Collins & Blot 2003:xiii).

The term text is often reserved for referring to the “physical manifestations of discourse” (Ivanic 1998:38), or marks on the page or screen in the study of writing and may include the role of form in discursal / linguistic processes and literacy practices as a whole. However, for Candlin and Hyland (1999:1), as texts are multidimensional constructs requiring multiple perspectives for their understanding, writing is more than the generation of text-linguistic products. Writing as text can also not be usefully separated from writing as process and interpretation, from the specific local circumstances in which writing takes place or from the broader institutional and socio-historical contexts which inform particular occasions of writing (Candlin & Hyland 1999:1). Although local communication practices need to be understood by situating them in the local context, every writing act is linked in complex ways to a set of communication purposes which occur in social, interpersonal and occupational practice contexts locally and globally. Therefore, each act of writing also constructs the reality that it describes, reproducing a particular mode of communication and maintaining the social relationships which that implies. Writing is also a personal and socio-cultural act of identity whereby writers both signal their membership in a range of communities of practices (Candlin & Hyland 1999:2). Writing research, therefore, explores the uses to which writing is put and explains why or how these uses may engender particular conditions of production and interpretation of texts in context.

As texts can have no autonomous meanings independent of their social context of use and no set of functions independent of their social meaning, the term *discourse* rather than *text* should be used (Barton & Hamilton 2000:12-13). For Gee (1996:viii), Discourses (with a capital D) includes much more than language and are ways of “behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing that are accepted as instantiations of particular roles (or types of ‘people’) by specific *groups of people*”. Discourse, therefore, is an effective term because it foregrounds the concern with social issues in the study of writing rather than in the linguistic specifics of the text. Prinsloo and Breier (1996:22) describe Gee’s (1996) wider use of the term Discourse as:

... a socially accepted association among ways of using language of thinking, feeling, believing, valuing and of acting that can be used to identity oneself as a member of a socially meaningful group or ‘social network’ or to signal a socially-meaningful role.

Discourse, therefore, is not only particular forms of language organisation beyond the grammatical structure of sentences; it includes institutionally generated sets of systematically organised statements, which give expression to specific social meanings and values. For Gee (1996), this means the social as opposed to the natural and he locates literacy firmly within this discourse-centred frame. He argues that there is no literacy learning without the accompanying acquisition of a Discourse and genres of literacy practice and discourses are the result of a particular shaping of literacy, language and discourse that are the outcome of institutional power. Therefore, Discourses in Foucault’s (1981) sense also generate ideological positions through “systems of rules which make it possible for certain statements but not for others to occur at particular times, places and institutional locations” (Fairclough 1992a:40 in Prinsloo & Breier 1996:21).

Manifestations of power are not only state and other political institutions based but they are also “rooted in the system of social networks” (Foucault 1981:52). de Certeau (1984 in Collins & Blot 2003:33) providing a post-structuralist perspective, also insists that questions of text and text practice

cannot be separated from considerations of history and power. Therefore, in various Discourse sites including the workplace, power is structured and negotiated through communicative modalities including literacy. And for Foucault (1981:52-53), literacy and discourse are the “things for which and by which there is a struggle, discourse is the power which is to be seized”.

Therefore, uses of literacy are always the shaped products of interested social action and not neutral, transparent or technical means of communication. Text then is not a text because of inherent objective linguistic features but because it has been generated by discursive formations, each with particular ideologies and ways of controlling power (Foucault 1970 in Kumaravadivelu 1999:460). Therefore, the analysis of text or discourse means analysing discursive formations that are essentially political in character and ideological in content.

1.6.2 Literacy and power

NLS from the outset addressed issues of power, counterpoising the autonomous model with the ideological model of literacy (Black 2002:5; Collins & Blot 2003:xiii). Central to the practice-theory argument is the claim that writing is usually associated with power, and particularly with specific modern forms of power. Therefore, one of the first effects of developing an extended ethnographic account of embedded communicative practices was to change the status and definition of text literacy as a universally social good to a source of power relations.

Norton (2000:7) uses the term power to reference the socially constructed relations among individuals, institutions and communities through which symbolic and material resources such as text literacy in a society are pronounced, distributed and validated. However, the very heterogeneity of society must be understood with reference to an inequitably structured world in which gender, race, class and ethnicity of second language speakers may marginalise and impact on text literacy. With this perspective, text literacy loses its absolute, symbolic character (Morphet 1996:259) and gains meaning within multiple discourses in various social contexts. The effects of power

relations became visible in socially constructed and managed lines of exclusion and inclusion, disclosing the ideological character of literacy provision. These power lines validate and entrench the external, visible performance measures on which access to power is allowed or refused, and at the same time, they serve to construct and distribute differential subjectivities to successes and failures. Thus although conventional literacy work at the line of division serves to help a few, its more pervasive consequence is to leave many with stunted interpretations of their own identities. The problem is not technical ineffectiveness but political structure with illiteracy being a constructed category of power and control.

However, the uses of literacy should not be only considered as ways in which groups in society might exercise power and dominance over other groups withholding or providing access to literacy to select groups. More subtly, assumptions about literacy and the models that people hold underpinning their uses of literacy are also sources of power relations. Weedon (1987 in Norton 1997:411) has integrated language, individual experience and social power in a theory of subjectivity. In this theory, the individual is given agency and language in constructing the relationship between the individual and the social. Subjectivity is also produced in a variety of social sites, all of which are structured by relations of power in which the individual takes up different subject positions. The subject is not conceived as passive but as both subject of and subject to relations of power within a particular site, community and society. As the subject has human agency and is of central importance, subjectivity and language are theorised as mutually constitutive (Norton 1997:411). The three defining characteristics of subjectivity that have influenced Norton's (2000) work are: a) the multiple, non-unitary nature of the subject b) subjectivity as a site of struggle and c) subjectivity as changing over time.

Therefore, although literacy is shaped by power, this is not always some concentrated force that compels individuals or groups to behave in accordance with the will of an external authority (Collins & Blot 2003:5). The more subtle dimensions of power exist in the tension between primary and

secondary Discourse types. Gee (1996:137) distinguishes between these two broad Discourse types, defining primary discourses as “those to which people are apprenticed early in life during their primary socialisation as members of particular families within their sociocultural settings”. Primary discourses form the first social identity and are the base within which later discourses are acquired or resisted. Secondary discourses are “those to which people are apprenticed as part of their socialisation within various local, state and national groups and institutions outside early and peer group socialisation, for example, churches, schools, offices” (Gee 1996:137). They constitute the recognisability and meaningfulness of public and more formal acts.

The boundary between the two Discourses is not airtight and unproblematic and is constantly being renegotiated and contested in society and history. Many social groups filter aspects of valued secondary discourses into their children’s acquisition of these secondary discourses and people also strategically use aspects of their primary discourse to pull off performances in some of their secondary discourses (Heath 1983; Gee 1996:138). Gee (1996:162) uses the concept “borderland discourse” to describe the structure and negotiation of power through communication modalities such as literacy after analysing student texts from low socio-economic, segregated neighbourhoods.

O’Connor (1994 in Prinsloo & Breier 1996:23) extends these discourse concepts to workplace situations and describes situations when secondary official workplace discourses conflict with and are opposed to the workers’ primary discourse. In these situations, the worker’s discourse is characterised by context-related cognitive, valuative and narrative orientations, allowing continued membership of the workgroup, and at least the appearance of acceptance and adherence to the normative values of the official discourse. At the same time, borderland discourse makes sense of and maintains some loyalty and allegiance to the primary discourse. O’Connor (1994:297 in Breier & Prinsloo 1996:23) argues that in most workplaces, workers “quietly resist many official edicts and directives, as their own experience tells them they won’t work, or won’t work as well as they can perform the task”. Therefore,

workers use unofficial or their specialised local knowledge rather than the official or espoused theories of the organisation. Thus there is a tension between resisting aspects of the workplace which either contradict or are offensive to the primary discourse or contradict the ways that workers think work can and should be performed (O'Connor 1994). Evidence of contextually developed, informal strategies similar to those of dairy workers in Boston are described by Scribner (1984) and add weight to the argument that effective work planning could usefully be informed by knowledge of the procedures, understandings and practices deployed by workers in their work, instead of adhering exclusively to management's conceptualisation of the tasks.

These informal practices and strategies are explained by Cummins (1996) through a distinction between coercive and collaborative power relations. Cummins (1996) argues that coercive power relations refer to the exercise of power by a dominant individual, group or country that is detrimental to others and serves to maintain an inequitable division of resources in a society. Collaborative relations of power, however, serve to empower rather than to marginalise. In Cummins' view (1996), it is possible for power to be coercive or productive, and it is possible for both dominant and subordinate groups in a society to exercise power. However, the realm of influence of the dominant group will be far greater than that of the subordinate group and the dominant group may even try to exercise absolute power by encouraging all members of a society to accept the status quo as normal and beyond critique. Thus power is not a fixed, predetermined quantity but can be mutually generated in interpersonal and intergroup relations.

Cummins (1996) also draws the distinction between additive bilingualism in which the first language continues to be developed and the first culture to be valued while the second language is added; and subtractive bilingualism in which the second language is added at the expense of the first language and culture, which diminish as a consequence. Cummins also suggests students working in an additive bilingual environment succeed to a greater extent than those whose first language and culture are devalued by their schools and by the wider society. Therefore, Cummins (1996:21) describes this power

relationship as additive rather than subtractive as power is created with others rather than being imposed on or exercised over others. Therefore, relations of power can serve to “enable or constrain the range of identities that language learners can negotiate in their classrooms and communities” (Cummins 1996:21).

Power, by extension, has multiple forms and is not simply coercion, external force or control of organisational standards. It is also revealed in “face-to-face exchanges, in intimate judgements and in procedures of teaching and learning” (Collins & Blot 2003:46). The small intimate everyday dimensions of power are constitutive as well as regulative and are the essence out of which “senses of identity, senses of self as private individual as well as social entity in a given time and place, are composed and recomposed” (Collins & Blot 2003:5). However, these power forms also have far-reaching effects and practice theorists such as Foucault, de Certeau and Bourdieu have long argued that micro-power techniques are related to broader issues of economic distribution, resource distribution and even the fate of populations.

1.6.3 Literacy and identity

The deconstruction of identity has been conducted within a variety of disciplinary areas all critical of the notion of an integral, ordinary and unified identity. These developments may be the result of the decentralisation of production and consumption within an overall global capitalist system and linked to this, movements of youth, women, anti-colonial and civil rights forces which questioned both traditional and modern forms of authority (Collins & Blot 2003:101). In place of order by sovereign states and their regulating institutions in the modern era, the post-modern era revealed a need for self-constitutive capacities in the face of social fluidity and potential disorder (Bauman 1997 in Collins & Blot 2003:103).

This has resulted in a discursive explosion in recent years around the concept of identity (Hall 1996:1) with international language journals giving greater attention to research on sociocultural diversity in general, and identity in particular. Norton (1997; 2000:6) notes that although there are differences

between various authors' conception of identity; for example, Thesen (1997) on *voice* and Duff and Uchida (1997) on *sociocultural identity*, the distinctions between social and cultural identity become less marked as the researchers ground their theory in specific sites of practice. For example, the workplace is one of the key social discourse sources which shape identity in society and it is thus the site that constructs, maintains and perpetuates the attachment of cultural capital to only some social resources.

NLS scholars have also addressed issues of identity (Ivanic 1998) in some of the ethnographic accounts of local resistance to colonial literacies (Bresnier 1995), and recently social scientists have turned their attention to the concept of discourse as the “mediating mechanism in the social construction of identity”. The concern with and awareness of identity as a social phenomena is relatively recent as in the 1950s and early 1960s, the term was understood primarily as referring to individuals. However, the late 1960s and subsequent decades saw a series of developments which brought group identity to the fore (Collins & Blot 2003:101) as it was recognised that people do not inhabit simple, single identities but multiple identities highlighting the constructed nature of society. Identity construction must also be understood with reference to relations of power (Norton 2000:6) as people take on particular identities by producing and receiving culturally recognised, ideologically shaped representations of reality (Ivanic 1998:17).

Group identities, however, do not just exist, they are mobilised or “called into being” and face-to-face groups, neighbourhoods, institutions and social classes emerge out of dense, overlaid networks of real and potential association on the basis of shared “objective characteristics” (co-residence; years of education; occupation; skin colour; gender or sexual orientation) and also on the basis of shared representations and undertakings. However, within the group identity, people also need to have a sense of unity and continuity about their identity and have to account for the “experiences of continuity over time and the sense of unity despite diversity in conceptions of oneself” (Slugoski & Ginsburg 1989 in Ivanic 1998:16-17).

Gee (1996) advocating a situated approach to literacy provides a clear account of how language variation influences identity construction. As different social classes vary in the extent to which they use standard or colloquial forms of pronunciation and the selection of one or another alternate signals status and solidarity or belonging. In actual practice, the rudimentary interchange of identification and differentiation is quite complex for languages do not vary on just a few features; instead there are hundreds of points of contrast and variation in pronunciation, word choice and syntactic alternatives (Biber 1995, Gumperz & Cook-Gumperz 1982, Labov 1972, Romaine 1995 in Collins & Blot 2003:104). These contrasts are used by speakers to signal and assess fluid social identities as well as strategically shifting communication intentions (Gumperz 1982, Heller 1988, Rampton 1995 in Collins & Blot 2003:104).

These situations are further complicated by people having different situated identities. Gee (1997:xiii) explains how people inhabit various identities by using the concept of *coordinations* made up of different *elements* to describe recognisable situated identities for each of the elements in a coordination. The elements in a coordination that simultaneously play two roles, actively coordinating and passively getting coordinated by other elements in a coordination are described by Gee (1997:xiv) as:

... people - as well as their ways of thinking, feeling valuing, acting, interacting, dressing, gesturing, moving, and being - places, activities, institutions, objects, tools, language, and other symbols. Each element gets and is got 'in sync', 'in step', 'with it'. Within such co-ordinations we humans become *recognizable* to ourselves and to others and *recognize* ourselves, other people and things as meaningful in distinctive ways.

Each of the elements in the coordination needs to be recognised as recurrent to give rise to recognisable situated identities, "the sort of configuration that has occurred before... as a recognizable pattern" (Gee 1997:xv). This recognisability as a pattern makes the coordination a constituent of Discourse, which is a way of "being together in the world" for humans and for non-human things where all coordinations have recognisable identities. All coordinations

are meaningless unless they can be “*narrativized* by yourself and others” (Gee1997:xliv) and with this not taking place, a person cannot be part of the Discourse. The self is then doubly socially constructed, both by the socially constrained nature of the life experience itself, and by the social shaping of the interpretation (Ivanic 1998:16). States of flux, identity shifts with changing social, cultural and economic relations, locate identity in events and experience rather than reifying it as a quality or attribute and the self is not “a person’s life history, but the interpretation put on life history” (Giddens 1991 in Ivanic 1998:16).

Texts are identified by Gee (1996) as one type of element of coordinations and a means to coordinate meanings. As a text coordinates and is coordinated, it takes on different situated identities and has different meanings. Apart from some coordination, which must be in some Discourse if the coordination itself is to have meaning, the text has no recognisability, no meaning and no identity. A text cannot be taken out of the coordinations it is in and the Discourse which renders it meaningful. In this sense, there is no other approach to texts, language and literacy than a sociocultural one. The decontextualised approach of traditional work in reading and literacy is for the most part “incoherent” (Gee1997:xvii).

Although Ivanic (1998:18) uses a relatively narrow definition of discourse as involving “verbal language”, Shooter and Gergen’s (1989:ix) contributors emphasise that discourses are the site in which identity is manifested as the articles they edited shared a concern with textuality issues, identity construction and cultural critique, especially:

... the way in which personal identities are formed, constrained and delimited with ongoing relationships... the primary medium within which identities are created and have their currency is not just linguistic but textual: persons are largely ascribed their identities according to the manner of their embedding within a discourse – in their own or in the discourse of others.

However, in situations of change, disorder and contradiction, identity has a desire for recognition, affiliation as well as safety and security (Norton 1997,

2000). The desire for oneness, or a unified self in the composition of identity in these situations often “produces the tendency to identify with the powerful and significant figures outside (ourselves)” (Woodward 1997:45 in Ibrahim 2000:742). People then first adopt an identity from outside the self and then identify with “what they want (desire and would like) to be” (Woodward 1997:45 in Ibrahim 2000:742). This process of identification is ongoing with people seeking some unified sense of themselves through symbolic systems and identifying with the ways in which they are seen by others. These powerful and significant figures constitute part of the symbolic systems with which people identify and in which language is central. Since language provides representations (images, discourses), the means of coordinating undertakings and sensitive indices of social background, language has to be seen as integral to the “constitution of society” (Bourdieu 1991, Giddens 1984, Sapir 1949 in Collins & Blot 2003:105).

Bourdieu (1977) also focuses on the relationship between identity and symbolic power and argues that the value ascribed to speech cannot be understood apart from the person who speaks and the person who speaks cannot be understood apart from the larger networks of social relationships, many of which may be unequally structured. Bourdieu (1977:649) persuasively argues that an expanded definition of competence should include the “right to speak” or “the power to impose reception”. As the right to speak intersects in important ways with a language learner’s identity, Norton (1997:411) uses the term *investment* to signal the socially and historically constructed relationship of learners to the target language and their sometimes ambivalent desire to learn and practice it. This is often influenced by the learner’s investment in the target language and the social and historical construction of the learner’s relationship with the target language.

The construct of investment conceives of a language learner as having a complex history and multiple desires and, therefore, an investment in a target language is also an investment in a social identity, which changes across time and space. The term investment is best understood by considering the economic metaphor of cultural capital used by Bourdieu and Passeron

(1977:77). They use the term to reference the knowledge and modes of thought that characterise different classes and groups in relation to specific sets of social forms, arguing that some forms of cultural capital have higher exchange value than others in relation to a set of social forms which value some forms of knowledge and thought over others. If learners invest in a second language they do so with the understanding that they acquire a wider range of symbolic and material resources which will in turn increase the value of their cultural capital. Learners expect or hope to have a good return on that investment, “a return that will give them access to hitherto unattainable resources” (Bourdieu & Passeron 1977:17).

Sociocultural approaches to language and literacy are committed, however, not only to situating people and texts in coordinations and Discourses, but to critical literacy. Critical literacy “arises from the very nature of elements-in-coordinations-in-Discourses” (Gee1997:xvii) and any element is meaningful only within a recognisable coordination that is part of a Discourse. As Discourses contest with each other for the right to recognise specific elements, critical literacy is then the ability to juxtapose Discourses, to watch how competing Discourses frame and reframe various elements giving rise to questions and issues about interests, goals and power relationships among and within Discourses.

Thesen (1997:488) argues that identity can be seen as the dynamic interaction between the fixed identity categories that are applied to social groupings (such as race, gender, ethnicity, language) and the way individuals think of themselves as they move through the different discourses in which categories they are salient. With this concept of identity, Thesen (1997) critiques aspects of discourse theory because it often overlooks the focus on individual accounts and is a limited and deterministic view of identity in terms of a researcher’s imposed categories. According to Norton (1997: 417), a central argument Thesen (1997) makes is that current critical discourse theory does not do justice to the human agency of individuals and that greater attention to the voices of learners generates unexpected consequences and new understandings.

Identity, while central to discourses of culture and diversity”, is difficult to pin down” (Collins & Blot 2003:104):

It hinges on and does not resolve troublesome polarities: between essential versus constructed traditions and group-bound versus voluntarily chosen affiliations. Such dichotomies also inform the dynamics of language, literacy and identity.

In summary, according to Norton (1997:419), most authors see identity as:

- ❑ complex, contradictory and multifaceted and reject simplistic notions of
- ❑ identity;
- ❑ dynamic across time and place with a recurring theme of transition;
- ❑ constructed and being constructed by language. Duff and Uchida examine the “inseparability” (1997) of language and culture and Schecter and Bayley (1997) conceive of language as embodying in and of itself “acts of identity”.
- ❑ constructed and understood with respect to larger social processes, marked by relations of power that can either be coercive or collaborative.

Therefore, in times of social, cultural and economic change, texts associated with literacy and linked to identity and power will also change. Texts are a crucial part of literacy events and central to the literacy debate of whether they can have meaning separate from the contexts in which they are produced and consumed. They should then be the major focus offering a way to move NLS from its particularistic stalemate (Collins & Blot 2003:xiii).

1.7 Aims of the study

The study describes and discusses the subjective meanings of literacy in dominant report-writing practices, especially feedback in text production for automotive engineers and their supervisors in report-writing practices. According to research (Bazerman 1988, Paré & Smart 1994, Swales 1990, 1998), the engineers’ definition of literacy is located within the understanding that literacy is always situated within specific social practices which shape and are shaped by the social actions undertaken in response to recurrent

situations within discourse communities. Therefore, the engineers' understanding of literacy is often dependent on their supervisors' responses to their reports as all report drafts require supervisor *approval* for circulation.

As the study is ethnographic in orientation, the data collecting approaches combine multiple research methods as thick cultural description demands "rich, sensitive, and flexible array of descriptive tools" (Ramanathan & Atkinson 1999:65). Data was collected from various sources; including site meetings, questionnaires, interviews and focus group discussions. The study's data collection incorporated monological and dialogical data with the monological data including notes made after meetings at the research site during preliminary visits (Carspecken 1996:40). The dialogical data collection includes Questionnaire 1 to probe the report-writing practices as well as two interviews and a focus group discussion to probe and discuss questionnaire and interview responses. The interviews were transcribed for data analysis and NVivo qualitative software was used for coding and analysing the data to determine associations, relationships and variables.

The study intends to describe what literacy means to automotive engineers in the situated practice of report writing and how their literacy perceptions influence and are influenced by dominant report-writing practices. The study also focuses on the relationship between feedback practices and the engineers' literacy perceptions.

Therefore, more particularly, the research attempts to answer the following questions:

1. What dominant literacy practices have causal relationships with the automotive engineers' perception of literacy during report writing practices?
2. What meanings and associations do these writers attach to these dominant literacy practices?
3. What associations are there between feedback practices and the writers' perceptions of literacy?

1.8 Structure of the thesis

Chapter 1 provides a background to the study, an introduction to the concepts on which the thesis is based and a literature review. This chapter overviews literacy approaches from being historically situated to situated in local contexts to provide an understanding of contemporary literacy practices. The emerging literacy debates have influenced various literacy models, from a conceptualisation of literacy regardless of context to multiple literacies embedded in various social contexts. The literature review also gives an overview of texts in literacy and the influence of power and identity in shaping literacy practices which is the basis of this research into report-writing practices.

Chapter 2 outlines writing as a literacy practice and the impact of feedback practices on writing and identity. Texts are a crucial part of literacy events and practices and central to the literacy debate and they can have no meaning separate from the contexts in which they are produced and consumed.

Chapter 3 is the research methodology chapter and includes an explanation of the ethnographic research approach. Although the methodology is ethnographic in principle, its orientation is critical and based on critical epistemology depending on an understanding of holistic modes of human experience and their relationships to communicative structures to derive definitions of truth and validity (Carspecken 1996:19). The research, therefore, does not only focus on the writers' perceptions of literacy practices, but also on the "collaborative situation... personal and institutional histories and writers' and teachers' political hopes" (Bizzell & Herzberg 1996:13 in Bishop 1999:13).

A local context to this study is provided in chapters 4 and 5. Chapter 4 focuses on the dominant practice of report acceptance as a causal relationship by connecting or associating supervisor feedback and revision practices with the participants' understanding of literacy. A practice-based approach describes the writing practices at the research site providing an

alternative, flexible means for understanding connections and causal relationships influencing literate practices and literacies.

Chapter 5 broadens or extends the influence of practices as causal relationships and identifies further causal practice relationships that emerge in response to supervisor feedback and institutional practices. These practices emerge to assist, control, maintain and change report-writing practices. Culture, higher education and future practices are also identified as causal factors influencing the participants' literacy perceptions at the research site.

Chapter 6 concludes the thesis with a reflection on the implications of the findings to find fit with literacy practices and wider literacy contexts, especially the influence of Higher Education, world Englishes and technological and digital systems on report writing practices.

CHAPTER 2 Writing as a literacy practice

2.1 Introduction

According to Grabe (2001:40), as writing specialists need to take seriously self-reflective practices and critical inquiry, a foundation for a theory of writing is necessary that can be “examined openly and publicly, discussed as an agreed on focus of study” and “can build on or perhaps withstand, many intuitive, unspoken assumptions about writing and its uses in various settings”. With no such foundation, there is very little likelihood that research and instruction will develop beyond the current on-going history of personal preferences, socialised practices that work and reinvented ideas (Grabe 2001:40). Besides agreeing with Grabe (2001) on the need for valid and reliable research support so that research results can be compared and more opportunities created for convergent research findings, Silva (1990:19) also regards an appropriate and adequate theory of L2 writing as a minimum requirement for a theory of writing. For Silva (1990:19) such a model of writing interrelates ESL writing theory, research and practice and regards writing as:

...an interactive activity; is reasonably comprehensive and internally consistent; reflects an understanding of historical development in the field; is informed by current work in relevant disciplines; and is sensitive to the cultural, linguistic, and experiential differences of individuals and societies.

ESL approaches, however, need to be guided by realistic theories and convincing research; adequate and appropriate theories of writing need to be formulated; credible research to support these theories conducted; adequate and appropriate approaches based on viable theories of the nature of writing developed and credible research on the relative effectiveness of these approaches when applied to various contexts conducted (Silva 1990:19-20). If these approaches are limited to the elements of L2 writing, they are too “narrowly construed, each privileging and largely limiting its attention to a single element of writing” (Silva 1990:19-20). In addition, an exclusive focus on pedagogical approaches is also limited as it takes approaches out of their historical contexts and ignores larger institutional changes that have affected the field (Matsuda 2005:36). This results in studies like Silva’s (1990) only

being cited for his descriptions of pedagogical approaches. According to Silva (1990:20), each of these approaches is not sufficiently grounded in appropriate and adequate theory and credible research and reflects the current limits of theory and research in ESL writing. Silva (1990:20) urges writing teachers and researchers to move beyond pedagogical conflicts and focus on developing a broader principled and comprehensive understanding of L2 writers and writing. This bigger picture must at least meaningfully account for contributions of the writer, reader, text and context as well as their interaction.

2.2 Writing theory requirement

As most researchers and practitioners are reasonably comfortable with their own senses of what writing is, its uses in given contexts and settings, and how best it can be taught, they often feel there is no need to rely on writing theories. However, theory is not abstract and distant from challenges faced by teachers and students, but has enormous practical utility as “there is nothing so practical as good theory” (Lewin 1951:7 in Ferris & Hedgecock 1998:2) when used as knowledge for classroom planning and decision-making. In addition, familiarity with formally articulated theories and principles enables teachers and researchers “to become critical and reflective practitioners, researchers... and agents of change” (van Lier 1994:7 in Ferris & Hedgecock 1998:2).

An agreed upon theory of writing facilitates open examination and discussion of many unspoken and intuitive assumptions about writing and its uses in various settings. It also ensures that research results offer a “greater degree of comparability, more opportunities for convergent research findings, and a set of common terminology and descriptors” (Grabe 2001:40). Although the development of a common set of terms, understandings, interpretations and analyses is a minimal goal for theories of writing, without these foundations, it is unlikely that research and instruction will develop “beyond the current and on-going history of personal preferences, socialised practices that work and reinvented ideas” (Grabe 2001:40).

For Grabe (2001:41-42), an anchoring assumption for a theory of writing is that it is best developed from examining and exploring the writing processes and products of expert writers for given tasks and settings. Although there are no obvious objective standards to refer to expert writing, the writing of experts provides a performance target for other writers to achieve and this requires an understanding of what good writing is. Writing expertise here is the ability to “adhere to style-guide prescriptions concerning grammar, arrangement and punctuation” (Hyland 2002:59). This cognitive perspective is founded on information-processing theories which regard expertise in writing as the ability “to employ certain universal, content-independent revision and editing practices to guide writing” (Hyland 2002:59) and ignores the social dimension of human activity. The notion of general expertise also helps to formulate a teachable theory of writing which often involves transferring from L1 to ESL situations without regard for differences between these two contexts. Pedagogically, the approach emphasises modelling and evaluation and attempts to move students towards knowledge-transforming practices (Bereiter & Scardamalia 1987 in Hyland 2002:59) by reworking their ideas during writing. Therefore, expert perspective represents an idealised notion of what written text should be and is sustained by an assumption that learners are reaching for “mainstream culture” (Thesen 1997:488).

However, writing expertise cannot be removed from its historical and cultural contexts and described by a “naive reduction to given cognitive procedures” (Hyland 2002:60). Learning to become an expert writer does not involve mimicking a set of heuristics that can be transferred from one context to another; it means acting effectively in new cultural settings. Social theories, therefore, define an expert writer as “one who has attained the local knowledge that enables her (sic) to write as a member of a discourse community” (Carter 1990:226 in Hyland 2002:60). However, since individual expertise varies across communities, there can be no one definition of an expert writer. For Hyland (2002:60), writing competence rather is a “marker of expert behaviour in a wide range of professional activities and workplaces

where it refers to the interactants' orientations to specific features of the institution".

The expert writing perspective also overlooks the focus of individual accounts and learners are categorised according to a limited set of markers representing a deterministic view in terms of the researcher's imposed categories (Thesen 1997:488). Prinsloo and Breier (1996), Thesen (1997:487), Parks (2002:407), Black (2002:12) and Tappan (2000 in Murphy 2004:706) also support the focus shift to researching all writers' voices. For Bigelow and Tarone (2004:690), this also includes low literacy learners in any language. The failure to investigate a range of language learners and the tendency to focus on the views of experts, and those who are literate and educated, as accepted findings has possibly resulted in writing theory that does not account for the full range of writing contexts and literacies. Theory then has limited application and little value in guiding teachers, practitioners and institutions working in various contexts.

Therefore, the need to explore actual student-writers' texts and their perspectives on these texts was signalled in Emig's (1971 in Kroll 1990:38) pioneering case study and landmark L1 research on the composing processes of twelfth graders and in Shaughnessy's (1977 in Lillis 2001:27) research in North America in the 1970s on why so-called "ineducable students" write as they do. Emig's (1971) study was the first major study to respond to the shift in composition orientation from product to process by gathering data from "composing aloud" audiotapes and interviews in which participants answered questions on their writing processes. Shaughnessy's (1977) research findings were also based on the scripts of about 4000 students and included substantial student and tutor commentary. These research techniques are associated with process theories of writing originating in psychology and aimed to uncover writers' mental strategies. Focusing on what actual writers do in texts represents an epistemological shift as it challenges the idea that writers' problems are predominantly to do with language as surface features, grammar, syntax and punctuation and reveals the complicated history of writers' intentions around meaning making in texts

(Lillis 2001:27). However, think-aloud protocols have also been criticised (Hyland 2002:2) as offering an incomplete picture of complex cognitive activities involved in writing, relying on interference and even distorting writers' normal composing processes.

Since the 1980s, most studies have shifted their focus towards social influences on writing, attempting to identify the ways that contextual factors shape writing decisions and practices. The same "elicitation techniques" (Hyland 2002:157) or think-aloud protocols used by Emig (1971) involving the writers' self-reports while engaged on writing tasks have been useful in studies of situated writing and have provided important insights into the actions and understandings of writers. The use of protocol analyses and other in-process research forms ultimately depend on the theoretical orientation of the researcher, but do produce extremely rich data (Hyland 2002:184). These methods allow researchers to explore context-dependent nature of writing events as they occur, or soon after they are completed, examining what is "regular and what is idiosyncratic about them" (Hyland 2002:157). According to Brodkey (1987:38 in Leki 2001:19), the real question is "What to tell and how to tell it" as the stories are interpreted on the basis of the details selected by the researcher.

Both L1 and L2 composition studies have since made use of writers' verbal reports while composing (Raimes 1985, Silva 1992, Brice 1995, Cumming 1995, Thesen 1997, Spack 1997, Currie 1998, Hyland 1998) relying heavily on think-aloud protocols. Although these research processes have received extensive attention and response in the literature with reservations expressed about the status of these models, they now represent standard practices in writing research. Many researchers in the USA (Canagarajah 1997), United Kingdom (Hamilton 1994) and in Higher Education (Ivanic 1998) have taken up focusing on the perspectives of writers. Hamilton (1994:3) exploring literacy practices in academia and other social domains in the United Kingdom, refers to the attempt to make visible the perspectives of writers as "putting the insights and perspectives of literacy users at the centre of research about literacy". Flower (1994:51 in Lillis 2001:27) describes the

interest in student-writers' perspectives as paying attention to uncovering "the hidden logic" of writing, also signalling the need to move away from the practice of teachers and researchers claiming to know the reasons for why students write as they do.

For Leki (2001:18), as this focus represented a research gap, she focused her review of professional literature on hearing the voices of students reflecting on problems and successes they encountered in their writing classes and their interpretation of why things went as they did. She did this by looking for instances of "hidden transcripts" (Scott 1998:15-16 in Leki 2001:17) rather than "public transcripts" of what students did or how they did it. Scott defines the discourse mode of "hidden transcripts" as discourse that takes place "offstage, beyond direct observation of power holders" whereas "public transcript" is defined as a "shorthand way of describing the open interaction between subordinates and those who dominate" which is always open for inspection (1998:15-16 in Leki 2001:17).

Leki's review showed that "a great deal occurs in the hidden transcript" (2001:20), which provides a better idea of "the nature of people and systems" and a way to stimulate "further reflection" among researchers (Stake 1995:16, 42 in Leki 2001:26). Leki's (2001:26) research review on L2 students' experiences in their writing classes provides the following three reflections:

1. a sense of how instructive negative cases can be;
2. a sense of the importance and value of qualitative research of the type that might uncover students' experiences; and
3. a sense of the relatively small amount of work on how students experience L2 writing courses, that is, how dim our students' voices are in the literature about them.

Although constructs of writing should be a basis for determining how writing should be defined, understood, analysed and developed, all-encompassing writing practice or practices constructs can lead away from a real examination of writing performances and result in "vague generalisations and confusion" (Grabe 2001:40). Witte (1992:241) describes theoretical approaches such as the cognitivist as being "too narrow to permit a synthesis of textual, cognitive,

and social perspectives” for a comprehensive theory of writing accounting for writing as it is produced and used in contemporary culture. Although research on situated writing calls attention to writers being constituents of culture and culture being constructed by or out of individual persons (Geertz 1975), a cultural perspective on writing seems to be absent from writing studies in particular settings (Witte 1992:240). For Witte (1992), if situated writing studies are limited to the study of printed and spoken linguistic utterances and ignore other systems of meaning-making, a comprehensive or culturally viable understanding of writing will not be generated. Witte (1992:242) describes the principal criteria that a theory of writing would need to meet as:

- ❑ comprehensive with regard to stipulating a means of bringing together the textual, cognitive, and social and
- ❑ viable with regard to how writing is defined operationally (in practice) through its production and use in the culture.

In the absence of a comprehensive theory of writing, the debates about data and methodologies that surface in professional publications seem “a bit premature and a lot shortsighted” (Witte 1992:248). Therefore, to understand the text, it is essential to look beyond linguistic science for understandings of both texts and the meaning-constructive acts in which people engage as writers and readers. This perspective is illustrated in the move from the autonomous to ideological writing models as the focus in writing theory changed from text to context. The autonomous model “disembodied” writing by removing it from its context and writer and treated it like an object with “its rules imposed on passive users” (Hyland 2002:7). The notion that texts functioned acontextually carried important ideological implications and although Brandt (1986:93 in Hyland 2002:10) argues that the “finished text need not be abandoned”, focus must shift from “formal features in an isolated text toward the whole text as an instance of language functioning in a context of human activity”.

NLS have come to reflect this changing understanding of literacies as multiple and socially situated rather than unitary and universal. Situated writing perspectives altered the course of writing research resulting in researchers

becoming increasingly preoccupied with writers and writing in relation to particular settings. Various ethnographic studies (Heath 1983, Street 1984, 1993, Barton 1994, Baynham 1995, Barton & Hamilton 1991, Prinsloo & Breier 1996, Norton 1997, Thesen 1997, Barton et al 2000) highlighted the range of practices within and across societies where individuals and groups engage in a range of different literacy practices “consonant with their socio-cultural histories, belief and interests” (Lillis 2001:37). These sociocultural theories define writing as a dynamic social activity situated in physical and social contexts, and distributed across persons, tools and activities (Johnson 2006:237).

Theories of writing, however, also need to be rigorous and more than “a reflective definitional understanding” (Grabe 2001:40) as they need to model and explain human-performance outcomes at a number of proficiency levels and across a number of tasks and contexts. As this is currently an unrealistic goal, writing theories that are partially explanatory and predictive offer an alternative. However, the level of prediction for these theories of writing would also not be sufficiently powerful to count as explanatory writing theories making strong specific predictions about how given individuals and groups would perform under a range of conditions. Therefore, Grabe following the lead of Spolsky (1989 in Grabe 2001:53), suggests a “conditions approach” to theory building in writing which is based on a number of generalising statements drawn from sets of writing research performance under varying conditions.

These generalisations would be useful foundations for other types of theory building as they create a set of facts to be accounted for by any future model. They also suggest constraints on writing performance because conditions inevitably suggest constraints in the absence of these conditions. The recognition of writing constraints could also be a useful foundation for effective instruction under varying conditions. However, a serious limitation with a conditions approach to writing theory is that each condition, which is a synthesis from research studies, has equal status and there is no good way to establish hierarchical relations among the many conditions. This is important

as the establishment of hierarchical relationships among conditions ultimately leads to a better understanding of complex phenomenon (Grabe 2001:54) but also requires a maturing field of research that moves to a more hierarchical predictive model of the construct.

Although a descriptive theory of the writing construct may be the best that can be hoped for at the moment, moving from descriptive to explanatory theory has “major practical value and is worth pursuing” (Grabe 2001:41).

Descriptive theory, however, may guide productive enquiry, assessment and instructional practices, if built from foundational ideas that are consistent with other learned skills and socialised practices. Grabe (2001:42) lists other supporting theories of writing that provide resources to describe and explain performance outcomes observed whenever individual settings, or contexts change from one writing occurrence to another. These include:

- ❑ language
- ❑ conceptual; knowledge and mental representations
- ❑ language processing (writing processes)
- ❑ motivation and affective variables
- ❑ social context influences
- ❑ learning

Although Brown (1991:257) describes the progress in theoretical approaches defined by the focus shift from product to process orientation in the 1970s and 1980s as “modest”, a new state of awareness was created. Kumaravadivelu (2006:59) in tracing the major trends in TESOL since 1991, describes the trend-setting shifts that have marked the 1990s as moves to a “higher level of awareness” and states of “awakening”. For Kumaravadivelu (2006:75), this movement brought awakenings:

... to the necessity of making methods-based pedagogies more sensitive to local exigencies, ... to the opportunity afforded by postmethod pedagogies to help practicing teachers develop their own theory of practice, ... to the multiplicity of learner identities, ... to the complexity of teacher beliefs, and ... to the vitality of macrostructures - social, cultural, political, and historical - that shape and reshape the microstructures of our pedagogic enterprise.

Hinkel (2006:109) maintains that the trends that began in the 1990s and 2000s are likely to continue to affect instruction in L2 skills at least in the immediate future.

2.3 Writing theory background

Efforts prior to 1960 to create theories of writing were restricted by pedagogical emphasis rather on understanding and interpreting literary texts with little time devoted to acts of writing (Kroll 1991 in Ferris & Hedgecock 1998:3). Then for several decades, despite diversity, L1 writing was dominated by the traditional approach with its focus on the writing product, analyses of sentences and the classification of discourse into groups such as description, narration and exposition. The traditional paradigm or product approach to writing was not grounded in a clearly articulated theory of learning or teaching and paid little attention to procedures or strategies involved in composing coherent pieces of writing resulting in a crisis in the field.

In L2 writing, Zamel (1982,1983) built on the work of L1 and offered persuasive arguments for turning away from “an obsession with final products, grammar and errors towards exploring how expert and novice L2 writers compose” (Matsuda & Silva 2005:19). This trend, broadly known as the process approach, strongly influenced L1 composition research and pedagogy and became popularised in the 1980s. The first coherent theories of writing in modern contexts emerged in the early 1980s with competing views of writing and writing processes. The process approach, which focused on procedures for producing and revising texts, was divided into two distinct categories, expressivists and cognitivists. The expressivist view of writing was based on the work of Elbow (1981) and encouraged writers to find their own voices to produce fresh and spontaneous writing by promoting self-discovery and empowerment of the inner writer (Hyland 2002:23). This approach, however, offered no clear theoretical principles from which to evaluate good writing and did not suggest how it could be accomplished. By over-emphasising personal writing, the approach also became inadequate for

preparing students for the kind of writing required in academic settings (Horowitz 1986). According to Hinkel (2004:7), explicit teaching and focused L2 instruction are required to develop academic proficiency and this, especially for L2, means that:

Extensive, thorough and focused L2 instruction in academic vocabulary, grammar and discourse is essential for developing the L2 written proficiency expected in general education courses and studies in the disciplines.

Although expressivism ignores real-world communication contexts where writing matters, it was responsible for moving writing research from restricted attention to form. In addition, as interest in composing processes extended, research with a focus on cognitive aspects of writing developed with writing being seen as a problem-solving activity inspiring research to support a cognitive view of writing (Hyland 2002:24).

Flower and Hayes' (1981 in Hyland 2002:25) model of writing was seminal to the cognitive view of writing with writing viewed as a "non-linear, exploratory and generative process whereby writers discover and reformulate meaning" (Zamel 1983:165). This approach generated an enormous body of research which until recently was the dominant pedagogic orthodoxy in both L1 and L2 contexts. Faigley (1986 in Hyland 2002:25) also points out that the Flower and Hayes' model helped promote a "science-consciousness" among writing teachers, which promised a "deep-structure" theory of how writing could be taught. In addition, the vast volume of research that explored and elaborated composing processes increased the understanding of writing and impacted on the way writing is investigated. This took research analysis beyond text analysis to the qualitative methods of the human and social sciences. However, Scardamalia and Bereiter (1986) argue that these models do not represent fully worked-out theories and fail to explain or generate writing behaviour, as they only describe cognitive processes common to all writers and compare expert and novice strategies in a single model.

In the later 1980s, North (1987) also provided a synthesis of writing research from L1 composition and rhetoric perspective, which explored research assumptions, goals and findings of key studies. Although this generated a useful outline of the composition discipline, it did not offer a productive synthesis that could be a foundation for future inquiry (Grabe 2001:42). In contrast, the work of Scardamalia and Bereiter (1987) produced a number of fundamental insights relevant to theorising about the construct of writing and proposed two models of writing processes (rather than *the process*) suggesting that differences in writing ability may be the result of at least two qualitatively distinct sets of writing processes as skilled and novice practices differ so radically. Bereiter and Scardamalia (1987 in Grabe 2001:49) manipulated task and informational complexity and noted the impact of changing tasks and task complexity on writing performance to derive the *knowledge-telling* and *knowledge-transforming* models of the writing process. These models provide valuable psychological insights into writing activity with a *knowledge-telling* model addressing the fact that novice writers:

... plan less often than experts, revise less often and less extensively, and are primarily concerned with generating content from their internal resources. Their main goal is simply to tell what they can remember based on the assignment, the topic, or the genre.

Whereas a *knowledge-transforming* model helps to explain the difficulties often experienced by skilled writers because of task complexity and lack of topic knowledge and it also suggests how skilled writers use the writing task to analyse problems and set goals. According to Bereiter and Scardamalia (1987 in Hyland 2002:28), these writers are able to:

... reflect on the complexities of the task and resolve problems of content, form, audience, style, organisation, and so on within a content space and a rhetorical space, so that there is continuous interaction between developing knowledge and text. Knowledge transforming thus involves actively reworking thoughts so that in the process not only text, but also ideas, may be changed.

The models also emphasise the importance of not only engaging in expressive writing but the importance of participating in a variety of cognitively challenging writing tasks and genres to develop writing skills. Bereiter and

Scardamalia's (1985, 1987, 1989 in Hinkel 2004:6) models, therefore, stipulate that although exposure to conversational language experiences and access to written text applies to practically all language users, it does not produce formal academic L2 proficiency. L2 conversational linguistic features, familiarity with L2 writing and *telling* what is already known in written form do not lead to producing cognitively complex academic writing that relies on obtaining and *transforming* knowledge.

As knowledge transforming is a cognitively more complex form of writing than knowledge telling, it necessitates thinking about an issue, obtaining information needed for analysis and modifying thinking. This type of writing leads writers to expand their knowledge base and develop new knowledge by processing new information obtained for the purpose of producing written discourse that defines terms, explains ideas and clarifies. Knowledge-transforming writing is not merely retrieving information from what is already available in the memory, but involves a variety of literacy practices for deriving information from reading to integrating that with what is already available to become "obtained knowledge" (Hinkel 2004:12).

Bereiter and Scardamalia (1987 in Hinkel 2004:12) also emphasise that all intertwined in knowledge transforming are rhetorical and text-generating skills such as content integration, audience expectations, conventions and form of the genre, language and linguistic use (lexis and grammar), logic of information flow, and rhetorical organisation. However, it is unclear from the model how writers actually make the cognitive transition to a *knowledge-transforming* model, nor is it spelt out what occurs in the intervening stages and whether the process is the same for all learners (Hyland 2002:28). For example, many students continue to have considerable difficulty with their writing despite intensive instruction in expert strategies

However, Bereiter and Scardamalia's (1987) models provide a key for pursuing a more effective description of the writing construct based on writing purposes. A key concept here is that a related set of writing constructs may be triggered by basic writing purposes. Therefore, it is important to determine

the basic reasons or purposes of why people write. Certain types of writing require increasing levels of composing and make greater processing demands so a general hierarchy of writing purposes would need to be developed. Grabe (2001:50) lists a hierarchy of writing outcomes to follow the general purpose hierarchy:

1. Writing to control mechanical production (motor coordination, minimum fluency)
2. Writing to list, fill-in, repeat, paraphrase (not composing, only stating knowledge)
3. Writing to understand, remember, and summarise simply, and extended notes (composing and recounting)
4. Writing to learn, problem solve, summarise and synthesise (composing and transforming, composing from multiple sources)
- 5.1 Writing to critique, persuade, interpret (privileging perspectives and using evidence selectively but appropriately)
- 5.2 Writing to create an aesthetic experience, to entertain (composition in new ways, figurative levels of composing, violating norms in effective ways)

This view of writing hierarchy clearly privileges writing purpose and associated processing demands above other factors that influence writing. As purpose and attendant processing can be systematically controlled by a range of writing tasks, this opens up a way to assess writing proficiency and address writing development more directly (Grabe 2001:51). The major implication of using writing purpose to develop a writing construct is that there may be processing models for each distinct level of writing purpose and this is the basic theory proposed by Bereiter and Scardamalia (1987) with their models. However, this construct of writing is descriptive rather than explanatory, links to writer purposes in very general ways and writing is seen as an individual act of information processing, with little attention to social conditions of the writing process. Even so, Candlin and Hyland (1999:9) also describe it as providing examples of:

... the rich diversity of cognitive processes engaged in the act of writing, and has offered a carefully constructed set of research protocols for researching of writers' composing practices and, in particular, the influence of planning, memory and writer objectives.

A vast volume of research seeking to explore and elaborate on composing processes has increased understanding about writing and has had a great impact on the ways writing is researched, taking research beyond text analysis to qualitative methods of human and social sciences. However, the findings of the different studies are often contradictory, owing to the limited generalisability of the small samples typical of case-study research (Hyland 2002:27). Doubts have also been raised about the methodological foundations of cognitive models which relied on think-aloud protocols with participants explaining rather than reflecting what they do, potentially distorting the cognitive models by offering an incomplete picture of the complex cognitive activities involved (Hyland 2002:27).

However, many of these models' claims have become axioms of writing teaching with case studies and textbooks supporting the process approach perspective which allows writing to be understood in a way that was not possible when it was seen as only a finished product. Although research has shown that if composing processes are "trivialised" (Langer & Applebee 1984:169,188) writing cannot be taught successfully, there is also little hard evidence that process-techniques lead to significantly better writing. Ferris (1995:34) questions whether feedback "actually helps the students' writing improve", and Hillocks investigating teacher response concludes "teacher comment has little impact on student writing" (1986:165 in Ferris 1995:34). The process approach also overemphasises psychological factors and fails to consider the forces outside writers, which help guide problem-solving, frame solutions and ultimately shape writing (Bizzell 1992, Faigley 1986 in Hyland 2002:30). Reservations have also been expressed that the underlying individualistic ideology may handicap ESL students from more collectivist cultures (Ramanathan & Atkinson 1999).

Yet, after referring to investigations over the past 10 to 15 years, Ferris (2003:28) concludes that in multiple-draft, process-orientated writing classes, teacher feedback "certainly can and often does help student writers to improve their writing from one draft to the next over time". Therefore, it is difficult not to exaggerate the impact of process ideas on both L1 and L2

writing. Process research has meant that cooperative writing, teaching conferences, problem-based tasks, journal-writing, group discussions and mixed portfolio assessments are all now commonplace practices in writing methodological repertoire (Hyland 2002:29). On the other hand, no single description can capture all writing contexts or facilitate procedures for good writing as writing situations and tasks differ.

Researchers such as Johns (1997) and Cope and Kalantzis (2000) have also pointed out that social access and inclusion can be achieved through a facility with language and writing. However, as language use is about making choices (Eggins 1994 in Boughey 2005:639), the appropriateness of choices is often dependent on situational and cultural backgrounds. In Boughey's (2005:639) study located in a first year political philosophy class at a historically black South African university, there was a "mismatch between the expectations" of the dominant university context of culture and context of situation (the first year class). The mismatch of expectations occurred when teachers expected students to engage with the field in a "rigorous, academic fashion" (Boughey 2005:340) and the students rather made use of "common sense understandings" resulting in fragmented and decontextualised texts that failed to make meanings that are "academically satisfactory".

As writers need to become "critical thinkers, equipped with problem-solving strategies, poised to challenge those forces in society that keep them passive" (Brown 1991:258 in Canagarajah 2006:15), Boughey (2005:348) describes the need for "epistemological access" to bridge the gaps between the respective worlds students and lecturers draw on which involves "more than introducing students to a set of a-cultural, a-social skills and strategies to cope with academic learning and its products". This requires not only negotiation and mediation but making overt the "rules and conventions" (Ballard & Clanchy 1988 in Boughey 2005:349) which determine what can count as knowledge. Therefore, Hinkel (2006:124) points out that writing pedagogy has begun to pay increasing attention to the integration of "bottom-up and top-down skills" as both are needed for writing proficiency. For the L2 writer, explicit pedagogy in grammar and lexis is required in a writer's linguistic

repertoire as writing skills often determine social, economic and political choices. Lack of instruction in L2 grammar and lexis often disadvantages L2 learners in their vocational choices, academic and professional careers and ultimately reduces life options. So, researchers continue to emphasise the importance of language quality in L2 because:

... grammar and lexis are inextricable from meaning in written discourse and because L2 writers are ultimately evaluated based on their control of language and text construction in their written discourse (Hinkel 2006:124).

Canagarajah (2006:15) also stresses that thinking can no longer be regarded as an “individual activity, divorced from an active engagement with social positioning” with writers applying “objective, linear approaches of reasoning to problem solving”. Instead, thinking will become more critical as practices become:

... more dialogical and reflexive in that it encourages students to interrogate thinking in relation to material life, one’s own biases, and one’s social and historical positioning (Canagarajah 2006:16).

Canagarajah (2006:15) refers to this practice as “critical practice” (CP). CP can also not be divorced from “ethical considerations of justice, democracy, and inclusiveness as thinking is integrated with practical struggles for social change and institutional advocacy”. Critical pedagogy wrestles with unresolved new questions and problems such as: Are marginalised writers provided with access to dominant discourses or helped to develop a voice in order to resist them? Are the machinations of power outside in history or inside in human subjectivity critiqued? Are changes initiated at the macro-level of educational policy or the micro-level of the classroom? Since 1991, CP has made rapid progress fundamentally shaping the meaning of thinking and providing deeper insights into experience and exploring empowerment from diverse orientations.

Recent studies have also socially situated the writer, exploring how diverse subject positions, like gender, language and race, interact in writing experiences, so treating identity not as *essentialised* (reduced to dominant

traits) or *overdetermined* (conditioned by social and material forces, without possibility of change (Canagarajah 2006:16). This highlights the need for practices that enable writers to critically negotiate language and this will require the correcting of “romantic and volitionist perspectives” (Canagarajah 2006:17) on empowerment and developing:

... a more dynamic and balanced orientation, by conducting a nuanced reading of the interface between the micro and the macro, mind and body, classroom and society as they are negotiated in language learning.

As the shortfalls of writing pedagogy widely adopted in the 1980s are being addressed, the practice of L1- L2 writing has begun to take a more balanced view (Silva & Brice 2004 in Hinkel 2006:124) as new insights have emerged on L1/L2 writing and practice differences. Claims have been made that L2 writers are so different from L1 speakers that every pedagogical technique advanced by L1 composition research needs to be carefully reconsidered as to its appropriateness for L2 students (Ferris 2003:16).

2.4 L1 / L2 differences

For much of the 1970s and 1980s, theorising about writing followed closely on L1 views of writing and theories of the writing process of which expressivism (Elbow 1981) and cognitivism (Hayes & Flower 1983 in Ferris & Hedgecock 1998:4) were the two distinct process categories. In the early 1980s, based on the presumed and observed similarities between L1 and L2 composing processes, practitioners of ESL writing instruction largely imitated L1 classroom practices (Leki 1992 in Ferris & Hedgecock 1998:5). ESL writing also looked to and borrowed theories from L1, and the transfer from L1 to L2 composition theory can be seen plainly in research and textbooks that appeared in the 1980s based on the process approach (Leki 1991, Raimes 1985, 1987, Zamel 1983). Not only did research in L1 composition and rhetoric provide sound theoretical underpinnings for L2 composing pedagogy, but emergent L2 writing research began to show that ESL writers already proficient in writing in their L1s tended to demonstrate strategies and skills

quite similar to those displayed by native English-speaking writers (Raimes 1985, 1987).

Jones and Tetroe's (1983 in Raimes 1985:231) study of transfer across languages found "strong and direct data for the transfer of L1 skill to SL (second language)" in writing and they concluded, "second language composing is not a different animal to first language composing". This conclusion was supported by Cummings' (1989) and Zamel's (1982, 1983) investigations which found that ESL writers with well-developed L1 writing abilities were able to transfer L1 skills and strategies to their L2 composing processes. These studies led L2 writing researchers and practitioners to conclude that ESL students' needs are essentially comparable to those of basic L1 writers with regard to writing instruction. However, as Zamel's (1982, 1983) and Jones and Tetroe's (1983 in Raimes 1985) case studies involved discrete groups of advanced ESL writers and graduate students respectively, conclusive generalisations cannot be made on which to base pedagogy. In addition, Silva (1988:517) responding to Zamel's (1987) study, questions the assumption that L1 and L2 writing are essentially the same phenomenon and that:

... the linguistic, cultural and experiential differences of L2 writers are of negligible or of no concern to ESL composition teachers. This assumption seems counter-intuitive and would appear to militate against the experience of most ESL composition teachers and L2 writers.

Therefore, despite apparent parallels between the composing processes of L1 and L2 writers, ESL writers are a unique learner population (Ferris & Hedgecock 1998:17) with unique instructional needs that may not be effectively addressed in L1 orientated courses (Silva 1993, Hinkel 2004, 2006). Students also have many implicit frames for presenting information and structuring arguments in their L1, which may not transfer straightforwardly to many L1 English academic contexts. Therefore, when developing an effective approach to ESL composition, the individual writer's unique cognitive, linguistic, ethnic and sociocultural backgrounds need to be considered. This challenges the power theory and methods have had over instruction and

herald a practice approach focusing on context. For Leki (1991) and Silva (1993), this means that L2 writing pedagogy may be most effective when it directs the writer's attention to "macro- and micro-level textual concerns, including audience expectations, patterns for producing unfamiliar rhetorical forms, and tools for improving lexico-grammatical variety and accuracy" (Ferris & Hedgecock 1998:17).

The uniqueness of the L2 writer resulted in a number of productive research studies being carried out in L2 contexts in the 1990s, and which provided a better understanding of L2 writing development and writing constraints (Cummings 1989, Ferris 1995, 1997, Kroll 1990, Leki 1995, Leki & Carson 1994, 1997, Silva 1993, 1997, Leki & Carson 1997). A number of publications have also emerged over the past two decades to address the differences that exist between learning to write in L1 and L2 (Hinkel 2002, Mc Kay & Wong 1996 in Hinkel 2006:123) with Silva (1993) concluding that significant differences exist between practically all aspects of L1 and L2 writing. Hinkel's (2003) studies show that L2 writers' text differs significantly from that of novice L1 writers linguistically and rhetorically as advanced and trained L2 writers:

... continue to have a severely limited lexical and syntactic repertoire that enables them to produce only simple text restricted to the most common language features encountered predominantly in conversational discourse (Hinkel 2003 in Hinkel 2006:123).

A series of articles by Atkinson and Ramanathan (Atkinson & Ramanathan 1995, Ramanathan & Kaplan 1996) have also drawn attention to a number of culturally-driven English L1 assumptions that differentiate L1 and L2 academic writing experiences and instruction. These assumptions have had a strong impact on L1 instruction which emphasises critical thinking and the logic of argumentation as well as originality, creativity, logic, insight, cogency, individual voice and audience which English L1 university cultures highly value. These assumptions also impact on problems experienced by L2 students in the academic curriculum beyond the ESL writing classroom (Silva 1993, Leki 1995, Leki & Carson 1994, 1997, Hinkel 2004, Boughey 2005).

Therefore, English L2 writers are often disadvantaged if they do not get enough practice in writing the types of English prose that will benefit them most in English university environments. Although many ESL students have good coping skills, a number of issues will confront them if their ESL writing experiences are too easy, emphasising success and security rather than challenging them sufficiently by engaging in writing that is not valued academically or professionally. Hinkel (2004:6) describes the outcomes of L2 writing instruction and evaluation of writing quality as damaging and costly for most ESL students who are only taught various writing process techniques such as:

... brainstorming techniques and invention, prewriting, drafting and revising skills, whereas their essential linguistic skills, such as academic vocabulary and formal features of grammar and text, are only sparsely and inconsistently addressed.

In addition, L2 experts have argued that L2 writers fundamentally need the same types of instruction as L1 students, except “more of everything” (Raimes 1985:250, Spack 1988, Zamel 1987, Silva 1993:670) in terms of procedures, heuristics, content, practice and feedback than L1 students. If L2 writers have too little practice with writing skills like complex processing activities and text-responsible prose, their writing will often not match up well with writing demands students must address in courses across university curricula or professionally (Grabe 2001:44, Hinkel 2004). Related to the issue of limited practice and L2 writers not having the same command of English structure and vocabulary that most English L1 writers have (Sasaki & Hirose 1996 in Grabe 2001:45) is that many L2 writers welcome specific overt feedback from teachers on form and structure of their writing, with their writing often improving as a result (Ferris 1997, Johns 1997, Hinkel 2004:5).

Horowitz (1986) also points out that ESL writers have very real needs to succeed in L2 academic settings. Therefore, process approaches that do not deal with L2 linguistic gaps and that ignore the need to learn to write for L2 academic discourse community could ultimately be “cruelly unfair to diverse students” (Johns 1995:182 in Ferris 2003:16). An example is that L2 writers

often experience problems involving the influence of L1 rhetorical and cultural preferences for organising information and structuring arguments (Connor, 1996, 1997, Leki 1991, 1997, Hinkel 2004). Therefore, explicit instruction is needed in advanced writing to increase L2 proficiency through the acquisition of writing skills that pertain to the knowledge of the discourse conventions and organisation of information flow (Raimes 1994 in Hinkel 2004:10) as L2 writers may not be able transfer straightforwardly to many English L1 academic contexts (Grabe 2001:44).

In addition, according to Johns (1997), a writer's knowledge of appropriate genres is also often constructed from shared values at many different levels like shared communicative purpose, shared knowledge of roles, shared knowledge of formal features, shared knowledge of register used and shared intertextuality. These shared combinations are also often a hidden dimension for L2 writers to master (Grabe 2001:44). However, as L2 proficiency also increases through the appropriate presentation and exploitation of model essays, L2 writers also benefit from genre-type approaches providing model-writing examples, which allow writers to develop a clearer understanding of rhetorical text structures. According to Hyland (1992:16), examining texts as finished products does not imply a product-orientated approach or the teaching of prescriptive formulae. Rather familiarising writers with a genre so that they understand the way the text should be structured and know how to apply the rules and conventions makes the rules to the game explicit (Craig 1989 in Hinkel 2004).

Possibly, the most consistent effort to explore L1- L2 differences involves the ongoing work of Silva (1990, 1993, 1997; Silva, Leki & Carson 1997) who points out that L2 writers learn and produce texts under conditions quite distinct from L1 writers. Frodesen (2001:234 in Hinkel 2006:124) agrees that the "wholesale adoption of L1 composition theories and practices for L2 writing classes seems misguided in the light of many differences between first and second language writers, processes, and products". Authors like Goldstein and Conrad (1990 in Ferris 2003:17) have argued that various aspects of ESL writing instruction need to be considered separately from the

findings and recommendations of L1 researchers. They point out that cross-cultural differences in expectations about student-teacher relationships may affect the nature and outcomes of one-to-one conferences. Similarly, researchers such as Carson (1992) and Zhang (1995 in Ferris 2003:17) have suggested that differing cultural expectations may influence L2 student reactions to peer response groups. Warden (2000:607 in Hinkel 2004:10) also found that “implementing a multiple-stage process” of draft revising in writing pedagogy represents a mismatch with the reality of “social, cultural and historical trends” in non-Western countries where the emphasis is placed on vocabulary and grammar accuracy rather than revising one’s writing’s meaning and content. Boughey (2005) also describes students as holding a “reproductive conception of learning” (Entwistle 1987 in Boughey 2005:345) that values giving back what the lecturer has given out by remembering and repeating texts produced by lecturers as accurately as possible rather than constructions involving new knowledge to transform existing knowledge.

L1-L2 differences, however, are so extensive that they can be identified in practically all aspects of written text, discourse as well as writing processes, writing purposes and constraints on writing performance (Silva 1993). These include:

- ❑ discourse and rhetorical organisation
- ❑ ideas and writing content
- ❑ rhetorical modes (exposition, narration, argumentation)
- ❑ reliance on external knowledge and information
- ❑ reference to sources of knowledge and information
- ❑ assumptions about reader’s knowledge and expectations
- ❑ audience role in discourse and text production as well as the appraisal of the expected discourse and text complexity
- ❑ discourse and text cohesion
- ❑ employment of linguistic and rhetorical features of formal text (fewer/less complex sentences, descriptive adjectives, passivisation, nominalisation, lexical variety, conversational amplifiers, simple nouns and verbs (Hinkel 2004:7-8))

These L1-L2 differences are often invisible to many writing programmes and teachers (Grabe 2001:45) because of the implicit view that whatever is good for L1 writers is automatically good for L2 writers. This perspective

necessitates changes not only in L2 writers but also in English L1 writing teachers (Silva et al 1997). Teachers and practitioners share the learning burden and need to understand the “cultural depositions they bring with them to the classroom as well as the legitimate values that L2 writers bring” (Grabe 2001:45). These differences do not simply suggest that L2 writers need to accommodate but suggest that L2 writers are sufficiently different in nature and have legitimate rights to these differences. Therefore, teachers need to be appropriately prepared to teach L2 writers effectively and fairly so that they can be given “equal chance to succeed in their writing-related personal and academic endeavours” (Silva 1993:668).

Most recently, specific research on L1 and L2 writing discourse and text studies have drawn attention to L1 and L2 writing distinctions which need addressing. The various points of L1-L2 differences have been synthesised into a set of influencing factors, which raise the following concerns about fairness and cultural awareness:

- ❑ Epistemological issues (distinct cultural socialisation and belief systems)
 - ❑ Functions of writing (wider potential range of legitimate functions for L2 writing)
 - ❑ Writing topics (personal expression and humanistic individualism as North American educational preferences)
 - ❑ Knowledge storage (L1 based knowledge creates complexities for L2 writers)
 - ❑ Writing from reading (adds reading skills complexities for L2 writers)
 - ❑ Audience awareness (English L2 audience sense may be culturally different from L1 English students)
 - ❑ Textual issues (cross-cultural discourse patterns, contrastive rhetoric)
 - ❑ Plagiarism (ownership of words vs honouring authors and their writing)
 - ❑ Memorisation, imitation, quotation (trying out L2)
 - ❑ Students' right to their own language (whose English is right?)
- (Grabe 2001:45-46)

Therefore, Silva calls for a specific theory of L2 writing development to enhance L2 writers' “grammatical and lexical resources” (1993:671) so that they can become familiar with the rhetorical and discourse features of written English. Although L1 writing ability is closely linked to fluency and conventions of expository discourse (Raimes 1994), L2 writing requires a developed L2

proficiency as well as writing skills that relate to the knowledge of discourse conventions and organising information flow (Hinkel 2004:10). Cummings emphasises L2 proficiency as adding to and enhancing L2 writing expertise as L2 proficiency and expertise in writing are two “psychologically” different skills. His study points out that as L2 proficiency increases, writers become “better able to perform in writing in their second language, producing more effective texts and attend to larger aspects of their writing production” (Cummings 1994:201 in Hinkel 2004:10).

However, in South Africa, effective teaching of L2 is problematic as many language teachers are under-qualified and have experienced ineffective language teaching training (Young 1995:66). In Harran’s (1994:41) South African survey, 37% of the teachers assessed their teacher training as adequate while 12% assessed it as inadequate and 51% assessed it as having shortcomings. Various studies have also supported the apparent “dichotomy between theory and practice” (McDonough 1990:103) with Winer (1992:58) finding that teachers often made use of the models they “suffered under” as students. Silva and Matsuda (2001:216) also found that most teachers were often “out of sync with instructional practices they usually followed” and often relied on approaches that they knew.

One of the consequences of ineffective teacher training in South Africa is that ESL learners often display low levels of proficiency even after lengthy school exposures to English (Young 1995). In 1997, only 22% of higher education learners having English L2 as medium of instruction demonstrated adequate English literacy skills by passing Grade 12 (Webb 2002a:10). To further complicate the South African language situation, 80 languages are used and there are 11 official languages (LANGTAG 1996) with Zulu and Xhosa being the most widely spoken languages with Afrikaans third, Pedi fourth and English fifth. English, however, is in second position as L2 and the lingua franca of various high-level contexts. Therefore, functionally, English is the major language in the country and almost the sole language of formal public contexts, with Afrikaans still a factor in the workplace. Black languages are

used only for low-level functions such as personal interaction, cultural expression and religious practice.

As a developing country, South Africa needs to become highly competitive with well-trained and multiple-skilled citizens. However, if English is probably known by more than 50% of the South African population at a very basic level of communication (Webb 2002a:8), language as the fundamental instrument in learner's educational programmes requires serious and informed attention, to facilitate effective educational development. Therefore, not only does teacher training and quality impact on effective language learning and planning but language-related problems often have a causal relationship with the educational underdevelopment of many South Africans which, in turn, influences:

... non-completive performance in the workplace, with low productivity and inefficient work performance, and generally unfair economic conditions, in particular poverty and skewed distribution of wealth, and restricted occupational opportunities, which are all partly due to inadequate educational development, which, in turn, is a consequence of the language factor in formal education and training (Webb 2002a:9).

2.5 L1 and L2 writing research progress

North's (1987) synthesis of the field research from a L1 composition and rhetoric perspective provided a useful map of the composition discipline and of competing ideas for understanding the nature of writing. Although this synthesis did not provide a foundation for future enquiry (Grabe 2001:42), the work of Bereiter and Scardamalia (1987) produced a number of fundamental insights relevant to theorising about the construct of writing by proposing a model of writing processes (see 2.3).

However, in the 1990s, L1 writing research evolved and expanded ideas and concepts introduced over the previous 15 years with Flower (1994) taking seriously the interaction of individual cognition and social context in writing and drawing in contextual factors that influence writing performance. Witte

(1992) and Faigley (1992) also expanded their views on writing to incorporate social context influences and theories of language knowledge as factors influencing the discourse framing of texts. The work of Swales (1990), Johns (1997) and Connor (1997 in Grabe 2001:43) were also influential in generating theoretical perspectives on the nature of writing and writing instruction. L1 writing research also began to explore the role of genre knowledge in writing, both as a discourse construct and as a social context influence (Swales 1990). This work, incorporating ideas of social setting and task variability in advanced writing contexts allowed for renewed discussions of the role of language as cues for discourse structuring and also raised issues of socialising practices (both in and out of schools) as they influence writing development (Grabe 2001:43).

According to historical accounts, writing research was neglected in L2 studies before 1960 because of the dominance of the audiolingual approach focusing on spoken language. However, with the fall of the audiolingual approach and the sudden influx of international students to US universities during the 1960s, writing became important in L2 studies, especially in TESOL where ESL writing gained recognition as one of its sub-fields. For much of the 1970s and 1980s, L2 writing theories closely followed English L1 writing views and theories of writing process (Silva 1990:11, Ferris & Hedgecock 1998:3, Hinkel 2006:123), and although by the 1980s, historical studies had given way to social scientific research methods as the dominant mode of knowledge making, many L2 researchers continued to reproduce the “received view of history” (Matsuda 2005:35). Although this seems plausible, many details are questionable like the audiolingual approach causing the neglect of writing and the influx of international students prompting the rise in writing issues.

Although the L2 writing component has been around as long as the L2 field itself, its emergence as an independent area of specialisation with theoretical development and research has only come about within the last decade (Santos 1992:159). Therefore, the major effects of L1 writing scholarship on research and teaching L2 writing is still evident, with research papers on issues related to L2 writing still referring to L1 sources (Ferris 2003). L2

composition research has, however, evolved rapidly over the past decade with historical accounts of L2 writing beginning to appear in the 1990s. They tended to focus on pedagogical approaches like the process approach to writing, English for Specific Purposes (ESP), contrastive rhetoric, written discourse analysis, functional language use, and English for Academic Purpose (EAP) (Grabe 2001:43), often relying solely on secondary sources such as Silva (1990) and Raimes (1991).

The pedagogical shifts reflecting the changing perspectives on writing instruction were captured by Raimes (1991) in her historical survey of four approaches to L2 composition instruction that have evolved since the 1960s. These developments reflect parallel but not simultaneous developments in L1 composition with each focus linked to a particular school of thought (Ferris & Hedgecock 1998:6). In the 1960s, the approach was form-based in the focusing on the production of well-formed sentences. In the 1970s, the focus became writer-based, congruent with cognitive processes focusing on what writers “actually do when they write” (Raimes 1991:409). The “almost total obsession” (Horowitz 1986:788) with how writers construct personal meanings in the expressive view overlooked the need for many ESL writers to compose texts for academic readers with particular expertise and this led to the content-based focus in the 1980s. This resulted in ESL writing courses featuring specific subject matter from required courses. Simultaneous with the content-based focus, came the reader-based focus. Ferris and Hedgecock (1998:8) describe this audience-dominated pedagogy as being founded:

... on the social constructionist premise that ESL writers need to be apprenticed into one or more academic discourse communities and that writing instruction should prepare students to anticipate and satisfy the demands of academic readers... as they generate written products.

Raimes (1991), however, points out that these orientations reflect neither discrete historical periods nor mutually exclusive theoretical paradigms. Silva (1990:18) describes them as “merry-go-round of approaches” that engender a great deal of confusion and insecurity among ESL writing teachers and which

do not answer key pedagogical questions. Silva (1990:18) argues that these orientations have a negative effect on the discipline as they:

... generate(s) more heat than light and do(es) not encourage consensus of important issues, preservation of legitimate insights, synthesis of a body of knowledge, or principled evaluation of approaches.

A reliance on pedagogical approaches results in approaches being taken out of their historical context and the larger institutional changes that have affected the field in important ways being ignored. Silva (1990 in Matsuda 2005:36), therefore, suggests that L2 writing teachers and researchers need to move beyond the pedagogical conflicts and focus on “developing a broader and more principled understanding of L2 writers and writing”. A solid understanding of theoretical and pedagogical paradigms, however, will equip practitioners to implement a balanced, informed and effective pedagogy that takes into account the multiple dimensions of L2 writers’ developing composing skills (Grabe & Kaplan 1997 in Ferris & Hedgecock 1998:9).

According to Matsuda (2005:44), this requires the development of a richer and more thorough understanding of important historical developments that have shaped the field which requires engaging in historical enquiry. Studies are needed that are informed by careful historiography, rather than “personal hunches based on second-hand information or institutional lore” (Matsuda 2005:44). This is achieved by not accepting received history uncritically as a historical narrative needs to be supported by carefully collaborated historical evidence, a balanced representation of various perspectives and a critical evaluation of personal biases. It also requires “developing a narrative of one’s own” (Matsuda 2005:44) and sharing various historical narratives, “communal dialectic”, to construct socially shared narratives (Matsuda 2005:44). Ferris (2003:15) agrees that L2 writing research still needs to become more extensive and varied in its own right, but this area of inquiry is still in the early stages.

2.5.1 Current L2 writing practices

Process writing approaches are now generally regarded as "traditional" and standard approaches in most L2 writing classes (Raimes 1991:410), and writing studies over the past 10 years suggest that in North American academic settings, most L2 teachers have made the shift from being product-orientated to providing feedback on a broad spectrum of issues in the writing cycle (Ferris 2003:22). Probably the strongest effect the process approach has had on L2 instruction has been in the areas of drafting and revising with writing feedback research being a source of interest and debate since 1985 (Zamel 1985, Ferris 1997, 2003, Silva & Matsuda 2001).

2.5.1.1 L2 feedback practices

In spite of L1-L2 differences, it has become interesting to observe that L1 and L2 writing response research have also travelled some similar paths (Ferris 2003:17). In the 1990s, L1 and L2 research on teacher-writing conferences generated independent but similar warnings that conferencing might not produce its presumed benefits without careful planning and preparation (Goldstein & Conrad 1990, Newkirk 1995, Patthey-Chavez & Ferris 1997 in Ferris 2003:17). Although both L1 and L2 experts are also beginning to question the uncritical acceptance of peer response groups and neglect of linguistic accuracy, Ferris (2003:28) concludes that teacher feedback "certainly can and often does help student writers to improve their writing from one draft to the next over time".

Gaskill (1987 in Hall 1990:43) also regards feedback as "an essential component of virtually every attempt to construct a model of the writing process", as "thoughtful comments create a motive for revision" (Sommers 1982 in Urzua 1987:282, Ferris 2003:xi) with Ferris (2003:20) arguing for its "continued role in the composition classroom". In addition, writing pedagogy research has revealed that effective application of feedback in the writing process positively influences both writer attitude to writing and writing performance (Zamel 1982, Krashen 1984, Pratt 1990, Hyland 1990, Keh 1990, Berger 1991 in Ferris 1995, Conrad & Goldstein 1999 in Ferris 2003, Ferris 2003, Ferris 2005:224).

a) Feedback and error

Although reviewers and researchers in the 1980s criticised teacher feedback for being primarily an error hunt, which was confusing and demoralising for students (Ferris 2003:14), Fatham and Whalley (1990 in Ferris 1995:28) provided the earliest published research linking teacher feedback and student revision. Their study demonstrated that revisions improved in overall quality and in linguistic accuracy when comments were received on both content and form of essays. Teachers were urged to save feedback on error for the end of the writing process as it is unnecessary for learners to correct errors in text that may need to be substantively revised anyway. Krashen (1984:11) also supports teachers avoiding all grammar and spelling errors until the final editing to give learners a clear message that content and expressing meaning is more important than faulty grammar. Leki (1991:210) agrees that student attitude toward error may change if approaches do not emphasise errors as students tend “to internalise what teachers prioritise” (Hedgecock & Lefkowitz 1994 in Ferris 1995:50). As research has shown that the trend is away from error-free writing to “substantive writing with errors” (Leki 1991:10), Ferris (2003:30) has concluded that students who receive content-based or meaning-related feedback in contrast to error correction appear to improve the content of their texts from one draft to the next and over time.

b) Interactive feedback

Although research on teacher feedback has focused almost exclusively on written comments, one-to-one conferencing or discussion between teachers and students offers the advantages of immediacy, negotiation and clarification (Ferris 2003:20). Research has also concluded that written commentary can be ineffective and even be resented by student writers. Elbow (1999:201 in Ferris 2003:1) observed that “writing comments is a dubious and difficult enterprise” that in the end are likely to “waste time” or “cause harm”.

Therefore, offering one-to-one writing conferences as an alternative to written feedback is not only suggested but urged (Zamel 1982, 1985) as it allows for two-way negotiation rather than teacher comments that are one-sided. In

addition, certain types of writing problems (analysis, argumentation, sentence structure and lexical errors) are simply too complicated to be addressed through written feedback and require dynamic in-person discussion to be efficient and effective (Conrad & Goldstein 1999 in Ferris 2003:39). So, revision may be best addressed by a face-to-face teacher-student conferencing rather than by written comment. Interaction can also take the form of a “collaborative activity” (Hedge 1988:11) as the teacher participates with the learners in their writing exploration, to encourage them to take control over the feedback they receive (Charles 1990:287) by reassessing their work continuously. With interactive feedback, teachers also need to be “sensitive to differences across cultural expectations, personality and language and writing proficiency when conducting conferences with ESL students” (Ferris 2003: 40).

However, comments, written or spoken will be worthless if writers are not encouraged to think about what they have written and if they are not led to improve their writing.

c) Peer feedback

Studies also reveal that peer rather than teacher feedback also needs to be implemented as it forces learners to exercise thinking as opposed to passively receiving information from the teacher. Peer feedback also enhances the learners’ communicative power by encouraging them to express and negotiate their ideas and to develop a sense of audience (Mendonca & Johnson 1994:766) also giving opportunities for critical reflection (Bell 1991:65 in Ferris 2003:70). However, research has shown that teacher feedback has had a greater impact on revision than peer response (Ferris 2003:29). The most prominent peer feedback complaints are that students do not know what to look for in their peers’ writing and do not give specific, helpful feedback, that they are either too harsh or too complimentary in their comments and that peer feedback activities take up too much class time (Ferris 2003:70).

However, research on peer response for L2 writers is positive, as ESL writers are able to give one another feedback that can be utilised in revision and that is often helpful to them. More encouraging is the evidence that L2 writers enjoy peer feedback and find it valuable (Ferris 2003:86). Mangelsdorf (1992 in Ferris 2003:110) concludes that although peer review requires patience from students and teachers, the process is valuable and enjoyable for students if carefully presented.

d) Motivational feedback

Although Cohen and Cavalcanti (1990) report in their case studies of teacher feedback that there was very little use of praise, motivating feedback is important in the writing process and must remain a focus of all feedback given. Overly directive feedback can truly “remove the incentive to write and the motivation to improve skills” (Brannon & Knoblauch 1982:195 in Ferris 2003:8). In Cohen and Cavalcanti’s study (1990), the students reported that they mainly received feedback about grammar and mechanics but they would have preferred feedback on all areas of writing and valued positive feedback. Students also seemed to appreciate and remember positive comments and expressed a strong preference for a mixture of praise and constructive criticism in feedback (McCurdy 1992 in Ferris 2003:100). So when responding to a draft, a teacher should provide positive advice to reinforce a writer’s progress.

e) Revision feedback

According to Ferris (1995:36), if writers are given unlimited opportunities to improve their writing (and marks), they will pay even greater attention to teacher comments on drafts because they are given the opportunity to continue working on them. However, feedback is often a worthless act if only done after the writing has been assessed as students will not be persuaded to act on feedback and return to their writing. Therefore, it makes little sense to give concrete suggestions about content and organisation on papers that are already finished products. Feedback must be given at intermediate writing stages to impact on revision.

However, according to a study by Ferris (2003:29), not all feedback helps student writing. The study showed that 76% of teacher's responses were taken up by the students in their revisions and 53% of the comments led to positive changes on the texts and 34% of the revisions influenced by teacher feedback had negative effects on texts. Although student revision in response to teacher feedback may vary depending on the type of change suggested and/or the ability of the individual student writer (Ferris 2003:30), content-based or meaning-related feedback appears to improve the content of texts from one draft to the next and over time.

2.5.2.2 L2 feedback research progress

Although feedback is considered a “fundamental element” (Keh 1990:294) in the writing process, feedback research is still regarded as a “fairly new area of enquiry that has not received much attention and has not been examined with any depth” (Silva & Matsuda 2001:76). Leki (1991:66) in reviewing feedback research, comments that feedback research in L2 writing is “sparse” as there have only been 15 studies examining teacher written feedback since 1985 (Silva & Matsuda 2001:74). There have also been only two studies which have examined how teachers actually comment on student writing (Zamel 1985; Ferris 1997). Particularly significant is that questions of how teachers comment and the relationship between teacher-written commentary and student revision have been largely unexplored and not examined in any depth (Silva & Matsuda 2001:76).

Santos (1992:159) also argues that process has not become nearly as central to ESL writing as it has become to L1 composition and that product-oriented or text-centred research has been more influential than process research in L2 writing. For Santos (1992:160), the extent to which ESL writing adopted a process-oriented approach was from within the cognitivist (Raimes 1987) and expressivist (Spack 1988) perspectives within L1 process theory, neglecting the social constructionist perspective, with writing being viewed as a “social artifact with political as well as social implications”. Although every act of writing is in a sense both personal and individual, it is also not just a means of self-expression, rather it is always a social practice, embedded in the cultural

and institutional contexts in which it is produced and the particular uses that are made of it (Hyland 2002:48). A complete understanding of writing, therefore, means going “beyond the decisions of individual writers to explore the regularities of preferred community of practices” (Hyland 2002:40) and how members of communities, using the language of those communities “construct and sustain reality” (Hyland 2002:41) through the use of text.

This supports research claims that there are many L2 teachers around the world who still stick to “single-draft, error-focused models of writing and feedback” (Ferris 2003:22). It also appears to reflect the feedback findings of a South African study (Harran 1994) into writing processes, which found that teachers rate and rank the importance of teacher response in writing tentatively and often did not implement feedback to encourage revision and improve writing. Therefore, the value of feedback to direct students back to their writing by providing “insights and information upon which the students can react to reshape and restructure their meaning” (Murray & Johanson 1990:98) is still often not practiced.

Writing then is neither just words on a page or a screen of solitary individuals, it is always a practice that is:

... interactional and social, expressing culturally recognised purpose, reflecting a particular kind of relationship and acknowledging engagement in a given community (Hyland 2002:48).

The social perspective addresses criticisms levelled at cognitive modelling by “elaborating elements of the task environment and foregrounding the impact of the immediate, local context of writing on individual writers” (Hyland 2002:30) as writers are embedded in various social contexts. For this reason, Lillis (2001:33) drew on NLS when considering the local institutional and research contexts where she studies and works, to develop a perspective “which informs, and is informed by, student-writers’ accounts of their engagement in academic writing”. Therefore, situated writing practice emphasises the role of social identity and relationships as well as the

historical and practical conditions of writing practice as a “complex web of factors that defines each context” (Goldstein 2001: 80).

In addition, sociocultural approaches, in contrast to the disciplinary historical and cognitive development perspectives, view writing use in real-world situations as fundamental and not ancillary to writing practices. This approach recognises that writers need to become competent participants in culturally, socially, and politically shaped communicative contexts, and so the linguistic forms used in these contexts and their social significance are also important factors as they affect how writers come to understand and use language. Writing socialisation research, therefore, needs to investigate the “interconnected processes of linguistic and cultural learning in discourse practices, interactional routines, and participant structures and roles” (Zuengler & Miller 2006: 40).

2.6 Theory of writing as a social practice

Anthropologists, sociolinguists and ethnographers have been advocating the study of literacy in its social context over the last decade or so (Baynham 1995:41) as there were no adequate ethnographies of writing prior to this. Dominant approaches tended to frame writing as a skill, drawing implicitly on notions of language as transparent and of both language and user as independent of each other and of context (Lillis 2001:33). Therefore, earlier investigations into written codes only gave a “passing reference to the social systems in which they are embedded” (Basso 1974:432 in Baynham 1995:42) and could not account for complexly patterned literacy practices. These approaches needed to be reversed and enriched by “fine-grained” (Baynham 1995:49) literacy studies researching writing from a social practice approach. This required stepping back from pedagogical issues involved in the teaching and learning of writing and trying to find out how writing is actually used in a range of contexts. The perspective of writing as a “supremely social act” (Basso 1974:432 in Baynham 1995:42) and more complex and intriguing than previously suspected, challenged many of the assumptions of contemporary writing theory and pedagogy.

As a new generation of research, NLS argued that literacy was not determining or causal, and so challenged the literacy thesis which described literacy as “a stable technology, relatively unchanging in any given social environment, although its distribution within a society or region may run the range from restricted to pervasive” (Collins & Blot 2003:35). The influence of context on the ways writers represent their purposes in the kind of writing that is produced (Hyland 2002:30) required retheorising the literacy construct as a situated social practice, contextually determined in many complex ways. Therefore, NLS readdressed questions of social and cognitive connections and the literacy effect so that a theory of literacy was not based on generalisations and great divides between literacy and illiteracy. Theorists and researchers such as Heath (1986), Finnegan (1988) and Street (1993) also raised suspicions about simplistic associations between the literacy variable and various social and cognitive connections and rejected the “rigid dichotomies... of oral/literate; abstract/concrete; history/myth” (Collins & Blot 2003: 65).

NLS, therefore, ensured that literacy’s “interaction with social structure, its embedding in social practice and its status as social practice become central” (Baynham 1995:48). In addition, as text and practice could no longer be separated from considerations of history and power (de Certeau 1984 in Collins & Blot 2003:33), literacy practices become “inextricably intertwined, historically variable, and fraught with inequalities and power relationships of social life” (de Certeau 1984 in Collins & Blot 2003:36). As already noted, Street (1984 in Prinsloo & Breier 1996:18) refers to this alternative orientation as an ideological view of literacy to emphasise the social nature of literacy and the multiple and sometimes contested nature of literacy practices. This reorientation was the basis for Street’s (1993) ideological literacy model which retheorised the separability of literacy from the “troublesome overlapping effect of social context” (Baynham 1995:52) and recognised that literacy practices are “inextricably linked to cultural and power structures in a given society” (Street 1986:59 in Baynham 1995:52).

There has been much diversity in the research writings that take a social practice approach and include the overlapping perspectives of socio-cognitive (Flower 1994), socio-rhetorical (Bizzell 1990), some genre approaches (Swales 1990) and cultural studies (Horner & Lu 1999 in Lillis 2001:33). However, the influence of Heath's (1983) and Street's (1984) studies is seen in collections edited by Barton and Ivanic (1991), Street (1993) and Prinsloo and Brier (1996). These studies define literacy inductively through careful fieldwork on the social meaning of literacy as Szwed (1981:20 in Collins & Blot 2003:36) contends that ethnographic methods are the "only means for finding out what literacy really is and what can be validly measured". So NLS (Gee 1991; Street 1993) provides a methodology and literature source to probe the underlying social and cultural meanings beyond the surface appearance of writing (Collins & Blot 2003:xi).

2.6.1 Practice models

With Heath's (1983) introduction of literacy events and Street's (1984) concept of literacy practices, their models became practice models, dealing with literacy in action and so shifting emphasis from the consequences of literacy for society to the study of its uses by individuals and its functions in particular groups. Heath's (1983) study focused on literacy events, those occasions in which written language is part of the participants' interactions and their interpretive processes and strategies (in Prinsloo & Breier 1996:18). Heath (1983) was able to show through instances and occasions where uses of literacy play a role, the divergent orientations to literacy and learning that differing cultural and communicative traditions produce, particularly through "ways of knowing" that include the incorporation of literacy in culturally specific ways. Street (1984 in Prinsloo & Breier 1996:18) then expanded the focus of literacy event into literacy practices as a broader concept, "pitched at a higher level of abstraction and referring to both behaviour and the social and cultural conceptualisations that give meaning to the uses of reading and writing".

Writing as a practice provides a powerful challenge to the notion of writing as a transparent and autonomous system (Lillis 2001:34). Therefore, instead of relying on external evidence of behaviours, a practice-based approach

provides an alternative, flexible means for understanding literate practices and literacies in traditional and complex societies. It acknowledges that particular practices have become dominant within particular domains of social life and these involve and invoke particular values, beliefs, identities, all of which contribute to the maintenance of particular social structural relations.

Although the concept of practice is abstract, like discourses and ideologies, its value is that it “forms a bridge between literacy as a linguistic phenomenon and the social context in which it is embedded” (Baynham 1995:54). Lillis (2001:34) describes practice as offering a way to “link language with what individuals ... do both at the level of context of situation and at the level of context of culture”. Baynham (1995:53) defines literacy practices as “concrete human activity” involving not just the “objective acts of what people do with literacy, but also what they make of what they do, how they construct its value and the ideologies that surround it”. Therefore, a practice approach requires the theorising of subjectivity so that not only are external evidence of behaviours relied on, but also what people think about what they do, their values and attitudes. For example, Lillis (2001:33) in the local institutional and research contexts where she studies and works develops a perspective, which “informs, and is informed by, student-writers’ accounts of their engagement in academic writing”.

The accounts of literacy practices also reveal much about the flawed assumptions of the literacy thesis, and, specifically, the study of literate practices situated within specific cultural contexts demonstrate that “the generally assumed functions and uses of literacy which underlie [the literacy thesis] do not correspond to the social meanings of reading and writing across either time periods, cultures, or contexts of use” (Heath 1986:15-16 in Collins & Blot 2003:65). The “maktab” and Trackton and Roadville studies demonstrate that literacy practices may be enabling or disabling when employed in different domains. The “maktab” literacy students who attended the “maktab”, a Koranic religious school, were able to adapt their “maktab” literacy for commercial purposes. As an emerging class of entrepreneurs, this contributed not only to their general social standing but also to commercial

success (Street 1984 in Collins & Blot 2003:54). Other literacy practices may be disenabling as Heath (1983) demonstrated in the Trackton and Roadville learners facing alternative literacies in school classrooms. These learners were devalued in formal schooling because their literate and linguistic abilities, dispositions and values differed from schooled literacy.

However, whether particular practices are enabling or disenabling depends upon both the processes of socialisation in which they were acquired and the sociocultural contexts in which they are employed. Therefore, for Collins and Blot (2003:65), literacy practices are not merely technical means transportable unchanged across sociocultural contexts, they are:

... specific practices manifested in different ways in differing contexts, whose meanings are more dependent on the processes by which they were acquired than on specific skills applied.

Scribner and Cole (1981) highlight this perspective in their practice-based approach to literacy research investigating the cognitive consequences of literacy as mediated through actual literacy practices of the Vai. The study illustrated that the social and cognitive connection is not simplistic and that other variables also interact with the literacy effect. Therefore, to identify the consequences of literacy, the specific characteristics of specific practices need to be considered, and for Scribner and Cole (1981:237 in Baynham 1995:71) this requires an understanding of the broader social system that generates certain kinds of practices (and not others) and poses particular tasks for these practices (and not others) and the role of ideologies, discourses and institutions. For Scribner and Cole (1981:237 in Baynham 1995:54), therefore, investigations into the cognitive consequences of literacy are also “inquiries into the impact of socially organised practices in other domains (trade, agriculture) on practices involving writing (keeping lists of sales, exchanging goods by letter)”.

Fingeret (1983) also made an important contribution to the literacy debate by highlighting that individuals create networks characterised by reciprocal exchange. As networks offer access to most resources required by the

individuals, it is often not necessary to develop every skill personally. Literacy tasks are jointly achieved within peer groups or social networks with literacy mediators making their literacy skills available to others, on a formal or informal basis, so that specific literacy purposes can be accomplished. As literacy mediators engage in code-and mode-switching between oral, written, visual and other sign systems between languages and between different literacies (Baynham 1994), written communication is not always fully dependent on individual ability to read and write in a particular format (Barton & Ivanic 1991, Baynham 1995) and adults with no formal literacy often use these social resources to access institutions requiring written interaction.

For example, in Malan's (1996:105) study of literacy mediation and social identity in Newtown, a coloured settlement in the rural Eastern Cape, a variety of literacy mediators intervened between local and dominant discourses. Although mediators did most of the reading and writing in Newtown, various discursive resources were also used such as respectability and survival strategies to negotiate social position in relation to local and dominant discourses. These more than the possession of schooled literacy impacted on the orientations to and uses of different literacies (Malan 1996:120). Robin's (1996) study describes the mediating role that non-governmental organisations played in the struggle of communal farmers in the Northern Cape against central government's attempts to introduce individually owned plots. Instead of using bureaucratic discourses, the residents used "local, hybrid cultural identities and discourses to mediate both the literacies of officialdom and the oppositional discourses of the national liberation struggle" (Robins 1996:139) in their correspondence with officials.

The concept of mediators leads to the idea of the role relationship between mediators and those using their services and also the concept of networks (Baynham 1995:63). This supports the social nature of literacy practices, so instead of regarding the writer and the text in isolation, literacy is socially constructed as "collaborative literacy" (Shuman 1986, 1996) or "joint literacy events" (Wagner, Messick & Spratt 1986 in Baynham 1995:64). Dias, Freedman, Medway & Paré (1999:10) also agree that writing is seldom the

product of isolated individuals but rather the outcome of “continuing collaboration, of interactions that involve other people and other texts”.

As literacy practices are also organised into domains of activities, such as those of the church, school, work and authority, literacy researchers use various literacy domains to map the main settings and contexts where their subjects use literacy. Distinct and often conflicting systems of social meanings develop for the use of writing in each domain and these exert a profound influence on the choices individuals make about acquiring and then using (or not using) their literary skills in certain settings (Reder 1985 in Prinsloo & Breier 1996:20). Wagner et al (1986 in Baynham 1995:69) write about “overlap” between domains and Klassen (1991 in Baynham 1995:69) points out that “all the domains tend to merge in the first category, the home, which is the centre from which individuals venture out into other domains”. Although the domain construct is a “fairly rough and ready way of sorting the social space in which literacy practices are embedded” (Baynham 1995:68), it is useful, as it provides an initial structuring of the social context of literacy practices while demonstrating some aspects of the research design of studies of literacy in context.

As constructs such as networks, literacy mediators, roles and domains are significant in determining the structure and contextual embedding of literacy events, Street (1993) emphasises the limitations of theorising social context solely in term of face-to-face interaction. Bourdieu (1979:81-82) argues that interpersonal relationship contextualisations are limited as the truth of the interaction is “never, except in appearance” contained in individual-to-individual relationships and people carry with them their present and past positions in the social structure all the time and in all places “in the form of dispositions which are so many marks of social position and hence of the social distance between objective positions” (in Baynham 1995:70).

Street (1988:62-63 in Baynham 1995:70), therefore, argues for a broader conception of context in literacy research from face-to-face interaction to categories emphasising social structure and systems so giving attention to

“wider parameters of context”. These categories may include conceptual systems, political structures, habitat and economy as systems and analysed in terms of function and structure rather than simply of network or interaction. Therefore, understanding literacy as a practice provides a way of relating literacy in use not just to the immediate context of situation, but also to the broader social context and the role of ideologies, discourses and institutions.

Although insights have been gained from the richness of particular cases concerning the domains of literacy and literacy practices, it is difficult to account why literacy matters in the way it does in the modern West. Collins and Blot (2003:65) suggest such an account will be the question of power in literacy for which the ethnographic tradition falls short. Finnegan (1988) and Heath (1983) do not explore power at work, nor how power is implicated in the construction of literate selves whereas Street (1993) has recognised the next step requires “bold theoretical models that recognise the central role of power relations in literacy practices”. Although Street (1993) argues that the ideological model prevents issues of power from being denied, literacy is not neutral and viewing it as such is an ideological stance. For Collins and Blot (2003:66) what is lacking is:

... an account of power-in-literacy which captures the intricate ways in which power, knowledge, and forms of subjectivity are connected with “uses of literacy” in modern national, colonial and postcolonial settings.

This conception of plural literacies is clearly stated by Gee (1996) who argues for a sociocultural model of literacies in which literacy is conceived as mastery of a discourse beyond that of the home, a “secondary” discourse, whether that of the workplace, church or school or other collective endeavour. The mastery of a second discourse means, “involving print” (Collins & Blot 2003:173) which for Gee (1996:143) can be substituted for “various other sorts of texts and technologies: painting, literature, films, television, computers, telecommunications”.

Gee’s (1996) view of literacy involving other than print media is an expansion which some “whole language” supporters find too removed from the school-

based goal of ensuring “critical knowledge” (Hasan 1999 in Collins & Blot 2003:174). Although Gee’s literacy view is also coupled with an account of identity emphasising the fluid, changing nature of identity, and identity conflicts, he does not give the “same emphasis... to constraint, to identities imposed, as well as chosen” (Collins & Blot 2003:174). Therefore, although the situated or sociocultural accounts are an advance over the autonomous models and the literacy thesis, they take insufficient account of the long-term historical pattern and the place of literacy in the “scientific, technical and economic venture of the West” (Collins & Blot 2003:174). Baynham (1998:71) supports that historical accounts influence literacy patterns and there is a danger of:

... ahistorical descriptive studies, which simply emphasise and document the infinite variety of ‘literacies’, reinventing notions of cultural pluralism and masking power relations, such as the fact that, at particular times, particular modes and practices of literacy may be dominant.

While situated understandings may currently be out of official favour with attacks on “whole language” pedagogies and “relativist” claims directed at sociocultural approaches (MacCabe 1998, Goody 2000 in Collins & Blot 2003:175), writing never has importance on its own. Although there are various forms of literacy, from academic to computer, there are ongoing efforts to restrict its meaning “to some essence, in which ‘reading’ or ‘writing’ will be defined only in accordance with officially approved diagnostics” (Collins & Blot 2003:175-176). So with the debates about the nature of text, the practice of power and the dynamics of identity, with “forms of human engagement and meaning making that are intertwined in these debates” (Collins & Blot 2003:176), the meaning of literacy will remain contested and ongoing.

2.7 Writing as a situated social practice

The study of writing is often approached from a number of different angles, often favouring one or other element at the expense of the rest such as focusing on writing as text (written text organisation), writing as process

(processes in text production and construction) or the writer (subjectivity involved in writing). Although these writing foci are important, writing as a strategic, purposeful activity in social interactions also needs research. Ahead of this, writing must be understood as a social practice and the way it interacts with ideologies and institutions to shape and define possibilities and life paths of individuals. Therefore, a major development over the last decade in writing theory and research has also been the notion of writing as both discipline specific and socially defined (Dias et al 1999:9). As a result, writing research has been influenced by discourse communities studies (Bizzel 1982), ethnographic writing studies (Heath 1983) and the “messy space of situated practices of inquiry” (Matsuda & Silva 2005:xii).

Perspectives in writing research have changed since 1990 as writing research has moved beyond a page or screen focus with writing being seen as more than the generation of text-linguistic products. Witte (1992:237) describes the study of writing as the study of meaning-making acts that are mediated through texts. Candlin and Hyland (1999:2) define texts as “multidimensional constructs requiring multiple perspectives for their understanding”. For Hyland (2005:177), texts are “concrete expressions of social purposes” intended for particular audiences, often mediated by the institutions and cultures in which they occur. Therefore, writing as text cannot be usefully separated from writing as process and interpretation. Neither can it be divorced from specific local circumstances in which it occurs nor from the broader institutional and socio-historical contexts, which inform those particular occasions of writing. Every act of writing is embedded in wider social and discursive practices that carry assumptions about participant relationships and how these should be structured and negotiated. So experiences and perceptions of audience shape communicative practices in significant ways and influence the way information is structured, the relationships with readers, and the extent to which individuals personally appear in texts (Hyland 2005:177-178).

In addition, by emphasising a critical theoretical perspective, writing as a situated social practice promotes an understanding of the subjectivity of writers and their implication in social practices (Baynham 1995:208). As

critical literacy draws on the dimension of writing as a social practice, it is possible to understand the relationship between writing and social power (Baynham 1995:71). It also takes into account that certain types of writing have greater power, prestige and status as a means of communication within institutions and that ideological differences emerge when the critical writer starts to question the source of legitimacy of the power. For an integrated theory of writing as situated social practice, Baynham (1995:209) lists the following dimensions:

- ❑ subjectivity of the writer
- ❑ writing process
- ❑ purpose and audience of text
- ❑ text as product
- ❑ power of the written genre
- ❑ source of legitimacy of that power

Research on writing as a social practice, therefore, attempts to integrate multiple elements and investigates the ways in which writing and the writer are implicated in discourses, ideologies and institutional practice of which they are part. These links are complex as each act of writing also links in intricate ways a set of communicative purposes, which occur in a context of social, interpersonal and occupational practices. Equally each act of writing constructs the reality that it describes reproducing a particular mode of communication. This is achieved while maintaining the social relationships that each writing act implies, and communicating implicitly or explicitly the “social power relations that are operating and the values and ideologies which they express” (Baynham 1998:71). Therefore, written communication is explained by reference to its social contexts, including the procedures, regulations, relationships, and activities that influence and are influenced by text production (Dias et al 1999:9).

2.8 Writing as a situated workplace social practice

Over the last twenty years, the social view of writing has been influenced by a variety of linguistic, physical, cognitive, cultural, interpersonal and political factors resulting in a plethora of research into the nature of academic,

workplace and professional writing. More specifically, research on writing has recently begun to pay closer attention to the influence of context on writers' composing processes, particularly the way in which social dimensions of specific settings like audience, purposes, assigned or imputed roles and institutional ethos influence writers' rhetorical and linguistic decisions (Anson & Forsberg 1990:202). As social approaches are interested in the relationship among writers, texts, and their surrounding context, writing is seen as a "socially constituted act, shaped by the writer's 'discourse community' who share specialised kinds of knowledge and textual competence" (Anson & Forsberg 1990:202).

A further drawback to this extensive and variously purposed literature is that its "diversity works against its cohesiveness, and thus blunts its explanatory potential" with work in different fields of writing often showing "very little overlap or even mutual recognition" (Candlin & Hyland 1999:2). However, as research has increasingly revealed the growing complexity and the multiple roles and purposes of writing, the need remains to unpack the complexity and make an attempt to assert the overarching nature of writing despite variation and fragmentation. In addition, a variety of sources have now generated a considerable body of knowledge to underscore the essential situatedness of texts and of the processes, which contribute to their creation and interpretation.

Currently, the focus of most situated sociocultural studies available is academic, with business and occupational writing less common, although some valuable accounts exist (Bhatia 1993; Coleman 1989; Odell & Goswami 1985; Thralls & Byler 1993 in Candlin & Hyland 1999:4).

2.8.1 Situated workplace writing research

Although studies both academic and workplace settings has received intensive scrutiny since the mid-1980s (Barabas 1990, Forman 1992, MacKinnon 1993, Freedman & Medway 1994, Lay & Karis 1991, Spilka 1993, Swales 1990, 1998, Winsor 1996,1999, Parks & Maguire 1999, Dias & Paré 2000, Parks 2001) only a few published workplace studies have appeared

(Parks 2001:405) and studies that have emerged have been sporadic. These studies have also tended to focus on how new employees make transitions from school to workplace genres, the ethical dilemmas posed by the need to support institutional goals which may conflict with personal values (Clark & Doheny-Farina 1990) and the tensions writers experience in the workplace when needing to re-evaluate rhetorical aspects of their writing (Anson & Forsberg 1990, Beaufort 1997, MacKinnon 1993).

Although some studies suggest that new employees benefit from interventions by more experienced colleagues, the engineers in a study by Paradis, Dobrin and Miller (1985 in Parks & Maguire 1999:148) describe the feedback they received from their supervisors as “arbitrary” (294), “painful, immensely time-consuming and even mystifying” (294), or indicative of “editorial whims” (300). In addition, to feedback as an intervention, new employees have been observed to make use of documents written by their colleagues to appropriate relevant language resources (Pare 1991 in Parks & Maguire 1999:148). These studies suggest that new employees are actively involved in attempting to appropriate relevant language resources in particular contexts. A longitudinal study by Winsor (1996,1999) involving case studies of engineers, first as students in a work internship programme and then as fulltime employees, also demonstrates how perceptions of the rhetorical dimensions of writing may evolve in status functions. Studies (MacKinnon 1993; Beaufort 1997; Parks & Maguire 1999; Winsor 1996) have, however, suggested that the appropriation of genre-specific skills is mediated through enhanced awareness of the:

... organisational culture and overt and covert scaffolding variously provided by feedback and advice from colleagues or other proximate audiences, access to relevant documents serving as models or sources of information, policy and procedures relating to production documents (Parks 2001:406).

As most research has set out to understand writing in professional contexts through already proficient (if not expert) writers, studies explore in only a “secondary way what it means to become such a writer” (Anson & Forsberg 1990:227). Studies tend to focus on expert members of the discourse

community, usually supervisors or those more senior in the institution's hierarchy to show a connection between appropriating work-specific genres and the criteria for good writing (Barabas 1990, MacKinnon 1993). Typically, new employees are judged more favourably if their writing closely reflects criteria identified by more experienced employees (Barabas 1990 in Parks 2001:407, MacKinnon 1993), and this relates to their increased understanding of the institutional culture and affects their status (Beaufort 1997, Winsor 1996, 1999).

Writing practices are interesting but difficult social practice research areas because they present the challenge of understanding practices that are often very firmly divided up as "right or wrong, adequate or inadequate, successful or unsuccessful, dominant or marginal" (Pardoe 2000:150). However, as research tends to focus on understanding the knowledge, expertise and practices of successful expert writers and the standardised forms, dominant discourses and genres they use, the "inadequacy of people's knowledge of standardised spellings and grammar, and their lack of competence to use powerful genres" (Pardoe 2000:150) is often revealed. For example, Winberg's (2006) study comparing knowledge production of professional architects and architects-in-training reveals that professional architects need to draw on a wide range of knowledge bases to integrate "vertical" and "horizontal" forms of knowledge (Bernstein 1996:171). However, as the knowledge bases of students are more limited, their knowledge production does not integrate these knowledge forms (Winberg 2006:83). Therefore, the richness and depth of professional architects' "knowledge of objects" (Knorr Cetina 2001 in Winberg 2006:92) are almost totally absent from students' reports with little detailed discussion or analysis of specific buildings or building elements in their reports or students' own experiences or opinions. These findings support the need for higher education to provide "opportunities for the application and adaptation of this knowledge in real-world settings" (Winberg 2006:94) to address the resultant competency deficits of those entering the workplace.

Winberg's (2006) research confirms the viewing of low-status writing practices and unsuccessful writing as "failed attempts to access the dominant, standard form" (Street 1996:4 in Pardoe 2000:150). However, if research adopts this view, it offers no insight and understanding into these writing practices, and what implicitly and explicitly guides writers. By focusing on what is not there rather than what is there, research fails to recognise the existing practices that are the basis for any further development. Therefore, it cannot inform the process of developing literacy towards more successful forms nor can it inform pedagogies or policies for literacy development. It can only reiterate the "*pedagogically empty* criticisms and assertions that 'something must be done'" (Pardoe 2000:150). Rather, writing research should also focus on the understanding, rationale and skills involved in both successful and unsuccessful writing practices.

Pardoe (2000) realises that a pedagogy based on autonomous view of educated literacy as a social, technological "skill" (Barton 1994, Street 1995, 1996) ignores the multiple cultural assumptions and the familiarity with particular ways of talking and relating (Bartholomae 1985) that are required of a successful text. It makes inevitable the deficit view of a writer's existing low-status literacy practices as failed attempts at writing. This view then simply reinforces the writers' own sense of their learning of writing as somehow "remedial" (Hull & Rose 1989, Swales 1990:2 in Pardoe 2000:151). Essentially, it makes learning an issue of replacing writers' existing repertoire of literacy practices rather than refining and adding to these. This is even done when the writers' existing practices are clearly central to their sense of identity, and to their successful functioning in other contexts.

Such pedagogy does not empower writers but emphasises their exclusion and makes this an issue of their personal failure rather than discouraging them to learn standardised forms and dominant discourse. It simply encourages the writers' hostility and resistance and fails to recognise and address their already highly reflexive ambivalence with standard English and high status discourses and genres. It, therefore, fails to recognise the enormity of the cultural and textual understanding and skill that the writers are already

drawing on in their writing (compared with that which needs to be learned) and, therefore, effectively ignores the foundations for further development.

A second implicit element of this deficit perspective is that successful texts are viewed as “inherently and uniquely rational, rather than conventional and embedded in dominant social practices” and the qualities of these texts are often described in terms of “monolithic system of rules rather than being both highly underdetermined by rules and highly varied within the complex and subtle conventions of established genres” (Pardoe 2000:151). As a consequence, learning to write involves developing technical skills and conformity rather than developing an understanding of the social practices of the functions of texts and of how these functions are conventionally achieved. In a broader sociological sense, the assumption that literacy is somehow singular not only fails to acknowledge the diversity and complexity of successful writing, but also fails to offer insight into ways in which non-standard and low status literacy practices may also be highly functional, and even highly rational in different social contexts (Pardoe 2000:151).

Research, therefore, also needs to include the voices of the writers and not only the sorts of knowledge professional writers have and strategies they use so that the influence of human social behaviour on these practices can be understood (Nielsen 1990 in Leki & Carson 1997:39) and not only the larger social processes marked by relations of power (Schechter & Bayley in Norton 1997:419). So, Black (2002:12) argues for a research focus on in-depth studies on the whole range of workplace contexts which focus on researching the perspectives of workers, of “hearing other voices” (Hull 1993) rather than those of management which currently predominate. Matsuda and Silva (2005:28) also agree that researchers need to become increasingly preoccupied with both writers and writing in relation to particular settings, as writing is inevitably about the people who write.

Although the workplace is a complex setting, the emerging social perspective on writing makes it clear that workplace writing must be considered in context, within the complex political and social dimensions that influence and define

writing practices and expectations. This makes it imperative that *in situ* contexts are examined (Dias et al 1999:10). However, more in-depth situated workplace studies are needed as the various *in situ* studies on genre-specific practices in the workplace are described by Beaufort (1997) as “border crossings, which illuminate how newcomers seek to understand the unfamiliar culture at hand”. Therefore, it appears that MacKinnon’s (1993:41) declaration that “research of the what, the how, and the why of development of on-the-job writing ability has hardly begun” still appears to be relevant for literacy practice research in 2006.

2.8.2 Complexity of workplace writing

The workplace as a research site is a complex setting as every piece of writing is the product of a social context and of the “multiple traditions on which it is drawing as well as the socio-economic relations among the participants in its production” (Ivanic 1998:4). Therefore, it is difficult to describe the position of writers and text within the “complicated dynamics of human work, the highly situated, contingent and ideological nature of writing” (Dias et al 1999:117).

The complexity of workplace research is often revealed in what is usually absent from writing studies in particular settings. For example, Witte (1992:240) argues for a “defensible cultural perspective on writing”. Although traditional language is an important meaning making activity, attending to only the production and comprehension of “traditional alphabet text” does not account for the production or use of many other written texts which rely on non-linguistic sign systems like icons, symbols, signs, pictures, operating manuals and video clips. As contexts of production and use increasingly authorise texts in forms and genres not yet imagined, and as their production and use become more frequent and more diffuse, these texts will become even more crucial to an understanding of writing. Thus, the study of production and use of writing from a perspective that privileges spoken or linguistic systems of meaning-making and ignores other systems of meaning-making, can hardly yield a comprehensive or culturally viable understanding

of writing or text (Witte 1992:240, Prinsloo & Breier 1996, Collins & Blot 2003, Winberg 2006).

For example, in Gibson's (1996:58) study, a team of mostly illiterate male workers used a diagram to install an irrigation system without being able to read the names, understanding that it represented a system stretching over a large area of the farm. Therefore, Ramanathan and Atkinson (1999:70) argue that writing research approaches and resulting applications expose the rich complexity and particularity of human experience which is "dependent on deep cultural understanding for their effective and equitable accomplishment" (Ramanathan & Atkinson, 1999:70).

Another writing constraint is the dominance of English with its privileged global and local positions. In South Africa, although all eleven official languages are recognised in the new South African constitution since 1994, the reality is that the hegemony of English has become entrenched. The post-apartheid enhancing of English has resulted in most major South African companies subscribing to an "English only" policy as the basic language of business and competence is often related to English proficiency (Hill & Van Zyl 2002:33). According to LANGTAG (1996:10), most government meetings and parliament business are also conducted in English and the majority of reports are published in English only. This becomes problematic when 50% of the South African population only know English at a very basic level of communication (Webb 2002a:8). This level of proficiency does not allow for effective higher function use and many graduates enter the job market with limited ability to meet the consultative management styles which require strongly developed generic and communication skills as well as high levels of professional adaptability (Webb 2002b:9).

In the engineering context, practice is based on technical knowledge and because of the global interests of many South African engineering companies both theory and practice are discussed in English as an international standard language because English possesses all the necessary technical terms. In addition, many engineers receive their professional training in English so they

can be connected to a “worldwide community of experts” (Edwards 1976:77 in Hill & Van Zyl 2002:24) who use the same language and its specialised resources. As a result, engineers whose primary language may not be English, to function effectively in South Africa, require English competencies of the kind that will enable them to enter the “dense and formalised discourse”(Hill & Van Zyl 2002:24) of engineering as a technical profession. In engineering contexts, English is also often used as more than just a business language with English also playing an extremely important role to communicate with management, other superiors and professionals (Hill & Van Zyl 2002:33). Therefore, on the level of policy and administration, engineering companies often advocate “English only” policies to make themselves appear more globally connected and competitive and this requires the use of effective English. As engineering competence is often related to English proficiency and as long as this occurs, it seems that, especially in South Africa, multilingualism will not be valued to the same extent as English proficiency (Hill & Van Zyl 2002:34).

English dominance has also become controversial in many countries in the context of globalisation. Although earlier waves of globalisation originally spread English some 500 years back, the more recent forms of globalisation operate according to social principles and create fresh problems and promises for English as a language. The distinctive features of post-modern globalisation which have created a radical shift in worldwide attitudes toward English are described by Canagarajah (2006:24-25) as:

- ❑ multilateral economic and production relationships (involving multinational participation at diverse levels)
- ❑ porous national boundaries as people, goods, and ideas flow easily across them
- ❑ compressed space and time enabling movement across communities and communicative contexts in both virtual and physical space
- ❑ hybrid languages, communities and cultures, shaped by the fluidity of social and economic relationships

In postcolonial communities, recent edited collections on language policy articulate the dilemmas involved in planning the relative status of local

languages and English in society and education (Canagarajah 2005, Lin & Martin 2005, Street 2001). For example, in communities where the vernacular has been given primacy in the form of affirmative action against the disparities suffered during colonisation, local people subtly resist in favour of English (for Iran see Riazi 2005, Canagarajah 2006:22). On the other hand, in communities where policy makers have encouraged English in deference to economic and educational opportunities, in the context of economic globalisation, there is a “near chauvinistic resurgence of nationalism” (for India see Ramanathan 2004 in Canagarajah 2006:22). Many scholars have described the unresolved tensions these dilemmas bring for various communities in policy and practice and deviations from the declared policy of using English only. Probyn (2005), for example, shows how in South Africa teachers and students code-switch and mix local languages with English in subtle ways to negotiate their desired values, identities and interests.

The use of World Englishes causes similar problems as English changes rapidly with “expanding circles” of English use and the leaking of English varieties across borders. In terms of currency of use, English’s greatest use is as a contact language and there is evidence that English is more commonly used in multinational contexts by multilingual speakers, than in homogeneous contexts by monolingual speakers (Graddol 1999 in Canagarajah 2006:23). According to Graddol (1999:57 in Canagarajah 2005a:xxiii), native speakers of English “lost their majority in the 1970’s” and he argues that in the future English will be a language used mainly in multilingual contexts as a second language and for communication between non-native speakers. This results in the “inner circle” (Kachru 1985 in Canagarajah 2006:23), where English is owned and claimed and where norms originated, being increasingly questioned as English gains a life beyond its land of origins, “acquiring an identity and currency in new geographical and social domains, as it gets localized for diverse settings and purposes” (Canagarajah 2005a:xxiii). As a result of the expanded market of the “New Economic Order” and transnational industrial networks, there is greater interaction between people from diverse linguistic backgrounds. Even if communication is in English, it needs to be acknowledged that various communities bring different dialects to the

interaction resulting in the need for multilingual competencies in transnational production relationships and marketing networks.

Not only has globalisation presented pedagogical challenges but digital technology has benefited from English for centrality as English has been spread far and wide. Digital technology has transformed communication rapidly within a short period of time and, in the process, earlier notions of linguistic communication have been fundamentally changed. Gee (2000 in Canagarajah 2005a:xxiii) argues that new literate competencies are required in “the New Work Order” in the post-Fordist era of computerised workplaces. In the New Work Order, all work involves engagement with knowledge, information and communication, as each worker has to deal with multiple textualities and discourses. In Winberg’s study information engagement included drawing on architects’ plans, photographs, sketches as well as “technical, aesthetic and design knowledge” (2006:86). Digital technologies, therefore, have lead to new genres of communication, new conventions of language use and new vocabulary and grammar rules for English.

Therefore, new media of communication such as the Internet encourage greater “hybridity and fluidity in communication” (Canagarajah 2005a:xxiv). Internet literacy requires competence in not only different modalities of communication (sound, speech, video, photographs) and different symbols systems (icons, images, spatial organisation, charts and words) but also multiple registers, discourses and languages. Texts, therefore, have become “polysemic, multimodal, and multilingual” (Canagarajah 2006:26) and with sound bytes, “multivocal” (Canagarajah 2005a:xxiv) and because resources are available in computers and the World Wide Web, texts now include:

... symbols other than the alphabet (such as icons, images, and sound), modalities other than writing (such as speech, graphics, and moving images), and language as other than English embedded in otherwise English texts (as diverse dialects, registers, and languages now commonly inhabit the same textual space).

In addition, changing texts have resulted in some scholars giving up the term composing for designing (Faigley 2004) as writing becomes more about

coordinating multiple symbol design systems to display information by “exploiting the resources of multimodal textual space” (Canagarajah 2006:26). Literate competence, therefore, means something very different today from what it did a few years ago with multiliteracies being used to describe texts and competence (Cope & Kalantzis 2000). Today, new communication and literacy competencies are needed for both *inner* circle or *expanding* circle of English speaking communities to be proficient in negotiating multiple dialects, registers, discourses, and, if possible, languages to function effectively in the context of postmodern globalisation (Canagarajah 2005a:xxv).

2.9 Genre theory as a theoretical framework for workplace writing

However, theorising about the complexities observed in situated workplace writing means a theoretical framework is needed. Although various theoretical frameworks have been used to explain writing practices, the theorising of genre is a useful way to explain writing characteristics of discourse communities. Schryner (1993:208) maintains that when the concept of genre is viewed from “rhetorical as well as dialectical and dialogic perspectives, they become ways to theorise about complex, evolving discourse practices” and can illuminate much of the work and ideology of such textual practices. Schryner (1993:205) describes genres as “stabilised-for-now” or “stabilised-enough” sites of social and ideological action with documents such as records being the “very substance of organizations, their fact-making mechanisms”. For Smith (1987 in Schryner 1993:205), documents are the “forms that externalise social consciousness in social practice, objectify reasoning, knowledge, memory, decision-making, judgement, evaluation”.

This view of writing has been confirmed in the growing consideration of genre theory in the theorising about writing (Swales 1990; Cope & Kalantzis 1993; Freedman & Medway 1994 in Dias et al 1999:9).

2.9.1 Genre theory background

Both the Sydney and New Rhetoric Schools have been instrumental in moving genre away from a “container view” with genre being viewed as “only

transparent and innocent conduits that individuals use to package their communicative goals” (Bawarshi 2003:23 in Hinkel 2006:141).

As the New Rhetoric School has been more interested in context, it has been inspired by theories of situated cognition and cognitive apprenticeship (Lave & Wenger 1991 in Hinkel 2006:141) and redefined genre as “typified rhetorical actions based in recurrent situations” (Miller 1984:165 in Hinkel 2006:141). This perspective has been influential in encouraging an appreciation of how people “enact and are enacted by [genres]” (Bawarshi 2003:22 in Hinkel 2006:141). Therefore, New Rhetoric with its socio-rhetorical view of genre emphasises how rhetorical structures both shape and are shaped by the social actions undertaken in response to recurrent situations in discourse communities (Swales 1990, 1998; Bazerman 1988; Paré & Smart 1994 in Parks 2001:407). Schryner (1993:208-209) explains the complexity of this genre relation:

All genres have a complex set of relations with past texts and with other present texts: Genres come from somewhere and are transforming into something else. Genres, because they exist before their users, shape their operators; yet their users and their discourse communities constantly remake and reshape them.

Although genres do change over time, they are by definition somewhat stable, and their stability promotes a sense of normalcy. Therefore, New Rhetoric focuses on the “stabilized-for-now” (Schryner 1993:204) shapes, uses and acquisition processes of genres in a multitude of professional sites (Hyland 2004; Swales 2004 in Hinkel 2006:142). Devitt (1991:257 in Dias et al 1999:120) explains this occurrence:

The mere existence of an established genre may encourage its continued use, and hence the continuation of the activities and relations associated with that genre.

Schryner’s (1993:200) definition of genre as a “stabilised-for-now or stabilised-enough site of social and ideological action”, supports the view that genres develop as responses to what is perceived socially or collectively as sameness in situations and the system that “confers the sameness is

ideology” (Dias et al 1999:118). In Bourdieu’s (1972, 1977 in Dias et al 1999:118) definition of *habitus*, genres are “structured structures predisposed to function as structuring structures”. For Herndl (1996:29 in Dias et al 1999:118), *habitus* is “the way of thinking we inherit from past experience which then makes sense of our current experience and allows us to act. Furthermore, this *habitus* is itself continuously produced by our ongoing activity”.

Once communities have developed a standard perception of the situation, a genre is designed or evolves to respond to the situation and to generate the knowledge and ways of knowing the community needs to conduct its business (Dias et al 1999:119). Participation in these “structuring structures” initiates newcomers into the collective and into its ways of knowing, learning and doing and conditions them to reproduce the structuring structures. A genre, according to Miller (1994:38 in Dias et al 1999:119), “embodies an aspect of cultural rationality” and by participating in a genre, “what ends we may have” is learnt. This historical force of repetition creates regularity and socio-rhetorical habits become “the way things are done”, and the reality they create becomes the ontological norm. However, in the process, the origins and underlying human agency of genres are obscured and “metaphorically speaking, ideology endeavours to cover its own traces” (Fairclough 1995:44). Smith (1974:257 in Dias et al 1999:120) explains this as:

Socially organised practice of reporting and recording work upon what actually happens or has happened to create a reality in documentary form, and though they are decisive to its character, their traces are not visible in it.

Therefore, Witte (1992:239) finds situated writing research claims problematic as whatever processes a writer employs in producing a text are ultimately determined by the particular setting within which a writer works. Also what writers do and what writing does is altered or changed or determined by the particular settings in which a text is produced and used. These two claims are complementary and reciprocal and provide:

... microsociological arguments for favouring what may be the closest we ever get to an anthropological 'fact' in writing research, namely, that just as individuals may be seen as constituents of culture, so also is culture constructed by or out of individual persons and individual persons' behaviours (Witte 1992:240).

As genres spring from social motive, that motive is the manifestation of ideology's beliefs, power relations, and community aspirations transformed into rhetorical action. Divergences at the rhetorical level are, therefore, often related to differences in the appropriation of motive and the way the construal of motive may relate to the appropriation process. The social motive of workplace writing is instrumental because its primary aim is to get something done. But because there is more than one ideology at play in complex organisations and more than one thing to do, there is more than one social motive which competes in the organisation's genres (Dias et al 1999:117-118). Genre scholars today, therefore, tend to view genre as more contextual than simply textual, dynamic than static, varied than monolithic, and interesting in its shaping of and being shaped by people (Bawarshi 2003; Bhatia 2004 in Hinkel 2006:142). This increasingly complex conceptualisation of genre provides a fuller view of the world in which writers must function than templates and taxonomies that many may still too readily think of when they think genre. Therefore, genre theorists have increasingly emphasised conceptions of genre as dynamic structures as well as sites of contentions and change.

2.9.2 Professional genre texts

Genres are invariably situated in specific disciplinary cultures and are shaped by typical discursive practices embedded within the disciplinary activities of the profession (Bhatia 1999:21). Therefore, analysing texts as a genre, especially in institutional contexts, provides relevant and useful information about the way that particular genre is constructed, interpreted and used by established members of the discipline community in the conduct of everyday business.

Workplace writing, however, differs significantly from academic writing which often occurs in classroom contexts and is mostly an individual's response to "somewhat predictable rhetorical contexts often meant to serve a given set of communicative purposes for a specified single readership" (Bhatia 1999:22). School writing is often rhetorically limited to "dummy-run" practice without varied audiences and purposes, the consequences of such writing being substantially different from writing found in nonacademic settings (Anson & Forsberg 1990:202-203, Winberg 2006:94). To further complicate the discourse acquisition process, as dominant discourses are often hegemonic, the rules and conventions are often regarded as commonsense and not taught. In addition, higher education educators are also not very good at teaching the discipline's discourse as they are "unable to unpack the academic literacy norms" (Winberg 2002, Bharuthram & McKenna 2006) which they have acquired.

Therefore, academic literacy is often regarded as unitary and autonomous and something detached from its social consequences in higher education. Teachers and students often see writing difficulties as students' own weaknesses and writing instruction becoming a means to fix up problems resulting in writing practices not translating into effective writing within workplace settings (Dias et al 1999:5). Complaints from the workplace regarding the writing abilities of students graduating from universities abound and it would seem that higher education has failed to prepare students to write in the workplace. Students and writers also support this conclusion by stating that they learned to write on-the-job rather than at school or university.

This conclusion has also been supported in workplace studies, which demonstrate the extent to which writers rely on situation specific knowledge in the preparation of texts. In order to acquire workplace discourses, writers often develop a knowledge of accomplishing their work in ways that are often not acknowledged or recommended by authorities and experts demonstrating that "local knowledge is context bound, community specific, and nonsystematic because it is generated ground-up through social practice in everyday life" (Canagarajah 2005:4). This "local knowledge" (Geertz 1983 in

Dias et al 1999:8) and “circulation” (Latour 1986 in Winberg 2006:86) of knowledge concerns all aspects of the writing situation, from disciplinary and institutional regulations concerning the form and substance of texts to relationships among writers and readers as well as “movement” between disciplinary knowledge and practice (Knorr Cetina 2001 in Winberg 2006:86).

The complexity of gaining this knowledge is described in Anson and Forsberg’s (1990:201-202) study which examines transitions writers make when they move from academic to nonacademic settings and begin writing in a new and unfamiliar professional culture. While certain surface-level writing skills are portable across diverse contexts, these skills are less important to the making of a successful transition as a writer than coping with the unfamiliar epistemological, social and organisational characteristics of a new context. Writers in these contexts are in many ways “illiterate” until they begin to understand these characteristics and their manifestation in written texts. Anson and Forsberg’s (1990:201-202) research shows the interns’ progress through a cycle of “expectation, struggle and accommodation” as they begin writing in professional settings illustrating that to become a successful writer is more a matter of developing:

... strategies for social and intellectual adaptations to different professional communities than acquiring a set of generic skills, such as learning the difference between the passive and active voice.

Bhatia (1999:22) agrees that workplace writing is a “complex dynamic multifunctional activity” and outlines the requirements of any pragmatically successful example of a particular professional genre as having:

- ❑ generic integrity that members of the relevant professional community can identify and interpret not only by the socially recognised communicative purpose(s) it often intends to serve but also the private intentions, if any, the author(s) might have intended to convey
- ❑ complex intertextual and interdiscursive relationships with other forms of discourse, spoken or written and which expert readers can identify.
- ❑ a combination of a number of discursive practices that professionals are routinely engaged in, which all or some might contribute to the construction of the generic artefact being shaped
- ❑ co-operative endeavours rather than individual discursive activities

Any document production is, therefore, not simple and spontaneous. The context is never static where rules are visible and can be learned or known independently of the effect that the outside creates by entering it. At the centre of the phenomenon is the ongoing process of adapting to the social setting involving not only the “idiosyncratic textual features of the discourse community but a shifting array of political, managerial and social influences as well” (Anson & Forsberg 1990:225). Therefore, to become literate in the context is not only mutual knowledge of some intellectual domain required but the highly situated knowledge that can be gained only from participating in the context which itself is in a constant state of change.

2.9.3 Reports as genres

Parks’ (2001:405) study involving disciplinary innovation through the introduction of a new genre and the experiences of graduates trained in the use of this genre as they entered the workplace demonstrates how even the appropriation of “a minor genre may be infused with complex ideological positionings” (Parks 2001:434). The engineering report as genre embodies and enacts ideology, as it reflects and creates ideas, interests, and values of those who participate in them and use them for their particular ends. This process is further complicated as most contemporary organisations consist of overlapping communities of practice whose genres embody a variety of ideologies, “some in concert, some in conflict” (Dias et al 1999:117). In the appropriation of more complex writing genres such as engineering reports, the implications of the cultural-historical, ideological embedded practices at the micro- and macro-levels of institutional functioning are immense for writers.

Winsor (1999:203) uses genre theory to describe the complexity of becoming “literate” in writing generic reports. The writing of reports requires the generation of content- and meaning-determining categories. These categories influence through standard headings, or more subtly, commonly held expectations about what it is appropriate to include. Therefore, a report-writing event is subjected to socially organised means of documentation to produce an account, which is then read in a manner that is equally organised. The reader looks through the document at what actually happened, a

phenomenon that has been produced by means of documentation. Thus Smith (1974 in Winsor 1999:204) argues that documentary expectations shape people's accounts of their actions and their understanding of what actions are acceptable or significant and these generic expectations encourage the writer to maintain already existing patterns (Winsor 1999:204). However, producing documentation then carries with it the potential for both modifying and maintaining activity systems.

The report-writing genre context is further complicated as individual genres serve as sites of ideological struggle, as different communities within the larger collective attempt to advance their own knowledge, values and beliefs. Similarly, newcomers entering the workplace will need to participate in a particular community's genres, adopt its ideology and join the struggle that is played out through rhetorical practice. Within well-established institutions, the relative powerlessness of newcomers to effect change has also been noted (Winsor 1999) and failure to adapt to prevailing norms may result in firing (Beaufort 1997).

Therefore, it is important to be aware that workplaces can be places of contestation and disagreement, where writing practices must eventually cooperate with institutional interests and sometimes compromise socially responsible goals (Fairclough 1992 in Dias et al 1999:9). Literacy practices are often alienating with self-representation dilemmas and social struggles in which the self is implicated through the act of writing are rarely made explicit, but are at the heart of most writing acts (Ivanic 1998:2). Writers take risks especially with texts and experience "crucial moments in discourse" which place them at social risk during communication and they suffer "disadvantage in consequence of the inequalities of communication" (Candlin 1989 in Ivanic 1998:5). Fairclough (1985) refers to "work on unequal encounters in institutional settings and stresses the need for discourse analysis to explore the role of institutional power and status in overdetermining interactional patterns" (in Baynham 1995:57).

According to Bhatia (1999:22) there are four major elements of any successful construction, interpretation and use of professional genre:

2.9.3.1 Generic integrity

The most important element is that a professional genre should be recognised as a valid instance of the genre by professional community members. Most successful constructions of professional, textual artefacts have recognisable generic integrity (Bhatia 1993 in Bhatia 1999:23). This generic character may be complex and reflect a specific form of mixing or embedding of two or more generic forms, or even dynamic in that it may reflect a gradual development over a period of time in response to subtle changes in rhetorical contexts that it responds to; but it will have a recognisable generic character. Generic integrity is also a reflection of the form-function relationship that characterises a generic construct. The relationship between formal and functional aspects of the language use reflects a specific cognitive structuring of the genre and, on the other hand, it also reflects the communicative purposes that the genre tends to serve. According to Bhatia (1999:23), there are three major indicators of generic integrity:

- ❑ rhetorical context in which the genre is situated
- ❑ communicative purpose/s it tends to serve
- ❑ cognitive structure it is meant to represent

2.9.3.2 Discursive processes and genre

The second most typical characteristic of professional genres is that they often tend to be products of a set of established procedures that form an important part of the disciplinary culture within a profession. A generic artefact often acquires a typical identity as a result of a set of conventionalised discursive practices, both written and spoken that professionals routinely use as part of their daily work. These practices are often characterised by the involvement of more than one participant assigning multiple authorship to the resulting artefact and reflect interaction with the reader. This also gives the resultant document a distinctly rich intertextual and interdiscursive patterning. The emerging textual products are the outcomes of a range of diverse discursive processes and consultations engaged in by several professionals

rather than just the sole person who ultimately has the privilege or authority to claim the sole authorship. This may be one of the reasons why so many of these professional genres have a somewhat predominantly impersonal quality (Bhatia 1999:24).

The gradual abandonment of writing as a solitary act of the autonomous individual and workplace writing becoming a collaborative or social activity (Odell & Goswami 1985 in Dias et al 1999:9) is perhaps one of the most important understandings to emerge from recent studies. As many writers write as members of a group, a full understanding of the writers' processes and products cannot occur without close reference to their place and role in their particular contexts. This is because the whole process of genre construction often is the result of a combination of a number of discursive practices that professionals are routinely engaged in all or some of which may contribute to the construction of the generic artefact it shapes. Some examples of contexts where collaboration is favoured are the preparation of internal company policy and public documents. As documents are often too lengthy for one person to complete within the tight deadlines to which organisations typically adhere, collaboration becomes essential practice in the writing process. Gollin (1999:269) describes reasons for collaboration:

The range of fields covered might be beyond the professional scope of an individual, or the audience for the document - whether internal to the organisation or internal - could be diverse in background, and may need to be persuaded from different perspectives, which a single writer might not be able to adequately represent.

Therefore, professional genres are increasingly becoming cooperative endeavours rather than individually undertaken activities (Bhatia 1999:22). Case studies of writing contexts often describe situations of complex interaction with writers often working with others in the preparation of texts within a wide variety of co-authoring arrangements with scheduled revision cycles common (Smart 1993 in Dias et al 1999:9). This "collaborative literacy" (Shuman 1986, 1996) or "joint literacy events" (Wagner et al 1986 in Baynham 1995:64) support the social construction of literacy.

2.9.3.3 Generic purposes and intentions

Professional genres serve a variety of real corporate purposes often associated with novel, flexible and changing contexts, rarely serving a single purpose. Expert writers also make sure that the intended readers construe and interpret the purposes in the way the writer/s originally intended.

2.9.3.4 Genre participants

Practicing genre is almost like playing a game (Bhatia 1999:25) with its own rules and conventions. Expert professional writers are able to exploit the tactical space available within of conventional behaviour, pushing out the boundaries of the genre. In a similar manner, genre readership may be multiple or corporate rather than individually identifiable which tends to make the game rather unpredictable and interestingly complex.

Learning to write the genre is not simply learning the language or even the rules of the game; it is more like manipulating them to fulfil professional and disciplinary goals within well-defined and established contexts. The professional writing activity is thus inextricably embedded within the disciplinary culture it tends to serve. Acquisition of professional writing competence therefore requires a certain degree of pre-knowledge of the discursive procedures and practices of the professional community that the writer wishes to join.

An important aspect of genre construction is the awareness of the other participants in the process, not only the other contributors and writers within the professional organisation, but also the multiple and varied audience the genre is likely to be aimed at. Audience characteristics in professional contexts can hardly be over-emphasised. It makes a good deal of difference the document is written for subordinates rather than for superiors, it makes a crucial difference if it is written for outside clients rather than for insiders. It is an entirely different matter if one were to write to an established corporate client as against an individual non-specialist client, especially in the extent to which one can afford to be explicit and detailed in transmitting technical and specialist information in the context of suggesting alternative solutions or

opinions in client advising. Expert and established writers are well aware of the constraints that the nature of background knowledge, disciplinary expertise or immediate concerns of the intended readership may impose on the process of genre construction (Bhatia 1999:26).

In addition to the four aspects of genre writing which assign specific genres to their essential generic identity, there are others which make them dynamic, creative and versatile rather than static and formulaic. For Bhatia (1999:27-29), these factors include:

- ❑ *Corporate and organisational differences:* many established corporations have their own preferred ways of conducting business but also of achieving communicative goals. Individual players within the organisation must learn to play the game according to established organisational preferences.
- ❑ *Strategies to achieve similar generic goals:* Although genres are instances of conventionalised and somewhat standardised communicative behaviour, in that they often display regularities of discourse organisation (Swales 1990), consistency of cognitive structuring (Bhatia 1993), typical generic structure potential (Hasan 1985) or stages of communicative activity (Martin 1985), they are also often flexible in terms of the strategies the individual writers may employ to achieve similar generic goals (Bhatia 1999:27).
- ❑ *Specialist knowledge:* Two kinds of audience characteristics offer variation within a genre in professional settings: level of specialist knowledge and single or multiple readership. Level of accessible specialist knowledge is likely to influence two kinds of decision: firstly, as to the technicality of the written content, and secondly, as to the degree of detailed specification of information necessary. Knowledge of audience characteristics also helps the writer to use appropriate effective communicative strategies to influence the reader. The other readership factor, whether the reader is an individual or a group of individuals, is significant in that it helps the genre writer to use an appropriate interpersonal stance, crucial in some professional genres (Bhatia 1999:28).
- ❑ *Variation in linguistic realisations:* In the context of professional genres, the relationship between specific generic values and linguistic realisations is relatively stable, rather than fixed (Bhatia 1999:28).
- ❑ *Genre mixing and embedding:* The most interesting characteristic of professional genres is their versatility in that they have a natural tendency to mix not only the variety of communicative purposes, but also private intensions within the context of socially recognised communicative contexts. This makes generic frameworks very versatile in nature (Bhatia 1999:29).

To take full advantage of genre theory, it is necessary to view genre as a construct with a narrow focus but at the same time with a broad vision (Bhatia 1999:39). Instead of focusing on individual texts and their surface-level textual descriptions, genre practice should be regarded as a resource to recreate, innovate, exploit and manipulate conventional practices to achieve individual expression. Genres are also crucial to the understanding and practice of participating in the affairs of specific and individually relevant disciplinary communities. Ignoring the genre perspective on professional texts will turn writing from "what should be a practical art of achieving social ends into... [an] art of making texts that fit formal requirements" (Miller 1994:67 in Bhatia 1999:39). As Martin (1985:250) points out, "genres are how things get done, when language is used to accomplish them"; however, they ought to be done appropriately and in such a manner that they are seen to have done so.

2.10 Conclusion

An understanding of writing practices requires a theory of writing that can be "examined openly and publicly" (Grabe 2001:40). Although an anchoring assumption for a theory of writing has been that it is best developed from examining the writing of expert writers, this perspective changed in the 1970s, with studies rather focusing on the perspectives of the writers and exploring literacies as multiple and socially situated rather than unitary and universal. In contrast to the disciplinary historical and cognitive development perspectives, the sociocultural approaches view writing use in real-world situations and NLS (Gee 1991, Street 1993) provided a methodology and literature source to probe social and cultural meanings beyond the surface appearance of writing (Collins & Blot 2003:xi). Writing viewed as a practice was a powerful challenge to the notion of writing as a transparent and autonomous system (Lillis 2001) and provides an alternative means for understanding literate practices and literacies in societies. It also acknowledges that particular practices have become dominant within particular domains of social life and these involve and invoke particular values, beliefs, identities, all of which contribute to the maintenance of particular social structural relations.

As critical literacy draws on the dimension of writing as a social practice, it is also possible to understand the relationship between writing and social power (Baynham 1995:71). Therefore, research on writing as a social practice, attempts to integrate multiple elements and investigates the ways in which writing and the writer are implicated in discourses, ideologies and institutional practice of which they are part. More specifically, research on writing pays attention to the influence of context on writers' composing processes, particularly the way in which social dimensions of specific settings like audience, purposes, assigned or imputed roles and institutional ethos influence writers' rhetorical and linguistic decisions (Anson & Forsberg 1990:202).

The workplace as a research site is a complex setting as every piece of writing is the product of a social context and a "complex dynamic multifunctional activity" (Bhatia 1999:22). However, to theorise about the complexities observed in situated workplace writing requires a theoretical framework. Although various theoretical frameworks have been used to explain writing practices, the theorising of genre is a useful way to explain writing characteristics of discourse communities. Winsor (1999:203) uses genre theory to describe the complexity of becoming "literate" in writing generic reports. As genres spring from social motive, that motive is the manifestation of ideology's beliefs, power relations, and community aspirations transformed into rhetorical action. In the engineering context, this is further complicated by the report-writing genre context as individual genres serve as sites of ideological struggle, as different communities within the larger collective attempt to advance their own knowledge, values and beliefs.

For Schryner (1993:208), the concept of genre from "rhetorical as well as dialectical and dialogic perspectives" is a means to theorise about the complex, evolving discourse practices and can illuminate much of the work and ideology of such textual practices. Therefore, the genre perspective on professional texts is crucial to the understanding of report writing.

Chapter 3 describes the research methodology which is ethnographic in principle but critically orientated and depends on an understanding of holistic modes of human experience and their relationships to communicative structures to derive definitions of truth and validity (Carspecken 1996:19). The research, therefore, does not only focus on the writers' perceptions of the literacy practices, but also on the "collaborative situation... personal and institutional histories and writers' and teachers' political hopes" (Bizzell & Herzberg 1996:13 in Bishop 1999:13). The engineers' definitions of literacy is, therefore, located within the understanding that literacy is always situated within specific social practices which shape and are shaped by the social actions undertaken in response to recurrent situations within discourse communities. A study of this rich network requires the researcher to go beyond the participants' immediate experienced meanings "to penetrate hidden meanings and underlying connections, to make the invisible visible" (Kumaravadivelu 1999:476) and so reveal knowledge as social texts that are relationally produced in a multiplicity of mutually informing contexts (McLaren, 1995:281 in Kumaravadivelu 1999:476).

Chapter 3 Critical Ethnographic Research Methodology

3.1 Introduction

Although quantitative research methods have long held a dominant position in most of the social sciences (Hammersley & Atkinson 1983:1), they have tended to emphasise measurement and the analysis of causal relationships between variables rather than processes and meanings (Denzin & Lincoln 1998a:8). Quantitative studies have also showed little correspondence between what was measured and “reality” and produced little “truth” that was useful in contexts of practice (Krenz & Sax 1986 in Johnson 1990:11). Therefore, research investigating “human phenomena” (Carspecken 1996:3) can no longer depend on sterile survey methods which focus on counts and measures regardless of whether or not they are appropriate to the research problem (Berg 2001:10).

Qualitative research methods, however, have often been criticised for being too subjective, too value-laden, not replicable, not generalisable, trivial in conclusions, lacking internal validity, not empirical, neither rigorous nor systematic (Borman, Le Compt & Goetz 1986 in Johnson 1990:11). These issues needed to be addressed as research became increasingly concerned with questions on meaning and socially constructed realities while keeping the relationship between the researcher, what is studied and the situational constraints that keep the enquiry intimate (Carspecken 1996:3). This required non-quantitative but rigorous ways of conducting research in the social sciences and ethnography, initially the dominant method for doing qualitative research (Eisner 1999) as a research methodology started going through a “pioneering period” (Giorgi 1994:190).

Ethnographic methods have since undergone considerable advancement, refinement and change resulting in what Ellen (1984 in Berg 2001:134) calls a “new ethnography”, which has been redefined as a set of highly-formal techniques (Spradley 1980, Van Maanen 1982 in Berg 2001:134). Ethnological fieldwork techniques have enabled the researcher to systematically study the participants’ points of view in natural contexts and

provide a holistic and participant-informed perspective through what Geertz (1973) calls “thick description” of cultural contexts. However, the proposed study intends to focus not only on the participants’ perceptions of the literacy practices, but “how to represent the embedding of richly described local cultural worlds in larger impersonal systems of political economy” (Marcus & Fischer 1986:84 in Canagarajah 1993:605). Therefore, an approach was needed that went beyond the dominant descriptive ethnography often practiced and a research tool was required that could penetrate hidden meanings and underlying connections. Critical ethnography, which is an ideologically sensitive orientation to the study of culture, was selected as the preferred methodology as it is concerned with multiple perspectives, cultural and social inequalities and is directed towards positive social change.

As methodology cannot be examined in a vacuum, the chapter explores the core of qualitative ethnographic practice including its theory, methods and substantive interests. Peirce (1995:539) describes the relationship between theory and methodology as “complex” as theory (implicitly or implicitly) informs the questions researchers ask, the assumptions made as well as the procedures, methods and approaches used to carry out research projects. In turn, the questions asked will inevitably influence the kind of data collected, how they are collected and what conclusions are drawn on the bases of data analysis.

3.2 Ethnography and qualitative research

According to Eisner (1999:19), and as already noted, ethnography was initially the dominant methodological orientation for doing qualitative research. Ethnographic inquiry emanated from a phenomenological base (Husserl 1931, Schultz 1970, Weber 1947 in Carspecken 1996) as it sought to understand social behaviour from the subjects’ frames of reference, focusing on their intentional awareness or consciousness of an object or phenomenon (Giorgi 1975:83). Therefore, as a research methodology, phenomenology starts from the perspective of consciousness and allows whatever presents itself, precisely as it presents itself, to be a legitimate point of departure for

research. The researcher is meant to provide as results only descriptions of structures, rather than speculations or interpretations, as they appear to the researcher and participant's consciousness. Although a phenomenological approach admits to a reality independent of consciousness, it claims that knowledge of such reality can only come through consciousness of it, so it is better to study the reality claims made by the person through their consciousness of it. The researcher's phenomenological task is then not to specify in advance what reality is, but to describe the nature of reality as taken up and posited by the research participants. Phenomenologists are, therefore, interested in perceived reality as an experience of the perspective so that researchers can discover possible reality claims that may be outside their *a priori* speculations (Giorgi 1994:203). However, it is through ethnography as a research method that the meanings that form and give content to social processes are understood (Hammersley & Atkinson 1983:2).

3.2.1 Ethnography as a primary research method

Although ethnography is now recognised as a primary research method, ethnographers from academic backgrounds such as anthropology, sociology and education seem unable to agree on a definition of ethnography and its application (Hammersley & Atkinson 1983, Carspecken 1996, Denzin & Lincoln 1998, Ramanathan & Atkinson 1999, Bishop 1999, Berg 2001). This is partly because many diverse research traditions fall under the qualitative label (Silverman 1985, 1993; Le Compte 1990, Denzin & Lincoln 1998) and the term is connected to more-or-less related concepts such as: qualitative research, case studies, naturalistic enquiry, micro-ethnography, interpretive research, ethnography of communication, participant observation, thick description and analytical induction (Ramanathan & Atkinson 1999:46). In addition, with ethnography, there has been considerable diversity in prescription and practice extending to theoretical and practical fields (Hammersley & Atkinson 1983:1). However, Berg (2001:134) points out that regardless of terminological preferences, ethnography places researchers in the midst of whatever it is they study so that they can examine various phenomena as perceived by the participants and represent these observations as accounts.

Freebody (1992) also supports the studying of everyday literacy practices in specific communities in a "principled ethnographic sense" because as a research approach, ethnography is orientated to cultural understandings, pays attention to local contexts of practice and recognises the importance of incorporating multiple points of view in relation to observed phenomena (Duff & Uchida 1997:452). Many writing researchers have also supported ethnography as a primary method for understanding the complex literacy cultures and communities that occur within communities since initial definitions of ethnography (Ramanathan & Atkinson 1999:46, Bishop 1999:12). Researchers claim that these ethnographic and context-based studies illuminate previously neglected areas, like cultures, and produce emic and holistic understandings of complex processes (Bishop 1999:13).

3.2.2 Defining ethnography

Although researchers seemingly use ethnography in different ways, Wolcott (1973 in Berg 2001:134) captures the essence of most variations by defining ethnography as the "science of cultural description" which aims "to understand another way of life from the native point of view" (Spradley 1979:3 in Berg 2001:134). Hammersley and Atkinson (1983:2) describe ethnography simply as the most basic social research method which uses a wide range of information sources to describe and throw light on research issue concerns. However, the best definition of ethnography according to Ramanathan and Atkinson (1999:47) is Watson-Gegeo's definition, "the study of people's behaviour in naturally occurring ongoing settings with a focus on the cultural interpretation of behaviour" (1988:576 in Ramanathan & Atkinson 1999:47). According to Watson-Gegeo, the six principles underlying ethnographic work are that it:

1. focuses on the behaviour of groups although inevitably studying the lived experience of individuals and their personal reflections on it.
2. is holistic as it describes any aspect of the culture or the behaviour and explains it in relation to the whole system of which it is part. It is also holistic not because of the size of the social unit but because it considers units of analysis as wholes whether they be "a community, a school system and its political relations with its various 'publics'... or the beginning of one lesson in a single classroom" (Erickson 1977:9 in Ramanathan & Atkinson 1999:47).

3. is powerfully informed by theory.
4. aims to gain access to the cultural member's own or *emic* perspective, the conceptual frameworks or value systems whereby insiders both categorise and engage in their daily lived experience. The emic analysis, once accomplished should be extended *etically* to make cross-cultural or cross-setting comparisons.
5. is comparative, relating to the importance of generalisability in ethnographic studies.
6. has a language socialisation perspective underlying the principles of ethnographic research previously delineated. This perspective assumes that language is learned primarily through social interaction with other (typically more experienced) cultural members and that, additionally, language itself is a primary repository and conveyor of social knowledge. The underlying assumption that language learning is a product of cultural experience is clearly operable in most ethnographically orientated studies of L2 writing. The term *cultural*, therefore, can be extended beyond its traditional usage to encompass such phenomena as classroom communities and academic cultures and basically any more-or-less stable social grouping that takes on its own norms of behaviour, interaction and socialisation in the course of intensive prolonged contact.

Based on Watson-Gegeo's definition, Ramanathan and Atkinson (1999:49) define ethnography as "a species of research which undertakes to give an emically-orientated description of the cultural practices of individuals by bringing a variety of different kinds of data to bear in such description". The principle is that multiple perspectives enable a more valid description of complex social realities than any single kind of data alone could. The ethnographic tradition can, therefore, be viewed as:

- ❑ phenomenological and seeks to understand human behaviour from the participants' frame of reference;
- ❑ systematically observing recurring patterns of behaviour as people engage in regularly occurring activities;
- ❑ using field settings and develops hypotheses grounded in events and driven by the conceptual framework of the study; and
- ❑ confirming across a variety of information sources, contexts, times.

3.2.3 Ethnography and culture

Along with the rise of postmodernism, came the critique of the whole notion of culture in general and the use of ethnography as the means of doing so in particular (Ramanathan & Atkinson 1999:45). The critique of culture can be summarised as the very idea of culture itself being an unacceptable

abstraction. There is no such thing as a social group that is not constantly destabilised by both outside influences and personal idiosyncrasy and agency, phenomena that have profound consequences on the way people live and think about their lives. In this sense, cultures are themselves ideologies or ideal systems meant to reduce the differences among people in a certain bounded physical area and to exclude both the possibility and the reality of outside influence and individual difference among them. Bishop (1999) also adds that the culture cannot be replicated or tested because it is experienced for a finite time through the researcher's participation and attention. In addition, the culture can only be entered and participated in to the degree that the researcher is able to gain entry and the members are willing to afford entry. Then only can the research experience be textualised through the analysis of field notes, transcribed interviews and physical artefacts (Bishop 1999).

If the notion of culture is on such tenuous grounds, ethnography as its study is already seriously threatened. In addition, ethnography has its own criticisms:

- ❑ where knowledge is socially constructed, empirical methods and objectivity have only marginal epistemological status;
- ❑ since knowledge is inherently perspectival, how is the ethnographer's personal and professional vision separated from what it operates on whatever the epistemological status of the latter;
- ❑ even if the ethnographers have faithfully recorded a certain slice of reality, they are required to write it up in a form that has its own exigencies and formal requirements quite apart from the culture being studied – in this way ethnographic accounts are inevitably inaccurate and constructed; and
- ❑ no form of research including ethnography is ever politically neutral. (Ramanathan & Atkinson 1999:45)

Although ethnographic research stemmed from a need to describe the culture of a community from the shared perspective of what guided their behaviour in a specific context, Silverman (1998:1) argues that there is a need to broaden ethnographic research beyond subjective meanings towards "issues of language, representation and social organisation". Bishop (1999:3) also extends the purely descriptive focus of ethnography by viewing ethnography as not only a representation of the lived experience of a convened culture but

also as a means to document “the belief systems that contribute to the coherence of the group” (Potter 1996:51 in Bishop 1999:3).

Therefore, although ethnographers admit and sometimes celebrate the subjective nature of their enquiry, ethnography has sometimes been dismissed as inappropriate to social science on the grounds that the data and findings are subjective and cannot provide a solid foundation for rigorous scientific analysis. Therefore, current ethnography is taking up the challenge of “how to represent the embedding of richly described local cultural worlds in larger impersonal systems of political economy “ (Marcus & Fischer 1986:84 in Canagarajah 1993:605). To research this rich network, the researcher will need to go beyond the participants’ immediate experienced meanings “to penetrate hidden meanings and underlying connections, to make the invisible visible” (Kumaravadivelu 1999:476) and so reveal knowledge as social texts that are relationally produced in a multiplicity of mutually informing contexts (McLaren 1995:281 in Kumaravadivelu 1999:476). This new orientation in the fieldwork and writing of ethnography is inspired by the more complex, politicised view of culture in both anthropology and political economy.

3.2.4 Critical ethnography

Although it is impossible to define critical ethnography precisely, Ramanathan and Atkinson (1999:59) propose a definition that combines the focus of neo-Marxist critical theory on the “critique and transformation of conditions oppressive and inequitable moral and social regulation” (Simon & Dippo 1986:197 in Ramanathan & Atkinson 1999:59) using field methods normally shared by a variety of ethnographic approaches. Therefore, post-modern ethnographic studies face the challenge of moving beyond “the reanimation of local experience, an uncritical celebration of cultural differences, and the employment of a framework that espouses universal values and a global role for interpretivist anthropology” (Silverman 1990 in Denzin & Lincoln 1998a:291). These studies require qualitative researchers to challenge dominant research practices that are underwritten by “a foundational epistemology and a claim to universally valid knowledge at the expense of local, subjugated knowledges” (Peters 1993 in Denzin & Lincoln 1998a:291).

To conduct such politically motivated ethnography, researchers need to go beyond dominant descriptive ethnography and be transformative (Pennycook 1994 in Cummings 1994: 691) necessitating a critical ethnographic approach. A result of this critical orientation is the small but growing body of ethnographic literature that looks at the culture of communities in relation to social conflict and political domination (see Bourdieu & Passeron 1997, Ogbu 1986, Weis 1985, Willis 1997 in Canagarajah 1993:605).

Marcus and Fischer (1986 in Canagarajah 1993:605) define critical ethnography as:

... an ideologically sensitive orientation to the study of culture that can penetrate the noncommittal objectivity and scientism encouraged by the positivistic empirical attitude behind descriptive ethnography and can demystify the interests served by particular cultures to unravel their relation to issues of power.

Criticalists are, therefore, concerned with cultural and social inequalities and direct their work toward positive social change. They are also concerned with the nature of social structure, power, culture and human agency and use research to define and change rather than to describe social life (Carspecken 1996:3, Connor 1992:251 in Denzin & Lincoln 1998a:291). Ramanathan and Atkinson (1999:45) also state that the only ethical form of ethnography is critical ethnography which takes on “an activist liberatory stance”. Therefore, although critical ethnography allows, in a way that conventional ethnography does not, for the relationship of liberation and history, its hermeneutical task is to call into question the social and cultural conditioning of human activity and the prevailing socio-political structures.

A consequence of critical research is that the difference between the critical researcher and the qualitative researcher is not to be found in the use of different methods or techniques, but rather in the insistence on “engaged research with the ultimate aim of social relevance, individual empowerment and, ultimately, political emancipation” (Babbie & Mouton 2005:39). The researcher cannot be satisfied with understanding multiple perspectives but rather seeks to challenge and transform social power relations to bring about

independence from influences outside the individual (McKenna 2003:219). For Boughey (2000:30), central to this emancipatory paradigm (Habermas 1960 in Babbie & Mouton 2005:34, Bhaskar 1986 in Sayer 2000:18) is the “process of self reflection which generates critical theories about the way in which ideology, coercion and distortion inhibit freedom”. This may not be enough to restructure the social system, but it is a beginning.

3.2.5 Critical research and truth

Critical research traditions recognise that truth claims are always discursively situated and implicated in relations of power (Denzin & Lincoln 1998:292). This does not suggest that because truth is known absolutely, it can simply be equated with the effect of power as truth involves regulative rules that must be met for some statements to be more meaningful than others. Otherwise truth becomes meaningless and, if this is the case, liberatory praxis has no purpose other than to win for the sake of winning (Carspecken 1993 in Denzin & Lincoln 1998a:292).

Central to this perspective of knowledge, is the defining feature of realism, which is the belief that a “world exists independently of our knowledge of it” (Sayer 2000:2), and the independence of objects from knowledge immediately “undermines any complacent assumptions about the relation between them and renders it problematic”. Therefore, as critical realism is “wary of simple correspondence concepts of truth” (Sayer 2000:2), it offers a rationale for critical social science, which is critical of the social practices it studies as well as of other theories (Sayer 2000:18).

Although the basic realist tenet is the independence of the world from thoughts about it, other features of critical realism ontology relate to Bhaskar’s (1975 in Sayer 2000:10) distinction between “intransitive” and “transitive” dimensions of knowledge. The intransitive dimension relates to the objects of the science, or the physical processes or social phenomena studied. The theories and discourse as media and resources are part of transitive dimension, though as part of the social world, they can also be treated as objects of study. When theories change (transitive dimension), it does not

mean that what they are about (intransitive dimension) necessarily changes as well. However, as the social world is socially constructed relationships are more complicated, so it cannot exist independently of at least some knowledge of it, usually that of past rather than contemporary researchers.

As the transitive and intransitive distinction implies that the “world should not be conflated with our experiences of it” (Sayer 2000:11), it is misleading to speak of an “empirical world” (Bhaskar 1975 in Sayer 2000:11). Critical realism is also not the same as empirical realism which identifies the real with the empirical, that is, that the world just happened to correspond with the “range of our senses and to be identical to what we experience” (Sayer 2000:11).

Critical realism rather distinguishes not only between the world and how it is experienced, but also between the real, the actual and the empirical (Bhaskar 1975 in Sayer 2000:11). When the critical realists refer to the *real*, they firstly note that the real is whatever exists, natural or social regardless of whether it is an empirical object and whether there is an adequate understanding of its nature. Secondly, the real is the realm of the social with its structures and powers, which have capacities to behave in particular ways and causal liabilities or passive powers usually susceptible to certain kinds of change. Therefore, *real* refers to structures and powers of objects and *actual* refers to what happens if and when those powers are activated to what they do and what happens when they do, as when the idle person starts working. The empirical is defined as the domain of experience, with respect to either the real or the actual though it is contingent whether the real or actual is known (Sayer 2000:12). For example, while organisational structures may be observed as well as what happens when practices are activated, some structures may be unobservable, like cultural influences. Although observability may reinforce what exists, existence itself is not dependent on it, therefore, rather than relying on observability for making claims, realists accept causal criterion too (Collier 1994 in Sayer 2000:12). Therefore, a plausible case for existence of the unobservable entities can be made by referring to observable effects, which can only be explained as the products of

such entities. For example, the existence the “Received Tradition” (Christie 1985 in Boughey 2002:303) associating language problems with the status of speaking English as an additional language from L2 rhetorical errors.

However, a crucial implication of this ontology is the recognition that of possibility that powers may exist unexercised and so “what has happened or been known to have happened does not exhaust what could happen or have happened” (Sayer 2000:12). Realist ontology, therefore, makes it possible to understand how formal discourse structures can be replaced with less formal varieties in specific multimodal contexts.

Sayer (in Kowalczyk, Sayer & New 2000:61) also describes Bourdieu (1984 in Kowalczyk et al 2000:61) as a “highly sophisticated realist, with much to say about method” adding that Bourdieu’s concept of *habitus* is entirely compatible with critical realism and provides deep explanations of actual behaviour. Habitus refers to deeply ingrained dispositions of individuals towards different situations in the social field and the people, institutions, practices and artifacts located therein, relative to their own. Although these dispositions are embodied, social causal powers orient behaviour at a subconscious level, giving actors a *feel for the game*. In social positions where individuals lack the feel, they experience unease which leads to subtle forms of exclusion or soft forms of domination. The social field interactions also operate partly below the level of meaning and may even persist when recognised as a problem. For Bourdieu, this describes the influences of the transitive dimension which operates at the level of the actual and has much to do with actors’ subconscious feel for the game, supporting that reasons can be “causally efficacious” (Kowalczyk et al 2000:61) or reasons can act as causes and be responsible for causing change.

Although basic realist propositions acknowledge the mind-independence of the world, critical realism also provides an alternative to several philosophies and methodological positions by simultaneously challenging common conceptions of both natural and social science, particularly regarding causation, and proposes a way of combining a modified naturalism with a

recognition of the necessity of interpretive understanding or *verstehen* of meaning of social life (Sayer 2000:17). As meanings are related to material circumstances and practical contexts in which communication takes place and to which reference is made, critical realism acknowledges that the world can only be known under particular descriptions, usually in terms of available discourses as language, writing and rhetoric, which affect not only how ideas are represented to others but also how people think (Sayer 1992:1). However, as social reality is only partly text-like, much of what happens does not depend on or correspond to the actors' understandings as "there are unintended consequences and unacknowledged conditions and things can happen to people regardless of their understanding" (Sayer 2000:20).

Critical realism, however, has not much to offer researchers whose main concern is interpretive understanding or *verstehen*. Although critical realists support *verstehen* and agree that material circumstances and referents are relevant to the level of meaning, it does not say it can be achieved. For realists to interpret what actors mean, their discourse needs to be related to its referents and contexts in a substantial way. However, interpretative understanding of discourses and intrinsically meaningful action is not a matter of abstracting and retroduding, but of making sense of ideas and actions. Although realists recognise the concept dependence of social phenomena and the need to interpret meaningful actions, this does not rule out causal explanation. Therefore, reasons can also be causes as they prompt different actions and thoughts and this is not something separate from or alternative to causal explanation (Sayer 2000:27).

Actions also always presuppose already existing resources and media; many of which have a social dimension that is irreducible to the properties of individuals and, in turn, these resources and social structures are also a product of actions. Sayer (2000:18) uses the following example to explain actions:

... speaking presupposes a language, a language community, as well as material resources such as vocal cords or other means of making intelligible sounds.

However, for phenomena to be explained the “dependence of shared actions and shared meanings” (Sayer 2000:19) needs to be acknowledged while showing in what respects they are false, if they are. Ramanathan (2002 in Ramanathan 2005:22) also describes the dependence of truth on “shared meanings” as “thought collectives... Circulated over and between members of a collective, shared thought structure, produced by structure” and produced by “common understanding or mutual misunderstanding” (Fleck 1981 in Ramanathan 2005:22). Therefore, social practices are often informed by ideas, which may or may not be true and if they are true, they may have some bearing on what happens. However, if understandings in society are identified as false, actions informed by them are also falsely based, and this implies that those actions and beliefs ought to be changed (Bhaskar 1986 in Sayer 2000:19). This sort of understanding is particularly useful in relation to research into literacy given the claims made for certain kinds of literacy and certain literacy practices outlined in chapter one of this thesis.

In multiple systems and causes, there is also the possibility of different causes producing the same effects as well the “risk of misattributions of causality” (Sayer 2000:20). Therefore, as there are often many things going on at once in these situations, the objects or social systems being studied are usually multi-dimensional and “always open and usually complex and messy” (Sayer 2000:19). Therefore, components cannot be isolated and examined under controlled conditions, unlike natural sciences, throwing a huge burden on abstraction, or “the activity of identifying particular constituents and their effects” (Sayer 1992:3). Therefore, to ensure that causal responsibility is not being misattributed, critical realist research gives priority to abstraction and careful conceptualisation when attempting:

... to abstract out the various components or influences in our heads, and only when we have done this and considered how they combine and interact can we expect to return to the concrete, many-sided object and make sense of it (Sayer 2000:19).

Although much depends on the modes of abstraction, the way of “carving up and defining objects of study” (Sayer 1992), most of the methodological literature on social sciences ignores this fundamental issue. This results in many kinds of social research operating with categories that are based on “bad or incoherent abstractions” (Sayer 2000:19). Where researchers are concerned with discourses and the meaningful qualities of social practices, understanding is not only a matter of abstraction followed by concrete synthesis, but of interpretation. This requires asking whose perspectives are to shape interpretation and analysis as activities of knowledge forming are often not value-free or innocent. It is also important to establish the extent to which the abstraction filters out the variability of experience in diverse contexts. If the phenomena being described are removed from locality, “the structure is reduced of its social and cultural *thickness*, and the particularity of experience informing the model is suppressed as unruly or insignificant” (Canagarajah 2005b:5). Explanation of the social world, therefore, requires “attentiveness to its stratification, to emergent powers rising from certain relationships, and to the ways in which the operation of causal mechanisms depends on the constraining and enabling effects of contexts” (Sayer 2000:27).

Silva (2005:9), however, argues for an ontology of “modified realism” which recognises that reality exists, but can never be fully known as it is:

... driven by natural laws that can only be incompletely or partially understood. (Its) epistemology is interactionist - a result of the interaction between subject (researcher) and object (physical reality), wherein a human being’s perceptual, cognitive, and social filters preclude any totally objective or absolute knowledge.

Critical epistemology, on the other hand, allows for a differentiation between “ontological” categories than between “realities”, which makes it possible to formulate subjective, objective and normative-evaluative truth claims (Carspecken 1996:20). Denzin and Lincoln (1998:292) also describe truth similarly as being internally related to meaning in a pragmatic way through normative referenced claims, intersubjective referenced claims, subjective claims and the way meaning is deictically anchored in daily lives. Research,

therefore, not only depends on the participants' perceptions as a basis for a theory of truth (Carspecken 1996:17) or the value orientations of the researcher although these are important (Carspecken 1996:6), but it depends on an understanding of holistic modes of human experience and their relationships to communicative structures to derive definitions of truth and validity (Carspecken 1996:19).

In addition, Carspecken explains that researchers are only able to articulate the normative evaluative claims of others when they begin to see them in the same way as their participants by living inside the cultural and discursive positionalities that inform such claims (1993 in Denzin & Lincoln 1998a:293). What is crucial, according to Carspecken, is that researchers recognise that they are located ideologically in the normative and identity claims of others but at the same time are honest about their own subjective referenced claims and do not let normative evaluative claims interfere with what is observed. However, as the subjective influence of the researcher's identity is unavoidable, it is crucial where research concerns human perceptions that the researcher be aware of and expose prejudices (McKenna 2002:219).

Critical research also problematises normative and universal claims in a way that does not allow them to be analysed outside the politics of representation, divorced from material conditions in which they are produced or outside of a concern with the constitution of the subject in the very acts of reading and writing (Denzin & Lincoln 1998a:293). Therefore, these truth claims will require different kinds of support to win the consent of others as it is the consent given by the group, potentially universal in membership, that will validate the claim (Carspecken 1996:20-21). This will require the researcher to be clear about the kinds of support that will be needed, as this will determine the study's theory of knowledge, and how valid knowledge is acquired (Carspecken 1996:20).

To ensure research rigour, Lincoln and Guba (1985 in Davis 1995:437) suggest the use of member checks, debriefing by peers and reflexive journals to guard against bias. Davis (1995:437) also suggests enhancing studies by

developing partnerships from within and outside the culture or social situation studied. In addition, Lincoln and Guba (1985 in Carspecken 1996:88-89) formulate a comprehensive list of validation procedures to support the validity claims of the researcher in qualitative research. These procedures include the use of multiple observers or triangulation, flexible observation schedules, prolonged engagement to reduce the Hawthorne effect and low-inference vocabulary. Therefore, although the structures to be explored may originate in everyday communication, they will produce rigorous standards useful to social science.

3.2.6 Critical methodology

Although this study's orientation is based on critical epistemology, its research methodology is ethnographic in principle. Critical ethnography does not imply a particular approach or a method of research to provide the principles by which to design a research project, develop field techniques and interpret data (Carspecken 1996:3), rather the critical research puts greater emphasis on being rigorous than adhering to methodological procedure (Cummings 1994:693). Carspecken (1996:40) also states that actual qualitative methods are not "threatened by critical methodology" but are rather concerned with the extent to which research is answerable to larger moral and political questions.

Critical realism is also compatible with a relatively wide range of research methods, but implies that the particular choices should depend on the nature of the object of study and what needs to be learnt about it. Using an intensive research design, the critical realists seek out substantial relations of connections and situate practices within wider contexts, illuminating part-whole relationships (Sayer 2000:22) in order to explain and change the social world. An intensive approach starts with the research participants, as social phenomena are dependent on the actors' conceptions of them. The researcher, therefore, has to enter the contexts as realism insists in "material commitments and settings of communicative interaction" and the presence of a "non-discursive material dimension of life" (Sayer 2000:17-18). This allows the researcher to have internal although "fallible access" to the participants' conceptions of social phenomena (Bhaskar 1979 in Sayer 2000:18). In the

research context, there is a two-way movement or “fusing of horizons” of listener and speaker, researcher and researched, where texts never speak for themselves, and are “not reducible to the researcher’s interpretation of them either” (Sayer 2000:17).

The intensive approach starts with tracing the main causal relationships which the participants enter and studies their qualitative nature as well as their number. For Sayer (1992) statistical explanations act not as explanations in terms of mechanisms but they are merely quantitative descriptions of formal (not substantial) associations. Causal groups are also not necessarily local, and can include global networks as well as groups or networks of specific people, institutions, discourses and things with which the participants are actually involved. How causal groups can become effective in producing change depends on their practical adequacy, on how they relate to the constraints and opportunities of the context in which they are proposed.

Similarly, it is not enough to cite the will and actions of key individuals and institutions as sufficient for producing change, because their effectiveness depends on how they relate to wider discourses and to the shifting and uneven possibilities of the context (Sayer 2000:25). Jessop (1990 in Sayer 2000:25) calls this the “strategic relational approach” regarding how actors, actions and contexts articulate. Therefore, it is important to not only know what the main strategies of the actors were, but what about the context enabled them to be successful or not. This is consistent with the realist concept of causation and requires the asking of realist questions about necessary and sufficient conditions so as to decide what it was about a certain context which allowed a certain action to be successful or not. As often the success or failure of agents’ strategies may have little or nothing to do with their own reasons and intentions, Sayer (2000:26-27) stresses the importance of a realist approach not only finding common associations among phenomena without pursuing questions about their status and whether they are associated necessarily or contingently.

Although intensive research is strong on causal explanation and interpreting meanings in context and usually deals with a small number of cases (Sayer 2000:21), the validity of the analyses and their representativeness in relation to large numbers are an “entirely separate matter” (Sayer 2000:21). The adequacy of an analysis of a single case need have nothing to do with how many other such cases there are. Therefore, although concrete patterns and contingent relationships are unlikely to be representative, average or generalisable, necessary relations discovered will exist wherever their relationships are present. For example, causal powers of objects are generalisable to other contexts as they are necessary features of these objects. Therefore, by situating actors in causal groups, intensive research provides a window onto larger entities, showing how the part is related to the whole and vice versa.

Realist research methodology supports Denzin and Lincoln’s (1998a:3) proposal of a methodology that is “multi-method in focus, involving an interpretive, naturalistic approach to its subject matter” incorporating the study of individual agents in their causal context, interactive interviews and qualitative analysis. Bernard (1988 in Johnson 1990:19) also supports multi-method approaches as well as triangulation to improve the chances for replication, so that qualitative research can leave “its mark conceptually and theoretically on the social sciences” (Bogdan 1972 in Berg 2001:2).

Carspecken (1996) suggests using a variety of different kinds of data collected from various sources to describe the study’s more-or-less stable social grouping’s “norms of behaviour, interaction and socialisation in the course of intensive, prolonged contact” including site observation, questionnaires, interviews, group discussions and the sampling of texts to ensure a valid description of the complex social realities. However, Bishop (1999) argues that contact at the research site need no longer be prolonged as sites of ethnographic writing research also have a much shorter span (longitude) than studies undertaken by classic ethnographers who entered a culture and live there some years. However, while ethnographic researchers do not usually reside long-term in unknown cultures, they do attempt to

understand practices from the participants' point of view and the dynamics of the entire department or corporation (Bishop 1999:4). The research attempted to achieve this through the workshop presentation, numerous site meetings as well as conducting the interviews at the research site.

Carspecken (1996:41-42) outlines five stages for critical qualitative research data collection:

- ❑ *Stage 1: Compiling primary record through monological data collection*
Observations of interactions on the social site using note taking to build up an intensive set of notes. Also a looser journal will be kept on observations and conversations made when frequenting the locale of the site.
- ❑ *Stage 2: Preliminary reconstructive analysis*
Analyses of the primary record to determine interaction patterns, their meanings, power relationships, roles, interactive sequences, evidence of embodied meaning, intersubjective structures. This analysis is reconstructive to articulate cultural themes and system factors that are not observable and which are usually not articulated by the participants.
- ❑ *Stage 3: Dialogical data generation*
Generation of data by participants through questionnaires, interviews and discussion groups.
- ❑ *Stage 4: Discovering system relations*
Determining whether relationships exist between the site of focused interest and other specific social sites bearing some relationship to it.
- ❑ *Stage 5: Using systems relations to explain meanings*
Explanation of the findings in stages 1-4 by referring to the broadest system features. Reasons may be suggested for the experiences and cultural forms that have been reconstructed. This stage often gives the study its force and makes a contribution to social change.

Carspecken (1996:40) suggests that portions of the five-stage scheme can be used separately and as there is no real research design for critical realism (Kowalczyk et al 2000:64), the study's data collection incorporated Carspecken's (1996:41) stage 1 primary data and stage 3 dialogical data collection methods. However, in order to extend the study's findings, a form of Carspecken's stage 5 (1996:43) was drawn on to see if causal powers of objects are generalisable to other contexts, showing how the part is related to the whole; for example, the influences of the institution, education, language and cultural backgrounds on writing practices.

3.3 Data collection

3.3.1 Preliminary data collection

Carspecken (1996:41) recommends a preliminary step before the researcher enters the research site. Firstly, the researcher needs to create a list of general, broad, comprehensive and flexible research questions that are of interest to the researcher. Secondly, a list of specific items for study to satisfy these interests needs to be drawn up. Finally, the researcher's value orientations need to be examined to put a check on biases. The discovery of biases is a process that continues throughout a research project this also enables readers, to some extent, "to see behind" (Le Compte & Preissle 1993 in Carspecken 1996:41) the values that may govern the analysis. Bias checks include methods such as keeping a subjective journal during fieldwork, peer debriefing sessions and member checks.

3.3.1.1 Preliminary step 1

The creation of a general and broad question list relating to issues of literacy in the writing of reports by engineers included questions relating to:

- ❑ writing types in the participants' mother tongue, second language and workplace;
- ❑ influence of school / higher education on writing;
- ❑ assistance in writing;
- ❑ classification of what is easy and difficult in the writing process;
- ❑ steps followed in the writing process;
- ❑ role of revision;
- ❑ defining acceptable, good and bad writing; and
- ❑ barriers in the writing process.

The specific questions relating to the above interests included (see Appendix A):

- ❑ Type/s of writing the participants have done (or still do):
 - in their mother tongue;
 - in their second language;
 - at school; and
 - in the workplace.
- ❑ Description of the writing instruction received at school.
- ❑ Experiences using various writing types in the workplace.
- ❑ Writing assistance forms in the workplace.
- ❑ Difficulties and ease when writing.
- ❑ Role/function of the participant in the writing process.

- ❑ Steps followed when writing.
- ❑ Role of revision or editing in writing.
- ❑ Description of acceptable / unacceptable writing.
- ❑ Barriers in the writing process.

3.3.1.2 Preliminary step 2

Step 1 is followed by the drawing up of a specific list of the information that will be needed to satisfy the questions in step 1. For the study, this required information on the following:

- ❑ Life history narratives (partial) (questionnaire / interviews)
- ❑ Subjective writing experiences (questionnaire / interviews)
- ❑ Cultural influences in the writing experience (observation / questionnaire / interviews / focus group discussion)
- ❑ Writing routines (questionnaire / interviews)
- ❑ Writing examples (documents)
- ❑ Constraints and resources affecting writing routines (questionnaire / interviews / observation / focus group discussion)
- ❑ Distribution of writing routines across related research sites (documents / questionnaire / interviews)

3.3.1.3 Preliminary step 3

The final step is the exploration of the researcher's value orientations to put a check on biases. In the case of this research, the first check involved a discussion of the issues I expected to find before the research site was entered with a colleague. The colleague had presented the report-writing short course for the selected engineers at the research institution so was knowledgeable about the site and the potential participants. I had also presented a similar report-writing short course at the research site with the Logistics department at the same time. This discussion was intended to raise my awareness of biases so that I could check for them while compiling field notes and formulating research questions.

As Carspecken (1996:154) also recommends the compiling of a thick record of observations before interviews and group discussions commence, notes were also made after each of the initial site meetings, recording and reflecting what had transpired during the meetings.

3.4 Primary data collection

3.4.1 Pilot study

Management at the research site had identified a group of nineteen engineers requiring additional skills training in report writing in January 2004. Their training department had then approached the university at which I work to conduct an English proficiency assessment at the research site. The English proficiency assessment administered was designed to assess their reading and academic writing skills at postgraduate level and was administered at the research site in February 2004. Twelve of the engineers did not achieve the required proficiency level of 50% and were required to take a report-writing short course that was presented by a colleague from my university at the automotive corporation site during May / June 2004. This group became the research pilot group and the workshop was used to pilot the proposed research by refining and focusing the first questionnaire intended for the research study.

The pilot group completed the preliminary research questionnaire (see Appendix A) at the start of the workshop. The questionnaire was structured to include open-ended questions as well as some directive questions (Hammersley 1990:31) so that the perspectives of the participants and their understanding and interpretation of the literacy practices involved in report writing in the workplace could be explored and assessed. All the delegates completed the first questionnaire, as it was a workshop requirement. The pilot questionnaire was then refined further to probe more closely the participants' understandings of writing as a literacy practice from the perspective of the workplace structures in which their writing takes place.

The second refined and extended pilot questionnaire was sent electronically to the delegates at their request at the end of the workshop in July 2004. However, only four of the 12 participants completed the questionnaire and only three of the four delegates indicated that they would be prepared to continue with the proposed research in answer to the question, *Would you be happy to participate in further writing research?* Most of the delegates did not

respond to this question suggesting that the delegates attending the report-writing short course had been resentful about the language proficiency assessment and attending the report-writing short course. This assumption was confirmed by Moses during the first interview in his response to the question, *Any other comment/s about writing?* “No, the research is not a problem the - problem was right in the beginning deciding who should go on the report-writing course” (see also Example 4). It was also supported by the chief engineer and supervisors during the initial site meetings (see 3.4.2.1 Site meetings).

The pilot study was intended to refine and focus the primary research questions as well as to determine to some extent my own value-orientations. The findings also contribute to the data generation to be included in the primary data collection to build the primary record for analysis. The pilot study also assisted with reconstructing the participants’ responses on non-discursive levels of awareness and reflected some of their dissatisfaction with being required to take the report-writing short course and with management’s approach to their writing. Finally, the preliminary data collection also enabled me to design a final research questionnaire (Questionnaire 1 / see Appendix B) relating to topics focusing on report-writing processes and institutional writing practices. Questionnaire 1 focused on the participants’ description of issues such as their understanding of the influence of their background and mother tongue on their writing; various report-writing processes; what and who determined the criteria for an acceptable report; report revision and feedback; what was easy and difficult in the report-writing process; barriers in the writing process and how they influence the report-writing process.

The study’s primary data includes both monological and dialogical data collections.

3.4.2 Monological data collection

The monological data collection included notes of observations and interactions within the social site during visits (Carspecken 1996: 40). For monological data collection, Carspecken (1996:45) recommends the use of

two separate notebooks. The first notebook is for “not so thick” journalistic records of events in the form of a field journal in which entries are made some time after the events have taken place. This recording from memory should be done soon after the observation has taken place and records impressions gathered during informal observation periods and conversations with key informants. The second notebook requires the “thick” record of the highly detailed accounts of observed activity including speech acts in verbatim form and observations of body movements and postures for selected times at the research site. According to Carspecken (1996:48), thick description is considered the “ideal case” for meeting validity requirements of objectivity. Carspecken (1996:47) outlines the following basic features of thick description:

- ❑ include context information: time of arrival / reasons for being there/ comments made
- ❑ note speech acts, body movements and body postures
- ❑ list low-inference vocabulary: “appears to be” / “seems” / “as if” to qualify normative and subjective inferences
- ❑ record time: to retain a sense of the time period to prevent distortion
- ❑ insert speculations about meaning of an interaction: use brackets and the “OC” for “observer comment” to separate comments from objective-referenced data
- ❑ include verbatim speech in italics
- ❑ draw a simple diagramme: to describe site or movement of people
- ❑ type record on word processor

For the study’s monological record, the researcher made use of detailed notes of the site meetings which included context information, low inference vocabulary, time record, verbatim quotations and researcher impressions which were then typed up and saved for future reference. All email correspondence between participants and site managers was also kept as part of the primary record.

3.4.2.1 Site meetings

Site meetings commenced with Human Resources (HR) in September 2004 to obtain official permission to use the motor corporation as a research site. At the meeting with HR, the motor corporation’s confidentiality requirements and procedures were outlined. A document had to be submitted to HR confirming

that the site and participants' confidentiality would not be breached. In addition, HR needed to be kept abreast of all research developments (see Appendix C). Once the confidentiality agreements were finalised and permission obtained to use the site for research, meetings were organised with the chief engineer and supervisors regarding participant selection.

At a site meeting with the chief engineer in October 2004, it was agreed that participation in the research would be voluntary and he suggested that the potential participants should be told that their participation would lead to development and innovation in the field. The chief engineer also suggested that the participants should include other engineering departments as well as L1 and L2 speakers with the clause that participants should be writers of reports. He also agreed with HR that the pilot report-writing workshop group should also participate in the research. He confirmed that he would contact the potential participants' supervisors about encouraging them to be part of the research.

At the meeting, the chief engineer also expressed concern about the engineers' report-writing skills especially an unwillingness to formulate conclusions, make recommendations and outline recommendation implications. He said that the engineers would often just describe the component test without an analysis of the findings and so not "stick their necks out", to make recommendations and formulate implications. Rather, their recommendations were thin and generalised, often not outlining the implications. This apparent reluctance on the part of the engineers to extend their reports and to make specific recommendations was attributed to a lack of confidence or a reluctance to commit to a "complete report". However, the chief engineer felt that within their areas of expertise, they should have the knowledge to suggest recommendations especially after carrying out the tests. Possible reasons suggested for the apparent guarded writing practices were that the engineers as writers:

- ❑ felt they might be loaded with additional work if their reports were good;
- ❑ might feel that they were unable to maintain the standard;
- ❑ saw themselves as inferior;

- ❑ felt they would be held accountable for suggestions made;
- ❑ felt that reports sent back would entail more work;
- ❑ perceived reports sent back negatively; and
- ❑ perceived it to be the manager's job to do the thinking and to complete the report, draw conclusions, make recommendations and implications from the report findings as the managers had the knowledge and expertise.

A further reason for their thin reports, suggested by the chief engineer was that the engineers perceived getting reports back as not a good thing.

Therefore, he felt that the writers would rather avoid making any recommendations in case these were questioned, leaving the managers to make the deductions. He also confirmed that the motor corporation generally regarded engineers from higher education institutions highly and that the needs of the automotive industry were generally met by higher education engineering faculties.

A meeting was then scheduled with the two supervising engineers in November 2004. At the meeting, the English proficiency assessment of the pilot group who subsequently attended the report-writing short course in June 2004 was discussed including their apparent resentment for having to do the course. The supervisors confirmed that the component-testing engineers were good technically but battled to write effectively and clearly.

They described the typical report-writing practices such as the writing up of test findings, submitting drafts to supervisors and these being returned for revision. They revealed that the engineers were usually not required to write conclusions as the supervisors usually wrote these. The supervisors also felt that engineering graduates who had university degrees rather than diplomas were superior. The two supervisors agreed that if the proposed research revealed engineering workplace needs and was made available to Higher Education, the participants would possibly be more willing to become involved in the research. The supervisors, as an act of unity, also volunteered to take part in the research.

3.4.2.2 Participant selection

The meeting with the potential research participants and their two supervisors took place at the research site at the end of November 2004. At the meeting, the research purposes and research procedure were outlined and questions answered. Out of the twenty engineers present, eight component testing engineers and their two supervising engineers signed consent forms and agreed to take part in the research.

Of the eight component testing engineers who agreed to be research participants, only three had attended the report-writing workshop (Moses, Face and Marvin / see Table 3.1). Two of the engineers who agreed to participate in the research (Tani and Clive) had also written the English Proficiency Assessment and as they had achieved results of over 50%, they were not required to attend the report-writing short course. The remaining three research participants (Brad, Greg and Gus) had not been identified by management as requiring additional report-writing skills training but as component test engineers; they volunteered to participate in the research.

The research participants' profiles were similar regarding their work experience and qualifications. Although most of their work experience ranges from four to six years, one has worked for thirteen and another for twenty-five years. Regarding their qualifications, two have engineering degrees and six have Technikon-type diplomas; seven are male and one female. Although three of the participants are English mother tongue speakers, five are ESL speakers with three speaking Afrikaans, one Xhosa and one Venda. The supervisors also have similar qualifications, work experience and are both English mother tongue speakers. To maintain participant confidentiality, the participants were invited to give pseudonyms or allow me to choose names. Three of the eight participants gave names, one said I could choose a name and five never responded, so I decided on their names. I also chose the supervisors' names. Table 3.1 outlines the research participants' demographics.

Table 3.1 Research participants

Engineers	Qualification	Working yrs	Gender	Mother tongue
Brad	University / BSc Mechanical Engineering	5	M	Afrikaans
Clive	Technikon / ND Mechanical engineering	5	M	English
Face	Technikon / ND Mechanical engineering / S4	13	M	Afrikaans
Greg	University / BSc Mechanical engineering	4	M	English
Gus	NTC 4 Electrical trade auto	25	M	English
Marvin	Technikon / ND Mechanical engineering	5	M	Xhosa
Moses	Technikon / ND Mechanical engineering	6	M	Afrikaans
Tani	Technikon / ND Mechanical engineering	4	F	Venda
Supervisors	Qualification	Working yrs	Gender	Mother tongue
Albert	University / BSc Mechanical engineering	11	M	English
Phillip	University / BSc Mechanical engineering	11	M	English

3.4.3 Dialogical data collection

As knowledge is constructed through dialogic interaction, during interviews meanings are created in an interaction which is effectively a co-production involving the researcher and interviewees. Qualitative interviewing, therefore, tends to be seen as involving the “construction or reconstruction of knowledge more than the excavation of it” (Mason 2002:63). The dialogical data collection is stage 3 in Carspecken’s recommended five stages for critical qualitative research (1996:42).

Stage 3 is an important stage as it allows the research process to be democratised as it may challenge monological data collected. It also gives the participants a voice in the research process and a chance to challenge material produced by the researcher. As the role of the researcher is that of facilitator rather than peer or colleague in stage 3, the researcher is able to construct a safe normative environment which helps the participants to explore issues with their own vocabulary, their own metaphors and their own ideas. Initially, the researcher should not debate with the participants or share

ideas with them until extensive stage 3 work has been completed. Later on in stage 3, the researcher can share ideas, engage in debates, explain the meaning of research vocabulary and social theories and actively help the participants in various ways. This interaction makes the research process democratic and equalises power relations.

3.4.3.1 Questionnaire and Interviews

The research commenced at the research site in early December 2004 with the electronic dissemination of Questionnaire 1, which was to be completed and returned electronically by January 2005. However, the questionnaires' return process was hindered by company shut down from mid-December 2004 until mid-January 2005 resulting in most of the questionnaires being returned by early February 2005. The two supervisors were also sent to Detroit, USA for 18 months in January 2005 and completed Questionnaire 1 and questionnaire probes electronically.

As rich detail was required, the questionnaire commenced by requesting the participants to: *Please answer as fully as possible (all details important)*. The questionnaire probes were also open-ended and generally asked *What? How?* and not *Why?* questions so that the participants would reflect on and describe their own report-writing experiences and various influences on their writing. It was important that questions were designed so that the participants' writing perceptions could be understood from their concrete experiences and that their unique and holistic perceptions could emerge. As anything other than a description from the subject's point of view is regarded as interpretation, this form of questioning also allows the researcher to access the consciousness of the subjects and to avoid imposing *a priori* theoretical frameworks (Van Heerden 2000:68). Questionnaire 1 consisted of eighteen questions and the topics are briefly outlined below (see Appendix B):

- ❑ *Questions one to two:* rating and describing writing
- ❑ *Questions three to four:* describing influences of practices such as mother tongue, schooling, work, managers/supervisors and short course on writing ability

- ❑ *Questions four to six*: describing what is easy and difficult in report writing as well as the writer's role and writing processes incorporated during report writing
- ❑ *Questions seven to nine*: describing revision and editing practices
- ❑ *Question ten*: describing own and supervisor influences on the final writing product
- ❑ *Question eleven*: describing who and what determine the criteria for an acceptable report
- ❑ *Questions twelve to fourteen*: describing the influences of tertiary training, workplace and short courses on writing effectiveness
- ❑ *Question fifteen*: identifying barriers experienced in the report writing process
- ❑ *Questions sixteen and seventeen*: defining criteria for good and bad reports
- ❑ *Question eighteen*: commenting on the influence of any other practices in the report-writing process

However, when the questionnaires were returned, the participants' responses were mostly thin descriptions or phrase-type answers instead of the required rich detail or "thick" description. This demonstrates the difficulty of supplying thick description in questionnaire format as the process is time consuming and involves processing relevant information and writing detailed responses. The typical lack of detailed responses is illustrated in the questionnaire response examples below. Examples 1 and 2 show the questionnaire responses followed by Interview 1 and 2 transcript excerpts which illustrate how each of the questionnaire and interview responses were probed further in the interviews to construct or reconstruct knowledge. Interview prompts are typed in bold using an italics font. The comments shaded in yellow are the participants' Interview 1 responses, which were probed further in Interview 2 to extend their responses and provide further rich description. In Interview 2, question probes are typed in blue and red depicts Interview 2 responses (see Appendix G).

EXAMPLE 1

<p>Questionnaire (Questions 3.3 and 3.4 / see Appendix B)</p> <p><i>What assists you in your writing the workplace?</i></p> <p>Trying to identify mistakes made writing my previous reports and correcting myself with the current/future reports.</p>
<p>Interview 1</p> <p><i>What assists you in your writing in the workplace? You said looking at your previous reports. How often will you look at your previous reports?</i> It depends – sometimes the situations arises where you know that you did something similar in the</p>

past and I will then go back and look at that specific report and look at the conclusions. Just to get a bit more info. ***What would you correct or change in your reports of the past?*** It is difficult to say. I personally think one can only get better you have to communicate and deal with people and you know you have to raise that bar yourself to the next level. ***What has raised it for you?*** I would say the use of terminology. I would try and identify specific things. ***But when the report is issued you can't physically change it.***

Interview 2

Are reports never changed once issued? Explain your answer. No once it is issued, it is issued. There is a system that is in place when it is issued, it is locked. If something is wrong you can discuss it with the person who locked the report - you can ask him to unlock it. You can submit a new report and make recommendations on the one that is wrong.

EXAMPLE 2

Questionnaire (Question 16 / see Appendix B)

What would you define as good writing?

Simple, factual; with sufficient information (not too much [boring] but enough to understand)

Interview 1

Good writing, you said simple facts and when it is not boring. What would you define as boring writing? It is all the irrelevant information. It is when you report writing skills are not ... or you write things that are not needed. The facts are important. ***Bad writing, you said is bad language and spelling and bad writing.*** ***You've come across this?*** Sometimes in emails and when people are not specific. Especially with vehicles and stuff we work with. You ... *unclear*. You just specify the... we have ... when you have to go back and get details. When it is not clear upfront. ***If you think about released reports, would there be some that are classed as not good in terms of structure and language?*** I don't think so – most of them have been clear and reviewed. Just in general you find emails that are not clear but it is informal - sometimes it will be information. ***It also depends on the person reading it and what your expectations are and if you are a critical person then you can be critical and want to change the tenses and spelling. But the information is there. It doesn't come back as a comment for me.*** I can't speak for others sometimes you see and hear it specially when a person is Afrikaans he maybe battles with English, it may sound funny but the information he gives is excellent.

Interview 2

What are the usual responses to reports, which give correct information, but the expression is problematic? That is difficult – It might be small things or maybe how the information has been translated. Generally it is understandable. ***It is very rarely that you can't make out what a person means. Describe the characteristics of a critical person.*** It is difficult to say – you will always have critics but I think in general everyone is not bad.

Individually designed Questionnaire 1 response probes were sent to the supervisors electronically in March 2005. However, only one of the supervisors responded and the second supervisor replied that he was too busy to respond. Individually designed second questionnaires based on Interview 1 transcripts were also sent to the engineer participants during May

2005. Only four of the eight engineer participants responded to questionnaire probes relating to their interview transcripts. The questions were formatted on Interview 1 transcripts highlighting sections in the transcript that needed to be probed in yellow and posing questions in numbered form in bold blue print. This also allowed the participants to identify sections to be read as well as the questions easily and clearly. Responses could then be typed in the spaces provided and the document returned electronically. The probing format of Questionnaire 2 format is illustrated in Example 3 below with the participant's responses typed in italics.

EXAMPLE 3

When I started here there was little help but the templates now help. If you were able to read and write you must be able to write a report. *I don't think I'm very good..* .
What makes you assess your report writing as not very good?
Lack of previous experience.

... but there are people here that are more experienced in writing. I'm not brilliant or too good. *I concentrate more on technical correctness than language correctness.*
What would you describe as correct language?
Use of the correct tenses, vocabulary, sentence construction etc.
Would you consider technical correctness as more important than language correctness? Explain your response.
No, both are equally important in any document. Incorrect language can lead to a misunderstanding and incorrect technical information just as disastrous.

This questionnaire format also gave the participants a chance to read the contents of their Interview 1 and respond to the transcribed contents to validate the data. For example, two of the four participants who responded to questionnaire two provided additional remarks to the *Any other comments?* probe at the end of the transcription. Their responses are cited in Example 4 below (yellow shading represents a section that was probed further in Interview 2).

EXAMPLE 4

Any other comments?
 Writing is not something that I am fond of. That is why they send us to do the course in the first place. I do get a sense of satisfaction when I do a good report but I think the fact that I don't like writing comes from the fact that I didn't like reading thick books when I grew up. I first look at the size of the book. However, if something interests me I will read it like technical reports.

Any other comments?
 I don't think there are any major concerns. The main thing is improving on the report

like you learn in the report-writing course. That really assists a lot and basically your immediate superior. The normal routing system is effective. We are global now. It goes a step further where source plants and other countries can read it is one step bigger. There is more people that can comment and reply.

3.4.3.2 Interviews

Although interviews and researcher facilitated focus group discussions are important to extend the questionnaire dialogical data production, the situated qualitative interview is a highly complex activity (Kvale 1996). Atkinson (2005:52) describes it as “a unique way, with unique problems of getting unique kinds of information from participants”. Although it has connections with causal conversation, interviews as a major means of data collection are anything but causal and, no matter how open-ended, “a highly guided speech event - researchers most typically nominate topics, ask detailed questions, and follow these with other (usually even more detailed) questions, all in the interest of focusing on *their* research problems” (Atkinson 2005:53).

Atkinson (2005:53), however, warns that as values and attitudes play an integral part in perception, cognition, and description, the use of multiple participants is often necessary to “solidify findings” to some extent. Interviews, therefore, produce anything but simple, full, truthful accounts of the participants’ thought processes and activities, especially where the researcher and the researched have different status in terms of social power and position. Rather situated interviews tend to reflect the intricacies and complexities of the participants as well as the complex social nature of the interview event itself. However, there is no direct access to perceptions of writing practices and so it is necessary to rely on participant accounts. These are often suggestive of their experiences of the situated activities they routinely engage in and are essential for interpretative and explanatory analysis to enable the researcher to see the factors that might contribute to and influence writing practices. Interviewing for all its shortcomings seems to be the most effective way to bring the “insiders’ understandings of what it is they do when they read and write in their disciplines to the analysis” (Hyland 2005:185).

Carspecken (1996:157) recommends that four items should make up an interview. These include two to five topic domains, one leadoff question for each domain, a list of covert categories for each domain, and a set of possible follow-up questions for each domain. The questions served as a guide for the interviews so that interesting angles, which had emerged from the questionnaire responses could be pursued. Cohen and Manion (2000:271 in Hyland 2005:185) refer to this as the “interview guide approach” where topics and issues are specified in advance as an outline and the interviewer decides on the sequence and the emphasis of the questions. Hyland (2005:185) describes this method as offering:

... a systematic way to cover salient issues, yet is flexible enough to allow for follow-up of interesting possibilities when participants introduce their own ideas and connections.

As no responses were preferred, but rather the participants' reactions, perceptions and experiences, as they themselves understood them, the interview questions were semi-structured and fairly open-ended to elicit a large sample of utterances. The participants were also encouraged to introduce any information or interpretation that they felt appropriate. Before the interviews, several leadoff questions were formulated, each designed to open a topic domain. Items for each topic domain that the researcher wanted the participant to address but did not want to ask explicitly in the interview to avoid leading the interview too much were also listed. Follow-up questions for each topic domain were also written down as well as interesting angles from the questionnaire. Typical descriptive questions formulated to extend interview and questionnaire responses included: *Describe the feedback you usually get about your writing* and *What was your response to your previous supervisor's comments?*

The interviewer responses, however, are more important than the wording of the questions if the actual questions are concrete, non-leading and domain opening. Carspecken provides the following typology of interviewer responses, which are based on Kagan's work on psychological counselling (see Kagan 1980, 1984 in Carspecken 1996:159):

- ❑ Bland encouragements which are used heavily at the start of an interview to establish rapport and to encourage the interviewee to keep on talking:
 - One-word utterances: “right”; “hummm”; “Oh that’s interesting” and/or
 - Facial expressions: smiles, nodding of head, opening eyes wide to indicate attention, interest and acceptance.
- ❑ Low-inference paraphrasing which encourages participants to keep on talking on topic of interest without leading and indicates understanding. It is used when the interviewer senses that the participant expects the interviewer to say something. It should be used most frequently at the beginning of the topic and less frequently towards the end. Restatements of information the subject has provided in new words but without adding content:

“I see, you sort of got the job by accident”; “So you went back to work after your studies?”
- ❑ Non-leading leads are used frequently and are appropriate during the beginning of a topic discussion.

“Tell me more about that!”, “Ummm. Could you keep talking about that?”, “This is interesting!”
- ❑ Active listening is used when the interviewer feels the participant is foregrounding feelings without being explicit. This response is best used towards the middle of a discussion and not right at the beginning. Words are put on feelings the interviewer suspects the participant has about some item of the interview but which the participant did not explicitly articulate:

“Sounds like you’re angry with him.”, “I’m hearing frustration, seems like the situation frustrates you.”, “You seem proud of what you’ve done.”
- ❑ Medium-inferencing paraphrasing should be used frequently from the middle portion of the discussion topic to the end. This is done by articulating some of the interviewer’s speculations about the meaning or implications provided by the participant:

The participant may say; “If you think you’ve got to be perfect you’re always going to be down.” A medium-inference a paraphrase would be: “It’s impossible to be perfect?” The paraphrase is close to what the subject said, but articulates an apparent background reference.
- ❑ High-inference paraphrases are hardly ever used as they can lead the participant to agree with things not really believed or denying things believed.
- ❑ Articulations of suspected background beliefs that have not been explicitly stated by the subject.

The qualitative interview, therefore, was conceptualised in three distinct ways: in terms of types of questions asked, in terms of interviewer responses and the data analysis that was conducted on interview transcripts.

During February and July / August 2005, two in-depth interviews were conducted with the participants to provide rich description to extend their questionnaire responses and construct knowledge. The interviews culminated with a focus group discussion in December 2005.

a) Interview 1

Interview 1 was scheduled as face-to-face interviews after Questionnaire 1 was returned in January 2005. As the purpose of Interview 1 was to extend Questionnaire 1 responses, questions for each participant were individually designed and based on their Questionnaire 1 responses. Although individual interview schedules were prepared for each of the eight participants, it was important to keep the interviews sufficiently open and be led by what the participants said by asking *How?* *What?* and not *Why?* questions. Each interview, therefore, was conducted as an “intentionally created conversation” (Berg 2001:72) so that the participants could engage with the researcher to share their experiences, with the researcher needing to remain focused on the theme and to pursue the research questions.

Interview 1 was conducted at the research site in February 2005 at times convenient to the participants. Although some of the participants were able to secure a seminar venue for the interviews, which was ideal, these were not always available. Interviews were then conducted in screened booths in the company foyer. Although private, there was sound interference with visitors arriving and leaving as well as wind disturbance during one of the interview sessions. The transcriber, however, managed to cope with these interferences during the recordings as a result of the recording quality of the recording device. The only technical hitch was that I overlooked downloading a previous day's interviews before returning to the research site for interviews on 23 February 2005. The recorder allows for 2 hours 35 minutes recording

time and the three interviews recorded on the 22 February 2005 had used up 2 hours 19 minutes with only 23:41 minutes remaining. The interview, therefore, had to be interrupted as the sound card needed to be downloaded away from the research site. After returning to the research site, the interviews continued with participants 7 and 8, and then the interrupted interview with participant 6 was completed.

The average length of Interview 1 was 43:45 minutes and all interviews were recorded digitally using a digital voice recorder which allows voice files to be recorded, downloaded onto a computer, played back and emailed as an attachment for transcribing ease. The recorder converts voice recordings into digital signals, which are then compressed and recorded to storage media. Each file, recorded with the recorder is given a file name in the format. In addition, DSS Player Pro allows playback of WAV files, which are standard Windows sound files. These sound files can then be attached and sent to the transcriber via email for transcription using the dictation software.

Only four of the eight participants returned Questionnaire 2 by June 2005, and when the remaining four were prompted to return their questionnaires, they requested interviewing as a faster and easier means to explore their responses further. Interview 2 was then scheduled at the research site at times convenient to the participants during July / August 2005. The average Interview 2 length was 39,27 minutes and these interviews were also digitally recorded so that the voice files could be recorded, downloaded, stored and transcribed.

Table 3.2 lists Interview 1 and 2 schedules as well as the focus group interview with the dates, times and duration.

Table 3.2 Interview dates, times and duration

Interview 1	Date	Time	duration
Tani	15/02/05	9:00	36:17
Brad	16/02/05	16:00	54:00
Moses	22/02/05	10:00	45:56

Greg	22/02/05	11:00	36:41
Clive	22/02/05	12:00	49:22
Marvin	23/02/05	13:15	40:57
Face	23/02/05	14:15	35:14
Gus	23/02/05	15:15	50:49
Interview 2			
Marvin	07/07/05	13:15	26:08
Moses	26/07/05	10:00	50:46
Brad	02/08/05	15:00	53:21
Face	02/08/05	16:00	20:41
Tani	11/08/05	15:00	44:46
Gus	11/08/05	14:15	25:53
Greg	18/08/05	14:45	54:53
Clive	23/08/05	14:00	39:46
Focus group			
6 participants	01/12/05	14:00	1:51:47

3.4.3.3 Focus group interview

The focus group interview was scheduled for the first week in December 2005 at a time convenient to all eight participants. The aim of the focus group was to enable the participants to interact as a group instead of the researcher-participant structure of the first two interviews. However, only six participants attended as one participant (Brad) had left the company the previous month and another (Greg) had a meeting to attend. Although Brad completed the focus group handout electronically (see Appendix E), Greg failed to return his responses to me resulting in a total of 7 responses to the probes.

Focus groups allow researchers to not only observe interaction, which is a process of profound importance to qualitative investigations but also to gain access to substantive content. The focus group provides a forum for the participants to interact and to verbally express views, opinions, experiences and attitudes as well as giving access to fragments of their biography and life structure (Berg 2001). This “intentionally created conversation” (Berg 2001:72) encourages spontaneous discussion of the themes that emerged during the face-to-face interviews, and also allows participants to reflect on these and rethink their own views (Finch & Lewis 2003). Participants’

viewpoints are emphasised because they are interacting with each other rather than the researcher and this also helps to eliminate the researcher's subjectivity from the research (Berg 2001). Finally, a focus group is useful because a particular concept or phenomenon can be examined, while being removed from its context so helping to clarify or "bracketing" (Berg 2001:172) the basic elements and structures of the phenomenon.

The focus group interview took place in a seminar venue at the research site and each participant was given a handout (see Appendix E). The focus group procedure was explained to the participants as well as the presence of a moderator to note and observe interactions. The participants were also asked to sign agreements to ensure confidentiality of research data (interviews and questionnaires). In the agreement, they were required to affirm that they would not communicate or in any manner disclose publicly the information discussed during the course of the focus group interview to anyone outside the group participants and the researcher.

A common criticism of focus groups is that the group puts pressure on the participants to conform to a particular point of view (Finch & Lewis 2003). Therefore, before the interview took place, the moderator's presence was explained to observe and monitor nonverbal interactions and communication. As group influences can distort individual opinions, it was emphasised that there were no correct answers as well as the importance of divergent views so those who thought differently would be encouraged to express their views. The participants were also encouraged to make it known if they agreed or disagreed with any comments or issues. The turn-taking sequence for the group discussion was emphasised so that no one spoke while another was speaking and also the need for all to respond, so that participant domination could be avoided. The following interaction guidelines were also listed in the handout out:

- ❑ Express range of views and experiences (all answers correct)
- ❑ Make disagreement and/or agreement known
- ❑ Speak in turns
- ❑ Avoid dominating

a) Moderator

In her observation report, the moderator initially commented on the ease of the participants and their participation levels as depicted by nonverbal language. Her report described the participants' disposition and involvement with comments like:

- ❑ *Face answers briefly, quite shyly*
- ❑ *Moses also brief*
- ❑ *Gus no eye focus with researcher*
- ❑ *Gus and Moses body language and involvement slightly removed*
- ❑ *Gus seems to distance himself fiddling with pens and nails - not entirely involved in discussion at this point and leaning backwards*

However, she also observes that Face, Clive and Tani *lean forward and follow (task)* and *Clive seems very involved and interested*. At the end of the icebreaking activities, the moderator comments that *discussion starts warming up*, indicating improved comfort levels and greater ease.

During the various theme practice discussions, Gus seemed to be a participant that the others referred to for affirmation as he often disagreed or nodded in the background. This conclusion was supported with comments like, *Moses looks to Gus for affirmation; Moses laughs and looks at Gus again* and *Clive agrees with what Gus says*. The need for affirmation is possibly explained by an observation comment made by the moderator during the collaboration practices discussion. Moses disclosed that not everyone "will understand my stuff", and the moderator observed that when discussing certain issues, *there seemed to be a certain embarrassment / lack of comfort*. Moses' confession may have needed Gus's support for validation and collaboration.

The discussion of affective practices caused amusement as the participants read the interview excerpts, *Face laughs and Tani as well; Moses smiling; Gus and Moses and Face laughing about the comment "slap on head"; Gus finds these comments particularly amusing - almost uncontrollably*. During the control and authority practices discussion, the participants seemed to express

resignation and frustration with dominant practices, *Gus seems kind of resigned to a particular process - he has cracked the code and Gus disagrees with supervisor protecting / defending.*

The moderator's comments and notes provide a dynamic nonverbal perspective which is not apparent in the transcript. The notes depict Gus as a gatekeeper and a frame of reference, possibly because he has the longest working experience (although he has only been at the present company for 2 ½ years) and is English speaking. Moses, Clive and Gus also seem to dominate the discussions with the moderator describing Moses as *self-assured and confident about what he's saying*. She indicates their dominance with notes like *Moses makes point that boss is just there to help grammar; Clive interrupts to explain and clarify issue; Gus clarifies why Moses' situation is difficult and Clive explains*. Tani, Face and Marvin often provide background comments, nodding, laughing with Face often looking *puzzled; Face has slightly puzzled look* and at times, *Marvin little uninvolved - looking at roof*.

The interaction between researcher and participants during the focus group discussion is illustrated in the following Task 1 icebreaking transcription excerpt on the ranking of the most and least important practices affecting report writing. The transcript illustrates Tani being drawn into the discussion after she had been confused about what she should do when ranking the items in the icebreaker task described below. The excerpt also illustrates Clive, Gus and Moses dominating the discussion. The excerpt commences with Tani being asked what she had ranked as number 10:

Your number 10? (Tani) "Supervisor feedback. I hardly ever get feedback from the supervisor." **Do you work in the same department? (general laughter)** "Only if there are problems. Yes, they will give feedback. I just assume that everything has gone well. It's not like they will come back." **So once you have got to the stage of actually speaking asking questions, shaping it ... you get on and write it and there'll be no supervisor feedback, usually?** "Yes" **Do you all agree with what's happened with Tani?** (Clive) "We 100 percent disagree. We ... Our department is the one supposed to write reports. They don't write reports – We write reports for them." (Gus) "Our reporting processes – it goes to the supervisors who then sort out the document because it goes anywhere else and only then gets

distributed. We get a chance to sort it out or to make changes.”
Anyone wants to comment on... Tani has rated it very low in terms of affecting her writing ... how it affects your writing? What did you rate it (supervisor feedback) as Moses? “I rate it as 4 because it is crucial. If my supervisor doesn’t agree I have to ... “
(laughter).

The focus group interview included two icebreaking tasks, followed by discussions of various practices that had emerged as themes during Interviews 1 and 2.

b) Icebreaker activities

The session commenced with two tasks as icebreaker activities. The first task was an individual exercise ranking the influence of various report-writing practices on their report writing with one considered the highest and ten the lowest in the ranking order. Once the task was completed the group discussed their various ranking of factors influencing their report writing. When their individual rankings were combined, *report integrity* was ranked as the most important influencing factor with *group collaboration* as the factor with the least influence. This was supported with the low *peer feedback* ranking of 8 and *supervisor feedback* ranking of 6 illustrating the perception that various forms of collaboration are relatively unimportant practices in the report acceptance route. The ranking of 9 for *acceptance route* was surprising as in most of the interviews this practice was emphasised as influencing the report-writing process. However, its low ranking may be an indication that the participants had little control of its influence and that the other practices were more influential in determining the success of a report. Table 3.3 illustrates the results of Task 1’s combined ranking below:

Table 3.3 Task 1: Ranking of writing practice influences on report-writing effectiveness

Factors	Rank
report templates	2
questions asked on reports	3
report integrity	1
group collaboration	10
report distribution	7
supervisor feedback	6
peer feedback	8

revising report drafts	4
report acceptance route	9
report-writing style	5

The second icebreaker task was a group ranking exercise on the extent to which various factors affect the participants' report-writing effectiveness at the research site. As practices that influence their writing effectiveness, *supervisor feedback* was ranked as having the most influence, followed by *revision from feedback* and their *own practices*. Then came institutional practices like the *institution report-writing style* while the *distribution list* was ranked as having an average influence on their writing effectiveness. *Feedback from peers*, *report collaboration* and *questions asked* were ranked as having minimal influence on their writing effectiveness. The influence of *supervisor feedback* received the highest ranking indicating that this practice drives the report-writing process by controlling the acceptance route and writing practices such as *revision from feedback* and *institutional report-writing style*. The ranking also emphasises that practices like *collaboration* and *peer feedback* as writing practices are again not highly regarded as measures to improve or influence their report-writing skills. Table 3.4 illustrates the results of Task 2's combined ratings below:

Table 3.4 Task 2: Rating extent of writing practice influences on report-writing effectiveness

Practices	A lot	%	ave	%	little	%	not	%
Feedback / supervisor	5	72	1	14	1	14		
Feedback / peers	5	14	2	29	3	43	1	14
Revision from feedback	4	57	2	29	1	14		
Institution report-writing style	3	43	3	43	1	14		
Report collaboration	1	14	2	29	4	57		
Questions asked	1	14	2	29	4	57		
Distribution list	1	14	3	43			3	43
Own practices	4	57	2	29	1	14		
Tertiary practices	2	28	3	44	2	28		
Institution practices/systems	3	43	3	43	1	14		
Other:								

* **bold = highest percentage influence**

c) Theme / practice discussion

Once the icebreaking activities were completed, the task of discussing ten themes or practices that influence the report-writing process was introduced

and also outlined in the handout. The themes or practices had emerged from coding Interviews 1 and 2 transcripts and describing various practices influencing the report-writing process in the workplace. All practices relate to “organised, dominant, recurrent patterning activities” (Baynham 1995) in relation to report writing at the research site as determined from the interview transcripts. Each of the practices identified was supported by various interview transcript excerpts that were responses to these practices to generate further discussion. The practices identified were:

- ❑ report acceptance practices
- ❑ report monitoring practices
- ❑ collaboration / assistance practices
- ❑ report integrity practices
- ❑ feeling / affective practices
- ❑ literacy practices
- ❑ control / authority practices
- ❑ maintenance / change practices
- ❑ tertiary / higher education practices
- ❑ future report-writing practices

3.5 Interview checks

The interviews and focus group discussions were recorded and transcribed for the study’s dialogical data. This form of data collection acknowledges that the participants’ perspectives are not fixed objects, but are “socially constructed in the interview situation, negotiated through interaction with the researcher and the researcher’s interests” (Hyland 2005:185). In addition, many factors may influence the meaning-constructing effects of the interaction, including factors such as an orientation to the activity as well as cross-cultural factors. As the participants’ truth claims were possibly subjective, validity was strengthened through the use of consistency checks on recorded interviews, repeated interviewing of subjects, use of non-leading interview techniques and peer debriefers for checks on possible leading, member checks and the subjects explaining the use of terms (Carspecken 1996:165-166).

3.6 Stage 5 / system relations as practice explanations

Carspecken's stage 3 focuses on the research site whereas stage 5 concerns the complex relationship that exists between the research site and various other sites. Therefore, to interpret and extend the study's findings, the study also attempts to include a form of Carspecken's stage 5 (1996:43, 172). In stage 5, the researcher, therefore, attempts to "fit" or connect the highly specific causal relationships built up in stage 3 within wider contexts, for example, the causal relationship between the institution, education, language and cultural backgrounds and writing practices in the workplace. To do this, the researcher must be aware of the relationship between cultural reconstructions and the physical environment in which the participants live, learn, and work which requires an articulation of actors, actions and contexts. However, agency and structure also have to be articulated so that the relevant context is not reduced to the interactions between actors and issues ignored such as economic change and practice change and the structures within which agents act. If successful, the researcher may be able to suggest reasons for the experiences and cultural forms that have been reconstructed. Therefore, it is often stage 5 that gives the study its force and makes a contribution to social change.

3.7 Data analysis

Few studies are reflective about interpreting interview data, but as no data can speak for itself and no method allows the researcher to be neutral and invisible. For Hyland (2005:186), all methods rely on:

... indirect evidence to reconstruct informants' implicit knowledge and, irrespective of whether the researcher counts occurrences of themes, observes gestalts, factors, variables, or constructs metaphors from the data, inference will always be involved.

Therefore, data needs to be analysed in a recursive, reflexive and triangulated manner, incorporating insights and feedback from the participants as well as the researcher and engineering expert for "thick description" (Geertz 1973 in Berg 2001:134) and validation. Thick description demands an array of

descriptive tools that are “rich, sensitive, and flexible” (Ramanathan & Atkinson 1999:65) and involves an emic perspective which demands descriptions that include the respondents’ interpretations and other social and/or cultural information (Davis 1995:434). This means “taking into account all relevant and theoretically salient micro- and macro-contextual influences that stand in a systematic relationship to the behaviour or events one is attempting to explain” (Watson-Gegeo 1992:54 in Davis 1995:434; Kumaravadivelu 1999: 477). This will enable the researcher to capture some of the complex uniqueness that characterises cultural scenes from the perspective of the social actors involved in the scenes themselves.

However, the analysis will not only include thick description of the writing practices taking place but will attempt to make these analyses relevant to larger issues. This was achieved by considering the findings from Carspecken’s stages 1 and 3 in relation to general theories of society, both to explain what has been discovered in these stages and to alter, challenge and refine macrosociological theories themselves (1996:172).

3.7.1 Transcript analysis

Findings do not just emerge and as data cannot speak for itself, it relies on indirect evidence to reconstruct informants’ implicit knowledge and irrespective of whether the researcher “counts occurrences of themes, observes gestalts, factors variables, or constructs metaphors from the data, inference will always be involved” (Hyland 2005:186). In qualitative research, data analysis is, therefore, a complex, analytic and creative process in which some forms of classification, or coding, is inevitably involved. It is an active process in which researchers identify salient patterns or themes by reading through data reiteratively and then attempt to explain themselves by looking for connections among the patterns and the context (Lincoln & Guba 1985 in Brice 2005:162).

Data analysis is also one of the most difficult aspects of qualitative research as a result of the nature of the research process, which “invariably hide a trail

of difficult and questionable decisions” (Grant-Davie 1992:270 in Brice 2005:159).

3.7.1.1 Qualitative research software

There are various methods for the exploration of and understanding of rich data which involve the recognition of categories in data, generation of ideas about them and exploration of meanings in data (Richards & Richards 1998:214). As the categories and meanings are found in texts or data records, this process needs data management methods that “support insight and discovery, encourage recognition and development of categories, and store them and their links with data” (Richards & Richards 1998:214). In addition, ease of data access is important to support recognition of the unexpected construction of coherent stories, and exploration of patterns as well as the construction and testing of hypothesis (Bogdan & Taylor 1975 in Richards & Richards 1998:214). However, the methods must also not get in the way of distorting rich records, diluting thick descriptions or demanding routines that destroy insight.

Although the code-retrieval method is the most widely recommended technique for management of rich and complex records, it has rarely been examined as a method (Richards & Richards 1998:215). This taken-for-granted method was easily supported by computers and became the basis of most specialist qualitative data analysis software. Various qualitative research software packages such as Ethnograph, Nudist and Atlas have been designed to facilitate data analysis and the packages enable large volumes of data texts such as transcriptions to be filed, edited, coded, sorted, retrieved, backed-up, linked and displayed with ease and speed. The software also has features available to facilitate theory building, visual modelling and hyperlink facilities. Although code, search, retrieve are the basic and much used package features, the reading and coding of large volumes of data remains a major time-consuming element of qualitative data analysis, which computers do not remove. The timesaving elements occur with searching and data retrieval where searches can be made for a string of texts containing a particular code word.

a) NVivo qualitative software

Nudist developers also created NVivo which was used for this study's data analysis. NVivo is a very flexible tool which also allows pictures and sound files to be associated with research as well as raw text. The software also allows the researcher to save, select, code, annotate, do complex searches and browse large volumes of research data. The data can then be sorted and retrieved according to the coding of categories or recurrent themes made salient by their relevance to the research questions (Goetz & Le Compte 1984:180) for the discovery of patterns, variables and relationships. Cutting and pasting functions between NVivo and word processors are also straightforward and the coding of text involves operations similar to highlighting on a word processor. The user can also edit original data files like transcripts after they have been coded. Additionally, NVivo has a built-in *modeller* which allows the user to map out ideas in visual displays whose *nodes* are linked to the underlying data associated with them (Silverman 2005:201).

NVivo qualitative research software was used to streamline the analysis of primary and secondary data from the field notes, interviews and focus group discussion transcripts. Using word processing software, the interview and focus group transcriptions and field notes were edited, highlighted and commented on and then saved on NVivo software. The transcript data analysis requires reconstructive analysis which is primarily normative-evaluative in orientation and involves data coding for the reconstruction. For example, if anything strikes the researcher as worthy of a code, a code is selected to describe the issue as explicitly as possible. The codes selected are usually initially descriptive, "attributing a class of phenomena to a segment of the text" (Miles & Huberman 1994:57) to identify code patterns, relationships and leitmotifs. Each of the code categories is then reviewed to determine abstract categories.

Data retrieval can be done using a range of Boolean, context, proximity and sequencing searches, and grouped into qualitative matrices. As the results of

retrievals can be stored as index codes, the index system allows the user to create and manipulate concepts and store and explore emerging ideas. The *nodes* of the index system are optionally organised into hierarchies, or trees, to represent the organisation of concepts into categories and sub-categories, “a taxonomy of concepts and index codes” (Richards & Richards 1998:236). The index system approach builds on and extends the code-and-retrieve technique emphasising system closure.

The actual codes used in the study are specified and commented on in chapters four and five.

3.7.1.2 Coding

Coding refers to many different things but it is a way of getting from the messy and unstructured data to ideas about what is going on in the data (Morse & Richards 2002). Broadly speaking, coding is the process of looking for meaning, and this process spans the length of the research process. In a more narrow sense, coding refers to the actual activity of breaking up and grouping data into categories that reflect major issues, themes or relationships that have been identified in the data (Brice 2005:162) through which patterns, associations and meanings become evident. Coding requires purposeful reading of the data with transcripts being repeatedly reviewed and asked: *What is this?* or *What does this represent?* (Babbie & Mouton 2005:499).

Therefore, the most crucial coding questions relate to *Which terms can be used as codes?* and *To which phenomena shall the codes refer?* This dilemma could be solved if predefined category schemes were used for coding. However, for qualitative researchers this may “violate some of the most fundamental methodological principles of the qualitative paradigm” as this restrains rather than facilitates the discovery of unknown structures and patterns (Seale, Gobo, Gubrium & Silverman 2004:479). However, although researchers should not “approach reality as a tabula rasa” (Glaser & Strauss 1976:3 in Seale et al 2004:479), they must have a perspective, “theoretical

sensitivity”, that will help them see relevant data and abstract significant categories from their data scrutiny (Seale et al 2004:479).

Coding, therefore, goes beyond labelling which entails little interpretation, “Rather you are attributing a class of phenomena to a segment of text” (Miles & Huberman 1994:57). However, according to Leedy and Ormrod (2005:150), high-level coding is a complex process and usually there is no single *right* way to analyse data in a quantitative study. The researcher needs to be as immersed as possible in the context of the interactions when coding and this means reading through the primary record and dialogical transcripts slowly and repeatedly. The researcher usually begins with a large body of information and through inductive reasoning sorts and categorises it into a small set of abstract underlying themes. Once a thick set of codes has been selected, the analysis can be focused as certain codes group together into large categories and sub-codes fall into the large categories.

Creswell (1998 in Leedy & Ormrod 2005:150-151) describes the “data analysis spiral” approach, which involves going through the data several times taking the following steps:

1. organise the data using a computer data base
2. peruse the data several times highlighting possible categories or interpretations
3. identify general categories or themes, and perhaps sub-themes and then classify each piece of data accordingly. Patterns may start emerging at this point to give a sense of what the data means
4. integrate and summarise the data and this may include offering hypotheses that describe relationships among themes or categories and it may also involve packaging the data into an organisational scheme such as a matrix.

The coding process is complex and time-consuming not only in terms of the quantity of information that must be analysed but the data may reflect several different meanings simultaneously. To ease the analysis process and the integration of themes or recognition of associations and relationships, NVivo qualitative software was used to organise, interpret and analyse data as the programme provides a ready means of storing, sorting, retrieving and finding

patterns in lengthy transcripts in multiple ways. The data can also be backed up and stored for safekeeping.

a) NVivo coding

Using NVivo software, the transcripts were stored for *browsing* so that *free nodes* could be created by highlighting and coding the relevant text after possible categories had been identified using the *coder* (see Appendix F). Once the data has been coded using *nodes*, the data can be broken up into different coding categories for viewing once retrieved. The codes can, therefore, be viewed not only through an event but also through categories, themes or associations. This is done by analysing retrieved nodes and/or sets for possible new focuses as the node codings allow the grouped data to be viewed collectively in code categories. Viewing the various coded segment themes, associations or nodes from all the transcripts collectively gives distance to the context as the segments are moved from the context to reveal aspects which may not have been visible in the data as a whole.

Strauss and Corbin (1990 in Babbie & Mouton 2005:499) suggest open, axial and selective as three coding types. Open coding refers to the creation of certain categories to certain text segments with each category having dimensions, properties and consequences. Babbie and Mouton (2005:500) explain that open coding can be done line by line, in sentences or paragraphs identifying all possible categories pertaining to a specific line, sentence or paragraph in the data. While this process is “very time consuming and tedious, it also generates a wonderful number of different categories, and creates a larger basis for theoretical sampling” (Babbie & Mouton 2005:500). Axial coding is a set of procedures “whereby data are put together in new ways after open coding, by making connections between categories” (Strauss & Corbin 1990 in Babbie & Mouton 2005:500) while selective coding refers to selecting a core category and systematically relating it to other categories, validating those relationships and filling in categories that need further refinement and development. These three coding types have been represented by *nodes (free and tree)*, *sets* and *matrixes* in NVivo software.

Following the sequence suggested by Babbie and Mouton (2005:500), after the transcripts were stored on the NVivo software programme, they were browsed to identify open codes by coding *free nodes* to describe the participants' various writing practice perceptions as revealed from Questionnaire1 and Interviews 1 and 2. The initial coding categories or nodes identified related to questionnaire probes in Interviews 1 and 2, describing mother tongue effects, types of writing in the workplace, the report acceptance route, questions on reports, easy, difficult, good and bad writing definitions, template and format use, tertiary or higher education writing influences and writing barriers. Supervisor feedback, for example, emerged as a *free node* during the coding.

During axial coding, the subcategories and their relationship to the categories are identified. In the study, the categories described the participants' understanding of literacy which seemed to be shaped by recurrent institutional practices within the report-writing procedure especially those activated by the supervisors' responses to their reports during the writing process. This form of coding tended to focus on institutional report practices such as collaboration, report content, report changes, report integrity, report monitoring and assistance, report structure and writing style. Related nodes then spiralled as *nodes* relating to categories were identified. For example, supervisor feedback practices emerged as a *node* as the participants often referred to feedback when discussing report acceptance practices. Subcategories then spiralled from or were associated with feedback practices including feedback types, supervisor and peer feedback, grammar, spelling, vocabulary, terminology and sentence feedback as well as feedback route and responses. These subcategories were then coded so that they could be easily retrieved by exploring the various *free nodes*. Figure 3.1 below illustrates the feedback references as they were coded as *free nodes* and illustrates how feedback practices emerged as a potential theme, association or *tree node*.

1. *Feedback content*
2. *Feedback feelings*
3. *Feedback grammar*
4. *Feedback peer*

5. *Feedback* route
6. *Feedback* sentences
7. *Feedback* spelling
8. *Feedback* structure
9. *Feedback* style
10. *Feedback* types
11. *Feedback* terminology
12. *Feedback* words

Figure 3.1 / free node codes for feedback practices

Finally, about 40 *free nodes* were identified and coded on the Interview 1 and 2 data transcripts. The transcripts were then browsed further and axial nodes analysed to identify sets or selected coding categories called *tree nodes* in the software programme. According to Borgatti (1996:4), selective coding is the process of choosing one category, theme, association or set to be the core category which pulls all relationships together as a “single storyline around which ...everything else is draped” and all other categories relate to that category. For example, *writing practices* as an organised, recurrent and dominant activity was identified as a core activity or practice and the associated institutional practices extended the theme, relationship or set. The following initial practice-based themes or associations were identified from the transcripts and formed the basis for the focus group discussion interview:

- ❑ report acceptance practices
- ❑ report monitoring practices
- ❑ collaboration / assistance practices
- ❑ report integrity practices
- ❑ feeling / affective practices
- ❑ literacy practices
- ❑ control / authority practices
- ❑ maintenance / change practices
- ❑ higher education practices
- ❑ future report-writing practices

The typical coding process is described as steps in the data analysis. Firstly, *free nodes* are identified and reveal that in many of the report-writing practice comments are made about report feedback or report acceptance practices. This resulted in practices such as supervisor feedback or report acceptance becoming dominant themes, relationships or categories represented by *tree nodes*. For example, feedback practices emerged as a *tree node* (see Figure

3.1) which was further subdivided into *child nodes* represented by nodes such as *types*, *peer*, *supervisor*, *content*, *grammar*. Using the NVivo software programme, the coding steps followed are outlined below:

- STEP 1: code Interview 1 and 2 transcripts using *free nodes*
- STEP 2: analyse the various *free nodes* to identify themes, relationships or categories
- STEP 3: categorise *free nodes* into themes or relationships using *tree nodes* describing more specific report-writing practice activities
- STEP 4: subdivide *tree nodes* further into *child nodes*
- STEP 5: browse *tree or child node* themes, relationships or categories
- STEP 6: retrieve *tree nodes* (theme or relationship) or *child node* (subcategory)

However, coding of the data is only the beginning for computer-aided retrieval of text passages. Retrieval technologies symbolise the central technological innovation of qualitative data management made possible by the computer, which greatly facilitates and accelerates comparison of text passages or data transcripts. A computer-text retrieval gives results in seconds making it possible to conduct various synopses within one research project so that similarities and differences, patterns, relationships and structures within text passages coded with a variety of different codes can be easily identified. However, the task of actual analysis remains the task of the researcher who must carefully inspect and analyse each text segment to identify aspects that can serve as criteria for comparison (see Appendix J / NVivo coded transcripts). The result of this process is the development of new categories which can be integrated in the developing code system often serving as subcategories of the coding categories that formed the initial coding scheme (Seale et al 2004:481-482).

Computer-based text retrieval also makes it possible to run various searches to identify differences and similarities, patterns, relationships and structures within text passages coded with a variety of different codes (Seale et al 2004:481). NVivo proximity searches were run using the *matrix co-occurrence* option to capture inter-relationships between *tree nodes* representing various practices in the report-writing process and *child nodes* representing various topics or sub-categories spiralling from or associated with the practice node.

The number of coding references for each node in the different matrix relationships indicates whether concepts are highly interrelated and whether there are references that appear on their own. This enables the researcher to ascertain whether concepts, while being interrelated, may have distinctive elements. However, the actual analysis is the task of the “human interpreter” (Seale et al 2004:481), who needs to inspect carefully the text segments in order to identify aspects that can serve as criteria for comparison. The result of this process is sometimes called “dimensionalising” (Strauss & Corbin 1990:69 in Seale et al 2004:482) and may result in the development of new categories.

Comparisons, differences and relationships also become the basis of concept construction, types and categories that form the building blocks of an emerging theory. According to Seale et al (2004:482), the matrix comparisons enable “‘flesh’ of empirically contentful concepts” to be added to the theoretical axis of heuristic coding concepts so increasing the empirical content during the ongoing process of qualitative analysis. However, in the study, the matrix searches revealing the number of references to certain practices by the participants should be considered descriptive perspectives rather than empirically contentful variables or categories. The resultant matrix retrievals rather revealed whether certain codes co-occurred in the texts (Richards & Richards 1994:447 in Seale et al 2004:483) and served as signposts that support the identification of relevant text passages to help make them available for further interpretation and analysis.

3.8 Validity and reliability

Both validity and reliability reflect the degree to which there may be error in measurements. Validity errors reflect biases in the instrument itself and are relatively constant sources of error. In contrast, reliability errors reflect use of the instrument and are apt to vary unpredictably from one occasion to the next (Leedy & Ormrod 2005:29).

Ethnographic data derives its validity and reliability from a fully developed scheme of data collection, data description, and data explanation which takes place recursively with steps repeated and refined until meaning or essence of the phenomena are found.

3.8.1 Validity

For Carspecken (1996:84), all truth claims need to meet certain validity requirements derived from structures of human communication to win consent by ensuring a fit between the highly specific reconstructions built up and an existing social theory. In order to obtain valid findings, Leedy and Ormrod (2005:100) suggest validity strategies such as:

- ❑ Extensive time in the field - studies several months or more. Bishop (1999:4), however, points out that sites of ethnographic writing research now have much shorter spans than do studies undertaken by classic ethnographers. ERIC Document abstracts also cite four-day, three-week and term-long projects.
- ❑ Negative case analysis - actively looking for cases that contradict existing hypotheses and then revising theory
- ❑ Thick description - situation is described in sufficient rich, thick detail
- ❑ Feedback from others - opinion of colleagues in the field to determine whether they agree or disagree that the researcher made appropriate interpretations and draw valid conclusions from data
- ❑ Respondent validation - conclusions taken back to participants in the study to ask whether they agree with conclusions or whether they make sense based on their own experiences.

However, for critical realism a successful fit does not necessarily demonstrate successful causal explanation but rather the “contrivance of a calculating device” (Sayer 1992:211) as it rather seeks out substantial relations of connection and situation practices within wider contexts to illuminate part-whole relationships (Sayer 2000:21-22). With an intensive research approach (Sayer 2000:21), validity of the analysis of cases and their representativeness in relation to a large number are entirely separate matters as the adequacy of a single case need have nothing to do with how many other such cases there are.

As critical realism interpretations also involve cross-checking of a concept’s sense by reference to another’s in a “kind of ‘triangulation’ process in search of inconsistencies, misspecifications and omissions” (Sayer 1992:223),

studies use triangulation to get a "'true' fix on a situation" (Silverman 2005:212) or connection between relations by combining different ways of looking at the data. For example, collecting multiple sources of data with the hope that they will converge to support a particular hypothesis, theory or association. The researcher may also engage in informal observations in the field and conduct in-depth interviews and then look for common themes or associations that appear in the data gleaned from the methods used. In addition, for respondent validation, researchers may also go back to subjects with their tentative results and refine them in the light of their subjects' responses.

As the meanings of the part need to be continually reexamined in relation to the meaning of the whole and vice versa, decisions about interpretations are made in the light of knowledge of the material circumstances, social relations, identities and beliefs and feelings to which the contested ideas relate. This can be achieved by making primary material available to readers (interview transcripts) so that the readers do not have to rely wholly on the researcher and can judge for themselves and this also makes the researcher's inferences more transparent. More directly, the researcher's interpretations can also be assessed by asking the actors and others what they think of them.

Campbell and Stanley (1966 in Seale et al 2004:413) agree that validity in the quantitative tradition can never be finally settled by the blind application of some technical procedure; therefore, the study combined the strategies outlined by Leedy and Ormrod (2005:10) in various degrees to maximise valid findings. Although time in the field was not extensive, it spanned about 18 months from the initial site meetings to the final focus group interview and included about twenty visits to the research site. Interviews and focus group discussions provided *thick description* as participants were prompted to extend and discuss their responses. In addition, as triangulation (feedback from others) and/or respondent validation are often suggested as validation methods to ensure that findings are based on critical investigation of all data and not a few well-chosen examples or anecdotalism, the study also made use of two feedback forms. Participant validation was checked when Interview

1 transcripts were returned to the participants for review and during Interview 2, the participants were asked to comment on the transcript data and research methodology. Five of the eight participants responded and their comments are cited below (blue bold represents the interviewer's prompt):

Moses: **I just want to ask you, did you read the transcription?** "Yes, I read through most of it, but did not finish it all." **Did you have any comments on what was said or how it was done?** "No, not at all." **Are you quite happy that it was a true reflection of what we...** "Yes, I can't remember all we said." **Nor did I. There were two questions ... in terms of research and getting people to give responses and respond to things like interviews and questions; what would you say is the most problematic thing for someone like you in the workplace to actually do something like this (participate in research)?** "I think making time where you can sit down and concentrate long because this is quite a document to sit and read through it and concentrate and not going off and start gibberish or even be sarcastic you have so much distractions and the only time you can do this is after hours where you can do it on your own." **So it is a practical thing more than reluctance or not being able ... Is it more practical?** "I think just because I have such a workload for something like this, it comes to... you want to do this but it is a thing that can wait and if you wait, you will wait forever."

Marvin: **Any other comment/s about writing?** "No, the research is not a problem the - problem was right in the beginning deciding who should go on the report-writing course."

Brad: **Any other comments? A general question - you said regarding the transcript in the one email, you said you find it problematic.** "Well, I jumped the gun there a bit. I think it might have been a difficult day. It is always funny to hear a recording of yourself. I was looking at it and I sound a bit thick." **No man.** "Then I thought is this the way you are going to be portrayed. It was a bad day." **Your transcript is one of the richer ones that I had in terms of content and how you express yourself.** "Ja, that was a period of time when I was inundated and absolutely swamped and this was just another thing I had to do and I did not have time to do it." **Do you find the interview was problematic in the way you express yourself?** "Not really in terms of getting results the interview is better, because I had all the best intentions to do it but writing was not on the top of my list." **It (the questionnaire) would have taken longer?** "Yes, the methodology is up to you ...you asked me questions and I answered the best I can. I think also it

is important to explain to people what you want to achieve and that there are no other agendas.”

Gus: **Your response to the transcript?** “I didn’t correct the spelling and grammar. I just corrected some of it.”

For example, Gus’s corrections of the transcript (see deletions and responses in italics below):

Biographical details:

Did you also do your tertiary education there? ~~Yes.~~ *No*

Greg: **Greg, are there any problems with the transcripts and the interviews or any comments?** “No, I did not have time to go through it once it was sent through. I didn’t go through any of it.”

Feedback on transcriptions was also obtained from an engineering expert who is knowledgeable about component testing and has worked in the automotive industry for a number of years. He went through the transcriptions and commented on various issues raised by the engineers as well as providing explanations for some practices (see Appendix H).

Lay and other understandings, however, have to be interpreted via the researcher’s frame of meaning without being collapsed into it so that lay criticism accounts are dismissed. Realism recognises that interpretive understanding can be very personal but warns that if interpretations are to be assessed, the importance of specifying “by whom, for whom and of whom they are made” (Sayer 1992:225). Silverman (2005:212) also argues that various validation methods are often flawed, as fixes on reality cannot be obtained separately from particular ways of looking at the data and if “privileged status” (Silverman 2005:212) is given to respondent accounts, problems may arise. Therefore, respondent feedback should not be taken as “direct validation or refutation of the observer’s inferences. Rather processes of so-called *validation* should be treated as yet another source of data and insight (Fielding & Fielding 1986:43 in Silverman 2005:212). Silverman (2005:212-220) suggests five interrelated ways of thinking critically about qualitative data analysis in order to provide more valid findings:

- ❑ *Refutability principle* - no easy conclusions, rather refute assumed relations between phenomena by carefully excluding “spurious”

correlations (Popper 1959 in Silverman 2005:213). To do this, the researcher may need to introduce new variables to produce a form of “multivariate analysis” which can offer significant nonspurious correlations.

- ❑ *Constant comparative method* - all data at some point must be inspected and analysed. Therefore, the researcher should always attempt to find another case through which to test a provisional hypothesis.
- ❑ *Comprehensive data treatment* - all cases need to be incorporated into the analysis. When working with smaller datasets which are open to repeated inspection, researchers should not be satisfied until their generalisation is able to apply to “every single gobblet of relevant data” (Silverman 2005:215) that has been collected.
- ❑ *Deviant-case analysis* - this is actively seeking out and addressing deviant cases as the researcher should not be satisfied by explanations which appear to explain nearly all the variance in the data as every piece of data has to be used until it can be accounted for.
- ❑ *Using appropriate tabulations* - qualitative researchers can use quantitative measure such as simple counting techniques using member’s own categories to survey the whole data corpus ordinarily lost in intensive qualitative research. This also allows researchers to test and revise their generalisations by removing “nagging doubts about the accuracy of their impressions about the data” (Silverman 2005:220).

Therefore, the research’s validation was extended by thinking critically about the qualitative data by repeatedly inspecting the various transcripts’ codes by retrieving *free* and *tree nodes*, considering deviant cases, running NVivo proximity searches and incorporating the focus group icebreaker tasks ranking and rating of factors influencing report-writing effectiveness to provide comparisons for transcripts data themes (see Tables 3.3 and 3.4). Validity assessments are not assured by following procedures but often also depend on the researcher’s judgements of the relative importance of various “threats” (Mishler 1990:418 in Seale et al 2004:413). Therefore, Mishler (1990:418 in Seale et al 2004:413) emphasises the importance of the local research context in applying methodological principles:

No general abstract rules can be provided for assessing overall levels of validity... These evaluations (of threats) depend, irremediably, on the whole range of linguistic practices, social norms and contexts, assumptions and traditions that the rules had been designed to eliminate... ‘rules’ for proper research that are not universally applicable (and) are modified by pragmatic considerations...

The implementation of all these devices encourages a desirable methodological awareness by setting up an internal dialogue that ensures research findings are presented in as good order as possible, so as to encourage external debate about them as part of a general commitment to “fallibilistic, open-minded debate about the merits of research-based propositions” (Seale et al 2004:413).

3.8.2 Reliability

Reliability is a matter of whether a particular technique, applied repeatedly to the same object, yields the same result. In social research, reliability problems are a concern every time a single observer is the source of data because the researcher has no guard against the impact of that observer’s subjectivity (Babbie & Mouton 2005:119). Bryman (1988:77 in Silverman 2005:221), therefore, highlights the need for extended transcripts and field notes to enable readers to formulate their “own hunches about the perspective of the people who have been studied”.

Seale (1999:148 in Silverman 2005:221), therefore, calls for “low-inference descriptors” which are always preferable to researchers’ presentations of their own high-inference data summaries. Low-inference descriptors involve “recording observations in terms that are as concrete as possible, including verbatim accounts of what people say ... rather than the researcher’s reconstructions of the general sense of what a person said”. This includes providing the reader with long data extracts which include the question preceding a respondent’s response as well as the interviewer’s continuers like “mm hmmm” which encourage a respondent to enlarge a comment. This emphasises the need to transcribe all pauses and overlaps as well as comments and responses.

Kirk and Miller (1986:72 in Silverman 2005:224) also argue that “it is incumbent on the scientific investigator to document his or her procedure” because unless the researcher can document procedures used to ensure that methods are reliable and the conclusions valid, there is “little point in aiming to conclude a research dissertation” (Silverman 2005:224).

3.9 The researcher

As most ethnographic research acknowledges that the work is carried out by a “deeply interested observer” (Ramanathan & Atkinson 1999:60), critical research allows the researcher’s ideology and values to enter intrinsically and inseparably into the methods, interpretations and epistemology (Carspecken 1996: 5). For Atkinson (2005), researchers rather than be factored out or neutralised in the research to ensure universally generalisable findings, should instead be “*factored in*” so in that findings are locally and situationally valid and the researcher locally and situationally responsible. This form of research stays close to human experience rather than trying to abstract away from it and acknowledges the partial provisional character of knowing.

Harraway (1988 in Atkinson 2005:51) advocates “a view from somewhere” theory of knowledge which Atkinson (2005:51) calls a “weak science”. This view always acknowledges and takes full advantage of the situatedness and partiality of the research, as individual researchers are:

... always already somewhere in particular when doing their research, that that situatedness and partiality must therefore always powerfully inform and guide their science, and that they are consequently deeply connected and therefore ethically responsible to the people that they are studying.

As researcher, I had been closely involved with the research site through various short-course presentations since 2000 and, as a result, was consulted when the engineering department expressed concern about the literacy standards of their engineers. They were concerned that the engineers were experiencing “specific learning / language problems that are not purely a result of having English as a second language e.g. dyslexia”. I subsequently administered the English proficiency assessment and submitted a report to management and training. The engineers tested were not very happy with management’s actions, and as I was involved with the testing, I also felt I was implicated negatively. Therefore, as I intended to use the site for my research because of my association with the organisation through workshop

presentations and training, a colleague presented the report-writing short course. During my interactions with the research participants, therefore, I had to distance the research from management's actions as I was aware of its influence on the participants' responses. However, by the end of the research, I felt that the three participants who had been tested and had subsequently attended the report-writing short course responded positively to both the short course and research experience. For example, Face describes the short course influence positively, as "improving on the report like you learn in the report-writing course. That really assists a lot ...".

Therefore, as bias must be avoided, it is essential that the researcher's own socially-determined position within the reality of what is being described, interpreted and explained and the complexity of the relationship between micro- and macrocontextual factors is acknowledged. Marcus (1994 in Ramanathan & Atkinson 1999:61) views this admission as subjective and limited if it does not lead to a questioning of the grounds of ethnographic knowledge in order to transcend "sociocultural identity to arrive at emic realisations". Therefore, the researcher's validity claims and values must also meet certain standards that are rooted in democratic principles requiring a careful examination of the concept of truth (Carspecken 1996:8). Marcus (1994 in Ramanathan & Atkinson 1999:61) also identifies intertextual reflexivity as a means for ethnographers to look critically inward and thereby revise their own traditions. The goal of intertextual reflexivity is:

... the deconstruction of ethnographic descriptions by directly unveiling the political situatedness and 'interestedness' of such descriptions, and by bringing to light alternative portrayals of the cultures being described, often composed by the cultural members themselves.
(Marcus in 1994 in Ramanathan & Atkinson 1999:61)

Finally, the discovering of biases is a process that begins with exploring of value orientation at the start of the study and must continue throughout the research (Carspecken 1996:41). Conducting member checks and undergoing peer-debriefing sessions (Carspecken 1996:41) are other means of ensuring validity.

3.10 Ethical issues

In modern composition research from the early 1960s, researchers became less sure that the dominant scientific tradition which was positivist and experimental and used artificially-controlled clinical and case-study settings (Bishop 1999:2) could address their research needs. Although the early case-settings research led to more complicated cognitive research and the development of a generalisable model of the steps writers go through to produce a text, these models did extend to situations where writing took place in uncontrollable real-world conditions. Therefore, the main drawbacks to the model was its linearity and the fact that it was derived from the analysis of products, written works and not the observed process of writing and writers at work (Bishop 1999:8).

The researcher is not only responsible for the quality of the research but for the soundness of ethical decisions in the study. As a central aim of social science is to contribute knowledge to ameliorate the human condition and enhance human dignity (Kvale 1996:109), research with human participants must serve both scientific and human interests. In addition, the use of qualitative interviews as data generation raises a number of general ethical issues, with ethical guidelines emphasising the importance of gaining informed consent of the participants in the research. Kvale (1996:112-117) outlines three ethical guidelines for human research:

- ❑ *Informed consent*: each of the research subjects will be informed about the overall purpose of the study, the main features of its design as well as any possible risks and benefits from participation. Informed consent will involve obtaining voluntary participation from the subjects with the right to withdraw at any time thus counteracting potential undue influence and coercion. Lincoln (1990:286 in Kvale 1996:114) suggests replacing informed consent with a dialogue that runs throughout the study with "the negotiation of research processes and products with one's respondents so that a mutual shaping of the final research results".
- ❑ *Confidentiality*: data identifying subjects will be kept private. Subjects will be protected by changing their names and identifying features.
- ❑ *Consequences*: the subject will be assured that the risk of harm is the least possible.

As the research findings could potentially be damaging to motor manufacturing companies, it was important to ensure that the participants and organisation were assured of anonymity and confidentiality. However, difficulties arise in terms of validity when confidentiality becomes the focus. For example, informed consent involves the careful balance of the questions of *how much information should be given and when*, as full information about design and purpose rules out any deception of the subjects. This presents a dilemma as Smith (1990 in Kvale 1996:115) highlights with questions such as: “How can research results be checked by other researchers if no one knows who participated in a study, and where and when it took place?” Therefore, according to Kvale (1996:113), providing information about a study involves a careful balance between detailed over-information and leaving out aspects of the design that may be significant to the subjects.

To obtain consent to conduct the research at the site, confidentiality issues needed to be discussed at meetings with HR, the chief engineer and supervisors during various site visits from July to November 2004. Strategic and planning meetings could only continue at the site after a confidentiality agreement was signed with Human Resources in September and approval obtained (see Appendix C). At the subsequent planning meetings, the objectives of the research were discussed further, participant confidentiality contracts signed, data collection procedures explained and the research procedure way forward was outlined. The meeting schedule overview includes:

- **Meeting 1:** HR manager for policy regarding site research (20 September 2004 / 9:30)
- Meeting with HR organised so that confidentiality needs and procedures could be outlined and to get official permission to conduct research at institution as a research site. I agreed to submit a document confirming that the sites and participants' confidentiality would not be breached. In addition, I agreed that HR would be kept abreast with all research developments. After request had been tabled with HR, I was able to set up meetings.

- ❑ **Meeting 2:** Chief Engineer to confirm research participants (6 October 2004 / 15:00)
- ❑ Met chief engineer after meeting with HR management. Chief engineer also explained the reasons for the strict confidentiality requirements. For example, many of the engineering reports contained information on new development tests which were technically at risk if revealed. Both the HR manager and chief engineer agreed that participation would be voluntary.
- ❑ **Meeting 3:** Supervisor engineers to confirm research participants (15 November 2004 /11:30)
- ❑ **Meeting 4:** Supervisor engineers and selected engineer research participants (26 November 2004 at 14:00)
- ❑ Met with potential research participants to present the research topic and requirements. The only question asked initially was why the research was being done. The group also appeared to be concerned about the amount of writing that would be required of them and their time commitment. Their time commitment was discussed, and it was suggested that the research would possibly take a maximum of 4 hours: 2 hours for 2 interviews and a focus group discussion and 2 hours for questionnaire responses.
- ❑ Eleven of the engineers present initially signed the consent forms to take part in the research as well as the two supervisors.

The research participants were also required to sign a second consent form for maintaining confidentiality when the focus group met in December 2005. This form was to ensure confidentiality of data obtained during the research data collection (interviews and questionnaires). The participants were asked to affirm that they would not communicate or in any manner disclose publicly information discussed during the course of the focus group interview. They also had to agree not to not discuss data relating to this study or interview with anyone other than their fellow focus group participants and the researcher.

3.11 Research constraints

3.11.1 Software

NVivo transcript coding and matrix searches cannot be copied or printed out which makes data analyses difficult as there are no hard copies to compare searches. The matrix searches can also not be saved, copied or pasted.

3.11.2 Technology

Transcribing technology using digital recorders depends on downloading sound cards from transcribers so that interviews can continue uninterrupted. Effective taping also requires reasonable venue acoustics so that extraneous noises and disturbances are limited to ensure that the transcriber does not pick up interferences such as weather and people talking in the vicinity. Noise interference affected the transcribing process as the transcriber experienced problems with clarity when these noise forms were present.

3.11.3 Questionnaires

Questionnaires were sent out electronically and provided limited thick description with the participants responding briefly and superficially to questions. This is a consequence of open-end type questions and busy schedules and work deadlines. Questionnaire completion added to the participants' already heavy workloads and as questions were open-ended, they required thought as well as the typing of responses which was also time consuming for some of the participants.

As a consequence, interviews replaced questionnaires and also provided richer and thicker description as responses could be extended and probed. The participants were more inclined to give an hour of their time talking about their report-writing practices rather than spend the same time writing (or typing).

As the supervisors were sent to the USA shortly after the research at the site commenced, the researcher was unable to interview them and had to rely on emails for questionnaire responses. They also experienced time constraints

and one of the supervisors was also not able to respond to the second questionnaire probing his Questionnaire 1 responses because workload demands as described in the email below:

Hi ... ,

I did receive your previous e-mail, but I have not had the opportunity to look at it. I am really swamped at the moment, and it doesn't look like it is going to lighten up before the end of the month, I apologise, but I have had to put this on the backburner.

Regards

Albert

3.11.4 Research site access

Gaining access to the institution as a research site involved company formalities and red tape which included ensuring anonymity of company and participants as well as drawing up confidential agreements. This process took about five months before I was able to access potential participants for the study. Some of the testing engineers were also reluctant participants as some had been required to do the report-writing short course as a result of their English proficiency assessment which they had resented taking. Also getting engineers to commit to a study which meant making time in their busy work schedules was difficult.

3.12 Conclusions

As critical ethnography is an ideologically sensitive orientation to the study of culture, it was selected as the preferred methodology to represent the embedding of “richly described local cultural worlds in larger impersonal systems of political economy” (Marcus & Fischer 1986:84 in Canagarajah 1993:605). Critical ethnography is also concerned with multiple perspectives, cultural and social inequalities and is directed towards positive social change. Although ethnographic research stemmed from a need to describe the culture of a community from the shared perspective of what guided their behaviour in

a specific context, Silverman (1997:1) argues that there is a need to broaden ethnographic research beyond subjective meanings towards “issues of language, representation and social organisation”.

To research this rich network, the researcher needs to go beyond the participants’ immediate experienced meanings “to penetrate hidden meanings and underlying connections, to make the invisible visible” (Kumaravadivelu 1999:476) and so reveal knowledge as social texts that are relationally produced in a multiplicity of mutually informing contexts (McLaren 1995:281 in Kumaravadivelu 1999:476). Its hermeneutical task is to call into question the social and cultural conditioning of human activity and the prevailing socio-political structures.

However, as truth or reality is related to or dependent on various claims, the explanation of phenomena acknowledges the “dependence of actions on shared meanings while showing in what respects they are false, if they are” (Sayer 2000:19). Critical realism also acknowledges that the world can only be known under particular descriptions, usually in terms of available discourses as language, writing and rhetoric, which affect not only how ideas are represented to others but also how people think (Sayer 1992:1). Therefore, realists add that to interpret what actors mean, their discourse needs to be related to its referents and contexts in a substantial way. However, as social reality is only partly text-like, much of what happens does not depend on or correspond to actors’ understandings as “there are unintended consequences and unacknowledged conditions and things can happen to people regardless of their understandings” (Sayer 2000:20).

The research, therefore, not only depends on the participants’ perceptions as a basis for a theory of truth (Carspecken 1996:17) or the value orientations of the researcher although these are important (Carspecken 1996:6), but it depends on an understanding of human experience and causal relationships of communicative structures to derive definitions of truth and validity. In multiple systems and causes, there is also the possibility of different causes producing the same effects as well the “risk of misattributions of causality”

(Sayer 2000:20). Therefore, as there are often many things going on at once in these situations, the objects or social systems being studied are usually multi-dimensional and “always open and usually complex and messy” (Sayer 2000:19).

As components cannot be isolated and examined under controlled conditions, priority is given to abstraction or “the activity of identifying particular constituents and their effects” (Sayer 1992:3) to ensure that causal responsibility is not being misattributed. However, where researchers are concerned with discourses and the meaningful qualities of social practices, understanding is not only a matter of abstraction followed by concrete synthesis, but also of interpretation. This requires asking whose perspectives are to shape interpretation and analysis as activities of knowledge forming are often not value-free or innocent.

Critical realism is compatible with a relatively wide range of research methods and so the study uses an intensive research design, to look for substantial relations of connections and situated practices within wider contexts, illuminating part-whole relationships (Sayer 2000:22) in order to explain and change the social world. An intensive approach starts with the research participants, as social phenomena are dependent on the actors’ conceptions of them and the presence of a “non-discursive material dimension of life” (Sayer 2000:17-18). The researcher, therefore, enters the research context to provide a two-way movement or “fusing of horizons” of listener and speaker, researcher and researched, where texts never speak for themselves, and are “not reducible to the researcher’s interpretation” (Sayer 2000:17). This also allows the researcher to have internal access to the participants’ conceptions of social phenomena (Bhaskar 1979 in Sayer 2000:18). The study, therefore, starts with tracing the main causal relationships into which the participants enter and studies their qualitative nature as well as their number.

NVivo qualitative research software was used to streamline the analysis of primary and secondary data as it allows the researcher to save, select, code, annotate, do complex searches and browse large volumes of research data.

Coding is not only the process of looking for meaning but a way of getting from the messy and unstructured data to ideas about what is going on in the data (Morse & Richards 2002). In a narrower sense, coding refers to the actual activity of breaking up and grouping data into categories that reflect major issues or themes that have been identified in the data (Brice 2005:162) through which patterns, associations and meanings become evident.

Critical realism interpretations involve cross-checking of a concept's sense by reference to another's in a "kind of 'triangulation' process in search of inconsistencies, misspecifications and omissions" (Sayer 1992:223).

Therefore, the study uses triangulation and connections between relations by combining different ways of looking at the data to ensure that methods are reliable and conclusions valid. The implementation of all these devices encourage methodological awareness by setting up an internal dialogue that ensures research findings are presented in as good order as possible and to encourage external debate about the merits of research-based propositions (Seale et al 2004:413).

Chapters 4 and 5 focus on dominant practices at the research site interacting with report-writing practices causally to provide an alternative, flexible means for understanding literate practices and literacies. Chapter 4 considers the dominant practice of report acceptance as an event causally connecting with supervisor feedback and revision practices and implicating the participants' understandings of literacy.

Chapter 5 broadens the dominant practice relationships and identifies assisting practices embedded in the organisational structures that emerge causally in response to supervisor feedback practices. Chapter 5 also discusses how various causal associations emerge to control, maintain and change report-writing practices as well as the implications of culture, higher education and future practices on the participants' literacy perceptions and writing practices at the research site.

Chapter 4 Data analysis/Report acceptance practice causal relationships

4.1 Introduction

This study is located within the understanding that literacy is always situated within specific social practices which shape and are shaped by the social actions undertaken in response to recurrent situations within discourse communities (Swales 1990, 1998; Bazerman 1988; Paré & Smart 1994 in Parks 2001:407). Although many theories have been advanced to explain the variable research results of situated writing, they tend to acknowledge, “either implicitly or explicitly, the socioculturally mediated nature of text production” (Parks & Maguire 1999:146). This is supported by various studies including Parks and Maguire (1999:143) who explore how collaborative processes shape text production as well as “other less visible, taken-for-granted aspects of the social context”. The shaping of literacy by social context is also supported by Parks’ (2001:434) later study which revealed how even the appropriation of a minor genre may be “infused with complex ideological positionings”.

Witte (1992:240), therefore, describes research on situated writing as problematic if a “defensible cultural perspective on writing” is absent. Witte (1992) questions claims that whatever processes a writer employs in producing a text are ultimately determined by the particular setting within which a writer works. Witte (1992:239-240) also questions the claim that what writers do and what writing does is altered or changed or determined by the particular settings in which a text is produced and used as these two claims are “complementary and reciprocal”, connect setting and culture by providing:

... microsociological arguments for favouring what may be the closest we ever get to an anthropological ‘fact’ in writing research, namely, that just as individuals may be seen as constituents of culture, so also is culture constructed by or out of individual persons and individual persons’ behaviours.

Situated studies, therefore, need to view writers as constructors and negotiators of knowledge, reflecting an emerging awareness of the limitations of cognitive-based research paradigms to account for how contextual factors

are implicated in processes of text production (Faigley 1985 in Parks & Maguire 1999:144). Once communities have developed a standard perception of a situation, a genre is designed or evolves to respond to the situation and to generate the knowledge and ways of knowing the community needs to conduct its business (Dias et al 1999:119). Participation in these “structuring structures” initiates newcomers and others into the collective and into its ways of knowing, learning and doing. Clive, one of the participants in this study, describes why newcomers need to be initiated into understanding systems as systems differ:

Like myself in my new job, if there is something that I don't know, I will ask. The systems are different. You work with different operations and you might have an idea on what to do but whether or not the process is correct, it needs to be clarified.

For Miller (1994:38 in Dias et al 1999:119) genre as a system also needs initiation as genre “embodies an aspect of cultural rationality” and by participating in the genre, “what ends we may have” is learnt. This historical force of repetition creates regularity and socio-rhetorical habits become “the way things are done”, and the reality they create becomes the ontological norm. However, in the process, the origins and underlying human agency of genres are obscured and “metaphorically speaking, ideology endeavours to cover its own traces” (Fairclough 1995:44). Smith (1974:257 in Dias et al 1999:120) explains this by using the example of the socially-organised practices of reporting and recoding work “upon what actually happens or has happened to create a reality in documentary form” as being “decisive to its character” although “their traces are not visible in it”.

Therefore, when considering the appropriation of complex genres such as engineering reports, the implications of the culturally-historically embedded practices at the micro- and macro-levels of institutional functioning will have implications for report writers. This, however, is a multifaceted process as the “socio-educational practices in any culture are a complex convergence of several intertwining factors and local realities on the ground are produced, shaped and sustained by particular ideologies and historical forces”

(Ramanathan 2005:22). The ideologies generated, sustained and reproduced by communities of practice are parts of “thought collectives” (Ramanathan 2002 in Ramanathan 2005:22) as members of a collective circulate over and between them a “shared thought structure” (Fleck 1981 in Ramanathan 2005:22).

According to Ramanathan (2005:22), these thought structures are produced by common and mutual misunderstanding of structures which generate “similar ways of being, thinking, behaving and believing, and ... conceptualising” as people attempt to make each of these practices meaningful and valuable each in themselves and as a configuration of elements all related to each other in a specific meaningful way. However, the individual elements in a configuration are meaningful and valuable only as they are related within that configuration (Gee1996). Although there is a relative emphasis on shared thought structures, Ramanathan (2005:23) points out that this does not imply that “pockets of difference and divergence do not exist” as:

... institutions and individuals constantly pick and choose from the tenets of their thought collectives, ones they wish to enhance, change and reproduce, thus over time, producing different thought collectives, sometimes in resistance to previously existing ones.

The socially organised practices of reporting and recording work are based upon what actually happens or has happened to create a reality in documentary form, and though these practices are decisive to the realities experienced, their traces are often not visible in it. Therefore, research on writing as a social practice, investigates how writing and the writer are implicated in the discourses, ideologies and institutional practices of which they are part (Baynham 1995:208) relying on shared and overlapping thought structures to determine the realities being described. Sayer (2000:27), however, emphasises the importance of causal relationships or “substantial connections among phenomena rather than formal associations or regularities” or “substantial relations of connections and situate practices within wider contexts” (Sayer 2000:22). Therefore, to determine what literacy

means to writers of complex engineering report genres, will involve considering not only existing observable units of behaviour, but also the writers' values, attitudes, feelings, social relationships (Street 1993:12) and meanings as well as their shared thoughts on practices in response to various contexts.

By considering dominant practices in the situated activity of report writing in a South African engineering automotive discourse community, this study will attempt to describe how the dominant practices as causal relationships influence and are influenced by the writers' perceptions of literacy. Literacy understandings will be explored by describing what literacy practices subjectively mean to the eight component engineers and their two supervising engineers by determining the meanings they collectively and individually give dominant literacy practices in report writing, especially feedback practices in text production. As the research coding has indicated a strong causal association between feedback practices and the literacy event of report approval, the questions proposed at the end of chapter 1 have been reordered. Question 3 now becomes question 2 with chapter four attempting to answer questions 1 and 2, and chapter 5 focusing on question 3.

1. What dominant literacy practices have causal relationships with the automotive engineers' perception of literacy during report writing practices?
2. What associations are there between feedback practices and the writers' perceptions of literacy?
3. What meanings and associations do these writers attach to the dominant literacy practices influencing report writing in the workplace?

4.2 Practice approach

Baynham (1995:53) defines literacy practices as "concrete human activity" involving not just the "objective acts of what people do with literacy, but also what they make of what they do, how they construct its value and the ideologies that surround it". Therefore, a practice approach requires the theorising of subjectivity so that not only are external evidence of behaviours relied on, but also what people think about what they do, their values and

attitudes. Therefore, although the concept of practice is abstract, it “forms a bridge between literacy as a linguistic phenomenon and the social context in which it is embedded” (Baynham 1995:54) and offers a way to “link language with what individuals ... do both at the level of context of situation and at the level of context of culture” (Lillis 2001:34). However, realists would add that to interpret what actors mean, their discourse has to be related to its referents and contexts. In addition, as social reality is only partly text-like, much of what happens does not correspond to or depend on the actors’ understandings (Sayer 2000:20).

Therefore, writing as a practice provides a powerful challenge to the notion of writing as a transparent and autonomous system (Lillis 2001:34). Instead of relying on external evidence of behaviours, a practice-based approach provides an alternative, flexible means for understanding literate practices and literacies in traditional and complex societies. It acknowledges that particular practices have become dominant within particular domains of social life and these involve and invoke particular values, beliefs, identities, all of which contribute to the maintenance of particular social structural relations. Tsoukas (1998:55 in Ramanathan 2005:26) describes the four crucial features of a practice as:

1. a coherent, complex form of human activity regulated by implicit and explicit rules and has been in existence for some time
2. a set of internal goods that cannot be achieved in any other way but by participating in the practice itself
3. an attempt to reach for the standards of excellence established by the regulators of the practice
4. having its own history “which is not only the history of the changes of technical skills relevant to the practice but also a history of changes of the relevant ends to which the technical skills are put”

For MacIntyre (1985 in Ramanathan 2005:26) the entering of a practice is the same as entering a relationship not only with current practitioners, but also with those who preceded the practice, particularly those whose achievements extended the scope of the practice to its present point. These practitioners or practices are, therefore, “the achievement... the authority” of a tradition which

is inherently ideological and which manifests itself as social practices which confront and from which must be learnt. Therefore, the taking up of discourse positions may involve “a vicious circle fraught with conflicts of identity” (Ivanic1998:68) as these positions “combine practices, values, and forms of language in recognisable ‘ways of being’ in the world” (Gee1996 in Collins & Blot 2003:105).

This may require the participants to change identity when attempting to take up membership of the engineering discourse community, which may be at odds with other aspects of their identity. In the process of taking on these new identity aspects when engaging in these practices, the participants may experience a mixed desire for and resistance to insider status. Therefore, multiple literacy models reveal not only conditions contributing to approved literacy practices, they also reveal subversive practices which result in damaged identities, writer inadequacies and the “self-defined in tension with authorised literacies” (Collins & Blot 2003:xviii). Therefore, the context for practices can be “deeply enabling or disabling” (Anson & Forsberg 1990:226) for developing writing skills not only for new employees but also for the more experienced engineer research participants at the research site. This study, therefore, also explores how “workplace practices facilitate or inhibit employees attempts to appropriate language” as there is limited understanding of how L2 writers “fail to succeed in becoming members of the communities of practice they need and value” (Parks & Maguire 1999:169).

4.3 Practice-based themes or causal mechanisms

To determine practice-based themes or causal mechanisms, the interview data transcripts were analysed in a recursive, reflexive and triangulated manner, incorporating insights and feedback from the participants, supervisors, a moderator and engineering specialist for “thick description” (Geertz 1973) and validation. This process also enables the researcher to capture some of the complex uniqueness that characterises cultural and social situations from the perspective of the participants and outsiders. NVivo qualitative software streamlined the questionnaire and interview transcripts

data analysis process by allowing the coded data to be explored and retrieved with ease and speed. Initially *free nodes* were used to identify “topic-oriented codes” (Seale et al 2004:480) by coding “general common-sense knowledge or on specific local knowledge of the investigated field” (see Figure 3.1).

The *free nodes* were then further analysed and *tree nodes* emerged as causal mechanisms rather than as recurrent themes, patterns and variables (Goetz & Le Compte 1984:180) as there is more happening in the world than patterns of events, to be registered by recording “punctiform data regarding variables and looking for regularities among them” (Sayer 2000:15). For critical realists, the conventional impulse to prove causation by gathering data on regularities, repeated occurrences is misguided and at best might suggest where to look for causal mechanisms (Sayer 2000:14). Rather events arise from the “workings of mechanisms which derive from the structures of objects” and take place within “geo-historical contexts” (Sayer 2000:15). The *tree nodes* that emerged, therefore, were causal relationships or mechanisms into which the participants entered revealing relations of connections associated with dominant practices. The basic practice-based causal mechanisms initially identified included:

- ❑ report acceptance practices
- ❑ report monitoring practices
- ❑ report assistance practices
- ❑ report integrity practices
- ❑ feelings / affective practices
- ❑ literacy practices
- ❑ control / authority practices
- ❑ maintenance / change practices
- ❑ higher education practices
- ❑ future report-writing practices

A “heuristic coding scheme” (Seale et al 2004:480) enables the *free nodes* to be coded according to practice events or *tree nodes* which are then subdivided into *children* or *child nodes*. Using this coding scheme, qualitative data transcripts include both general theoretical concepts drawn from “grand theories”, and topic-oriented codes drawn from “everyday knowledge” (Seale et al 2004:480). The coding scheme, therefore, combines general theory

incorporating an understanding of *practices* as a concept, and topic-oriented codes relating to participants' meanings and responses to various institutional practices influencing the practice of report writing. Although the practices identified are presented as separate causal relationships, these elements causally influence one another and cannot be separated or isolated. The events as labelled from topic-oriented codes, retain their contextual nature and are never totally separated from the context a whole, and by implication from each other. So, although packaged and presented as separate codes (see Appendix J / NVivo coded transcripts), they are not experienced separately and often cannot be separated because of "contingent necessity" (Sayer 2000:16) as objects are contingently related. An example of the coding scheme is illustrated in Figure 4.1 below showing the *tree node* representing report acceptance practices as a grand theory code and the *children nodes* that emerged representing the topic-oriented codes.

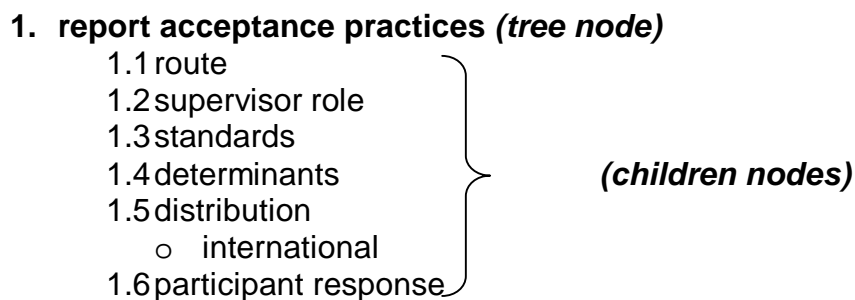


Figure 4.1 Coding scheme example

The associations initially identified were then refined further and recategorised into eight dominant practices causally interacting with the practice of report writing. The dominant practices are listed in Figure 4.2 below:

- report acceptance practices
 - acceptance route
 - supervisor feedback practices
 - supervisor revision practices
 - supervisor feedback perspectives
 - participant feedback perspectives
 - L1/L2 status influences
- feedback practices
 - Who? How? When?
 - literacy standards influences

- other feedback practices
- feedback practice influences
- assisting practices
 - report templates
 - report examples
 - databases
 - copying writing styles
 - computer programmes
 - short courses
- control practices
 - report templates
 - report integrity
 - report questions
 - report requestor
 - distribution lists
 - warranty claims
- maintenance practices
 - report templates
 - global standards
 - supervisor writing styles
- change practices
 - report templates
 - standards
 - scope of change
 - pace of change
 - attitudes
- culture practices
 - L1 / L2 language status
 - affective pressures
 - teamwork
- other practices
 - higher education practices
 - future practices

Figure 4.2 Dominant practices causally interacting with report writing

The NVivo *node* browsing and retrieving function enables the various *tree nodes* and *child nodes* to be browsed, retrieved and analysed collectively as grouped information to give an understanding of the practice distanced from the data context. Viewing the nodes from all the transcripts collectively also reveals facets that may not have been visible in the data as a whole.

Each of the identified practices are discussed below by analysing the retrieved *child nodes* to describe the participants' understandings of the various practices involved in the practice of report writing at the research site. NVivo proximity searchers were also run to verify the extent to which these practices are referred to in the codes as a descriptive reference. To assist in identifying the various research participants as well as their L1 / L2 language status in the transcript discussions, Table 4.1 provides a summary of the participants and their language status.

Table 4.1 Research participants and L1 / L2 status

Engineers	L1 / L2
Brad	L2
Clive	L1
Face	L2
Greg	L1
Gus	L1
Marvin	L2
Moses	L2
Tani	L2
Supervisors	
Albert	L1
Phillip	L1

*** Not their real names**

The practice that emerged as a causal mechanism, integral and central to report-writing practices at the research site is the practice of report acceptance by the test engineer supervisors.

4.3.1 Report acceptance practices

Within the research site discourse community, the report-writing process follows a relatively fixed sequence, maintaining dominant writing practices, which spiral to and from report acceptance practices. Test engineers initiate the report acceptance process by submitting their draft test reports to their supervisors for feedback on technical details and language use. The test engineers or supervisors then revise the reports, until they are finally approved by the supervisors who then circulate the reports to all involved audiences on the distribution list. This process maintains the practice of

supervisors being in control of acceptable report standards and report integrity, which includes writing quality as well as technical details. The feedback practice, which takes various forms results in the ensuing report-writing process, and results in various degrees of report revision and editing until the report is finally approved and circulated. Therefore, literacy standards as determined by report draft feedback as an acceptance practice often influences the participants' and supervisors' understandings of acceptable literacy based on the engineers' writing competency.

In the excerpt below, Face describes the absolute control that supervisors have over report acceptance in his response to the question, *What usually classifies a report as final or complete before circulation? You said, "approval by your direct manager"*:

Yes, I can't skip him. With his absence, it went straight to X but that is only if there is no direct supervisor, but my direct manager has the final say. He is the only one who will say a report is final.

To verify the centrality or "causal responsibility" (Sayer 2000:16) of report acceptance as a practice, a NVivo proximity search was run to ascertain the number of references to report acceptance practices in all the transcripts. These references do not indicate regularity, and at best might suggest where to look for causal mechanisms. Rather they help to distinguish between what *can* be the case and what *must* be the case given certain preconditions. In the search, there were 46 references to this practice of which 22 or 48% focused on the supervisor's role in the report acceptance process from report submission to report distribution. The remaining 24 references (52%) to report acceptance practices referred to:

- ❑ report acceptance sequence, 12 references (26%),
- ❑ assistance practices / software, 6 references (13%)
- ❑ assistance practice / templates, 6 references (13%)

The NVivo proximity matrix search in Figure 4.3 illustrates the breakdown of the 22 references (or 48%) to the supervisor's role in report acceptance

practices according to various *child nodes* in the *tree node* or causal mechanism in descending order:

- 7 references (32%) / distribution or circulation process
- 4 references (18%) / acceptance route
- 3 references (14%) / supervisor's role
- 3 references (14%) / acceptance standards
- 3 references (14%) / participant responses
- 2 references (9%) / acceptance determinants

Figure 4.3 Matrix search: report acceptance and supervisor's role

In the transcripts, the report acceptance route was similarly described as “shared thought structures” (Ramanathan 2005:22) by most of the participants in a relatively fixed sequence, so depicting a central causal relationship into which the participants enter (Sayer 2000:20). The acceptance route commences with the engineers submitting their draft test reports to their supervisors for approval. The supervisors then provide feedback resulting in various report revisions until the report is finally approved and circulated. The report acceptance practice route *child node* retrieved supports the report acceptance sequence process described by grouping all the participants’ comments relating to report acceptance practices. The participants’ descriptions of the report acceptance sequence or route also reveals that various feedback and revision practices are outcomes or associations emerging as a result of the causal mechanisms of report acceptance at the research site.

4.3.1.1 Report acceptance route practice

Most of the participants describe the report acceptance route similarly, often associating it with the supervisor’s feedback role in the report acceptance process. A NVivo proximity search indicated that the participants made 54 coding references about the report acceptance route for report acceptance in the interview transcripts. The ranking of the number of report acceptance route references per participant from the highest to lowest revealed that Clive made 11 references, Moses and Tani 7 each, Face 5 and the remaining four participants, Gus, Marvin, Brad and Greg, varied with 3-4 each. This coding

frequency also supports the centrality of the report acceptance route practice as a common causal mechanism in the report-writing process.

In the transcript excerpts that follow in this chapter, the bold print represents the researcher's questions and the participants' responses are unbolded. In the excerpts below, Clive, Face and Gus describe the typical report acceptance route emphasising the central role of the supervisor from the report compilation to report approval and distribution. The excerpts also reveal an association or connection with use of templates (see Template example Appendix I), supervisor's role, report revision and distribution list in the report acceptance process.

Clive: "Getting everybody's input that is required. I will download all the information getting everything together, tabulating the *templates* and do the report. Then send it to the manager. Once it is Ok'd by the *supervisor* or department head, it is OK. If it comes back to me I will adjust it. Occasionally it will come back. It depends on which person it is sent to. Most department managers are... but *once it is OK'd by the supervisor or department head, it is fine.*"

Face: **Do you give it (report) to him once it is finished or will he see it at prior stages?** "No, there are three stages. I will compile it and finished it, to my best ability, *he will go through it*. This is Albert. Albert is the group engineer, he will go through that document. *Correct it or add stuff*. Then it goes to X. If X wants to add stuff, he will sent it back to Albert. It is a three-way process. X will ultimately send it out."
Do you let anyone else see it before Albert sees it? "Yes, sometimes if it is a very complicated report, I will ask a colleague, most probably the guy next to me, to read through it but that happens very seldom. It is more between the managers and myself to give that kind of feedback."

Gus: "I think it depends on which *template* you are using. If you are using the ... *template* there is the compiler, there is the approver and the *distribution list*. You will compile the report and it goes through to the senior manager and *he will then review the report and if he is happy with the content and structure of the report, he will then issue it*. If there is an observation report in Word Format, he might distribute it directly to his colleagues overseas. And then he will take it further, and *it will obviously be reviewed by his manager for grammar*. A second set of eyes looking over."

a) Reasons for acceptance route practices

As all report drafts are dependent on the practice of supervisor approval for circulation, the supervisors' function or role in the report-writing process is critical. This is because supervisors or managers are ultimately responsible for report quality and accuracy as they deal with all queries and questions relating to the reports once they have been approved and circulated. As a result, the supervisors provide feedback on report drafts for revision and often make the language changes themselves to ensure report quality. The report approval process is also stringent and reports not meeting the required language and technical standards are not approved. The participants also describe how difficult it is to meet these standards and get reports approved, with Moses commenting, "You can write it how good, it will come back with some comment. My response is ... I will always laugh and fix it. You don't have a choice". Brad also explains the outcome of "wrong" reports, "The reports won't be allowed to be circulated, if it (sic) is wrong. The work that we are responsible for, and if there is a mistake, it won't be approved". The participants describe their dependence on supervisors for report acceptance in the excerpts listed below:

- ❑ "Have to get the manager to accept it"
- ❑ "Manager normally reads through it (report)... And then once he is happy with it, then it's final"
- ❑ "... you have to get into his way of thinking otherwise he would rip your report to pieces and you have to write it over and over again. I should have to get more information and I come more in line with his line of thought and acceptance"

The reasons the participants give for the supervisors' central role in the report acceptance process confirm that the supervisors are ultimately responsible for dealing with report questions and clarification to various audiences on the distribution list once reports are circulated. Clive in the focus group discussion explains the supervisor's role in ensuring report content accuracy by pointing out that "Once the report is distributed there could be questions asked around a specific measurement". The importance of report clarity for various audiences is also explained by Marvin, Brad and Clive with Marvin explaining that audience or distribution list needs are met by structuring test reports "in

such a way that it is easy for someone else to understand it". Brad supports this view by explaining, "you always write to an audience - you want your audience to understand what you are saying so you will always try and write in their language". Clive also explains the need to submit clear technical reports for non-technical audiences in the excerpt below:

... submitting a technical report and maybe one of the marketing guys was on distribution. He might not understand the technical aspects we discussed in the report. So it is based on how you can make a report very technical or you can just use simple English and be clear, concise and to the point.

As the supervisors are required to answer report questions once the reports are circulated, report distribution seems to influence the level of checking with standards for internal circulation appearing less rigorous than for global circulation. Clive explains the influence of the distribution list on the acceptance practices, "Much (sic) of Moses' reports go to Germany whereas ours is internal", and Moses agrees, "I am also open to feedback especially when the reports go further". Marvin also describes the distribution list effect, "I noticed that if it were going higher up, he would change it and make it more professional". Clive, however, denies that the internal distribution check is less stringent than the global, "No, it is the same. It goes to the supervisor, he checks it and makes sure that it is correct". However, Clive also describes the supervisors' demand for greater report quality as the reports' circulation has become more global in the excerpts below:

Sometimes it goes to upstream departments as far as component engineering but sometimes he might not know that I have to send it to overseas. If it goes to higher levels in terms of the accuracy, it must be fairly accurate because you don't want to send the wrong information and create the wrong ...

I think the higher you go within the organisation the expectations are obviously raising. We do communicate with our counterparts overseas and you want to be clear, accurate and concise when you send information over to them. Sometimes I would think people get the impression when the language is bad or so they will think, what are we dealing with back in South Africa, whatever the case might be.

The participants also suggest other reasons besides report questions for the supervisors' central role in report acceptance and these include their responsibility for controlling report access, costs resulting from questions raised as well as global distribution lists. These reasons are described in the following excerpts by Greg and Face:

Greg: **Do questions arise once the reports go to the different role players?** "Yes, there are sometimes questions but maybe it is not for clarification. Once it is approved then someone might have questions. Your immediate supervisor approves it. Once it is approved there can be questions." **You said questions are not a big thing.** "No, it is not."

Face: "The supervisors are the primary customers. The dealer can also ask for the test report. And they will go to my supervisor. Once it (the report) goes to the supervisor, he will sign it off. No one can change or alter it."

Face: "More questions will be raised. Unnecessary teleconference calls, which are expensive, will be required. In our daily report-writing questions are not normally raised. All the role-players will discuss the report and in certain instances, the concerns will be distributed."

Face: "The normal routing system is effective. We are global now. It goes a step further where source plants and other countries can read it, is one step bigger. There is more people that can comment and reply."

Therefore, the participants confirm and explain the supervisors' scrutiny roles, acknowledging that the report approval system invariably incorporates the practice of supervisor feedback. These practices also address issues of power, as central to the practice-theory argument is the claim that writing is usually associated with power, and particularly with specific modern forms of power such as supervisor control to maintain institutional as well as local and global structures and networks.

b) Report acceptance and supervisor feedback practices

Most of the participants agree that supervisor feedback is necessary with Brad emphasising its importance, "Have to get feedback obviously... the most reliable thing is feedback... Somebody has to say at some stage – why don't you do it this way or that way". Although most participants agree that report feedback is necessary, it seems important to them that the feedback focus for

report acceptance is their language use rather than report content or technical details. A possible reason is that the supervisors tend to make language changes on the reports themselves and they sometimes get the engineers to revise technical details. So the writers “internalise what their supervisors prioritise” (Hedgecock & Lefkowitz 1994 in Ferris 1995:50) and assess their writing competency according to feedback given.

Therefore, the participants often regard language or form errors as less serious than technical details and often associate the need for their writing to be edited with their being either L1 or L2. For L1 participants, literacy or writing effectiveness appears not to be dependent on language use but rather on approved technical details as they seldom have editing changes. However, for most of the L2 participants, literacy appears to be dependent on correct grammar, wording, spelling and sentence structures as the supervisors continually comment on these form errors. This is supported by the participants referring to the supervisors as needing to change “the grammar to make it more simplistic” and the “words... and the structure of the sentences” but “not the facts”.

This conclusion is supported by Moses describing the type of report feedback he is given, “Most of the time it will be grammar. The technical part is perfect. Just the way it is put down”. The excerpts below also support the collective understanding that supervisors monitor language use rather than report content and suggest a relationship or association between the language feedback focus, their supervisors being English L1 and their L2 English proficiency (see Table 4.1 and Figure 4.4):

- Brad: **What suggestions would Albert usually mark on your report?** “That is more about in terms of tenses or something. It is simple things. At the end of the day the report might leave South Africa or to suppliers... it is confidential but it needs to be good with no negatives.”
- Moses: “It will normally be grammar. He will change the grammar. My manager is English. Any report will always come back. You can write it how good, it will come back with some comment.”

- Moses: "The structure of the sentences ... in Afrikaans, you think in a backward way compared to... And sometimes they won't pick that up. That is where an English guy will fix the grammatical language structure."
- Face: "He is an English-speaking person and he is brilliant with English. ...And he could pick up word and sentence structuring which the normal engineers don't pick up. From his comments, I was more successful. He normally commented where I could add or change things or make improvements. It was not the spelling, it was more on how to converse with non-technical people."

The participants' reactions to feedback are also usually accepting as reflected in responses like, "Have to get feedback obviously... the most reliable thing is feedback ", "I normally will compromise or use their opinion", "take what they say and apply it" and "You don't have a choice". These statements support thinking from within discursive formations, illustrating exercises in power and control. In addition, this also illustrates that people do not assume simple, singular identities but inhabit multiple identities (Gee 1996), so acquiring certain literacy practices may involve becoming a certain type of person. This may involve "using their opinion" and accepting what the supervisors say and internalising what supervisors prioritise. For Moses this means writing more and more like his supervisor as the "more you do it (revise), the more you learn about the style of your manager". Brad also describes in the excerpt below the internalising process relating to writing styles in his response to the question, *What do you learn about language from the writing models you observe?*

I can't say that I emulated a specific writer. It all goes back to your school days. When you saw (sic) something and you try to internalise it... your style lies beneath the surface.

Although some of the participants do not always agree with the feedback given, they also usually do not assert their views as Brad explains, "Sometimes, I was thinking, should I argue about this because I didn't always agreed with him but then...Ja, so you do". Brad also comments, "because sometimes, I think I'm right – but they grew up in English so they will obviously have to say no, but I know how it should be". This illustrates the

effects of power relations in socially constructed and managed lines of exclusion and inclusion, disclosing the ideological character of literacy provision. These power lines validate and entrench the external, visible performance measures on which access to power is allowed or refused, like correct grammar. At the same time, they serve to construct and distribute differential subjectivities to successes and failures, like being L1 or L2, and leave some of the participants with stunted interpretations of their own identities. Often the problem is not technical ineffectiveness but political structure with illiteracy being a constructed category of power and control (Morphet 1996:259).

Individuals, however, do not always comply with the dictates of dominant institutions, but reject the demands placed on them institutionally and operate according to their own desires, in a way that presents itself to them as personally empowering (de Certeau 1984 in Kumaravadivelu 1999:461). Therefore, although Moses agrees that feedback practice in the report-writing process occurs, he strongly expresses his opinion that the supervisor's feedback role is to edit rather than to revise content. Moses maintains this stand throughout the interviews and the focus group discussion as a means of empowering himself, as he appears to have no control on discursive forms, "You don't have a choice (to fix it)" (see excerpt below). In all the transcripts, Moses disputes the conclusion that the supervisor's role is more than editor as it "is seldom that the content will change". Rather, he describes the supervisor's feedback role as "to reconstruct my vocabulary" and "to assist with the grammar" as "you are not writing the report for your manager. The manager has to approve it."

In Interview 2, Moses supports his Interview 1 position that only grammatical details are changed in reports when answering the question, *Would you add more detail (to reports)?* He replies, "Most of the time, it will be grammar. The technical part is perfect. Just the way it is put down". Moses' Interview 1 description of the supervisor providing feedback on grammar and style in the report submission process is cited in the excerpt below:

What writing steps do you usually follow when writing a report / document? You said, “Proofread copies, handout for proof reading, then submit to manager who sends back for corrections.” “It will normally be grammar. He will change the grammar. My manager is English. Any report will always come back. You can write it how good, it will come back with some comment. My response is... I will always laugh and fix it. You don’t have a choice. The more you do it, the more you learn about the style of your manager.”

Moses’ response describes language as a transparent instrument for conveying technical details and, therefore, as data cannot be incorrect, the language is problematic or blamed. The understanding of “knowledge as negotiated, flexible and context-dependent” (Winsor 1996:7) is often not shared by the participants as they tend to view language use and technical details as separate issues. However, Christie (1986 in Boughey 2002:298) differentiates between language as an “instrument of communication” and language as “a resource” arguing that the way language is used rather makes sense of the experience and as such, is a *resource*. Street (1983) and Gee (1996) also dismiss the idea that literacy is a unitary skill focusing on decoding and encoding of script, and this signals a shift from viewing writing as a technology towards writing as meaning making.

Meaning, however, is also dependent on factors such as how “individuals perceive themselves in relationship to the texts they encounter and on the value they ascribe to those texts in their daily lives” (Boughey 2002:296). Therefore, only getting the grammar right often does not communicate meaning and knowledge or take into account the way in which experiences shape the grammatical/syntactical choices made (Boughey 2002:300). This means that Moses replicating the style of his manager will also not necessarily ensure meaning, as language is not a transparent medium or conduit along which word-ideas are easily sent to a reader or viewer who then experiences reality as portrayed by the words. However, regarding meaning as being dependent on getting the “medium ‘right’” (Boughey 2002:299) may also reflect the supervisors’ recurrent language focus in their feedback.

Moses, in the excerpt below from the focus group discussion, again strongly maintains his view of the supervisor's exclusive editing role in feedback practices. However, the excerpt also reveals that Clive and Marvin support the understanding that the supervisor is not only responsible for language use but report content and structure as well, supporting a *whole language* view of literacy. The causal influences of power relations are also visible as Marvin describes his less powerful position in the acceptance process as having "no influence" (line 32) while Moses asserts that the "manager has to approve it" (line 18):

Now my questions to you is - is this (report acceptance practices) the pattern – or are there differences? Do you agree or disagree with anything that was said here (regarding report acceptance)?

(Moses) "I will disagree on this one. My reports are more ... You

5. compile the report itself - you know more or less where you are going with it. You've done the test and you've got the idea what's happening. All that the managers normally do, they will reconstruct my vocabulary, more in that sense." **The content will not change?** (Moses) "It is seldom that the content will change. It is more the grammar – Because
10. I come from an Afrikaans background, I sometimes get pointed back to the conclusion and people won't like it." **The person said, "I don't know, because what he normally does...He goes over it and he will take it further". In your case, what do you think he means?** (Moses) "My bosses won't go that way. You have to write the report.
15. He is only there to assist with the grammar. He won't take it further. Then you hand it over to the person who requested the test and they will take it further." **Not your manager?** (Moses) "You are not writing the report for your manager. The manager has to approve it." **Marvin, will that happen with all of you? Moses seems to suggest that**
20. **does not happen, that he will get it onto the distribution list.** (Marvin) "I think it depends on which template you are using. If you are using the... template there is the compiler, there is the approver and the distribution list. You will compile the report and it goes through to the senior manager and he will then review the report and if he is
25. happy with the content and structure of the report, he will then issue it..." **You are responsible for the report and they (supervisors) will just oversee the grammar? Marvin, you said "No"?** (Marvin) "No, it is the same." (Clive) "Much of Moses' reports go to Germany whereas ours is internal." **Is the internal distribution list more stringent?**
30. (Clive) "No, it is the same. It goes to the supervisor, he checks it and makes sure that it is correct..." **Marvin?** (Marvin) "In my case it is not the same. Sometimes, I have no influence whatsoever. You know sometimes the manager decides no this...If you find a different way, he said no, this is not the way to do it."

Other participants share Marvin and Clive's view that the supervisors are not only responsible for language usage in reports but content as well. Gus, a L1 participant, also describes the importance of accurate language and content in reports when he answers the question, "*Would you consider technical correctness as more important than language correctness?*" He answers, "No, both are equally important in any document. Incorrect language can lead to a misunderstanding and incorrect technical information is just as disastrous". In the excerpts below, Clive as a L1 participant in his Interview 2 discussion also comments that technical details are checked although "just slightly", and Face, a L2 participant, in his interview also highlights the need for the inclusion of additional information as well as editing for final report approval.

Clive: **What will your manager usually change in your draft report? You said, "If anything needs to change, I would do it". What normally needs to change?** "Maybe content, not body of the content but maybe the data, just slightly. There may be a slight error on one of the readings, for example. If there is, I will go and double-check it. Once the report is distributed there could be questions asked around a specific measurement or ... So that is the only thing that gets change. It depends on who is doing the report. With Albert, obviously he is very finicky, and I will maybe say something that is different from the way he will say it. With Y it is not really so much on the way you say something, it is more on the content."

Face: **Your role is to compile the reports and forward it to your manager for approval. What will normally result in approval?** "Approval will be reading through the documents, it can be any document. And then if you have to make corrections or say, for instance, he said include Moses' report or Moses' results or supply a sample just to make it more presentable or let a dealer take photos or something like that. Or get the production line involved. Normally, he will read through it. If he finds that some additional information can be inserted into the document, he will suggest it. I will then go back and insert the information. And he also checks the spelling and the sentence structure."

The study, therefore, reveals that the participants' views on feedback foci reveal different responses to the supervisors' feedback and associated practices, such as supervisor revision practices. Their responses possibly reflect the need to take on new identity aspects when engaging in these practices, with the participants either experiencing a resistance to insider status (Moses) or a mixed desire for oneness, or a unified self (Brad and

Face) in the composition of identity by identifying with the “powerful and significant figures outside (supervisors and acceptable language use)” (Woodward 1997:45 in Ibrahim 2000:742).

Research supports that form and content-focused feedback should not be separated as content often determines form and faulty form can obscure meaning for the reader (Ferris 2003:23). As some of the participants view form and content feedback as separate issues, this may relate to their school experiences with teachers focusing on sentence correctness and error correction (Harran 1994) rather than meaning which reinforces the participants’ focus on sentence-level problems. In addition, it may also reflect the supervisors’ schooling experiences as Albert also uses a red pen to indicate comments. Winer’s (1992:74) study found that teachers often based their understanding of how good writing came about on misconceptions “supporting impossible models which guaranteed a sense of dismay if not total failure” often making use of the models they suffered under as students. Boughey (2002) uses Christies’ (1993 in Boughey 2002:304) “Received Tradition” to describe the situation where teachers can envisage no other way of teaching language than repeating their schooling experiences resulting in a situation of discipline rather than empowerment. This occurrence is supported by Moses describing the supervisors making “changes in red... just like school” and the use of the red pen being “quite aggressive to put comments down”.

c) Report acceptance and supervisor revision practices

Although participants are sometimes responsible for revising their reports for clarity, accuracy and content with revisions varying from being done “quickly” or having to “write it over and over again”, the supervisors also do the required revisions. The supervisors’ practice of doing revisions is supported in Brad’s description of the changes usually made by the supervisors in reports, “Ag, usually he changed a nuance or something, nothing fundamental”. It is also important to Moses that the supervisors do not change report content and that only grammar and vocabulary are checked or changed. The participants appear to be accepting of this practice by the supervisors as long

as language and not content is revised, as Brad explains, “They will think in a logical way, and I will look again at the way it is structured. It is normally the wording, not the facts”.

Brad’s comment reflects his view that the “main knowledge has to be correct” and that “engineering quantities are correct and that the integrity of the information that you have to pass is intact” rather than a language concern with words and sentence-based errors. This emphasis may also reflect his L2 identity as English is not his mother tongue so “there is always a bit of difficulty” as his previous supervisor was English and “constantly comments on my use of the language”. Although Brad trivialises language concerns, writing is a complex intellectual activity where language use:

... defies the use of logical reasoning, as its inexplicit nature requires the use of prior or contextual knowledge in order for premises to be interpreted or conclusions evaluated (Boughey 2002:301).

First-time report approval with no changes or revisions is also considered a standard worth striving for, “I will try and get it approved the first time around. I am approaching an acceptable standard” and “Have to work fast and try to get it out and right the first time”. One participant also states with pride, “ I never had a report coming back to me. From me, it goes to my direct manager. So, it will rarely come back”. The participants also express relief that once issued, the report “stayed the same”.

Therefore, from the participants’ responses, an understanding of literacy seems to be shaped by recurrent acceptance practices within the report-writing process as activated by their supervisors’ responses to their report drafts and the changes they make or request. As the supervisors tend to focus on correct wording or terminology, grammatical correctness, sentence structures or writing styles rather than technical details or report structure in their feedback, the participants often measure their literacy competencies by referring to form errors as criteria for report acceptance. This may be a reflection of the supervisors’ *Received Tradition* or that some literacy practices are more available to certain sections of the population than others

(Heath 1983, Boughey 2002, McKenna 2003). In addition, as supervisor feedback focused on the L2 rather than the L1 participants, this may also demonstrate that L1 writing ability is closely linked to “fluency and conventions of expository discourse” (Hinkel 2004:10).

For the participants, as acceptable literacy is often defined by the extent and type of feedback on their draft reports as well as the speed of report acceptance, these practices highlight the importance of cracking the codes for supervisor acceptance and report approval in the report-writing process. Report acceptance then guarantees report issue and circulation as well as audience understanding. These associated practices and connections are complex and compounded when assumptions need to be made about standards, requirements and knowledge. Brad explains this complexity, “People have different perceptions in their minds... you make assumptions that the people you are communicating to (sic) have this knowledge and then you might not give them all the details and then they read it, and they don’t understand it.” Therefore, literacy is a “multiple rather than unitary phenomenon” (Boughey 2002:297) requiring contextual knowledge of a range of social constraints and choices which operate on writers in any context (Hyland 2002:11) and is not only about getting the grammar right.

The supervisors’ descriptions of report acceptance practices and their roles in the process are also important for comparing perceptions of report-writing practices at the research site. The supervisors responded to questionnaire probes regarding their feedback practices including what, when and how feedback takes place as well as their perceptions of the participants responses to feedback and revision practices (see Appendix D).

4.3.1.2 Report acceptance and supervisor feedback perspectives

The supervisors seem to support the participants’ conclusions regarding their feedback foci in their responses to the question: *What feedback do you usually give on the reports you oversee?* Their rankings below, suggest that report content and structure are not the supervisors’ primary feedback focus.

Supervisor 1 / Phillip

In decreasing order of frequency:

- 1 Report flow (clear objective, results, conclusions and recommendations)
- 2 Grammar and spelling
- 3 Consistency (e.g. all graphs should be formatted the same etc.)

Supervisor 2 / Albert

- 1 Language/grammar corrections
- 2 Omission of supporting technical data/information/background
- 3 Report structure with regards to presenting the results such that it shows the path to the conclusion

Although supervisor 1, Phillip, focuses on *report flow* and clarity of report content, and supervisor 2, Albert, gives feedback on *omission of supporting technical data* a middling ranking, language, grammar and spelling corrections are highlighted as the most frequent feedback focuses. Report structure and format appear not to be their feedback focuses. The supervisors' rankings support the participants' assessment of their writing standards according to surface errors and their defining of effective literacy as the correct use of language and writing styles rather than report content, technical details or structure. In their questionnaire responses, the supervisors also confirm that feedback is given on both technical and grammatical details with both supervisors usually doing the corrections. Albert describes his feedback practice as, "I mark-up a hardcopy of the report, showing corrections both technical and grammatical". Phillip will "very often" do the grammar and spelling revisions himself, while "major" changes are discussed with the engineer.

McKenna (2003) also describes this fixation with correct grammar use as an example of the *Received Tradition* which is "dominant even today" (McKenna 2003:63). McKay (1984) also suggests that teachers are often preoccupied with error because grammatical errors can be easily identified and explained. McKenna (2003:63) describes surface language errors as remaining an issue simply because "lecturers were at a loss as to what else could be done to help students cope with their studies". Phillip as a professional engineer supports this conclusion by answering a question relating to how report quality can be

improved with “My honest answer is ‘I don’t know’”. The *Received Tradition*, therefore, focuses on the remedying of grammatical problems as a solution:

... as if a conscious knowledge of the surface rules of language is what students are lacking and if these rules were made available ... their problems would disappear (McKenna 2003:63).

Interestingly, relating to feedback practices and participant responses, both the supervisors in their questionnaire responses perceive their feedback as being positively received. This indicates a discrepancy between how feedback is received and what is perceived as acceptable feedback by the participants. Phillip describes the participants’ responses as “Accepting - I think the feedback is usually perceived as constructive” and Albert remarks that participants are “positive” even when feedback relates to report content, “positive to constructive technical advice”. Albert suggests that the participants have issues with language use feedback, but recognises that the attainment of acceptable standards is a complex practice as it includes the need for standardisation as “Standardisation in the workplace is a necessary requirement; having said this, people have different viewpoints and means of expressing themselves, which often is 'verbalised' in the language they use, and as such it becomes a very personal issue”. Rather, in the excerpt below, Albert suggests that the participants are more accepting of technical feedback rather than language:

Receiving criticism from a peer with regards to technical issues, is ordinarily not a problem for Engineers, but when corrected/criticised with regards to the use of language/grammar it is often taken personally. The situation requires one to be tactful, and this is not always possible in a busy work environment.

Albert also comments that although feedback practice in the report-writing process should be constructive, it often reflects on the literacy levels of the engineers as “language and grammar issues” affect report meaning. Albert recognises that much can be gained from approaches used by the test engineers and that feedback practices can be useful. However, their language use affects report quality and understanding as he describes in the excerpt below:

I appreciate the opportunity to partake in the feedback on the report content, as there is a lot to be learned from the approach taken by the engineer. I found wading through language and grammar issues tedious and frustrating, and this detracted from the discussion of technical data and conclusions.

Albert's response that language and grammar issues were "tedious and frustrating" supports research that "syntactical, lexical, and discourse features of text and errors in the use of these features have an influential effect on perceived quality of students' text" (Hinkel 2004:24). In the workplace, therefore, accuracy in the use of these syntactical and lexical features is very important and ESL errors, especially, are often regarded more critically than L1 errors (Santos 1988 in Hinkel 2004:24). The participants also describe Albert as being very thorough, "clued up with the nitty-gritty stuff", "went in-depth" and was able to "pick up word and sentence structuring which the normal engineers don't pick up". However, they also describe him as "very strict with words" and "He went to extremes and overboard a bit". As an L1 professional engineer, however, Albert's writing ability is closely linked to fluency and conventions of expository discourse (Raimes 1994) which values highly critical thinking, logic, insight, cogency, individual voice and audience. Therefore, although he may not have the training to develop the participants' L2 writing proficiency, he has the writing skills that relate to the knowledge of discourse conventions and organising information flow (Hinkel 2004:10).

Brad, however, supports the rigour of Albert's checking in his response to the question, *Would reports be circulated if language is faulty or the message is not clear?* He describes how important it is that messages are clear and how words used can affect meanings, therefore, the writer cannot assume that the reader will interpret words used "the right way... so you must use the right words and there is no leeway about it". Brad also describes the effect of faulty reports as "a slightly incorrect statement can have repercussions". Therefore, the participants appear to support Albert's rigorous report acceptance standards with Clive describing the rippling effect of poor reports, especially for global audiences in the excerpt below:

We do communicate with our counterparts overseas and you want to be clear, accurate and concise when you send information over to them. Sometimes I would think people get the impression when the language is bad or so they will think, what are we dealing with back in South Africa, whatever the case might be.

Clive's comment highlights that meaning is not only lexico-grammatical dependent, but includes "macro- and micro-level textual concerns, including audience expectations" (Ferris & Hedgecock 1998:17) as well as how this affects writing quality and readers' perceptions.

4.3.1.3 Report acceptance and participant feedback perspectives

The participants also described their perspectives of supervisor feedback practices highlighting the need for a language rather than content focus when supervisors provide feedback on their reports in the acceptance process. In order to describe the extent to which language use including words, grammar, sentences and spelling as well as content are referred to when the participants discuss report acceptance in their interviews, a proximity matrix search was run using NVivo. The results are outlined in Figure 4.4 below:

Wording:	12 references (48%) / 5 route, 2 standards, 1 determinant, 3 distribution, 1 response
Grammar:	8 references (32%) / 2 route, 1 supervisor role, 1 standard, 1 final, 3 distribution
Spelling:	3 references (12%) / 1 route, 1 determinant, 1 distribution
Sentences:	2 references (8%) / 1 route, 1 determinant
Report content:	6 references (24%) / 2 route, 1 standard, 1 determinant, 3 distribution

Figure 4.4 Matrix search: report acceptance, language and content

Figure 4.4 illustrates that there were 25 references relating to wording, grammar, sentences and spelling and six references to report content when referring to report acceptance practices. This supports the participants' perceptions that report acceptance is often associated with correct language use. As writers often internalise their supervisors' focuses, the participants' rating of their literacy levels often reflects their supervisors' feedback focuses. Each of the language components as well as report content as listed in Figure 4.4 are discussed below to describe supervisor feedback practices for report

acceptance and how the feedback practices influence the participants' views of their writing effectiveness.

a) Wording/terminology

There were 12 references to *words* or *wording* in the proximity matrix search relating to report acceptance practices (Figure 4.4). This category had the highest number of references, illustrating that 48% of the participants' responses to the interview questions regarding report acceptance mention the need for their reports to have the correct words or wording as required by their supervisors when draft reports are submitted for approval. The participants also highlight the importance of using correct technical and formal words so that meanings are clear to both technical and lay audiences as well as the institution's requirement that wording is positive and that negative connotations are avoided.

The importance of positive wording in report writing is illustrated in the response given by a participant to the question probe, *What do you do to revise and edit? Does it pertain to spelling and grammar or technical aspects?* Instead of discussing spelling, grammar or technical details, the participant replies, "It varies. He (Albert) might say, listen, the way you word it, you should not word it negatively but rather positively". The reason for this is the institutional requirement that parts or testing of parts cannot be described as problematic in reports, so reports are worded positively rather than negatively. The practice of wording reports positively is also important, as reports are not only circulated locally but globally and reports that "leave South Africa or to suppliers... it is confidential but it needs to be good with no negatives". This requirement is explained by Gus, "For example, you must think how people will interpret it. Anything that is negative, for example ... can't be perceived as being wrong. You just have to word it positively".

Positivity is achieved by changing the phrasing of statements like "there is no reason why that part could not be used" to a more positive statement without using *no* or *not*. Moses also describes the effect of words like *failure* in component test results, "parts people don't like *failure*, you are not even

allowed to use a negative word like *failure*. We have been requested not to use the word *fail* or *failure* because of legal reasons". The institution also provides drop-down menus that list words to be avoided. However, the dilemma of writing of test results positively without affecting the integrity of reports was also discussed in the focus group interview and described in the excerpt below:

Yes, the word that I want to use is *if it does not meet the requirements* not *the part has failed* ... This guy was really pushing you know so that the part meets the requirements and I could see that he was not happy that the part did not meet the requirements... You can't go back now and say maybe we can make it work.

Greg explains that negative reports are not welcome as report details are often not read as affected audiences are only interested in the test results, "Most people don't really bother all they want to see is just the results. They just want to know if it passed". This is supported by Moses who also gives as reasons for not stating "something did not pass" is that the results are taken "very personally", mean "extra work for that person" and "keeps the whole project back". In the excerpt below, when responding to the question, *What offends, according to the guy who tested the parts?* Moses attempts to explain why reports about poor designs or failure should not be taken personally or "offend".

You are supposed to write the part didn't pass the test. You are not blaming the person who designed the part, you blame the part itself. Many times the part failed because someone in the manufacturing process made a mistake. And now if you say *poor design* and it wasn't that, you will take offence to it. Especially in this company where you never know who is your manager.

Moses is then asked, *What can be done to overcome these concerns?* Although Moses expresses sympathy for tensions between tester and designer, he states, "They did not do their work. I am just the tester". He also feels frustration in not being able to express clearly what occurred in the test, "I will try to be human and feel a bit for the poor oke - give a person a chance to explain but I can be blunt. It is my style to be blunt. I don't like to beat about the bush. I will rather use the word *deficient* instead of *failure*". Moses uses an

example of a part failing because the vehicle is driven on gravel instead of on tar to describe his reaction to the practice of avoiding negative connotations in vehicle testing results in the excerpt below:

For me failure is failure and to sweet talk it and say if the vehicle is not used on tar, it might cause trouble... You are not allowed to say that it will fail. That frustrates me. It makes you doubt the results. If you're not clearly stating it, you imply that there is a problem. For a technical person, it would always be a problem.

The engineering expert commenting on the interview transcripts explains the tensions and conflict Moses is expressing, "The frustration here is that the vehicle is designed in Germany, where there are no gravel roads. The designer would consider driving a vehicle on gravel abuse. Hence the conflict between the designer and the tester" (see Appendix H / Moses comment 19). He also comments on the practice of avoiding negative reporting as being part of the organisation's culture like "failure" in reports (see Appendix H / Clive comment 9 and Moses comment 10). Engineering knowledge, therefore, does not exist for its own sake and in isolation but is "intimately bound up with economic, military, social, personal, and environmental needs and constraints" (Vincenti 1990:11 in Winsor 1996:11). This complexity of the writing context is further complicated by engineers believing that arhetorical objectivity rests on data, whereas practical experience dictates that data is "produced, selected, and presented strategically within situational contexts" (Winsor 1996:vii).

In addition, audience relationships in professional contexts are not unidirectional as writers and readers are co-workers who come together around a shared activity, including writing with the goal of writing usually being to "motivate, facilitate, or control that activity in ways that are highly complicated and specific to the particular context" (Winsor 1996:4). This situation is further compounded by global networks and discourse communities that use language in ways that are unique to them and which constitute their epistemology and identity (Swales 1990). The event or effect described by Moses in the *failure* excerpt above and in the *mud flap* example below also reflects the causal mechanism connections extending from the test

site to the report writer to the global network and the influence of discourse, causally interacting with the event (Sayer 2000:16).

The following examples also reflect the tensions relating to a presumed common vision of reality and the need to conform to a genre appropriate to the discipline and a form that is customary within the organisation (Winsor 1996:10). In Interview 2, Moses was asked what usually “offends” designers with the question, *What would usually offend the guy who designed the mud flaps?* He replies that the designers “were not thinking” as after two years, there are still problems with the mud flaps. Moses goes on to explain the predicament between visually appealing and functional mud flaps with the question, *Would it be visually acceptable if you left the mud flap hanging halfway?* He explains that the mud flap cannot function in this position whereas the designers state, “if you make the mud flap like you want, it will not be visually appealing to the customers”. The focus group discussion excerpt below also addresses the difficulty of not writing negative reports as well as the reality that the tester and the designer often interpret problem results differently:

You might say that you have a concern, and I will say that we have a big problem. You can then come up with an engineering solution. So, I think in writing the report, you cannot omit the details and the facts and, obviously, you can't create a negative effect.

The engineering expert reading the transcript supports most of the statements and observations made by the participants regarding the use of positive wording in test reports. He also describes the research site's organisational structure as one in which there can be no negative reporting as a “persistent positive attitude is part of ... organisation[al] culture” (see Appendix H / Clive comment 9). This supports Moses' dilemma of producing in each situation that “data that convinces” (Winsor 1996:vii) while trying to maintain his allegiance to professional ideals of objectivity. However, in the process the importance of communications in the “complex negotiations that construct corporate realities and bring products into the world” (Winsor 1996:viii) using the appropriate discourse is developed.

Acceptable wording in reports includes not only word connotations but correct technical terms as well. As engineering knowledge is generated in consort with other engineers in industrial or corporate settings, most engineers do not function independently. This context impacts on the use of technical wording as reports are often circulated globally to countries like Germany, Brazil and the United States, "especially with words that is (sic) globally been used, specially the parts that we give local names". Face uses the example of how technical words differ depending on country, "talking about a *tailgate*, they will call it *end gate*". Moses uses *boot* as an example to illustrate the complexity of local wording as well as the importance of the supervisor approving the words used, "in South Africa we talk about the *fifth door* and other people call it a *boot*. Or others call it *boot level* and you have to get it so that the manager will accept it". The complexity of technical meanings and writing for different global audiences is further described by Moses in the excerpt below:

Especially in the company, there are so many different technical layers for ... there is no standard. You have to be aware of the differences. Your manager will have to know what words you can't use. You never know for instance the word *tailback*. Because in South Africa, it is the back of the *bakkie*. In Germany it is the *boot of a hatchback*. I try and cater for the Germans. Some people don't understand the terminology. If you use an obvious word what we are used to, they might not even know the word.

The effect of global networks also impacts on the meanings of technical details to global audiences like the United States, Germany or Brazil who perhaps not only do not understand the language but the technical detail as well. This varies from American audiences talking about a *tyre* and spelling it *tire* or Portuguese audiences using "different words for the same thing or component, you can never be sure". The understanding problem is also compounded if reports are translated as, "you can never be sure that it will be understood" especially for people from different language backgrounds. Brad uses the example of Portuguese workshop manuals, which are translated by the Internet translations services for English-speaking audiences to illustrate problems with translations. For Brad, these manuals are difficult to understand, as the content of the manual is not checked after the translation

as the company does not want “to spend money on it or get a professional, and then they print it and pass it on, and we must check the integrity”. A result of the translation quality is that the report is “so jumbled, and the language is so bad, you can’t even get to the content” so that the reader loses interest because “you can’t spend time on nonsense like that”.

Brad’s comments emphasise the necessity for grammatical correctness in documents such as manuals that are “official and formal” because documents that rely on an “Internet automatic spell checker... can’t be read” and only content can be looked at as “you can’t check a huge manual’s language if it is not done properly from the start”. This demonstrates that although new media of communication such as the Internet which encourages greater “hybridity and fluidity in communication” (Canagarajah 2005a:xxiv), they can also complicate discourses and meaning. Brad’s comments also support Albert’s comments concerning text quality and how “syntactical, lexical, and discourse” text errors have an influential effect on perceived text quality and meaning (Hinkel 2004:24). The global contexts described also reflect how new communication and literacy competencies are causally related to and contingently interact with both the *inner* circle or *expanding* circle of English speaking communities and proficiency in negotiating multiple dialects, registers, discourses, and, if possible, for languages to function effectively in the context of postmodern globalisation (Canagarajah 2005a:xxv).

Wording in a report is also an important consideration when writing for various audiences other than technical. Clive explains the difficulty of writing reports that can be understood by various departments on the distribution list when the writer comes from a technical background and uses technical terminology. What makes the wording difficult is that the distribution list includes departments such as accounts, marketing and procurement as well as engineers from various disciplines and countries who may not understand mechanical terms used. In addition, Moses describes how the use of different abbreviations and wording can affect two departments “next to each other” as “the whole terminology of the sentence” is lost because words used are “factually based” like *heterodyne* in the statement, “That car suffers from

heterodyne.” As the meaning of *heterodyne* is known to one department but not by another, many readers “won’t know what it is”.

The engineering expert comments that it is not usually the practice to explain abbreviations in technical reports as they are taken to be internationally accepted and understood by audiences. He also suggests that if “all abbreviations and peculiar words” were explained the report would become “too cumbersome” and be considered “poor writing” (see Appendix H / Moses comments 5 and 6).

Face, however, points out that problems can be interpreted wrongly because of words used, “for instance, *bolts* on the vehicle on the *suspension*. A non-technical person may not understand it. You know the suspension is mounted to the *chassis*. For a non-technical person it can be sensitive. You will not say a *bolt came loose*. You will rather say the *bolt will rattle*. You have to use the right terminology”. The engineering expert supports Face’s comments regarding the importance of non-technical people needing to know the difference between the *bolt will rattle* and a car’s *loose suspension*. He explains that whereas the rattling bolt is irritating, a loose suspension could lead to an “earlier than expected funeral” (see Appendix H / Face comment 8).

However, documents from English-speaking countries like the United States also lack clarity for South African audiences as is explained by Gus, “Yes, some of the documents you get from America, they use language that is correct but is not clear for us. It is open to interpretation”. He, however, feels that South African reports and documentation are examples of “good writing. It is straightforward and we use simple language”. This conclusion is supported by Brad who describes the South African English of the research site as “generally are quite OK with English and because it is one of the official languages”.

These assumptions regarding the standard of English at the research could be ideologically based reflecting Brad and Gus identifying themselves as part of a socially-meaningful group or social network (Gee 1990:143) using

discourse as a “socially accepted association of ways of using language” to represent the underlying commonality of the group (Swales 1990). In the discourse community, therefore, using “straightforward and ... simple language” may be unique to groups of engineers and reflect and partly constitute their identity. However, it may also mean that they have learnt to produce the appropriate discourse although their beliefs about their language use may vary from those of the rhetorician, because of the “epistemologies and ideologies of their disciplinary communities” (Winsor 1996:7). MacKinnon (1993:49) describes this as the participants being able to appreciate the “local” nature of writing in their organisation and so perhaps *good* writing is not a fully generalisable concept.

Besides also keeping writing simple so that it will be understood, Face also suggests using pictures and visual media to aid the understanding of the “finer details” which are not always clear, “So it is better to have pictures but you can’t have pictures for everything. You can take the core stuff out“. Face describes how visual representation ensures that his reports are meaningful to global audiences who are not English L1 speakers in the excerpt below.

When I converse with Germans, Brazilians or Portuguese I have to make myself clear. They are not always English first language speakers and I have to explain myself by using words, pictures, photos and that type of stuff. You must be specific.

Although diagrams, drawings and sketches are common practice in report writing to assist understanding, the engineering expert comments that “very few other people can interpret the drawing correctly” (see Appendix H / Face comment 5 and Brad comment 11). However, in Winberg’s study information engagement included drawing on architects’ plans, photographs, sketches as well as “technical, aesthetic and design knowledge” (2006:86). Therefore, digital technologies have causally influenced texts to increasingly become “polysemic, multimodal, and multilingual” (Canagarajah 2006:26) resulting in new genres of communication, new conventions of language use and new vocabulary and grammar rules for English.

Word difficulties also extend to “everyday English” or non-technical words as “you don’t use very complicated words”. Marvin explains that in his report writing, even simple English words are sometimes changed by his supervisor depending on where the report is being circulated as “not complicated English, but it’s not everyday English. It will be the vocabulary. It is the formal words, which you normally see in books, it depends even to him on where the report is going. I noticed that if it were going higher up he would change it and make it more professional”.

In the excerpt below, Brad describes the complexity of writing for various audiences and captures the responsibility of appropriate word choice by the writer to ensure correct audience interpretation and understanding of the message.

It comes to semantics. The words will have a slightly different nuance. And you shouldn’t have used it because it is the wrong word and thinking that people will get the message - it is assuming that you can trust them to take it up the right way. If you can’t trust people to take it up the right way then you must use the right words and there is no leeway about it.

b) Grammar

There were 8 references to grammar in the proximity matrix search (Figure 4.4). This illustrates that 32% of the participants’ responses to the interview questions regarding report acceptance mention the need for their reports to be grammatically correct as defined and responded to by their supervisors when draft reports are submitted for approval. Grammar in report writing is the second highest coding category related to report approval practices. Many of the participants comment that most of their report revision focuses on grammatical structures.

Greg, a L1 participant, describes the revision process as time consuming as it includes looking “at my grammar, the way I described the same thing and change the paragraph structures using different words. That can take forever; it takes up lots of time if you want it to be perfect. It depends on how much time I have”. Moses also describes how much time revision takes; however,

unlike Greg who likes “things to be as good as it can get”, Moses does most of his proof reading himself and is not always accepting of feedback given. In Interview 2, he describes his response to the probe, *Describe the effect of their feedback on your writing* as:

That depends on the mood I am in. If you put a lot of effort in it and they don't see it the way you see it, you try and fight it but in the end you just find yourself rewriting it... Like I said, it all depends on the mood I am in. Because you put in a lot of effort, hours and hours of work and you feel it is correct and someone else comes and shoots you down. Sometimes I just blow my top and said he doesn't know what he is talking about, and then I will anyway just correct it.

Participants also comment that if there are grammar errors, they are usually corrected by supervisors, “it will normally be grammar. He will change the grammar”. This practice is supported by the supervisors with Phillip confirming that he did the changes “very often” as it was quicker for him to do the required changes than “to recycle the report back to the writer.” Albert stated that he did the changes 15% of the time when they were “minimal” relating to spelling and grammar. However, the participants also emphasise the importance of doing own revisions, “(supervisors) will rarely do changes. I will do all the changes”. In practice this does not always occur with some of the participants acknowledging that the supervisors also made the changes especially if there are time constraints, “But depending on deadlines, the supervisors would do the revision”, and “if time is limited, the user does it for me.” The participants also emphasise that supervisors would normally only do grammar revisions (not technical details), “It will normally be grammar. He will change the grammar”. However, Moses responds to supervisors doing the revision as a concern, “But if someone rewrites your report, it robs you of a learning process”.

Although Gus, a L1 participant, comments that he is not too concerned with grammatical correctness and that he rather “concentrate[s] more on technical correctness than language correctness”, L2 participants tend to be more concerned about grammatical correctness. Brad, when asked about how he felt about not being sure of tenses, replied, “Well, you feel a bit at a loss, I

suppose. You know it is not your mother tongue, so there is always a bit of difficulty". Brad's response demonstrates how power lines often validate and entrench the external, visible performance measures and construct and distribute differential subjectivities to successes and failures. Therefore, multiple literacy models reveal not only conditions contributing to approved literacy practices, they also reveal subversive practices which result in damaged identities, writer inadequacies and the "self-defined in tension with authorised literacies" (Collins & Blot 2003:xviii).

However, when probed about their responses to grammar feedback, the participants tend to describe grammatical editing as simplistic changes to reports and appear to view these changes lightly as Moses, Marvin and Brad illustrate in the excerpts below:

- Moses: "That is where an English guy will fix the grammatical language structure"
- Moses: "My response is... I will always laugh and fix it. You don't have a choice. The more you do it the more you learn about the style of your manager"
- Marvin: "Yes, sometimes I will have to change the grammar to make it more simplistic"
- Brad: "That is more about in terms of tenses or something. It is simple things"
- Brad: "... if it is something silly, they will give me a slap behind the head and ask why do you have two of the same there and the next thing... I will say sorry and quickly change it"

Tani, a L2 participant, on the other hand, emphasises the need for grammatical correctness to ensure report clarity and understanding for various audiences:

What makes grammar so important? "It is important because very often you interpret the same sentence differently. And if you have punctuation marks it directs the person in what you want to say. Yes, grammar is very important at all levels." **Will anything be released that is problematic with grammar or is not totally clear?** "It could be, yes. I might have something that my boss understands but someone else might not understand, and I will give more clarity. Sometimes people might not understand."

MacKinnon (1993:52) refers to Tani's awareness of her writing environment as "social cognition". Tani effectively represents her writing environment by being aware not only of her grammar and punctuation but the effect they have on the complex audiences reading her report, purposes those readers have and expectations under which they operate, all of which are relevant for rhetoric.

c) Spelling

There were 3 references to spelling in the proximity matrix search (Figure 4.4). This illustrates that 12% of the participants' responses to the interview questions regarding report acceptance mention the need for correct spelling in their reports when draft reports are submitted for approval. The need for this practice is explained by Moses who describes the effect of incorrect spelling, "I think it is very irritating for senior management to read something that is not spelt correct, and you get ripped off big time for that". This is a problem for Moses as he is dyslectic and admits, "I can't spell for the life of me. I hear words phonetically and that is the way I spell". Therefore, he battles when there is a word he cannot spell and as this process takes time, he often tries to find a synonym or, alternatively, he'll consult a colleague, use spell check or the thesaurus. However, he points out further, "if you spell as badly as I do it (thesaurus or spell check) doesn't even give you the right spelling". He explains the situation of the thesaurus not helping by referring to the word *odour* which he had spelt as *oder*. Spell check gave him *outdoor* and *order* as alternatives. In addition, he also finds technical words more difficult as "you don't have a spell check for that".

Although the other participants also check spelling errors in rereads and use the spell check function on computers, the engineering expert argues that relying on spell check is "not a good idea" as it often leads to a "correctly spelled incorrect word". He explains this comment with the following example, "These tools on a computer are not the solution to this problem. They must be used with caution (e.g. aid vs. aide)" (see Appendix H / Gus comment 5). The engineering expert also points out that English versus American spelling is always problematic and that "poor spelling is very common in the industry"

(see also Appendix H / Moses comments 10,12 and18 / Face comment 12 and Brad comment 1). He also comments, “Normal engineers’ generally do not have a good command of language” (see Appendix H / Face comment 3). Winsor (1996:4), however, describes these comments by the engineering expert as “folk wisdom” arguing that this belief reflects “devaluation of language and particularly of writing in the engineering field”. Rather, Winsor feels that engineers have particular problems in accepting the “rhetorical view of knowledge” (1996:4).

d) Sentence structure

There were only 2 references to sentences in the proximity matrix search (Figure 4.4). This illustrates that 8% of the participants’ responses to the interview questions regarding report acceptance mention the need for correct sentences in their reports when draft reports are submitted for approval. This also indicates that *sentence* errors are not that significant in the approval process. A proximity search was also then run for *style* to check if there was any connection between sentence and style understandings. The search also gave 2 style references, one for wider audience approval and one as a feedback form. This indicates that these two structures are less important for report approval than wording, grammar and spelling.

The participants’ concerns with sentence structures tend to stem from supervisor feedback, “normally (feedback) around that and the structure of the sentences”. Gus describes the restructuring of his sentences “as simple as changing a word or two, restructuring a sentence or writing in a simpler format for non-technical people to understand” and Face from writing reports has learnt, “you normally use basic sentences”. However, a difficulty with sentence structure for Moses is including as many details as possible to summarise, “I try to get everything in. But it is mainly pictures and details and you are expected to put it down on four sentences as general comment on the vehicle. I have come better at that”. Brad explains that being a good writer means being able to “illustrate a point clearly and using less words rather than more. Somebody that will come to the essence of an issue in one sentence. That is a good communicator”, which also illustrates the need for effective

summarising skills when writing reports. However, the summarising process can be more complex when the writer is aware of the audience, “You will always find the person that thinks he knows more than you and you have to in that one sentence show that you know what you are talking about”.

More often than not, it seems the participants revise sentences structures by attempting to approximate their manager’s style by using similar sentence structures. For Moses, it is to get more “in line” with his manager’s style, “his line of thought and acceptance” by making sure that the “structure is the same”. Tani makes sure the structure is the same by “the way the sentences were grammatically and the way he thinks. I will respect his background and it is then easier to structure your sentences and the emphasis is on what he is concerned about”. These comments reflect largely unconscious aspects of the writer’s development in how they learn “to manipulate social/organisational process” (MacKinnon 1993:46) to produce satisfactory documents. However, the restructuring of sentences also involves supervisors restructuring the participants’ sentences or deleting their sentences to “replace with his own”. Face describes the manager’s revising process as focusing on “the sentence structure or simpler wording used”.

These findings reveal that the participants appreciate the need for feedback focusing on language use in their reports. However, because of the feedback focus, they tend to emphasise correct wording, grammar, spelling and sentence structures or styles as measures for effective writing. This supports Hinkel’s (2004:24) comments on text quality studies in the 1980s, which reveal the trend for feedback to focus on errors in expression as errors in the use of syntactic, lexical and discourse features of text have an influential effect on the perceived quality of texts. Celce-Murcia’s (1991: 455 in Hinkel 2004:37) also points out that “the importance of a reasonable degree of grammatical accuracy in academic or professional writing cannot be overstated”. The participants’ comments on language use also reflect Hinkel’s (2002 in 2004:35) observation that English academic writing is governed by several rigid conventions in its discourse structures and language features.

Hinkel's (2004:35) description of academic writing being ruled by "rigid conventions" is supported by Brad in the excerpt below:

OK what causes you to describe your boss as a pedantic pain the neck? "Where did I say that? I could see the point sometimes some people complain about their writing, their arguments. I don't think *pedantic* is the correct word, *rigid* is the correct word."

The participants, however, tended not to associate report content and structure with literacy levels and writing effectiveness as is revealed in their comments regarding report acceptance practices and supervisor content feedback.

e) Report content

There were 6 references to report content in the proximity matrix search (Figure 4.4). This illustrates that 24% of the participants' responses to the interview questions regarding report acceptance refer to report content when draft reports are submitted for approval. The participants tend to regard supervisor feedback relating to wording and grammar as more acceptable as these revisions do not affect the "integrity" of the report. In the focus group ranking task, report integrity was also rated as the most important factor influencing report writing. This ranking is supported by participants describing feedback received as relating to "the wording and not the facts" as this is not as important as "making sure that the engineering quantities are correct and that the integrity of the information that you have to pass on is intact. Then you're OK, that is the core. The main knowledge has to be correct". This viewpoint reflecting uses of language to constitute their engineering identity is also supported in the participants' description of the report content as "the most important thing" and "how you get the message across isn't as important as the message".

In order to ensure the integrity of the report, Brad describes it as important that "the results of the documentation is (sic) always the same. And the result is based on the purity of the information", "clear and correct steps" followed, "various levels of checking" and changes "must be accurate". Ultimately, the

report is signed and “If your signature is there, you are responsible”, so the report writer and supervisor are accountable to the various audiences who make use of the test information. Therefore, as writers are responsible for the test results and the report, they cannot escape the consequences of “masking” problems or omitting details, as the reports are circulated to customers and “it will come back and bite you” and “If you omitted something, you will be wrong”. The integrity process also involves consulting with the engineers who requested the test if all requirements cannot be met so that they are informed. For Clive, this means “transparent” practices, which depend on correct procedures so that reports are “clear and concise” and “understandable to anyone who will come in and read it”.

Some participants, therefore, did not find it problematic that their supervisors added, adjusted or requested technical details in feedback. This is explained by Face in his response to the probe, *What makes you think that you must add extra information?* He answers, “He (supervisor) asks for it and I will add more information. It was more background information, if it is necessary for the purpose of the report. He will ask for the extra detail”. Face also responds positively to feedback given as “you don’t have influence on the manager coming back to you but you do have influence on the content of the report. It depends on how you look at it”. According to Brad, small details such as *dates* are also vital for the integrity of the report as he explains in the excerpt below:

In the motor industry small details are important right down to the date because information comes in small packages in the first place so you have to really look at the detail and make sure the details are right. Everything has to be right. Otherwise if you want to put it together it in a picture it might not make a lot of sense. That is the whole thing sometimes when you miss some detail you might affect the integrity because you think it is inconsequential but at the end of the day it is actually quite important. It often happened.

Other participants acknowledge that report content details need to be added or revised at times but usually describe these changes as “nothing fundamental”, “silly” and “slight” as they do not affect the “body of content”. Data is changed “just slightly” as there may be a “slight error on one of the readings” and when the report is distributed, there could be questions around

a “specific measurement”. For Face “on a point system from 1-10... it is a small percentage that needs to be revised, and I always do the revision. It is minor stuff. I will say two or one corrections”.

However, some participants continue to separate form from content, and emphasise rather the importance of feedback focusing on language use rather than technical details, “Ag, usually he changed a nuance or something nothing fundamental “. This understanding is supported by the participants in the excerpts below:

- Moses: **Would you add more detail?** “Most of the time it will be grammar. The technical part is perfect. Just the way it is put down” and “It is seldom that the content will change. It is more the grammar – “
- Brad: “You do something and then your manager comments about the quality of the writing and not of the actual content. I referred to that. The way you presented the content might be slightly incorrect and you feel silly. You can see it straight away and you could avoid it if you thought about it more”
- Clive: “Just to second that, sometime back Albert reviewed my report he will advise me and make certain changes but that is just in terms of grammar. He will make small changes and he communicates that he made the changes but it is not the content”
- Gus: “I never had feedback to say things are not right. Or the language is not right”

Other participants, however, regard both technical and grammatical correctness as important to effectively convey a message. Gus explains this need when asked about his statement that he concentrated more on technical correctness than language correctness. In Interview 2, he explains that both are equally important as “Incorrect language can lead to a misunderstanding and incorrect technical information, just as disastrous”. This supports that language is not a transparent medium for encoding existing content in grammatically correct form to be conveyed to others. On the other hand, even if the discourse were organised or technical details correct, it would be hard to understand the report if the “language is opaque” (Hinkel 2004:ix). In the

excerpt below, Brad also describes the close relationship between content and language use with effective language enhancing the content's meaning:

... good language use doesn't draw attention to the language, it helps you focus on the content... language always comes in front of the content and then sometimes if the language is bad, you focus on the language and you don't get to the content. Often people argue about the language instead of the content.

Participants also acknowledge that leaving out "crucial details" can affect the report integrity as if there is insufficient detail, a "slightly incorrect statement can have repercussions". This demonstrates that language is not a "transparent window on a self-evident world" (Winsor 1996:6) and that writers must persuade readers of their work's importance and factuality as these factors do not exist in themselves. This requires addressing the concrete needs of their audiences and not simply expressing test knowledge. According to Brad, essential details may be omitted when the writer is too familiar with the report content and fails to represent the writing environment by paying little attention to the report's various and complex audiences, their purposes, expectations and histories that are relevant to the rhetoric (MacKinnon 1993:52). Brad describes the effect of his knowledge omissions in the excerpt below:

"Sometimes something is so much part of you, you understand it so well but you don't put it on paper, it is so obvious to you, you understand it so well and it is the premise from which you argue. You make assumptions that the people you [are] communicating to have this knowledge and then you might not give them all the details and then they read it and they don't understand it." **Would you go back and insert the description that has been left out?** "If I get the opportunity, yes."

Managers interviewed in MacKinnon's (1993:46) study also confirmed the importance of contextual knowledge for the writers, as it is important for writers to understand what readers are going to be doing with the information in order to write in a useful way. One of the participants in MacKinnon's (1993:49) study also concludes, "If you don't know the culture, if you don't know the people you're working with, then you don't know your 'clients'" and calls this a "marketing strategy: if you don't know your readers, then your

paper is not marketable... You have to write taking into account the environment in which you are working". For MacKinnon (1993:54), context appears to be a critical element in any model of "rhetorical development of on-the-job writing ability", and in any high-level context, where knowledge is both the "raw material" and the goal of writing, an understanding of this context will be critical to rhetorical growth.

Although the participants have various perceptions about the role of feedback in the writing process, writing feedback appears to be critical for writing development (MacKinnon 1993:49). At the research site, the degree and types of changes to reports requested appeared to vary from supervisor to supervisor, with Clive describing Albert as, "very finicky and I will maybe say something that is different from the way he will say it" although another supervisor will not be as concerned with language use, "it is not really so much on the way you say something, it is more on the content". However, most of the participants feel that they should be responsible for making the required changes, "take what they (supervisors) say and apply it and you see OK it is working and it's improving and you are able to structure your thoughts better". Ferris (2003:31) describes this as sending writers back into the:

... messiness or chaos of their thinking and asking them to 'see again' what they have written and to ask themselves hard questions about what needs to be added, deleted, explained, rethought, or moved in their texts.

However, Ferris's (1997) study considering the question of whether feedback impacts on revision found that although subjects pay attention to feedback, this is not the same as saying it helped their writing (Ferris 2003:30). A later study by Ferris (2001 in Ferris 2003:30) addressing the quality of revisions found that 53% of the comments led to changes with positive effects, 13% led to revisions with mixed effects and 34% had negative effects on texts. However, studies do conclude that feedback can help writers improve their writing from one draft to the next over time (Ferris 2003:28) and stress the importance of writers doing the revisions. Brad describes his reaction to a

presentation when he found that his content had been changed without his knowledge:

That happened a while ago. We had to do a presentation on all the changes on module 7 and all the changes were submitted in a pack. When I opened my presentation I found that quite a bit of content was changed. You don't have the opportunity to explain, you must use what is on the board. I don't know who changed that. That was frustrating.

Twenty-four percent or 6 references in the report content and acceptance proximity search (see Figure 4.4) refer to accurate and technically correct reports, however, the context usually emphasises language feedback rather than content feedback in report acceptance practices. Therefore, in their comments, most of the L2 participants tend to express concern at some time with writing grammatically correct rather than technically incorrect content. Brad expresses difficulty about finding the “appropriate word, correct tenses, singular and plural rules” and often wonders whether he is mixing his tenses or “in the correct tense at all”. Brad’s concern with grammatical correctness, according to Raimes (1983:261-262) is possibly a result of supervisors responding exclusively to grammar errors in written work which results in writers becoming “trapped within the sentence” and editing skills being stressed rather than the “creative act of communicating the message”.

Although the assessment of text quality is often perceived as having no syntactical, lexical and discourse errors (Rosenfeld, Leving & Oltman 2001 in Hinkel 2004:21), the participants equating literacy and quality in writing with no word or grammatical error encourages the idea that “good writing is correct writing and nothing more” (Shaughnessy 1977 in Taylor 1981:8). Leki (1991:210 in Ferris 1995:36) also suggests that this attitude may change if feedback approaches do not only emphasise errors.

4.3.1.4 Report acceptance and L1/L2 status influences

The participants also tend to associate their language difficulties with their supervisors being English L1 and their English L2 competencies. Moses describes this situation by explaining, “There is a bunch of us that is writing reports and there is only one English first language engineer. Most of us are

second language speakers. That is why we are so used to get the reports back”. Moses’ explanation is an example of how commonsense assumptions attribute language problems, especially in South Africa, to L2 speakers coming from other than L1 or historically disadvantaged backgrounds with their status as speakers of English as an additional language (Boughey 2002:295). Bradbury (1993 in Boughey 2002:295), however, points out that labelling of such difficulties as being “language problems” has long been important in South Africa because this allows links to the apartheid-associated idea that they may be attributable to innate differences in cognition and thought to be avoided.

Rather constructs of discourse and literacy have meant that it has become possible to understand students’ experiences in ways that avoid ideologies associated with apartheid. As an Afrikaans L1 speaker, Moses’ language problems rather originate in his status as an outsider to or in the process of acquiring academic or secondary discourses as well as being dyslectic. Learning to produce appropriate discourse is a complicated, on-going process, as secondary discourses are enormously complex and require the development of an advanced linguistic foundation. A study by Chang and Swales (1999 in Hinkel 2004:5) investigating specific discourse and sentence-level writing skills of highly advanced NNS students indicated even exposure to substantial amounts of reading and experience in writing in academic discourse contexts does not ensure their becoming aware of discourse and sentence-level linguistic features of academic writing and the attainment of the necessary writing skills.

However, in order to assess the relationship of the participants’ language claims with being L1 or L2, a NVivo proximity matrix search with language use and report content related to the supervisors being English L1 or L2 was run and is illustrated in Figure 4.5 below:

Words:	4 references (25%)
Grammar:	4 references (25%)
Style:	4 references (25%)
Spelling:	1 references (6%)

Sentences: 1 references (6%)
 Content: 2 references (13%)

Figure 4.5 Matrix search: L1 and L2 supervisors, language use and report content

Figure 4.5 illustrates that there were 16 references to an association between supervisors being English L1 or L2 and language use and report content. The search reveals that 87% of the references concern language use feedback while 13% referred to content in feedback. Although some of the L2 participants at times describe their responses to language feedback nonchalantly, concerns regarding their L2 proficiency are often expressed when referring to their L1 supervisors. Brad points out that as his “previous boss was English... he constantly comments on my use of the language” and “he will change the grammar. My manager is English. Any report will always come back. You can write it how good it will come back with some comment”. On the other hand, Brad’s present manager is Afrikaans, and “Fortunately... he never bothers me about it (grammar)”. Brad also describes his English supervisor as a “pedantic pain in the neck” in Questionnaire 1, which he changes to *rigid* in Interview 1. Brad’s comments are supported by other participants who also suggest that as their supervisors are English-speaking, they are too particular, “finicky” or demand an exclusive style, “write in his style”.

Although Swales (1990) describes the academic discourse community as prescribing rigid forms of discourse construction and organisation combined with similarly inflexible expectations of vocabulary and grammar uses, the participants often associate their difficulties with language use with their supervisors being English L1, as is illustrated by Moses and Brad in the excerpts below:

Moses: “... the managers are all English and they have a certain way of thinking. English way of thinking. I do get frustrated when it (the report) comes back with the same thing all the time - when your supervisor can’t make up his mind about what he wants. When you are writing his words, and it still comes back, you do get frustrated”.

Moses: "It is seldom that the content will change. It is more the grammar. Because I come from an Afrikaans background, I sometimes get pointed back to the conclusion and people won't like it."

Moses: "The structure of the sentences ... in Afrikaans, you think in a backward way compared to.... And sometimes they (Afrikaans) won't pick that up. That is where an English guy will fix the grammatical language structure".

Moses: **What were your feelings when your boss was critical of your English?** "I will get frustrated because he knew very well what I was trying to say, but calm myself by saying to myself that I'm not English and why should I speak it better than my home language."

Brad: **Why would you not agree with him?** "Because sometimes I think I'm right, but they grew up in English so they will obviously have to say no, but I know how it should be..."

However, not only are the English supervisors regarded as being stringent with report approval, the participants also regard their Afrikaans supervisor (Z) as being strict. This is illustrated in the excerpts below by Clive (L1 speaker) and Brad and Moses (L2 speakers):

Clive: "Albert would normally give it his rubber stamp and X will more or less sign it off, but if Z or someone else who is also Afrikaans will surely bring it back to you and ask you to rewrite it, it is difficult to say ... It all depends on their line of thought. Ok, it is funny ... if X finds a problem, he will come back to you and not give it to Z. It all depends on what mood he is in "

Brad: "Ok, I've worked under Z, he is also Afrikaans. It's funny, if your supervisor is also Afrikaans, they expect more of you, it does not matter how brilliant it is, they will come back to you and say there is something wrong. It just feels that way. Anybody working for Z - they have to sit in front of his office they run back and forth all the time with their reports. I even look at the new guys and always laugh"

Moses: **What would be different with an Afrikaans-speaking supervisor?** "I don't think it would be a difference, but I was less experience at that stage which might have been the reason for it to come back, but afterwards it still goes to an English speaking person. So, I don't think it would make any difference. But if someone rewrites your report, it robs you of a learning process"

The dominant practices in the report-writing process, however, result in the participants' experiencing frustration and alienation because of demanding writing expectations. Their responses reflect their negative or "damaged identities" (Collins & Blot 2003:xviii) and sense of inadequacy as L2 speakers rather than being in control when describing their responses to the practices that shape their report writing. Graduate and undergraduate students in Johns' (1997 in Hinkel 2004: 4) study of NNS after years of ESL training also shared the participants' perceptions that views on their writing skills were "unreasonably demanding and exclusive and their own best efforts unvalued and unrecognised". This also illustrates that communicative practices are inseparable from values, senses of self and forms of power. However, the participants in MacKinnon's (1993:47) study revealed in their second interview ten to twenty months after their first interview that they had a better affective reaction to feedback and felt less personally threatened and depressed about feedback as time wore on. This is illustrated by one participant's comment, "A million red marks doesn't mean you aren't a good writer". At the research site, however, the participants describe the helplessness and lack of self worth they associate with feedback practices in the report-writing process in the list of reactions below:

- "Have to make do with your own knowledge of the language" and "Often I wondered is I am mixing my tenses or am I in the correct tense at all"
- "There is nothing at the moment (to assist)"
- "Have to make do..."
- "Feel a bit at a loss..."
- "You just carry on..."
- "... I will say sorry and quickly change it... I usually feel stupid..."
- "You can write it how good it will come back with some comment"
- "Sometimes I was thinking should I argue about this because I didn't always agreed with him but then...Ja so you do..."
- "Most of us are second language speakers. That is why we are so used to get the reports back."

However, not only do the participants express frustration and anxiety regarding their language ability in the report-writing process, concerns for the participants' literacy competency were also expressed by the research site before the study commenced. The institution requested that an English

proficiency assessment be administered in January 2004, which resulted in the engineers not meeting the required English proficiency levels attending a report-writing short course in June 2004. The concern over the testing of the engineers' language proficiency was also expressed in comments made by the chief engineer, human resources manager and engineer supervisors during the initial site meetings. At these meetings, concerns were not only expressed about the engineers' language abilities but their inability to develop their reports technically, although this aspect of their report writing is not addressed specifically as being problematic in their report writing by the participants or the supervisors (see also 3.4.2.1 Site meetings).

As part of the research data collection, the supervisors again highlighted their concerns with the participants' language use in their Questionnaire 1. Although Albert states that he appreciates the opportunity feedback provides to comment on report content and to learn from the approaches the engineers have taken, he found "wading through language and grammar issues tedious and frustrating, and this detracted from the discussion of technical data and conclusions". Phillip in Questionnaire 1 describes feedback as "an essential tool to develop the report writer - but it is all-too-often not fully utilised" but does not suggest this as a means to improve the participants' language ability and writing quality.

However, in their Questionnaire 2, Phillip suggests that supervisors as report approvers can play a part in developing writers by providing effective feedback in his response to the probe, *How can feedback be more fully utilised to develop writers?* He answers, "Report approvers need to be more disciplined in taking the time to provide complete and constructive feedback to report writers". However, in the questionnaire response below, he describes his concern of whether improving language proficiency is possible in his answer to the question, *What could be done to improve report quality in terms of areas identified as needing feedback?*

My honest answer is 'I don't know'. We have tried so many courses on several different occasions and have only had limited success. I can only suggest more training, specifically on report flow. This can be

taught to someone. It's very difficult to teach someone how to spell and use grammar correctly.

For an engineer to be an effective user of rhetoric poses particular difficulties as engineering writing and engineering work is not obvious; as it is not a matter of knowing something and perhaps a way of doing something. It is rather an act of generating knowledge that will allow objects to be built (Winsor 1996:5) as the existence of data alone is insufficient to create knowledge for the information needs of audiences. The test data is, therefore, the "raw material" (MacKinnon 1993:54) which needs to be contextualised and this involves not only high-level context knowledge of aspects of the organisation as a discourse community that accomplishes "specific and (at times unique) business functions through specific discourse practices of a specific culture with its own distinct point of view" but lower-level context knowledge like the "mechanics of the data cycling process" (MacKinnon 1993:47).

The dominant practice of report acceptance as a causal mechanism interacts contingently with other dominant practices within the report-writing process, especially the practice of supervisor feedback. As a result, the practice of supervisor feedback influences the values, beliefs, attitudes and meanings the participants not only give to report writing as a literacy practice but their views of self or identity, authority and control, assistance and change as well as the various institutional structures within the report-writing practice.

4.3.2 Dominant feedback practices

In his questionnaire response, Albert describes the role of feedback in the report-writing process as "constructive and add(ing) to content". Ferris (2003:30) supports this description and concludes that content improves if content-based or meaning-related feedback, in contrast to error correction, is provided on texts from one draft to the next and over time. Although writing quality should not be equated with error-free writing, the reality is that feedback at the research site often focuses on language issues. Albert describes these errors as "detract[ing] from the discussion of technical data

and conclusions”, however, as long as error remains a rating for writing quality, the participants will remain concerned with form errors in writing. Although Silva (1993:671 in Hinkel 2003:275) in his L2 academic writing research overview points out that L2 writing teachers may need to enhance their students’ grammatical and lexical resources to allow them “to build a syntactic and lexical repertoire with which to produce more sophisticated academic texts”, L2 writers also need feedback on form- and meaning-based errors throughout their writing cycle (Silva 1993, Ferris 2003:24). This necessitates a balanced and combined form of feedback commentary.

The participants, however, describe feedback as focusing on form errors and less frequently on meaning. This conclusion is supported by Clive who explains that Albert “will advise me and make certain changes but that is just in terms of grammar. He will make small changes and he communicates that he made the changes, but it is not the content”. Clive goes on to describe these changes as minor, and the changes that are made are specifically, “things that are not concise and clear and I will take the irrelevant things out”. However, Moses describes his feedback is mostly “grammar” and “normally the wording not the facts” as the “technical part is perfect. Just the way it is put down”. Although for Face, both form and content need revision with “more background information” added for content, which he regards as “less important” to the report. He also agrees that changes are “more editing changes” with “sentence restructuring”.

Although the participants associate “wording”, “more background information” and “taking the irrelevant things out” as trivial feedback, these details provide the framework for their audience to share the information as there is no such thing as self-evident facts in writing (Winsor 1996:5). These changes also reflect a deeper understanding of the “epistemic possibilities of writing” (MacKinnon 1993:49). Feedback, however, written or spoken is worthless if writers are not encouraged to think about what they have written and if they are not led to improve their writing. This is supported by some of the participants who describe the positive influence of feedback and their statements support research findings that feedback often leads to improved

writing effectiveness. Clive remarks that he "will note those things. I will keep it in mind when I do the final changes". Face also describes his writing progress as "developing through his (Albert's) comments. As we progressed, I learned a lot. The changes became less and less. He also told me at the last appraisal I really improved grammatically". Brad also voices the need for feedback for "growth and continuous improvement" in the excerpt below:

Ja, you have to get feedback obviously. Somebody has to say at some stage why don't you do it this or that way. I can see you are already doing this but try and you know do this. Then you take what they say and you apply it and you see, OK, it is working and it's improving and you are enabled to structure your thoughts better. You know, so having a feedback is absolutely essential for growth and continuous improvement. You have to start off in a direction and then, of course, correct as you find that you either are missing or hitting.

These comments also show that appropriating a discourse is a complicated and on-going process and achieving a rhetorical view of writing is a sign that the participants are becoming "knowledge generators in their field" (Winsor 1996:7).

In order to explain how feedback practices as a causal mechanism work at the research site more fully, various feedback processes as interacting mechanisms for effective feedback practice are considered for interpretive understanding or *verstehen*. This is done by asking a series of realist questions:

- ☐ Who gives feedback?
- ☐ Who does revisions?
- ☐ How is feedback given?
- ☐ When is feedback given?

a) Who gives feedback?

Although research findings support peer feedback practices, especially for L2 speakers, the participants tend not to utilise peer feedback. However, supervisor feedback is mandatory as supervisor approval is required before the reports are circulated, "Have to get the manager to accept it". Some of the participants admit that they sometimes use colleagues for comment before

submitting their reports to their supervisors, “Normally, I will take it to the people that does (sic) similar testing... They (co-workers) will check technical detail and grammar”. But most of the time, the participants do their own checking, “I will do it 99% of the time. It just becomes part of the process”. The trend not to use colleagues for feedback is supported by Greg, a L1 participant, who says he is able “to help and give recommendations”, however, his colleagues do not usually make use of his expertise although “sometimes they will request me to look at their work before it gets issued”.

In the icebreaker focus group tasks, the numbering in the tables that follow represent the responses of seven participants (one participant was at a meeting during the focus group discussion and never returned his task ratings and ranking to me). In these group tasks, peer feedback was also given a low ranking of eight out of 10 factors influencing report writing while supervisor feedback was given a higher ranking of 6 (see Table 4.6). However, in the second task, the participants gave supervisor feedback a much higher rating when they were required to rate the extent to which peer and supervisor feedback affected their report-writing effectiveness. Five participants rated supervisor feedback as affecting their writing *a lot* (72%). This was also the highest rating received out of ten factors, whereas the highest rating for peer feedback was a *little* (43%) or three participants. Peer feedback helping *a lot* received a low rating of 14% or one participant and supervisor feedback as helping a *little* was also rated as low (14%) or one participant. Table 4.2 illustrates the ratings the participants as a group gave supervisor and peer feedback as affecting their report writing as numbers as well as by percentages (see also Tables 3.3 and 3.4).

Table 4.2 Rating extent of supervisor and peer feedback and report collaboration influencing report-writing effectiveness

Practices	a lot	%	ave	%	little	%	not	%
Feedback / supervisor	5	72	1	14	1	14		
Feedback / peers	5	14	2	29	3	43	1	14
Report collaboration	1	14	2	29	4	57		

* **bold = highest percentages**

These findings are supported by comments made by the participants during the focus group discussion with Gus claiming, “The least is peer feedback because I use it very seldom”. Greg also responds to the question, *How often would you do this (get peer feedback)?* with, “I think not too often, maybe once in while”. Marvin, however, ranked peer feedback higher, at “number two” as “if I am stuck, I just ask - it can be technical or non-technical. His English is far better than mine. They are always helpful”. However, when asked to put a percentage to the number of times he asked someone to look at his report, Marvin states, “it is normally five percent”.

The trend not to use collaboration in the report-writing process is also supported in the focus group icebreaker tasks (see Table 4.2). In the tasks, report group collaboration received the lowest group ranking of 10 as having the least influence on their report writing (see Table 4.6). This was supported in the second task, as report collaboration helping *a little* received a rating of 57% while helping *a lot* received a rating of 14% as affecting the participants’ report-writing effectiveness (see Tables 3.3, 3.4 and 4.2). Rather, it appears that the practice of allowing peers to read or comment on their reports often depends on the distribution list with Moses commenting that he usually refers “his stuff” especially “when it is important, I will read it over to make sure. It depends on to who it goes to” as “not everybody will understand my stuff”. Clive agrees that he sometimes lets Y read his report, “especially when it is important and has to go to the MD”.

Albert agrees that there is a tendency not to make use of feedback from colleagues and gives as a reason that the feedback is perceived as “criticism” and “taken personally”. This again reflects the association and interaction of communicative practices with values, senses of self and forms of power. According to Albert, acceptance of feedback from peers is dependent on the feedback type received. If feedback concerns technical issues, it is “ordinarily not a problem for engineers, but when corrected/criticised with regards to the use of language/grammar it is often taken personally”. One of the participants, however, describes his response to feedback more positively, “I will always

discuss it. I normally will compromise or use their (colleagues) opinion. If I don't agree, I will get a different perspective".

Sayer (2000:16) describes the difficulty of identifying causal responsibility in complex open systems by studying examples which provide "contrasts in aetiology (assignment of cause), such as the absence of an otherwise common condition". The participants tend to negate the effects of peer collaboration or peer feedback when writing reports and treat knowledge as an individual creation emphasising individual performance instead of teamwork. However, in corporate settings, most engineers do not function independently but need to operate as members of teams. Although the participants acknowledge that they interact with various role players involved in component testing and take cognisance of the distribution list, the writing of the report remains their responsibility and besides feedback from the supervisor, they work independently from each other. This problem possibly also relates to the lack of team-work skills in engineering programmes and affects ideas becoming organisational knowledge (Winsor 1996:12).

Therefore, even though the participants are often aware that something is wrong in their writing and they have no strategies for correction, they feel that there is no assistance available. This situation is described by Brad responding to what assistance is available when revising reports, "There is nothing at the moment. I mean you basically have to make do with your own knowledge of the language... Usually you have to write down a lot of copies and lines and think, OK, how can I also make this work". The result is that the participants do not know how to improve their writing specifically and resort to "write over and over again". This, however, describes writing as a discovery process requiring hard work, "to write and write and write" (Taylor 1981:9) as "writers don't find meanings; they make them" (Flower & Hayes 1980:21 in Spack 1984:654).

Therefore, most of the participants agree that the practice of supervisor feedback is essential either to improve their reports or for reports to be accepted. Moses describes this practice as "crucial", ranking it as forth in

importance as a report-influencing factor. Its importance in the acceptance process is also highlighted in the focus group discussion below after Tani gives supervisor feedback a ranking of ten (lowest ranking as a factor affecting report writing). She states that her reports are not dependent on supervisor feedback for approval and the participants respond with disagreement.

Your number 10? (Tani) "Is supervisor feedback. I hardly ever get feedback from the supervisor." **Do you work in the same department? (laughter)** ... (Tani) "It's not like they will come back." **No supervisor feedback, usually?** (Tani) "Yes." **Do you all agree?** (Face) "We 100 percent disagree."... (Gus) "It goes to the supervisors and only then gets distributed. We get a chance to sort it out or to make changes."

b) Who does revisions?

The ranking and rating of the influence or report revision on report-writing effectiveness indicates that revision as a practice in the report-writing process has a significant influence on the reports (see also Tables 3.3 and 3.4). Table 4.3 illustrates that the participants ranked revising from report drafts as forth highest out of ten factors influencing their report-writing effectiveness. Table 4.4 also illustrates that most of the participants rated revision as a factor that influences their report-writing practices as 57% rated it as having *a lot* of influence (five out of seven participants), 29% rated it as having an *average* influence (two participants) and 14% (one participant) rated revision as having *a little* influence. No participant rated revision as *not* having an influence on report-writing effectiveness.

Table 4.3 Ranking report revision as influencing report-writing effectiveness

Factor	Ranking
revising report drafts	4

Table 4.4 Rating extent of report revision influencing report-writing effectiveness

Practices	A lot	%	ave	%	little	%	not	%
Revision from feedback	4	57	2	29	1	14		

* **bold = highest percentages**

Although the participants acknowledge the importance of revision as a process as influencing their report-writing effectiveness, they also emphasise the importance of doing their own revisions. The participants usually point out that, “They (supervisors) will rarely do changes. I will do all the changes”. However, in these responses, the participants are usually referring to report content revision, as they tend to acknowledge that the supervisors often do their grammar but not technical revisions. When describing the issue of who does revisions, the participants confirm that the supervisors revise form errors (not technical details), “But depending on deadlines, the supervisors would do the revision”, and “...if time is limited, the user does it for me” and “It will normally be grammar. He will change the grammar.”

However, in practice, the supervisors state that they often revise reports and make both form and meaning-based revisions, with Albert confirming that he does the grammar revisions about 15% of the time, “where required changes were minimal (spelling/grammar)”. However, Phillip does revisions more frequently, “Very often. Although I know that consistent feedback is required in order to develop the report writer, often the urgency to issue the report in question is the overriding factor. It is significantly quicker for me to make the required changes myself rather than to recycle the report back to the writer”. These errors may be beyond the participants’ L2 developmental levels and relate to global errors that interfere with communication, which Ferris (2003:51) describes as “untreatable” errors. These errors include “idiomatic or idiosyncratic structures such as prepositions, collocations, and other lexical or syntactic problems that defy classification and explanation” (Ferris 2003:51).

Phillip concedes that once he has made the changes (content and not language changes) and the report is approved, he usually discusses the major changes with the writer and gives reasons for the changes. Although Clive agrees that changes made are discussed, he points out that these are form changes and “He (supervisor) will make small changes and he communicates that he made the changes, but it is not the content”. Phillip disagrees and stipulates that the changes he discusses with the writer are the “major changes (not the grammar and spelling corrections) made”. Moses’

revision comment, however, accurately encapsulates the reason for participants doing their own revisions, “But if someone rewrites your report, it robs you of a learning process”.

c) How is feedback given?

Feedback forms vary from discussions, verbal suggestions, and hardcopy corrections to email comments. Face describes the feedback process as being electronic with the engineer correcting the report and then forwarding it to the supervisor electronically, “If there are changes, he will bring me the hardcopy and I will process it from there and update it electronically”. Moses describes his typical feedback process as, “You hand in a hardcopy and they will do the changes in red. It is just easier because the paper is in black or blue. Just like school”. Moses’ response to his work being marked-up in red is described in the excerpt below:

Red makes me angry and we are right back at the beginning. I would always read through it and sometimes get extra frustrated because I can read it in Afrikaans and I can’t see why they have a problem. I am reading and think it is the stupid language but the red is quite aggressive to put comments down.

However, most of the participants describe feedback as being mostly done verbally, and according to Brad “hardly ever” on hard copy or electronically. The practices described by the participants are supported by Phillip who describes giving feedback most often in the “verbal form by way of discussion” and sometimes in the written form either as “email describing the changes required or a marked-up report print”. Phillip assesses the verbal and discussion feedback form as “most effective” as it provides him with an opportunity to describe fully the “adjustments required in order to make the report more complete or accurate and convey the required message”. Albert describes a similar practice of first marking up a hardcopy of the report to show “corrections both technical and grammatical” and then he verbally discusses the “required modifications with the engineer, and simultaneously suggests strategic changes to the report presentation to highlight the manner in which the conclusion was drawn”. The language errors are not usually discussed, they are just done by the supervisors.

The participants' responses to feedback are often influenced by how the supervisors give their feedback. Tani supports this observation by describing her feedback acceptance being dependent on her supervisor's attitude, "I guess it is also in the attitude that they come to you. I easily pick up different attitudes, you can pick it up if the person is there to help or just there to break you down. If it is positive I can work with them". However, positivity may not always be the practice as the participants describe the supervisors' responses to their reports, especially language-based revisions as "slap behind the head", "just glance at you", "throw it back to you" and "rips it to pieces". Moses describes his response to the feedback process as being dependent on his mood as sometimes he will "take it lying down and see my mistakes" and other days "I fight a bit, I will verbalise my frustration" and "just blow my top" but then he usually proceeds to revise or "correct" his work. However, the participants' responses to feedback are less tolerant if their reports come back repeatedly. In the excerpts below, Clive and Moses describe their reactions to the probe, *If your manager makes a comment, how do you feel about that?*

Clive: "I don't have a problem with that. If he marks and it should be fine. If once, I will make changes but if he marks the same thing three or four times I will feel insulted and wonder if he can't make up his mind. But it has not come to that"

Moses: **You say you are used to getting reports back. What do you feel about getting reports back?** "I am so used to getting it back - it came to a stage where I don't even proof read it, but then my manager starts putting pressure on me - you have to take responsibility. That frustrates me when you done everything you could, and it still comes back"

However, positive and collaborative feedback is more acceptable as described by Greg, a L1 participant. As feedback is usually discussed with him, Greg also appears to respond more amenably to feedback received, "If it is a good comment then I will be happy and if they want changes or it is negative, I won't get all angry or frustrated. I will just change it". Marvin also "get[s] a sense of satisfaction when I do a good report" and Clive describes the effect of positive feedback when he describes a situation when Albert said, "this email is good". For Clive, this is a "good comment" because it

“keeps you on your toes and if you select those emails and can compare and use that as a benchmark for your baseline, it is good”. In addition, if they received no feedback, this is also regarded as good as Clive points out, “If there are no comebacks, then it is good”, and for Greg, who often gets no feedback requesting changes, this is also positive, as it is “not very often that they will come back and ask you to change something... If no one comes back, you know it was fine. If it is positive, it is good and if I get no feedback, it is also OK”. However, for Clive, feedback is important, “But we enjoy positive feedback. If you don’t get anything back, you don’t know if they even read it”. Greg also describes feedback as positive when discussions take place between supervisor and the test engineer to “jointly decide”.

At the research site, feedback is given in written form as email, marked-up hardcopy or verbally. In response to the feedback changes on hard copies or through email, the participants often revise their reports by replicating the supervisors’ styles and structures to ensure acceptable literacy standards. A number of studies (Haas 1994, Geisler 1994 in Winsor 1996:9) have looked at novice writers making transitions to the professional world and show novices have to be socialised into getting what is considered appropriate language in their particular local setting. These studies show that novices find it difficult to recognise the rhetoric and they learn to perform competently through observation of more experienced employees and interaction with existing texts (Winsor 1996:9). In MacKinnon’s (1993:46) study, a significant aspect of the writers’ development was their ability to manipulate social/organisational process by document cycling and “massaging texts” using complex feedback which resulted in macro changes in aspects of their writing processes.

However, if feedback is vague and abstract, it will not be understood and not be useful (Sommers 1972, Zamel 1985, Leki 1991). According to Warden (2000 in Hinkel 2004), no-sentence feedback results in a lower level of motivation for revision and “increased dependence on reference material”.

Phillip admits that it is almost never that reports need a little or no feedback and this is supported by Moses who answers the question, *What do you feel*

about getting reports back? with, "I am so used to getting it back ... That frustrates me when you done everything you could, and it still comes back". Albert also acknowledges that the feedback process is fraught as the "situation requires one to be tactful, and this is not always possible in a busy work environment". While Phillip concedes that report approvers need to be more disciplined in taking time to provide "complete and constructive feedback to report writers" as report feedback is "an essential tool to develop the report writer", it is "all-too-often not fully utilised". He also feels that the feedback process can be improved if the "approver and writer conduct a brief review of the report intentions, technical data to be reviewed ... prior to the writing of the report body. This could be seen as proactive feedback".

The supervisors comment that their feedback is often "in the verbal form by way of discussion" and one-to-one conferencing or discussion between supervisors and engineers offers the advantages of immediacy, negotiation and clarification (Ferris 2003:20). Zamel (1982, 1985) also urges the practice of one-to-one writing conferences as an alternative to written feedback as it allows for two-way negotiation rather than one-sided comments. In addition, certain types of writing problems (analysis, argumentation, sentence structure and lexical errors) are simply too complicated to be addressed through written feedback and require dynamic in-person discussion to be efficient and effective (Conrad & Goldstein 1999 in Ferris 2003:39). So, revision is best addressed by face-to-face conferencing rather than by written comment. Interaction can also take the form of a "collaborative activity" (Hedge 1988:11) as the supervisor participates with the engineers in their writing exploration, encouraging them to take control over the feedback they receive (Charles 1990:287) by reassessing their work continuously. However, with interactive feedback, sensitivity is also needed "to differences across cultural expectations, personality and language and writing proficiency when conducting conferences with ESL students" (Ferris 2003: 40).

d) When is feedback given?

Both the supervisors and participants confirm that feedback is usually given at the end the drafting process, "Feedback is almost always given at the

completion of the report, when it is submitted for approval". Phillip responds to a questionnaire probe of whether earlier draft submission (prior to report completion) would facilitate improved reports. He responds by agreeing that this could perhaps improve reports "specifically where technical content is included in the form of results, tables and graphs, these could be submitted in a draft format to ensure that the body of the report is written around the correct and complete data and results".

According to Ferris (1995:36), if writers are given unlimited opportunities to improve their writing, they will pay even greater attention to comments on drafts because they are given the opportunity to continue working on them. However, feedback is often a worthless act if only done after the writing process is complete as writers will not be persuaded to act on feedback and return to their writing. As feedback should be given at intermediate writing stages to impact on revision, it makes little sense to give concrete suggestions about content and organisation on reports that are already finished products.

These feedback components interact with the causal mechanism of feedback practices and which impact on the meanings the participants give to literacy and report-writing effectiveness.

4.3.2.1 Feedback practices and literacy standards influence

Most of the participants tend to rate their writing competency and proficiency based on the report feedback they receive. For example, Greg, a L1 participant, in answer to the question, *What would cause you to rate your report as good?* responds, "feedback on reports" rating his reports as "more than acceptable". However, most of the L2 participants feel less positive about feedback received and tend to rate themselves accordingly. Brad was not even able to rate himself as a writer and recommended that the researcher assess his standard, "You have to read my writing and then judge for yourself. I can't say how good I am". This is in contrast to participants in MacKinnon's (1993:48) study who in their first interview predicted change or improvement in narrow aspects of their writing such as "better terminology" or "improved

style” but were not able make concrete broad changes. However, after their second interview, they believed they had developed significantly as writers, and were able to address concrete information needs of their audience and not simply express what they knew.

In addition, the L2 participants often describe frustration and defeat, rather than confidence and/or satisfaction when describing their feedback experiences. This is also contrasted with the participants in MacKinnon's (1993:46-47) study who initially found feedback “enormously frustrating at times”, but in their second interview reported that they were more inclined to react to feedback effectively and felt less personally threatened and depressed about feedback. They also started taking an active role in the feedback sessions, understanding more of the feedback and revising on the basis of this understanding more effectively. They also regarded feedback as their main vehicle for learning about the Bank and its activities, reader's needs and standards and expectation for documents.

Brad, however, describes his supervisor as a “real pedantic pain in the neck” and his reaction to feedback as “you feel a bit at a loss I suppose. You know it is not your mother tongue, so there is always a bit of difficulty”. Marvin also feels that his L2 status affects his ability to write acceptably, “English is not my first language. I would have done better if it were my first language”. Moses also describes the “rigid” standards demanded by his supervisor as having to write in the same style and structure as his supervisor in the excerpt below:

My manager is English he thinks in a different style as we do and you have to get into his way of thinking otherwise he would rip your report to pieces and you have to write it over and over again. I should have to get more information and I come more in line with his line of thought and acceptance. And I make sure the structure is the same.

These responses also support Johns' (1997) study that students experience frustration and alienation and feel “unvalued and unrecognised” when their writing is viewed unreasonably critically. However, these responses also reveal that the rhetoric standards for engineering texts are demanding and

require advanced linguistic skills which L2 writers often fail to recognise and appropriately use (Johns 1997).

The difficulty of ensuring more constructive feedback could be facilitated in the supervisor-engineer interactions by discussing the writing requirements more overtly. Although the supervisors acknowledged the importance of this process, they do not fully utilise it, “I appreciate the opportunity to partake in the feedback on the report content, as there is a lot to be learned from the approach taken by the engineer” and “I believe it (feedback) is an essential tool to develop the report writer - but it is all-too-often not fully utilised”. However, a study by Ferris (2003:29) reveals that not all feedback helps student writing. The study showed that 76% of teacher’s responses were taken up by the students in their revisions, 53% of the comments led to positive changes on the texts and 34% of the revisions influenced by teacher feedback had negative effects on texts. Although student revision in response to teacher feedback may vary depending on the type of change suggested and/or the ability of the individual student writer, for Ferris (2003:30), content-based or meaning-related feedback appears to improve the content of texts from one draft to the next and over time.

As writing quality is essential for report approval, the participants also utilise alternative structures as feedback systems to improve their writing standards besides relying on supervisor feedback which is the standard and institutionalised report routing and acceptance system. This reveals how objects causally influence one another and are contingently related.

4.3.2.2 Other feedback practices

a) Self-feedback practices

Greg as a L1 participant describes the intricacies of revising his report drafts by “look[ing] at my grammar, the way I described the same thing and change the paragraph structures using different words. That can take forever; it takes up lots of time if you want it to be perfect... I always spend time on rereading the reports. I always go back and I like things to be as good as it can get”.

Greg describes the wording, paragraphing and sentence order as the biggest

challenges in writing. However, he admits that changes are not always made, “I might change certain things” and “if” he does make changes, Greg will “sometimes”:

- ❑ add more detail
- ❑ substantiate more (but it depends)
- ❑ take away unnecessary explanations
- ❑ elaborate (give more detail on that)
- ❑ change the grammar and order

The editing and revising processes described by Greg are advanced revision manipulations which will be difficult for many L2 writers who are not as proficient in their L2 and lack “native-like intuitions about vocabulary, syntax, tone, style formality and organisational patterns” (Taylor 1981:11), so they often fail to see problems in their own writing. This is reflected in Brad’s wondering if he is “mixing my tenses or am I in the correct tense at all”. Brad also explains the difficulty and complexity of writing as “using language is actually quite an inefficient way of putting across what you know and I think being able to do that, putting across your point of view is an art and you have to think about it”.

Therefore, the L2 engineers often do not know how to improve their writing specifically with Moses resorting to “write over and over again”. Brad feels there is “nothing at the moment” to overcome the various language difficulties mentioned by the test engineers and that “you have to make do with your own knowledge of the language”. For Brad, the engineer must “just carry on. At the end of the day, it depends on whether you get the message across. The most important thing”. However, meaning is not separate from form and this is reflected in Albert describing their writing as “wading through grammar and language issues” which is “tedious and frustrating” and “detracted from the discussions of technical data and conclusions”. Phillip reflects Albert’s despondence when he states that he “doesn’t know” what can be done to improve report quality as the courses they have tried have had limited success. While Phillip feels that report flow can be taught, he states, “it’s very difficult to teach someone how to spell and use grammar correctly”, and so, more often than not, the supervisors make the changes on their drafts.

Ferris (2003:51) differentiates between treatable and untreatable errors with the former being minor errors that do not obscure the compressibility of the text and are related to rule-governed structures. Untreatable errors defy classification and explanation because they are not alike in their difficulty for L2 writers, their severity in impeding written communication and their ability to respond to treatment differs. However, according to Chang and Swales (in Hinkel 2004: 5), L2 linguistic needs can met with explicit instruction in advanced writing, and Raimes (1994 in Hinkel 2004:10) also confirms that L2 writing requires a developed L2 proficiency as well as writing skills that pertain to the knowledge of the discourse conventions and organising the information flow. Then as L2 proficiency increases, the writers become “better able to perform in writing their second language, producing more effective texts and attend to larger aspects of their writing production” (Cummings 1994:201). In addition, with revision and redrafting of reports, the participants should also acquire “greater sensitivity to linguistic errors, and a substantial improvement in the quality of the subsequent written work” (Hyland 1990:278).

b) Peer feedback practices

Although some of the L2 participants ask for assistance with technical and grammatical details from L1 colleagues, “Normally, I will take it to the people that does (sic) similar testing... They (co-workers) will check technical detail and grammar... They will think in a logical way and I will look again at the way it is structured”, this does not happen frequently. However, it does suggest that these participants are learning that feedback enables them to make critical gains in their writing. Although Moses states that 99% of the time he does his own proofreading, “I will do it 99% of the time. It just becomes part of the process”, he also admits that he would ask an L1 colleague to go over his report rather than L2 colleagues. He feels that colleagues who are Afrikaans or Xhosa speaking are unable to give assistance, “because I know most of the time it will be the grammar and not the understanding part. For instance, ...small things, for example, *om jou klere vuil te maak*, to dirty your pants, it’s not the same. Something small, like that”. This also illustrates what Ferris (2003:51) refers to as local errors which do not interfere with communication.

Some participants describe their responses to feedback from colleagues positively, “I will always discuss it. I normally will compromise or use their (colleagues) opinion. If I don’t agree, I will get a different perspective”. Marvin also responds positively to peer feedback in his response to the probe, *Would you make use of an English-speaking colleague?* agrees that he would, “Yes, I would, if there was one closer to my desk”. Greg also asks, “someone to read for me and tell me if it makes sense to them” although he admits that this happens infrequently, “I think not too often, maybe once in while”. Greg also says he is able to assist others, “I am able to help and give recommendations, but they don’t normally come to me to do that... but sometimes they will request me to look at their work before it gets issued”. Greg describes how his feedback was able to assist the report-writing skills of two of his L2 colleagues:

... but with my direction, they improved and became more confident. It is not only the writing skills it is also the pc skills and how to manipulate the data. As far as the writing, I will read it from an outsider’s perspective. I will tell them how to do alterations or show them. I will give them something similar.

However, Marvin admits that he does not make use of peer feedback often only “sometimes” when tests are “complicated when you do two tests on one vehicle, then I will ask for help”. Face also does not often make use of colleagues’ feedback, “It is the same with me. I can’t remember when last I asked someone else to help. I will definitely ask Gus because he is English speaking and he is sitting next to me, but it is very seldom”. Face rather uses the computer for assistance as “most of our reports are technical”. Gus as a L1 participant also does not refer his work to L2 colleagues, “when it comes to language, I will do the writing. There are no other English-speaking people in my group”. The fact that the participants work by themselves most of the time is confirmed by the focus group discussion with most of the participants ranking peer feedback as eighth in importance out of 10 factors influencing their report-writing effectiveness (see Table 3.3) with Marvin explaining, “The least is peer feedback because I very seldom (use it)”.

Albert explains the trend for not getting feedback from colleagues as their advice concerning language is taken “personally”. Albert describes the issue with peer feedback as, “Receiving criticism... with regards to technical issues, is ordinarily not a problem for engineers, but when corrected/criticised with regards to the use of language/grammar it is often taken personally”.

However, if the participants made more active use of colleague rather than supervisor feedback in the writing process, they would possibly be encouraged to be more critical of feedback given instead of passively receiving feedback from their supervisors. Peer feedback also enhances communicative powers by encouraging the expression and negotiation of ideas and the development of a sense of audience (Mendonca & Johnson 1994:766). Tani supports this conclusion by explaining that knowledge can be gained by “Interacting with people more, instead of closing yourself off - when you interact, you tend to have the feeling on how to present whatever subject [you’re] presenting to different people. It helps quite a lot in communication when you interact”.

c) Broadening feedback practices

Although the participants describe how they are assisted in their report writing through feedback practices with Brad describing feedback as the “most reliable thing”, feedback practices in the writing process are problematic depending on their being too form rather than meaning-based, how they are given and who does the revising. Brad suggests, “broadening the feedback or broadening the distribution” as a means to improve feedback practices. Focusing on meaning in feedback practices, he describes broadening as being able to publish a report and “the people that are working on the specific issue ... will read your publication”. In Interview 2, Brad explains the concept of “broadening” feedback further to incorporate feedback from publications distributed and if something important is omitted in the report, it comes back to you, “not as specific feedback on what you’ve written but as a result of the mistakes that you made. It comes back as a discrepancy on what you want to achieve. It comes back just to show that you should communicate” and reveals the “consequences to your technical communication”.

Brad's concept of feedback broadening incorporates not only the need for correct and accurate technical information and audience knowledge but audience interaction as well as the importance of the test engineer answering questions, so that points of uncertainty can be clarified, and so he reveals the analytical and exploratory functions of writing.

d) Interactive feedback practices

For Moses, it is easier speaking to someone who has written a similar report or understands “concerns that you are wording” and to ask them what they think. Clive also makes use of this interactive practice as “If I don’t know what step to take, I will go to someone who has done it before or a person that I know is experienced enough to help me”. The institution is supporting this referral practice by “trying to rotate the people in the department so there is always someone who has done a similar report. It is always easier to speak to those who have done it”. Clive also describes that monitoring and checking is suggested by the institution as the component engineers are told “to get another set of eyes” because “many times there are a lot of errors”. The institutional supporting practice is confirmed by Clive who agrees, “We are in sync and work basically together”. Face also shares the opinion of teamwork and support being an institutional culture in the excerpt below:

I just want to say, if you don’t like your immediate supervisor you will maybe feel bad, but all of us, the culture here is - we got very good teams and, yes, in most of the companies, the superior is your boss but in the X group, the culture is team work. The culture is a good spirit between us, and it is a major contributor. It is something that I noticed when I started here, you can ask anybody anything and they will help.

Although this form of assistance appears to be supported and is described by Greg as “show[ing] them (his colleagues) the basics. I will share my knowledge and information with them”, in the focus group icebreaker tasks, the participants ranked report collaboration the lowest in importance out of 10 factors influencing their report-writing effectiveness. Report collaboration was also rated as having *little* importance by 57% of the participants (five participants) while only 14% (one participant) rated it as having *a lot* of

importance in influencing their report-writing effectiveness (see Tables 3.3 and 3.4). This reveals a discrepancy in the meaning of *collaboration* as a concept. For the participants, if *collaboration* refers to peer feedback on their writing, it is rated as less important. However, if it refers to institutional support and team identity, the participants rated it as more important. Bronzino, Ahlgren, Chung, Mertens & Palladino (1994:184 in Winsor 1996:12) describes teamwork as being more than the simple coordination of schedules and personalities. They describe it as a dynamic process by which “ideas move from being glimmers ... to being disciplinary or organisational knowledge”, it is also inherently pervasive and something for which the engineers’ education often leaves them particularly ill-prepared (Winsor 1996:12).

Feedback practices, therefore, affect the participants’ perceptions of not only their literacy competency, but also their sense of identity in their worth as a writers as well as their beliefs and perceptions of “particular ideologies and historical forces” (Ramanathan 2005:22) within the research site’s institutional culture such as control and assistance practices.

4.3.2.3 Feedback practice influences

a) Feedback practices and identity

Identities are built with discursive resources including birthright, mother tongue and competing discourses of school, street and workplace, which call people to “eventual positions of power” (Heath 1983:368). Therefore, the dominant practices in the report-writing process, especially the practice of feedback, causally interacts with the engineers’ identity often causing the L2 participants to experience a sense of powerlessness and negative or “damaged identity” (Collins & Blot 2003:xviii). Therefore, multiple literacy models reveal not only conditions contributing to approved literacy practices, they also reveal subversive practices contingently impacting on writer inadequacies and the “self-defined in tension with authorised literacies” (Collins & Blot 2003:xviii). Therefore, the taking up of discursal positions are “a vicious circle fraught with conflicts of identity” (Ivanic 1998:68) as these positions “combine practices, values, and forms of language in recognisable ‘ways of being’ in the world” (Gee1996), which may require a change of

identity when attempting to take up membership of a community at odds with aspects of a person's identity.

Therefore, when taking on these new identity aspects, there is often a mixed desire for and resistance to insider status depending on how far a person is "colonised" (Gee 1996) or "appropriated" (Bartholomae 1985:135). At the research site, social positions in hierarchies of class especially in terms of language and power become subjective and a "sense of self and self-as-literate emerges from experiences of historical exclusion (or inclusion) and schooled judgements of class backgrounds, 'country' dialect" (Collins & Blot 2003:119).

As feedback and institutional practices interact causally and contingently on the participants' values, senses of self and forms of power, most of the L2 speakers describe their responses to writing practices that shape their report writing submissively and passively rather than being in control as they are L2 speakers and "need to improve" and are used to getting their reports back. Although Moses reveals extreme frustration and a willingness to fight to assert his views concerning "the stupid language", he also usually just does the revisions required. Moses also reveals subject identity conflicts when his technical details are challenged. Although Brad describes feedback as "mostly beneficial", he also feels that feedback is "sometimes personal" and "resents the fact that I am wrong". The connotation of negativity towards feedback is also evident when Brad labels it "criticism" in his response to the question, *Do you always feel positive about feedback?* In his answer, Brad remarks that a writer "must take out of criticism what you need to improve and that is up to you".

The participants also tend to respond more vocally to feedback considered constant or repetitive and feedback concerning writing quality. While most of participants describe their reactions to report feedback less forcibly than Moses who describes "blowing his top", especially after he has put a lot of effort into his report, "hours and hours of work and you feel it is correct and someone else come (sic) and shoot (sic) you down. Sometimes, I just blow

my top and say he doesn't know what he is talking about and then I will anyway just correct it". This response graphically encapsulates Moses' sense of self and identity causally implicated as power and language forces are activated through supervisor feedback practices.

Brad, however, also acknowledges that the onus is on writers to use feedback to improve their writing, supporting Face's view of feedback as a means to improve L2 proficiency, "Look, I know that I am Afrikaans. There is a need to improve. I look at it very positively". Face also does not interpret feedback as "criticism because English will always be my second language" but as a practice that builds proficiency, "will only guide me, the next time I want to express myself" and "the longer I worked with him, the easier it became". Face and Brad, therefore, reveal a need for a "unified self" by identifying with the "powerful and significant figures outside" (Woodward 1997:45 in Ibrahim 2000:742) by appropriating institutional systems and in so doing, tend to inhabit multiple identities (Gee 1996) as acquiring certain literacy practices may involve becoming a certain type of person. Gus's positive feedback responses need to be interpreted from his position of being an *insider* as a L1 participant identifying with the discourse community practices so his positive responses to the shaping effects of feedback of, "Yes, if you get feedback, either negative or positive, it helps next time to do writing different" reflect his identity strength.

The feeling of some form of negativity from frustration or resentment to powerlessness in response to the feedback practices can affect both L1 and L2 participants as discursive practices interact with self. However, although negative responses cause discomfort that can lead to self-estrangement (Collins & Blot 2003:119), constructive and positive responses cause satisfaction that can lead confidence and positive self-images. The feedback responses below indicate that all the participants' identities have been affected by feedback practices at the research, positively or negatively depending on the feedback practice.

L2 Participants:

- Moses: I do get frustrated when it comes back with the same thing all the time / I am so used to getting it back - it came to a stage where I don't even proof read it / That frustrates me when you done everything you could, and it still comes back.
- Brad: I will say sorry and quickly change it. / Ja, obviously you resent the fact that you are wrong about something. You feel silly making the mistake and you know that you could have done better. You do something and then you manager comments about the quality of the writing and not of the actual content. / The way you presented the content might be slightly incorrect and you feel silly. You can see it straight away and you could avoid it if you thought about it more.
- Tani: If it is constructive then I will be happy with it. If it is negative, where you get to feel that person is not there to help you but out to let you feel that you did not do your homework, I don't appreciate that. I guess it is also in the attitude that they come to you. I easily pick up different attitudes you can pick it up if the person is there to help or just there to break down. If it is positive I can work with them.
- Marvin: It does affect me to a certain extent but I take it as it comes / I will get frustrated because he knew very well what I was trying to say, but calm myself by saying to myself that I'm not English and why should I speak it better than my home language?
- Face: Like I said, I don't mind criticism, if it is not negative / ... less and less sentence restructuring took place and I added info, which I regarded as less important.

L1 Participants:

- Gus: I got no problem with the feedback as long it is constructive, you can use it. When you don't understand the pattern that is created, it can be frustrating.
- Clive: If he marks and it should be fine once, I will make changes but if he marks the same thing three or four times, I will feel insulted and wonder if he can't make up his mind. But it had not come to that.
- Greg: If it is good comments, then I will be happy and if they want changes or it is negative, I won't get all angry or frustrated. I will just change it.

Reviewers and researchers in the 1980s criticised feedback for being primarily an error hunt, which is confusing and demoralising for writers (Ferris 2003:14). Leki (1991:210) also concludes that students' attitudes may change

towards error if approaches do not emphasise errors as writers tend to “internalise what teachers’ prioritise” (Hedgecock & Lefkowitz 1994 in Ferris 1995:50). Ferris (2003:30) also finds that writers who receive content-based or meaning-related feedback in contrast to error correction appear to improve the content of their texts from one draft to the next and over time. However, research also concludes that written commentary can be ineffective and even be resented by writers. Elbow (1999:201 in Ferris 2003:1) observes that “writing comments is a dubious and difficult enterprise” that in the end are likely to “waste time” or “cause harm”. Overly directive feedback can also “remove the incentive to write and the motivation to improve skills” (Brannon & Knoblauch 1982:195 in Ferris 2003:8).

Although Cohen and Cavalcanti (1990) report that there was very little use of praise in teacher feedback in their case studies, motivating feedback is important in the writing process and must remain a focus in all feedback. In Cohen and Cavalcanti’s study (1990), the students report that they mainly received feedback about grammar and mechanics but they would have preferred feedback on all areas of writing and valued positive feedback. The students also seemed to appreciate and remember positive comments and expressed a strong preference for a mixture of praise and constructive criticism in feedback (McCurdy 1992 in Ferris 2003:100). Although the participants value first-time report approval and “Have to work fast and try to get it out and right the first time” with no feedback and “no changes”, the feedback focus should be positive advice to reinforce the writers’ progress rather than the product exclusively. As long as the report-writing process at the research site is strongly product- rather than process-orientated, the participants will respond to the writing process as an assessment activity (Hounsell 1987:117) rather than a composing process to revise and improve writing.

In the excerpt below, Marvin provides examples of positive feedback, which are prefaced with “I like...” when his performance is being assessed:

Describe a “positive” comment. “... sometimes you say, ‘I like the way you put certain aspects of whatever you was doing’ and ‘I like the way you put it down’ and I could see that X was happy..... Something like that...If we have a meeting and some of my issues come up - and then I start speaking about them or maybe sometimes present reports to senior management and then he is always there. If I present a particular report I will ask him how did I do? It is then that the compliments come out. Or sometimes, he will say ‘You have to look at your audience’.

Identities are not only imposed but can be shaped in response to praise and positive messages, so constructive feedback can promote self-confidence and promote development of writing ability. McCurdy’s (1992 in Ferris 2003:100) study found that students were happy with feedback when they felt it was valuable to their development as writers whereas poorly designed feedback may cause students harm (Ferris 2003:50) and create negative self-images.

b) Feedback practices and control

Although Charles (1990:287) suggests that writers are given control over the feedback they receive, the feedback procedure at the research site does not suggest active interaction between engineers and supervisors taking place to negotiate changes. Although one of the participants asserts, “Obviously I’m not just going to take any advice that comes along. I would really first check if it really works and if it does and I’m more than welcome to comment”, he adds less assertively, “If it happened that I ignore something, it is because it was not valuable and it does not add up to my content”.

Rather, in practice, the engineers are told what to correct without their meanings negotiated or their writing is corrected for them. Some of the participants describe their response to the feedback they receive compliantly, “I normally will compromise or use their opinion” and “take what they what they say and apply it”. However, Moses describes the writing process as a fight or a competition between the writer and supervisor as the supervisor only knows “on paper” but “will try to look better. He will try and battle you with words”. Although Moses asserts that once a part has been tested, “you know the technical specs off hand”, this does not change the control the supervisor has over report acceptance, so the participants or their supervisors invariably

make the required changes. Brad also describes the powerlessness he feels, “Because sometimes I think I’m right ... but they grew up in English, so they will obviously have to say no, but I know how it should be”. Therefore, the L2 participants often respond to the feedback practices helplessly as illustrated in the list of responses below:

- ❑ “Feel a bit at a loss...”
- ❑ “You just carry on...”
- ❑ “... I will say sorry and quickly change it... I usually feel stupid...”
- ❑ “You can write it how good it will come back with some comment”
- ❑ “Sometimes I was thinking should I argue about this because I didn’t always agreed with him but then...Ja, so you do...”
- ❑ “Most of us are second language speakers. That is why we are so used to get the reports back.”

In the excerpt below, Brad comments on his lack of agreement with feedback during Interview 2 as he “didn’t think much of it” and that “nothing fundamental” was changed:

What in the suggestions of your ex -English specialist would you perhaps not agree with? What? “No, I think we had one thing he said that I didn’t quite agree with - I didn’t think much of it.” **You were never in a situation where you had to put it in your report.** “No. Ag, usually he changed a nuance or something, nothing fundamental.”

However, most of the participants describe similar forms of powerlessness, with Face admitting, “you don’t have influence on the manager coming back to you”. Marvin also describes the separation between supervisor and testing engineer as the supervisor being “on his own, but sometimes he will come back to me if something is not clear to him. But I got no influence”. Marvin also does not know what will cause his supervisor’s approval, “I don’t know because what he normally does, he distributes the part. He goes over it and he will take it further”. For Marvin, supervisors are accountable for reports, “even if test engineers make everyone feel that they can make changes”, if something happens or goes wrong “it is not our fault”. Marvin explains further why he has no influence in the report process and gives reasons for the authority and “power” of the supervisor in the excerpt below:

He is the one who has the power to distribute the report to the people concerned. If I do a trial test solely for our record keeping or something like that, we don't (distribute it)but he will distribute it to the relevant people. He will do it, and my name is still on the report and I will copy it as well. He will deal with any questions. Sometimes it will go straight to him and he will copy and ask me to please answer or explain.

Moses, however, disagrees with the test engineers having no control or influence, as "you know more or less where you are going with it. You've done the test and you've got the idea what's happening". For his reports, he describes the role of the supervisor as, "All that the managers normally do, they will reconstruct my vocabulary more in that sense. The content will not change". In the end though, he admits to making the required changes, "I will always laugh and fix it. You don't have a choice".

Although the participants often rely on their supervisors' writing style examples to correct their language and style structures, more control over their writing process could be facilitated by a more overt genre-type approach and the provision of model writing examples (Hyland 1992:16). For example, genre-based approaches allow writers to develop a clearer understanding of rhetorical text structures, as texts are examined as finished products. However, this does not imply a product-orientated approach or the teaching of prescriptive formulae. As control over the conventions is a prerequisite to creativity, and familiarising writers with a report genre so that they understand the way the text should be structured and know how to apply the rules and conventions seems to be a way of making the rules to the game explicit (Craig 1989).

One of the participants suggests that report acceptance practices and report writing could be also be improved at the research site by "reducing the amount of communication that needs to happen" between supervisors and test engineers and to have "help procedures available to help step by step. To show you, if you have not done it before, how you go from point A to B". However, effective writing is more than steps and help procedures. Rather MacKinnon (1993: 46) refers to the use of document cycling and Winsor

(1996:9) to the interaction with existing text to ensure an understanding of the organisation's culture for writers to perform competently. This demonstrates the impact of socialisation on writing and the need for knowledge of the social context in which writers operate as an influence on writing.

4.4 Conclusions

The literacy event of report writing links directly with the causal mechanism of supervisor feedback practices within the discourse community and other interacting feedback practices embedded in the report-writing practices. The impact of these discursive relationships links interactively with writer identity, power structures and literacy formulations in the form of report text and genre structures. These associations are further explored by considering other dominant practice relationships related to report-writing practices at the research site that assist, control, maintain and change practices. These will be discussed in chapter 5.

Chapter 5 Data analysis / Other dominant causal practice relationships

5.1 Introduction

The dominant discourse understanding of this study tends to view literacy as being linked to the autonomous model of literacy constructing literacy as a neutral practice involving encoding and decoding practices. However, literacy is linked to the ideological model proposed by Street (1984) and is understood as a set of social practices with meaning being dependent on factors such as the way the “individuals perceive themselves in relationship to the texts they encounter and on the value they ascribe to those texts in their daily lives” (Boughey 2002:296). Although people interact with various literacies or discourses daily, the engineers at the research site need to master or acquire the secondary discourse of report writing as a genre, which is not only dependent on “rigid” rhetorical factors but the knowledge that readers and writers bring to the text and the socio-cultural context of the corporate environment. Therefore, language is not a “transparent window on a self-evident world” (Winsor 1996:6) and factuality does not exist in itself. The participants’ report-writing practices, therefore, causally interact with the “complex convergence of several intertwining factors and local realities on the ground” that are “produced, shaped and sustained by particular ideologies and historical forces” (Ramanathan 2005:22) embedded in the research site’s institutional culture.

Bourdieu (1972, 1977 in Dias et al 1999:118) uses the concept of *habitus* which defines genres as “structured structures predisposed to function as structuring structures” to explain the causal relationships of dominant practices interacting with report-writing practices. For Bourdieu, *habitus* also describes the “set of historical relatives ‘deposited’ within individual bodies in the form of mental and corporal schemata of perceptions, appreciation, and actions” (Bourdieu & Wacquant 1992 in Albright, Purohit & Walsh 2006:26) which causally influence the participants’ report-writing practices and their responses to the “structuring structures”. Therefore, the basis of learning is the *habitus*, the structured and structuring location of learning, knowledge and practice within the subject, which often consists of unconscious depositions to

act in a certain way. The participants' practices are also constrained by historical and socially situated contexts of their production. Herndl (1996:29 in Dias et al 1999:118) describes the influence of past structures and experiences on current actions through habitus as:

... the way of thinking we inherit from past experience which then makes sense of our current experience and allows us to act. Furthermore, this *habitus* is itself continuously produced by our ongoing activity.

Sayer (2000 in Kowalczyk et al 2000:61) also uses Bourdieu's (1990) concept of habitus to describe the deeply ingrained dispositions that individuals have from an early age towards different parts of the social field and the people, institutions, practices and artefacts located therein relative to their own. These dispositions are embodied yet social causal powers which orient behaviour at a subconscious level giving actors *a feel for the game*. The social field also interacts partly below the level of meaning and may even persist when recognised by the actors as a problem. For Bourdieu, what happens at the level of the actual has much to do with the actors' subconscious feel for the game and although critical realism regards reasons as causally efficacious, Bourdieu's work also shows that habitus is often efficacious. Therefore, although it appears that institutional practices control, maintain and change report-writing practices through "deterministic conditioning and reproduction" (Albright et al 2006:26), responses to them also continually have the power to change and adapt various institutional practices to suit activities or practices (see also 2.9.1 Genre theory background).

Therefore, in the process of producing an acceptable report, various dominant causal practices emerge in relation to the structures, systems and historical forces embedded within the organisation and these interact with report-writing practices, controlling, maintaining and changing these report-writing practices. As habitus is efficacious, these dominant practices also interact with the participants' perceptions of their report-writing effectiveness as well as the meanings they give to literacy practices, self or identity, authority or power, assistance and change as they act or respond to the complex institutional

context during the report-writing process. This relationship is made more complex by global networks and discourse communities that use language in ways that are unique to them and which constitute their epistemology and identity (Swales 1990).

Chapter 4 discussed the dominant practice of supervisor feedback as an actual causal mechanism in the report acceptance event and relates how this relationship triggers power, identity and discourse issues for the participants in the report-writing process. Chapter 5 identifies alternative assisting causal relationships that emerge in response to supervisor feedback practices as the participants utilise various other practices to avoid the continuous rewriting of their reports. Chapter 5 also discusses how various practice relationships within the institution's structures emerge to control, maintain and change report-writing practices and the participants' actions and perceptions in response to these relationships. Finally, the chapter considers how culture, higher education and future practices emerge to causally interact with report-writing practices, perceptions and understandings at the research site.

5.2 Report acceptance and other assisting practices

In MacKinnon's (1993:46) study, the writers learn to use not only "complex feedback" but "document cycling" to manipulate social/organisational processes to produce satisfactory documents. In this study, the participants also make use of alternative assisting practices other than supervisor feedback practices to avoid rewriting their reports "over and over again". These assistance forms include using the institution's report template with its guidelines and compiler, referring to own and similar report templates and examples, using databases and database specifications, copying supervisors' writing styles, utilising various computer programmes and functions like drop-down menus, spell check, thesaurus and attending report-writing short courses.

These assisting practices emerge as the report acceptance event activates or triggers actual and unconscious mechanisms to ensure the report acceptance

outcome is achieved. The participants appropriate each of the assisting practices identified to enable them to acquire the report discourse conventions and structures to produce report documents that meet the organisational contexts' requirements. These practices, in turn, interact with the larger dynamics of the organisation as a discourse community enabling the participants to gain an increased understanding of the writing context's specific audiences, purposes and writing-related organisational relationships.

5.2.1 Report templates

In the focus discussion group when the participants were asked to rank the most to the least important factor which influenced their report-writing effectiveness, the report template (see Appendix I / Report template example) was ranked as second highest out of ten listed factors influencing report-writing effectiveness (see Tables 3.3 and 5.1). Three participants also ranked it as number one, "For me, the template comes first". Moses concludes that the report template functions as making report writing "acceptable and standard".

When the organisation changed management in 2004, various report templates were merged into a global template to standardise report-writing practices. Face explains one of the reasons for a standard global report template as, "When we forward a report, for example to Mexico, they will know exactly what document it is because they are using it as well, it is standard". Therefore, to maintain a global standard, a corporate procedure or "a set system" for report structure was instituted with an instruction booklet or guideline of what to incorporate when writing a report using the template. Gus describes the template as providing the layout and format required of the report, even specifying a certain font for each section with a "specific fix font". Global templates also have "a lot of electronic bullets and embedded stuff and databases" which for Face "helps a lot". With the set template and guidelines, the report-writing process is streamlined with sub-headings provided such as the "title, objective, background information, your conclusions and your recommendations".

With the set report structure and format, the report writer completes the details of each report section as indicated on the template, “heading, the title, dates and further details about the test itself, the test results”. Clive also describes the test report-writing process as following “pretty much set formats” so that a report objective “is basically settled before you do the test, so that is easy”. Greg also emphasises the ease of the template as “the new format allows you to add much more details and made it much easier. If they need additional information, it is there. If the structures are followed there are no barriers”. Gus who describes himself as “not very good” when it comes to report writing, says he is “fine” as the templates make it “quite easy” to write an effective report and help as there is a set layout for each report section and the “templates are pretty comprehensive. There is normally an instruction booklet”. The report templates can also be filed and archived so that anyone can access the same details.

Not only does the template guideline lay down report structure and format, it also lays down institutional procedures for report writing and testing to reflect the institution’s new management structures “that is, following the procedures and following the test procedures and following the writing procedures. And goes through the chain”. Moses also describes the template guideline as providing “a guideline what to write” and by limiting the space where the test results can be described, the writer knows “how to shorten your sentence and the objective can be a paragraph and it gives you a very good guideline”. The report-writing guidelines also require writing to be “clear and concise and it should be understandable to anyone who will come in and read it”.

Most of the participants agree that the report template has influenced their writing positively by streamlining the report-writing process and making it easier and more straightforward. However, more subconsciously, the template structures embody the specific corporate culture of the discourse community locally and globally by controlling report structures, writing conventions and related organisational practices as systems must be “followed”.

5.2.2 Examples, models and databases

Clive also finds that the practice of using his own and other report examples and models makes report writing easy. Clive keeps his report drafts “so it is easy to go back” and “obviously, when you use models (it is easy)”. This referral practice is supported by archiving reports once they are completed, making various report types easily accessible with “several databases... So you can go back and see what was based on the same platform”. The archiving of reports also allows the participants to access similar reports and templates, so if their test process is related which happens when the same test is repeated “on another vehicle with a different system” reports can be compared. Clive refers to his previous reports when he has done a similar test in the past to check on details, especially “... look at the conclusions. Just to get a bit more info”.

Marvin, however, perceives access to information as sometimes being a barrier in report-writing practices, especially if clear instructions are not given or the information about what is needed in a test is lacking. Marvin suggests that this situation can be eased if a database is set up “of material specifications and things like that would help that is accessible to us. Everybody should be able to access it”. This perception possibly reflects Marvin’s response to systems as he learns to appropriate contextual mechanisms within organisational structures as most participants confirm that there are databases to which they can refer as they “have several databases and the reports are archived. So you can go back and see what was based on the same platform”. Brad also describes the assistance provided though “direct manager” with hyperlinks to databases so that additional information can be accessed if needed.

The actual use of document cycling in MacKinnon’s (1993:51) study enabled the participants to acquire higher-level contextual knowledge through using specific discourse documents. In addition, through text manipulations, the participants developed a rhetorical perspective as well as an understanding of social and organisational contexts which are considered gains in writing. The participants’ interaction with various data systems also provides a causal

mechanism for the appropriation of specific organisational contextual knowledge and discourses required for reports to meet the specifications for approval.

5.2.3 Copying supervisor writing styles

Table 5.1 below illustrates that report-writing style was ranked as five out of ten factors influencing report-writing effectiveness (see also Table 3.3). Table 5.2 also illustrates the extent to which the institutional report-writing style and institutional practices and systems are perceived to influence the participants' report-writing effectiveness (see also Table 3.4).

Table 5.1 Ranking report styles influencing report- writing effectiveness

Factor	Ranking
Report-writing style	5

Table 5.2 Rating extent of report styles and own practices influencing report-writing effectiveness

Practices	A lot	%	ave	%	little	%	not	%
Institution report-writing style	3	43	3	43	1	14		
Institution practices/systems	3	43	3	43	1	14		
Own practices	4	57	2	29	1	14		

* **bold = highest percentages**

Table 5.2 illustrates that three participants rated these factors as affecting their report-writing effectiveness *a lot* (43%) or *average* (43%) with only one participant rating them as having *little* effect (14%). However, no participant suggested that these styles had no influence on their report-writing practices. These ranking and ratings suggest that the report-writing styles and institutional practices and systems have an above average influence on the participants' report-writing practices.

For their report documents to satisfy corporate requirements, most of the participants suggest that they are required to change their writing styles to accommodate their supervisors' styles or that their supervisors change the participants' styles "to accommodate his style" by ensuring similar structures "in the way the sentences were grammatically and the way he thinks". These comments, however, reflect how the supervisors construct their identities

through shaping the participants' writing to meet their expectations based on their professional experience and understanding of the corporate culture. Although the participants suggest that they are not required to develop their own report styles but to "follow the templates", Gus asserts that he does have his "own special style". However, he admits that his supervisor also changes his writing style "to accommodate his (supervisor's) style". These perceptions reveal that participants' identities are also discursively produced, as four of the participants rated the extent to which their "own practices" influence their report-writing effectiveness as *a lot* (57%) rather than *average* (29%) and *little* (14%) in Table 5.2.

However, in response to supervisors shaping practices, the participants learn to copy their supervisors' writing styles to avoid rewriting reports (as already noted in 4.3.1.3d). This practice seems to please the supervisors as this "will make your manager happy" and "he likes people to write his style". For Brad, this practice "goes back to your school days. When you saw something and you try to internalise it". However, Brad also states that he does not "emulate a specific writer" as his style "lies beneath the surface". Therefore, as the participants' writing styles are shaped by the supervisors' discourse structures and purposes to various degrees, Moses makes sure his structures resemble his supervisor's style by making his sentences more like his supervisor's grammatically as well as "the way he thinks" by emphasising "what he is concerned about". This process has also enabled Moses to become "more in tune with the global use of words". In the excerpt below, Moses explains how he adapts his writing to emphasise his supervisor's style, which seems to be based on particular report concerns or purposes depending on audiences:

After writing a few reports you start seeing each manager's different style. Some would try and emphasise concerns as being from the records, he is more worried about what caused the problem. Where others are more worried about the effects of the problem and that is where the line of thinking comes in. Where you actually being in line...many managers, for instance X, he comes from outside meaning a dealership, and he always thinks in the line of what it will cost the customer where you will get a technical manager that will ask what caused the problem. He doesn't want to know what the cause is; he just wants to know what the failure is.

These comments reflect the largely unconscious aspects of the participants' writing development as they learn "to manipulate social/organisational process" (MacKinnon 1993:46) to discursively produce satisfactory documents.

5.2.4 Computer programmes

The participants also make use of various computer programmes such as Excel, for example, "to put the data together and compare the components and measuring the different insulations in the vehicle to reduce heat levels from the exhaust". Face also refers to other assisting programmes such as "all the Microsoft packages. Like PowerPoint, Excel, of course". For Moses, *Acrobat* has made a "huge difference" to their report writing as a "huge report" can be written and "huge files" can be sent "because you can write 200-300 pages and still email it, previously, you could not". In addition, to aid understanding of technical words locally and globally, Face explains the use of "dropdown (menus) of the meaning of technical words" with the databases also providing a glossary as well as "certain words you can't use. Specially, the negative ones". The participants also make extensive use of spell check and the thesaurus as computer functions.

These comments illustrate how raw test data needs to be contextualised and this requires not only high-level context knowledge of organisational aspects of the corporation as a local and global discourse community and the effective use of technology but also lower-level context knowledge like what words to use. As the participants gain more experience within the organisation as a discourse community, they learn to appropriate actual supporting technological structures as well as more embedded systems to produce acceptable reports.

5.2.5 Short courses

The need for report-writing short courses can be described as a causal assisting practice in response to the institutional trigger for writing skill improvement. However, some of the participants who attended the writing

course do not confirm the organisation's concerns with their rhetorical skills and suggest alternative reasons for their course attendance. Marvin suggests that as writing is not something that he is fond of, he was required to do the report-writing short course. Marvin's reason is possibly a response to his sense of self or identify being a product of his writing and this may also explain why many of the engineers selected to do the report-writing short course based on their proficiency assessment never volunteered to participate in the research study (see 3.3.1 Primary data collection and 3.3.2.1 Preliminary step 1). Face, however, feels that his reports have improved as a result of the report-writing short course design, which he describes as "really assists a lot" as it helped him to "to keep it (report) simple and short. Keep it in bulletins and make sure it is more user-friendly. That was helpful".

Face's response supports Norris and Ortega's (2000:463 in Hinkel 2004:14) research which focused on standardising the results of 49 studies on L2 learning, acquisition and grammar instruction found that "focused instructional treatments of whatever sort far surpass non-or minimally focused exposure to L2". Although discourse- and text-level features also play a crucial role in teaching L2 writing, Hinkel (2004:14) urges the teaching of lexical, syntactic and rhetorical features of academic text to help NNS become better equipped for "academic survival". Therefore, short courses and training need to emphasise discursual structures when addressing the writing needs of L2 participants. In addition, MacKinnon (1993:54) also recommends that workplace writing trainers need to know that important aspects of writing development may naturally follow an increased understanding of the business functions, audience, and corporate culture and that managers also often need training in effective management of writing.

The alternative assisting practices utilised by the test engineers to ensure report acceptance reveal how the writers are implicated in the complex causal relationships resulting from the convergence of dominant practices embedded at various levels of institutional functioning. Both the actual and deeper institutional functioning practices produce, shape and are shaped by sustaining various practices in response to the research site's institutional

culture as well as the practices of the participants. These causal assisting practice relationships support Bourdieu's (1990) concept of habitus and Tsoukas' (1998 in Ramanathan 2005:26) explanation of practice as "a coherent, complex form of human activity regulated by implicit and explicit rules" as one of the four crucial features of a practice as already noted (see 4.2 Practice approach). Another crucial feature of a practice is the use of assisting mechanisms to gain report acceptance and this is reflected in the participants desire to "reach for the standards of excellence established by the regulators of the practice" (Tsoukas 1998 in Ramanathan 2005:26).

5.3 Other dominant practices influencing report writing

The report-writing practices at the research site interact with various dominant practice relationships, which are reinforced and sustained by particular cultural ideologies. These dominant causal practice relationships interact with report-writing practices by controlling, maintaining and changing certain structures, beliefs, values and practices. Smith (1974 in Winsor 1999:203) refers to this as the "social construction of document reality".

5.3.1 Dominant control practices

There are various controlling practices embedded in report-writing practices related to the dominant event of report acceptance activated by supervisor feedback as a causal mechanism. The supervisors and systems are the persons, things or agents assigned responsibility through which reports must pass to maintain an "orderly network of activity" (Winsor 1999:208). As report approval systems are assigned responsibility to process reports, the resultant practices are often identified as central causal mechanisms that trigger and activate most report-writing practices. For example, Clive calls approval practices the "foundation" because whether the information the test engineers gives "is enough or whether you should restructure it" relates to supervisor approval. Therefore, the supervisor "definitely has got an influence" on report-writing practices.

Tables 5.3 and 5.4 below illustrate the participants' ranking and rating of various control mechanisms interacting with their perceived report-writing effectiveness during the focus group icebreaker tasks (see also Tables 3.3 and 3.4).

Table 5.3 Ranking control practices influencing report-writing effectiveness

Factors	Ranking
report integrity	1
report templates	2
questions asked on reports	3
report distribution list	7

Table 5.4 Rating extent of control practices influencing report-writing effectiveness

Practices	A lot	%	ave	%	little	%	not	%
Institution practices/systems	3	43	3	43	1	14		
Institution report-writing style	3	43	3	43	1	14		
questions asked on reports	1	14	2	29	4	57		
report distribution list	1	14	3	43			3	43

* **bold = highest percentages**

Table 5.3 illustrates the high ranking of the report template as number two out of ten factors affecting the participants' writing effectiveness, and for three participants, it was ranked as number one (see also Table 3.3). Although the report template was not listed as a factor affecting report-writing effectiveness in the focus group icebreaker Task 2, Table 5.4 lists *institutional practices / systems* and *institution report-writing style* as factors influencing their report-writing effectiveness. Three of the seven participants rated these systems as either influencing *a lot* (43%) or *average* (43%) with only one participant (14%) rating them as having *little* influence. No participant rated these systems as *not* having an influence on their report-writing effectiveness. These rankings and ratings also highlight the perception of the importance of the report template as an institutional system as well as institutional discursive styles as influences on the report-writing process. However, the participants perceive report questions and the distribution list as having less of an impact of their writing effectiveness (see 5.3.1.3 Report questions and 5.3.1.5 Distribution lists / audiences).

Besides the causal control relationship supervisor approval systems have on report-writing practices, other institutional causal controls interacting with report acceptance that emerge include the report template, report integrity, report questions, report requestor, report distribution list and report warranties. Each of the control practices listed in Tables 5.3 and 5.4 are discussed as controls or “structuring structures” interacting with report-writing practices at the research site.

5.3.1.1 Report template system

Although the report template is described as having an important assisting relationship with writing practices (Table 5.3 and 5.2.1 Report templates), it also has a controlling function. The template system interacts with supervisors’ feedback and approval practices as they control the system locking it once the report is distributed, “as once it is issued, it is issued”. If something in the report is incorrect or “someone else might say that you must add something else”, the test engineer after discussing the problem “with the person who locked the report - you (test engineer) can ask him to unlock it” as only supervisors or the issuer has access to the system. Although the issuer can delete or make changes to the report, the procedure usually requires a new test to be conducted referring to the previous test “so there can be follow-on” and then “submit a new report and make recommendations on the one that is wrong”. Therefore, recommendations, conclusions and technical details can change after reports are issued as controlled by questions and supervisor access.

For Brad, the template control systems ensure not only the integrity of a report because of document standardisation but “purity” of details as they provide a check on testing procedures and results as well as report accuracy for the various audience who make use of the results. He describes the need for these controls to ensure report integrity in the excerpt below:

Making sure that the results of the documentation is (sic) always the same. And the result is based on the purity of the information. If the steps are not clear or correct you will not have the desired result. There is (sic) various levels of checking involved. In the end of the day, you

have to understand what the EPL (Electronic Parts List) looks like and the change you want to achieve. Making changes must be accurate. There are various people that use the reports. If your signature is there, you are responsible.

The report template system as a causal control mechanism interacts with “content-and meaning-determining standards... more subtly, through commonly held expectations about what it is appropriate to include” (Winsor 1999:203) as established within the institutional culture. Contextual expectations control and maintain existing structures relating not only to accessing and changing issued test reports but standards relating to testing practices, report structures and discourse standards. The participants writing reports are, therefore, “structured” or controlled by these organisational systems as they are blocked from changing or revising reports without hierarchical access mechanisms being opened.

5.3.1.2 Report integrity

As global report standardisation is essential in the motor industry, the corporate template ensures that the report format is globally standard and that all the necessary information is inserted “right down to the date”. This is necessary as missing details affect the integrity of the report, which Clive maintains often happens, “because many times there are a lot of errors and the guys have been told to get another set of eyes (to check their results)”. Although a test engineer may think the detail is “inconsequential, but at the end of the day, it is actually quite important”. Therefore, like Brad, Clive also supports the need for controls such as checking or monitoring systems in a testing environment as all test details must be correct, “everything has to be right”.

Therefore, all the participants ranked report integrity highly with rankings ranging between first and fourth as a factor affecting their report-writing effectiveness. As a result, report integrity was ranked the most important factor affecting their report-writing effectiveness (see Tables 3.3 and 5.3 Other dominant practices influencing report writing). Although report integrity was not on the focus group icebreaker Tasks 2’s list of factors rating the extent to

which certain factors influence report-writing effectiveness, the participants when discussing their rankings, emphasise its importance, “I got report integrity as number one. It (report) must be right” and “integrity and the way you conducting a test. You have to know what you are writing about”. The stressing of report integrity reflects a definite causal relationship between discursive practices, potential audience questions (see 5.3.1.3 below) and supervisor feedback within report acceptance systems maintaining the “world of the organisation” (Winsor 1999:222).

5.3.1.3 Report questions

Tables 3.3 and 5.3 illustrate the high ranking of report questions as third out of ten factors influencing report-writing effectiveness. Questions are usually directed at supervisors who approve and issue reports. They are usually asked once reports have been distributed to the various audiences on the distribution list and often relate to report integrity. Questions vary from requests for more technical information to queries about test results and testing practices. However, Tables 3.4 and 5.4 illustrate the extent to which questions have a causal relationship with report-writing effectiveness reveal that report questions have a weaker association with the participants’ report-writing effectiveness. Only one participant (14%) rated report questions as helping a *lot*, 29% (two participants) rated them as having an *average* influence while the majority (four participants), 57%, rated them as having a *little* influence. No participant rated report questions as *not* having an influence on their report writing effectiveness.

The varying rankings and ratings given to report questions as having a causal influence on report-writing effectiveness are possibly explained when the participants discussed the reasons for their rating decisions. Marvin ranked questions on reports the lowest while Tani ranked them the highest. Marvin’s reasons include the limited influence the test engineer has on changing reports once they are issued “everyone feel(s) that they can make changes but if something happens or goes wrong, it is not our fault” and the subsequent report questions being directed at his supervisor. Therefore, Marvin affirms that while questions are important, they influence his writing

the least as they are asked once the report is issued and then his supervisor usually answers the questions:

He will do it and my name is still on the report and I will copy it as well. He will deal with any questions. Sometimes it will go straight to him and he will copy and ask me to please answer or explain.

During her research interviews, Tani supports her report question higher ranking as she describes her report-writing practices differently to the other testing engineers. Tani, in contrast to the other testing engineers, answers questions on her reports during presentations as her reports depend on questions asked, “when you get questions and what people want from the report will shape or play a part (in) what I will write”. Before her report presentations, she is usually asked questions relating to report “clarity or more background” but “not to make changes”. These questions include, “How far are you? ... And if something comes up, they might ask if I included it in the presentation”. However, most questions are asked during the presentations, “Most of the questions will come then” which is important as “the mere fact that there’s still so many questions, maybe there are loopholes that you never covered”.

In answer to the question, *What is usually questioned in the engineering section?* Gus explains that results achieved during a test are usually questioned and why a test was conducted in a specific manner, “What about x, y or z”. Moses also receives questions from Germany as most of his reports are distributed globally. Face’s questions usually involve “why did you do that and have you done this?” which, according to Gus, are usually asked when a test or component fails. Therefore, questions are usually technical and focus on aspects that have or have not been included in tests. However, as report questions are usually directed at supervisors and not the report writers, the potential questions usually have a control relationship with report technical details and discourse as they often relate to test procedures and results as well as report clarity.

5.3.1.4 Report requestor

Although report requestors were not listed on the list of factors affecting report-writing effectiveness, they emerged as a control influence on part testing as well as writing practices. As reports depend on a component test request, the report requestor initiates the report-writing practice, as “there is a problem”. For example, Clive does engine testing, so “most of the engine testing is performance related, some is durability related and others will be exhaust testing”. The test engineer usually consults with the requestor if more technical information is needed and the test engineer then sets up the test according to the request. If anything cannot be met in the request, the test engineer will also go back to the test requestor and advise him or her “that it cannot be done”.

However, sometimes there is no communication between the requestor and tester with the requestor just expecting the test to be done and “he does not get involved. And to me, that is wrong”. Clive feels that this is poor communication, as “You must discuss it with someone. With me, supervising the test facility”. The tester also needs to tell test requestors whether the “facility is capable of doing the test and if more additional information is required”. This interaction is important, as details cannot be omitted as they affect the integrity of the report. In addition, the test engineer cannot make these decisions and “think it is inconsequential but at the end of the day it is actually quite important”. Therefore, Clive explains the importance of consulting with the test requestor both in the test process and for report technical details in the excerpt below:

You put here choosing the appropriate content? Is that to meet what is relevant to A and B. “Ja, also in terms of like appropriate content will again be based on the initial request. In the request, he might not have stipulated the procedure x, y or something else. You might put it in.” **Will you put it in automatically?** “Not necessarily, I would normally discuss it with the requester. If he is happy, I will put it in.” **Would you always discuss it with the requester?** “Most of the time, yes. I don’t want to submit a report and it don’t (sic) have the information that is needed.”

The test engineer then writes the test report and submits it to the supervisor for approval who will then issue it to all on the circulation list. The test requestor is also regarded as the most important person on the distribution list as “the one who ask for it (the test) in the first place”. The quality of the requestor/tester relationship, therefore, influences the quality of the test procedures and results. For the report writer, meeting the specific needs of the requestor requires not only “audience sensitivity and adaptiveness” (MacKinnon 1993:52) but contextual knowledge to produce a successful test report document. This relationship also impacts indirectly on the supervisors who control report approval and subsequent issuing. Therefore, in the institutional context, the report requestor has a direct causal relationship with the issued component test report so maintaining and supporting the acceptance control systems.

5.3.1.5 Distribution lists / audiences

The distribution list received a low ranking of seven out ten factors affecting report-writing effectiveness (see Tables 3.3 and 5.3 Other dominant practices influencing report writing) and had an average effect on the rating of the extent of its influence on report-writing effectiveness. Only one participant or 14% rated the distribution list as having *a lot* of influence, with both *average* and *not* having an influence on report-writing effectiveness receiving ratings of 43% (see Tables 3.4 and 5.4 Maintenance practices). As a control, therefore, the participants tended to rate the distribution list as having a middling effect on their perceived report-writing effectiveness.

As already noted in 5.3.1.3, Marvin provides a perspective on the distribution list as a control as being outside the test engineers’ influence as the manager or supervisor is the “one who has the power to distribute the report to the people concerned”. Marvin is not permitted to issue reports but does the trial test “solely for our record keeping or something like that” with his supervisor controlling report issue and questions asked, “he will deal with any questions”. Marvin would only need to answer questions indirectly if the supervisor copies it to him and asks him “to please answer or explain”.

Greg believes that it is the report writer who spends the most time reading the test report as “Most people don’t really bother; all they want to see is just the results. They (report requestors) just want to know if it (component) passed (the test)”. However, Moses in the focus group task discussion ranked the distribution list as six out of ten factors influencing his report-writing effectiveness because it is “more important who your final audience is” than report acceptance. This comment downplays the role of the supervisor as a report acceptance control and reflects Moses’ perception that the testing process is more important than the accepting process. He rates the distribution list as more important as he considers the test requestors as his final audience when writing his reports, “He (supervisor) won’t take it further. Then you hand it over to the person who requested the test and they will take it further”.

Although Moses negates or limits the role of the supervisor, he acknowledges the audience or distribution list as affecting the writing of the test report, because the writer must consider the “outsiders’ point of view” as various people on the distribution list will need to use the test information “to do their jobs”. Therefore, “they need to take the information that I gave them and apply it to whatever it is that they have to do”. This application requires tests following set procedures, which reports must accurately reflect, “so that things are transparent” and must also be “clear and concise and ... understandable to anyone who will come in and read it”. Therefore, supervisor approval practices have implicated the participants’ awareness of or sensitised them to the importance of local, global, technical and non-technical audiences understanding reports clearly and easily. In the excerpts below, the participants highlight the importance of audience understanding:

- Brad: No, no, I think you always write to an audience - you want your audience to *understand* what you are saying so you will always try and write in their language.
- Moses: Because if they (supervisors) could not *understand* it, someone else down the line might also *not understand* it.
- Moses: Yes, specially with my reports going back to Germany. They think in German but they are reading it in English. You have to

be one step ahead. So that you can write it so that they can *understand* it.

Clive: ... submitting a technical report and maybe one of the marketing guys was on distribution. He might *not understand* the technical aspects we discussed in the report. So it is based on how you can make a report very technical or you can just use simple English and be clear concise and to the point

Face: I mean when I speak to purchasing, which is non-technical, or quality people who is non-technical. Overseas people, you have to convey the message so that it is easy for them to *understand*. When you order parts. They must basically look at it and *understand* the request.

For Brad, understanding reports requires reading and writing the report from an “outsider’s point of view” which he describes as writing, “what others have in their head”. The participants have also indicated how important and yet how difficult this practice makes writing as “people have different perceptions in their minds... realisation that they have and then to put this across to people accurately, is very difficult”. This requires *cracking the codes* in the heads of readers, the difficulty of which Brad describes in the excerpt below:

Sometimes something is so much part of you - you understand it so well but you don’t put it on paper - it is obvious to you, you understand it so well and it is the premise from which you argue - you make assumptions that the people you are communicating to have this knowledge and then you might not give them all the details and then they read it and they don’t understand it.

In addition, the need for the report to be understood by “anyone” with “different intellectual levels” also reflects the discourse complexity of the report, as it requires an intimate awareness of the various audiences and their contexts in the writing process. Clive describes the effect of the “different intellectual reading levels” on the distribution list as a “barrier” when writing a report in the excerpt below:

“You don’t want to put a lot of information in the report that nobody is going to read. You are wasting your time and his time. Say for example, a 20-page document could have been a 10-page document. So you try and consider all those aspects. You look at the distribution, which the report is going to and you look if the information is going to

benefit the person.” **So would it be the different levels that will be a possible barrier?** “Yes.”

Brad and Clive’s comments reflect real-world communication contexts where writing matters. Scardamalia and Bereiter (1986) use the *knowledge-transforming* model to explain these difficulties, which are often experienced by skilled writers because of task complexity. According to Bereiter and Scardamalia (1987 in Hinkel 2004:12) in real-world contexts, all intertwined in knowledge transforming are rhetorical and text-generating skills such as content integration, audience expectations, conventions and genre form, language and linguistic use (lexis and grammar), logic of information flow as well as rhetorical organisation. Knowledge transforming, therefore, involves the writer actively reworking thoughts so that in the process not only text, but also ideas, may be changed (see also 2.3 Writing theory background). Therefore, the data that the engineer produces needs to be transformed into the knowledge that the context agrees is valid and can be interpreted highlighting the causal relationship between rhetoric and the production of technical knowledge.

The complexity of audience or readers on the distribution list is further complicated with global distribution networks which often require the writer to be aware of a distant or remote “outsider’s” perspective for report clarity. For Moses, this occurs with his reports being issued to Germany and he describes the complexity of these audiences as “They think in German but they are reading it in English. You have to be one step ahead. So that you can write it, so that they can understand it”. To do this, Moses has also developed a “style and if someone is not technically minded, they will still understand it”. This reflects that Moses accommodates the larger dynamics of organisational networks in his awareness of his reports’ audiences and their linguistic or rhetorical contexts to develop his writing style.

Although some of the participants describe report questions and the distribution list as having a little influence on their report-writing practices, they acknowledge the complicating control of the various audiences on their report

practices. Therefore, the distribution list not only has a direct causal relationship with organisational structures controlling report approval practices and the engineers' writing practices but indirectly with the mechanism of asking questions. The context is also made more complex as the test engineers have to write what is in their supervisors' as well as distribution lists' heads while often not being able to influence any practices, structures and processes in any way. Although Winsor (1999:202) describes the text as both "maintaining and shaping activity systems", these systems often shape and control the text.

5.3.1.6 Warranty claims

The fundamental need for report integrity is a further causal report writing constraint and control on report-writing practices because of warranty claim realities. Therefore, technical managers are concerned about "what caused the problem", and the dealerships are concerned about "effects of the problem" for the customer. For the dealership, what caused the problem is not so much an issue but rather "what the failure is" because of warranty issues. Therefore, although the report requestor may not be happy that the part did not meet the requirements, the test engineer has to be "rigid" about the test procedures and results and cannot suggest "maybe we can make it work". This dilemma for the report-writer results from a conflict between cultural beliefs about technical knowledge and the actual needs of engineering practices.

For example, Moses argues that details and facts cannot be omitted from reports, and "obviously you can't create a negative effect" because the "parts people don't like failure, you are not even allowed to use a negative word like failure" (see 4.3.1.3a Wording / terminology). Moses views problems being "masked" as wrong as "it will reach the customer or it will come back and bite you. You will have to fix it and do it right the first time" and if something is omitted in the testing or writing process "you will be wrong".

The connection between report integrity and warranty claims in the real world also reveals the complexity of negotiations and communication networks that

construct corporate realities and “bring products into the world” (Winsor 1996:viii). These associations also interact with the dominant causal practice of supervisor approval because omission of test details or tests going wrong are ultimately the supervisor’s responsibility as “it is not our fault”. So although Moses may describe something as failing, the supervisor may not see it as failing but as “something down the line that can cause maybe warranty claims. So he (supervisor) thinks of it in the bigger perspective”. Therefore, supervisors “discuss the facts with you (testing engineer) and again the information, and you will see if there is something that you left out that maybe could result in a discrepancy which is being questioned”. This may also result in the testing procedure being checked for a second validation and “if the results is still the same, it could be a problem with the test equipment or it was not calibrated”. This is then discussed with the tester and compiler of the report as “someone downstream might question it”.

A causal effect of real-world interactive and calculated communication networks is that professional ideology often influences engineers to write strategically rather than their relying on “arhetorical objectivity” (Winsor 1996:vii) and the data alone. Rather practical experience teaches that data are often produced, selected and presented strategically within organisational contexts which often contrasts with the engineers’ cultural beliefs that technology is “object bound and data-determined” (Winsor 1996:2).

Although these dominant control practices have an overt or direct causal relationship with report-writing practices, other institutional practices also maintain the continued practice of certain activities more covertly. The participants also interact with the collective institutional or professional belief systems as this is the way the system works and how things are done and so human activity becomes “regulated by implicit and explicit rules” (Tsoukas 1998 in Ramanathan 2005:26). In this way, dominant relationships often present and impose themselves “as a universal point of view” (Bourdieu 1998:57 in Albright et al 2006:14) and the “implicit rules” interact as practices maintaining and stabilising the institutional report-writing constructs. However,

the engineers also participate in these relationships or negotiations in various ways based on their:

... communicative skills and attitudes they bring with them and the particulars of the circumstances they find themselves in. Through sequences of negotiations, they each learn to develop their own professional skills, roles identities and career trajectories (Winsor 1996:viii).

5.4 Maintenance practices

Schryner's (1993:200) definition of genre as a "stabilised-for-now or stabilised-enough site of social and ideological action", supports the view that genres develop as responses to what is perceived socially or collectively as sameness in situations by institutional ideologies as the system that "confers the sameness is ideology" (Dias et al 1999:118). Although genres do change over time, they are by definition somewhat stable, creating a sense of custom. Devitt (1991:257 in Dias et al 1999:120) also explains how the mere existence of an established genre may encourage its continued use, and hence the continuation of the activities and relations associated with that genre. Therefore, "stabilised-for-now" (Schryner 1993:204) shapes the uses and acquisition processes of genres in professional sites, including engineering report-writing genres (Hyland 2004, Swales 2004 in Hinkel 2006:142). As the research institution had experienced an organisational change with new management structures, systems were introduced to achieve "sameness" in corporate identity by stabilising report-writing practices with the new corporate report template and associated supervisor approval practices.

5.4.1 Report templates

The understanding of the report template being a maintaining practice was revealed when the participants collectively associated the report template as a maintaining practice in their focus group discussion (see Tables 3.3, 3.4, 5.3, 5.4 and 5.3.1.1 Report template system). In the focus group discussion, the theme of report maintenance practices was presented as an open topic with no interview excerpt prompts to steer the discussion. During their discussions, the participants described how the previous template had been adapted so

that an acceptable standard could be attained “to incorporate our local testing development requests and inputs and there were other inputs we could not put in the (previous) document”. The previous template had required a format manipulation process with cutting and copying to “formalise a sort of a procedure”.

When the organisation merged with the “mother company”, global and local report standardisation became important, as the previous company had used various report templates. Therefore, to control standards and standardise practices, the institution developed standard report or memo templates for each documentation form to ensure set company standard formats in the form of global templates. To assist in ensuring report standardisation, a template compiler, an instruction booklet or guideline as well as the formatting provisions such as font types for different sections and “electronic bullets and embedded stuff and database” were provided. Face identifies the font use as the main difference between the new and old templates as a certain font is specified for each section with a “specific fix font”. These systems assist in maintaining the new corporate report structures.

Although the template format cannot be changed, the information in sections can be edited or changed depending on different tests. Greg describes the previous templates as being a “barrier” to the report-writing process because the format did not allow flexibility to add information. However, with the present templates “much more” information can be added which can be “descriptive” and for Greg, this has made report-writing process “much easier”.

With the institution of the corporate report template, not only did the new management standardise report formats but testing procedures and writing styles as well as they were brought “in line” so that the testing process was “clear and concise and it should be understandable to anyone who will come in and read it (the report)”. Clive explains the need for standardised testing and writing practices when he answers the question, *Do you have freedom to develop and change and adjust the system?* Clive responds that the system is

laid out by the institution, which he describes as following the test and writing procedures. These set procedures and structures also ensure report integrity as the “small details are important right down to the date because information comes in small packages in the first place, so you have to really look at the detail and make sure the details are right. Everything has to be right”. Winsor (1996:3) describes the preoccupation with technology as “limiting our understanding of the role of rhetoric in technical work”. The existence of data alone is insufficient to create knowledge, and this also requires the audience being persuaded that the data has meaning through the use of effective technical rhetoric.

During the interviews, besides supervisor acceptance and feedback practices emerging as central causal control mechanisms for report acceptance and the corporate report template system for maintaining report standardisation, global standardisation had a determining causal relationship with report maintenance practices as well.

5.4.2 Global standards

With the new company corporate identity, various systems and practices, including the report template, were adapted to maintain global standards rather than an exclusive South African “set of standards”. As the new company is global, the South African institution was required to work “according to their (global) standards because we were used to work with our standards”. During the management change, the participants revealed that surprise was expressed with South African standards, which were rated as “good or better “ than global standards. These ratings suggest that the local nature of the writing in the previous company was appreciated; however, as good is not a “fully generalisable notion” (MacKinnon 1993:49), management was told, “to learn how to toe the line” and be “flexible”. South African standards had to meet “everyone’s requirements and the specialists in that field” and to “try to stick the procedure and guidelines”. Another standardising practice was that reports had to be processed through managers or supervisors.

Maintaining global standards requires not only instituting professional corporate global systems but also standardising issues like terminology use as knowledge requires common meanings. However, as there are different technical layers within the global distribution list, the standardisation process is complex and requires a sensitivity to or awareness of “the differences”. In addition, as meanings depend on interpretation, if the relevance of the data is unclear because of technical word meanings or words used, the reports’ purpose becomes blurred as Moses explains in the excerpt below:

Because in South Africa it is the back of the *bakkie*. In Germany, it is the boot of a *hatchback*. I try and cater for the Germans. Some people don’t understand the terminology. If you use an obvious word what we are used to they might not even know the word.

In professional engineering contexts, therefore, writers and reader are co-workers who come together around the shared activity of the test report with the purpose of writing to motivate, facilitate or control that activity in ways that are highly complicated and specific to particular local and global contexts. The problem for engineers is that “rhetorical aspects of their writing are exacerbated by limitations in rhetorical terms as they are frequently understood even in professional writing textbooks” (Winsor 1996:4). This reveals a close interaction and relationship between engineering epistemology and engineering practice rhetorically, especially in writing practices.

Although the engineers are implicated in institutional relationships or negotiations in various ways, most of the participants reflect that they have needed to change or adjust their report-writing practices and styles to fit the institutional practice requirements rather than the system adapting to their practices.

5.5 Change practices

Although genres do change over time, they are somewhat stable, and their stability promotes a sense of normalcy. However, change occurs continually

and with the research organisation changing, various changes were triggered in report-writing practices especially with the standardised report template and supervisor approval practices. In the excerpt below, Moses provides an outline of the changes that have occurred in the organisation since management changed when responding to the question, *Are there a lot of changes in the motor industry?* For Moses, not only does he now have a “totally different organisational structure that I report to”, the changes he describes have global origins, which causally interact with the standardising of systems, especially the use of report templates:

Yes, it is more international. Everything is more standardised. We do have a lot of templates and we are trying to find out from (new company) what they expect, new report-writing styles and new templates. There is a procedure for everything. It is coming from the States. We have a website and if you want to know anything you have to go to the website. And the managers don't have time to review all those things.

However, change affects not only macro-organisational levels but lower-level changes also result in uncertainty. For example, Moses describes how this occurs by referring to his supervisor's writing style, “That is the thing you can't define his style, otherwise you would have known how to do it - it changed too many times. Whereas the other managers, you quickly learn what their expectations are”. This illustrates that the report-writing context is highly situated with knowledge often only gained from participating in the context, which is also in a constant state of change.

5.5.1 Report template

The change from the old to the new template is often cited by the participants as an example of how change affects systems and their writing, with Clive describing the process of changing the template system as a “nightmare”. Change is usually not received well and many of the participants like Moses rather find it helpful when there are not a lot of differences and things are “basically the same in terms of formatting”. As there was little difference between the previous templates and “tertiary templates ... it was straight forward”. However, with the new global templates, the use of electronic

formatting and embedded data complicates report-writing practices technologically. As literacy practices often alienate, these practices interact with the participants' sense of security by implicating the self through the act of writing resulting in self-representation dilemmas which Ivanic (1998:2) describes as the heart of most writing acts. Therefore, the participants' ability to cope or not cope with the new report template system places them at potential social risk and "disadvantage in consequence of the inequalities of communication" (Candlin 1989 in Ivanic 1998:5) as their identity is discursively produced.

5.5.2 Standards

Moses perceives the former organisation's report practices and systems as being more stringent as "when you made a spelling mistake, they would easily throw the report out because we are seen as the idiots of the world, we come from Africa". He feels standards have now changed and "actually became slacker" because initially, the systems were "verbally stricter and they are more relaxed ... They are much more lenient now". Indeed, most of the participants regard the changes as streamlining and easing report writing as they participate in these "structuring structures". In so doing, they become part of the organisational system and its ways of knowing, learning and doing by reproducing the structuring structures (Dias et al 1999:119).

As producing documentation carries with it the potential for both maintaining and modifying systems, some writers maintain the existing patterns (Winsor 1999:204) while others, like Moses and Brad, at times, challenge the institutional changes and new systems. This illustrates how causal mechanisms in the report-writing context are complicated as individual genres serve as sites of ideological struggle, as different communities within the larger collective attempt to advance their own knowledge, values and beliefs (Winsor 1999). This refers not only to the participants asserting their identities through their writing styles but the supervisors changing the participants' writing styles to reflect corporate and professional identities discursively as writing practices must eventually cooperate with institutional interests and

sometimes compromise socially responsible goals (Fairclough 1992 in Dias et al 1999:9).

The participants also refer to the amount and pace of change when discussing changes to report-writing practices with the management change.

5.5.3 Scope of change

The extent of the organisational change is described by most of the participants as "everything had changed". As changes are continual and ongoing, each "movement" results in "changes again" which depending on the degree of change, affects how it is received. The resulting system changes are also described as varied and include, "Your performance and the whole way in which they assess you have changed". Changes are also continual and Moses, reflecting on his transcript comments made during the initial interviews in February 2005 and those in August and December 2005 remarks, "a lot of change has happened since we made these comments". Changes that have occurred since the first research interviews include the participants changing positions in the new company structures, a participant leaving the company as well as changing report-writing practices and system changes. In the excerpt below, Clive describes the uncertainty that exists with the ripple effect of continual change at the organisation since management change:

... everything changed and you must filter it down and when you go to another meeting there might be a change. It just filters down. He is changing all the time. Maybe it is the system. Maybe it is just interaction amongst other people. I am not too sure.

At the centre of the ongoing change is the process of adapting to the institutional context involving not only the "idiosyncratic textual features of the discourse community but a shifting array of political, managerial and social influences" (Anson & Forsberg 1990:225). Therefore, any document production and development is often not a simple, spontaneous or once-off activity as the context is never static and never functions independently of the effect that the outside creates by entering it. A consequence is that report-

writing practices change supporting a socio-rhetorical view of genre which emphasises how rhetorical structures shape and are shaped by the social actions undertaken in response to recurrent and changing situations in discourse communities (Swales 1990, 1998, Bazerman 1988, Paré & Smart 1994 in Parks 2001:407). Schryner (1993:208-209) also describes the complexity of this genre relation as “genres come from somewhere and are transforming into something else”.

5.5.4 Attitudes

The institutional changes that have occurred in report-writing practices have also implicated the participants' attitudes and responses to various practices. Marvin's response to the practice of report acceptance as his having “no influence whatsoever” as managers or supervisors are “ultimately ... responsible for the reports” reflects his weak position in the report-writing system. This dependent attitude is maintained by the system not only by the acceptance practices but in report comments only being channelled back to the writers “eventually” through the supervisors. Moses' responses to these systems are more extreme when he describes his work as being challenged when he knows he is correct. Although he describes himself as “blowing his top” and telling his supervisor that “he doesn't know what he is talking about”, in the end, he “will anyway just correct it”.

The tension experienced by Moses may also be explained by Bernstein's (1971:56 in Naidoo & Parker 2005:55) concept of strong classification of subject identity, which imbues it with specificity through its own voice, its own identity and own structure presupposing “strong boundary maintainers”. Strong subject-centred identities tend to maintain strong classification or insulation from other subjects (or languages) so any attempt to weaken or change classification strength “may be felt as a threat to one's identity” (Bernstein 1971:56).

Therefore, while the participants are often expected to fit in with or support institutional practices, the system is often not flexible in allowing them to change practices. Face responds to the issue of participants affecting change

when asked, *Are the changes only recommended or can you decide when you are going to change it?* Face, like Marvin and Moses, also affirms that the supervisor is in control and that the test engineer "will rather go with what your superiors suggest". Face, however, responds more positively to this situation by suggesting that although an engineer may not have an "influence on the manager coming back to you, but you do have influence on the content of the report", illustrating that Face is willing to participate in the structuring structures by appropriating writing practices that support corporate requirements.

Therefore, although some participants reveal shared thought structures regarding writing practices, Ramanathan (2005:23) argues that this does not imply that "pockets of difference and divergence do not exist" and so some of the participants, like Moses, constantly pick and choose from the tenets of various thought collectives, ones "to enhance, change and reproduce" which may, over time, produce different thought collectives, "sometimes in resistance to previously existing ones".

A causal relationship also interacts between the various belief systems and cultural forces and institutional practices, which also tend to control, maintain and influence change within report-writing practices.

5.6 Culture practices

For Miller (1994:38 in Dias et al 1999:119) genre as a system also "embodies an aspect of cultural rationality" and by participating in the genre, "what ends we may have" are learnt. The historical force of repetition also creates regularity and sociorhetorical habits become "the way things are done", and the reality they create becomes the ontological norm. Therefore, the various cultural issues and belief systems within report-writing practices also trigger causal relationships with language status identity, conflict or affective responses as well as teamwork issues as these forces interact with report-writing practices. In addition, as the institutional context has become global, some of the participants are not only implicated by local cultural difference

associations but by global differences as well. Gus, responding to global systems network changes, comments “the way the Americans think, it is different and it will cause frustrations”.

5.6.1 L1 / L2 Language status

The participants tend to make certain assumptions about how their colleagues and supervisors’ language status affect their ability to assist or assess their report-writing competency as a result of the “way things are done”. For Brad, report content and language related issues are a consequence of working in a “multicultural environment” and, therefore, the participants tend to cite L1 and L2 language status when discussing report assistance and feedback practices. Brad’s blaming of the “multicultural environment” may also be ideologically based and reflects the inherently commonsense idea of labelling difficulties experienced as being attributable to language problems (Boughey 2002:295).

However, this situation may also reveal that the participants discursively produce their identities as they function within what Maclure (1993 in Chege 2006:26) describes as the culturally and historically “biographical project”. The biographical project usually comprises the “network of personal concerns, values and aspirations against which various procedures are judged and decisions made” as people converse and negotiate their identities in response to various positionings (Potter & Wetherell 1987:102). This illustrates that the participants’ perceptions of personal identity are influenced by their relationship with the discourse community as they negotiate the self and *other* at times revealing “biographical conflicts”. For example, Brad compares his present supervisor who is Afrikaans with his previous supervisor who was English in terms of their responses to his reports more positively:

Well, fortunately my boss at the moment is Afrikaans. I think his English is marginally better than mine; he never bothers me about it. My previous boss was English and he constantly comments on my use of the language.

Bernstein's (1971:56 in Naidoo & Parker 2005:55) concept of strong classification of subject identity may also apply to language identity insulating Afrikaans (or any other language) from other languages so that any attempt to weaken language strength is felt as an identity threat. For example, Marvin as a Xhosa L1 speaker also becomes "frustrated because he (supervisor) knew very well what I was trying to say, but calm myself by saying to myself that I'm not English and why should I speak it better than my home language?" Brad as an Afrikaans L1 speaker, also believes that sometimes his expression is correct, "sometimes I think I'm right ... but they grew up in English so they will obviously have to say no, but I know how it should be". Another example is Moses referring to English as "the stupid language" when he describes his response to his supervisor using red to indicate errors:

... and sometimes get extra frustrated because I can read it in Afrikaans and I can't see why they have a problem. I am reading and think it is the stupid language but the red is quite aggressive to put comments down.

The participants, therefore, usually perceive the language status of their supervisors as causal to their writing assessment as they are usually critical of L2 participants' reports when they are submitted for approval. Moses supports this conclusion when commenting on the approval system, "Most of us are second language speakers. That is why we are so used to get the reports back". The L1/L2 language differences alluded to by Moses may refer to both his rhetorical structuring as well as ideological differences as he describes the English supervisors as having a certain way of thinking, which he refers to as the "English way of thinking". However, Moses also describes his Afrikaans supervisor as expecting "more of you, does not matter how brilliant it (the report) is they will come back to you and say there is something wrong", this suggests that Moses separates text or technical knowledge from meaning. Forsythe (1993 in Winsor 1996:7) also found that engineers attributed their problems to the inefficiencies of human beings rather than the nature of knowledge itself "even when confronted daily with the rhetorically constructed nature of knowledge, they denied the relevance of rhetoric".

The participants also generally do not make use of peer assistance or collaborate on reports, and this supports their ranking of report collaboration as the lowest out of ten factors affecting their report-writing effectiveness. Peer support was ranked eighth, also indicating that this practice is not the usual practice during report writing (see Tables 3.3, 3.4, 4.2, 5.3, 5.4, 5.5 and 5.6). In addition, if the participants' refer to colleagues for assistance, the "biographical project" is activated, with the English L1 participants viewing their L2 colleagues as being unable to assist them in their report writing. Therefore, the L2 participants are judged regarding their ability to assist as the participants negotiate their identities in response to their positionings as L1 speakers. For example, Gus as English L1, who has no other English L1 speaking people in his group, will not ask the L2 speakers to assist as he explains, "Most of the people I work with are Afrikaans or Xhosa speaking. So when it comes to language, I will do the writing".

Face as an Afrikaans L1 speaker will also ask his English colleagues for assistance, "I will definitely ask Gus because he is English speaking and he is sitting next to me, but it is very seldom". Although Moses states that he will give his report to anyone who will understand what is going on, when asked to choose between an *English and Afrikaans colleague nearby*, he answers that he would give his report "to an English colleague because I know most of time it will be the grammar and not the understanding part". Moses explains that English colleagues are more able to help with grammar because, "in Afrikaans you think in a backward way compared to (English speakers). And sometimes they (Afrikaans speakers) won't pick that (sentence structures) up".

In their report acceptance discussions, both L1 and L2 participants also constantly differentiate between the importance of report content and technical correctness versus expression for understanding the message supporting Forsythe's (1993 in Winsor 1996:7) conclusion that engineers often "deny the relevance of rhetoric". Most of the L2 participants conclude that report content is more important than language correctness. Moses feels that an Afrikaans colleague will be able to read his report in English and understand what is going as "the report is written in such a way that most

people will be able to understand it, even if it is not always grammatically correct". Brad also affirms, "usually the contents are the most important thing" and that:

... how you get the message across isn't as important as the message, you know making sure that the engineering quantities are correct and that the integrity of the information that you have to pass is intact.

Brad, however, also supports that "text is not a transparent window" (Winsor 1996:5) although most people "argue about the language instead of the content". He explains this concept by proposing that "language always comes in front of the content, and then sometimes if the language is bad you focus on the language and you don't get to the content" and so confirms the relationship between content and language. However, English L1 speakers tend to support the understanding that both technical and grammatical correctness are necessary. Clive connects meaning with rhetorical accuracy by explaining that "as long as the information is there which I required" and the report is not "repetitive" as, if a report is "every time incorrect and the contents are incorrect, there are people that will say, this is not giving what we want". Gus also asserts that both technical and language correctness are equally important as "incorrect language can lead to a misunderstanding and incorrect technical information, just as disastrous".

Gus further regards L2 and L3 language proficiency as the "biggest barrier" in their working environment as "you have people here that use ... second or third language". He centres his conclusion on understanding being the barrier for all language groups highlighting the complexity of acquiring secondary discourses in professional contexts. In the excerpt below, he explains his response in his answer to the question, *What makes a second or a third language a barrier in the workplace?*

I find it difficult sometimes to understand what is being said and others might not understand what I am trying to convey. I have also noticed this problem in educational institutions where people are either being taught or trying to teach in a second language have comprehension problems.

L1 and L2 differences, therefore, tend to interact causally with supervisor and peer feedback practices, writing meaning and rhetoric, identity and power issues. In addition, test results, information availability and deadlines in the report-writing process also emerge as tensions implicating with report-writing practices.

5.6.2 Affective pressures

The participants often experience tensions relating to part failure in tests and feedback responses from supervisors and part or component designers. In this situation, Tani describes the importance of putting “emotional implications” aside and concentrating on “technical facts” as these are the basis of important decisions. As the testing engineers cannot be afraid of error, their own or that of a faulty part or component as tests conducted depend on accuracy, “should it be that you failed to correct something or omit something because you are afraid, you defeat the whole purpose of the test”. When such a situation occurs, the designer may “push you so that the part meets the requirements” and the testing engineer needs to say that “it does not meet the requirements, not the part has failed” even if the designer is not happy.

Deadline pressures also affect stress levels especially when information for reports or tests is required, and associated departments do not supply the information, tensions are experienced. For Tani, this situation occurs when designers or test requestors, “have their own stresses and their own pressures and you are adding more pressures to them specially when you have deadlines”. For Brad, a lack of support affects communication, “You are busy and he is busy and there is a lot of frustration and the quality of communication suffers”.

These tensions and situations interact with report integrity as the writer is implicated by insufficient information support, testing demands from component designers or the pressure for positive test results.

5.6.3 Teamwork

Although teamwork and collaboration are regarded as essential practices in most situated writing environments, they were ranked and rated very low as practices by the participants (see also 2.9.3.2 Discursive processes and genre). Table 5.5 illustrates that report collaboration was ranked the lowest as a factor influencing report-writing effectiveness with peer feedback ranked eight out of ten factors. Table 5.6 illustrates that four of the seven participants also rated the extent to which report collaboration and peer feedback influenced their report-writing effectiveness as *a little* (57%), while only one participant (14%) rated it as influencing *a lot*.

Table 5.5 Ranking peer feedback and report collaboration influencing report-writing effectiveness

Factors	Ranking
Feedback / peers	8
Report collaboration	10

Table 5.6 Rating effect of peer feedback and report collaboration influencing report-writing effectiveness

Practices	A lot	%	ave	%	little	%	not	%
Feedback / peers	5	14	2	29	3	43	1	14
Report collaboration	1	14	2	29	4	57		

* **bold = highest percentage influence**

Face, however, describes the organisation's work culture as having "very good teams with the group culture being teamwork". For Face, good culture means having a "good spirit between us" and asking, "anybody anything and they will help". Although Tani describes colleagues as "quite a helpful bunch", the participants also describe a culture of not helping and withholding information. Reasons given are that people are "insecure about releasing information that is incomplete. Sometimes they will say that they don't have the authority to release it but it is mainly because they are busy with someone else" but your needs are not a priority for them. Tani explains the ripple effect of needing to release a part but as this requires a quotation from the supplier, the process is delayed. She cannot "bypass the buyer" as "it will come back to me and if people are not happy with the added cost, then there will be questions". The effect of different priorities results in deadline pressures as:

... what you would prioritise as high priority is not high priority to them and you are unable to finish because you could not reach the deadline. It slows you down and as much as you know you could have done all the work you cannot do it.

The participants tend to disregard teamwork and collaboration as assisting practices in the workplace because during the report-writing process as they “seldom” make use of it. However, Winsor (1996:12) found that in most industrial or corporate settings engineers do not function independently, and usually write as members of a group supporting a social construction of literacy or “collaborative literacy” (Shuman 1986, 1996 in Baynham 1995:64) or “joint literacy events” (Wagner et al 1986 in Baynham 1995:64). This practice supports the gradual abandonment of writing as a solitary act of the autonomous individual and workplace writing becoming a collaborative or social activity (Odell & Goswami 1985 in Dias et al 1999:9). The study by Bronzino et al (1994:184 in Winsor 1996:12) found that undergraduate programmes often do not emphasise group dynamics and, therefore, engineers are often unprepared for teamwork contexts. The majority of the programmes rather emphasise individual performance with the traditional engineering approaches emphasising the mastery of technical knowledge and not teaching skill areas like teamwork skills and general communication skills.

Brad also illustrates the apparent lack of team support with management realising problems exist which have consequences but doing little to assist. He describes the lack of support by alluding to a comic strip as an analogy:

I saw a comic about these cave men hunting an elephant. The elephant is covered in arrows. They are running and causing havoc and not achieving anything. In the next block there is a mammoth lying there with one single arrow and the cave men look at each other and said we should have written that spot down. I think my managers have realised that this is a problem and they are encouraging us to leave a trail. It is one of the things that I find the most frustrating. I had three people around me and if you asked them to help, they don't. I don't know if they enjoyed it to see me struggle, but I can't throw it back at them.

The participants' responses to L1/L2 language status perceptions as well as affective and collaboration issues reveal embedded relationships interacting

as hidden cultural forces within report-writing practices. These perceptions suggest a causal relationship within the institutional context and report-writing practices that differentiate and find distinction between language groups with a tendency not to promote an active culture of teamwork practice.

Other practice associations with report-writing practices at the research site include causal relationships with higher education and future practices interacting with workplace report-writing practices.

5.7 Other practices

5.7.1 Higher education practices

Table 5.7 illustrates a spread of responses to the influence of higher education or tertiary education on report-writing effectiveness. Three of the participants rated the extent to which higher education influenced their report-writing effectiveness as *average* (44%) with *a lot* (28%) and *a little* (28%) receiving equal influence ratings (see also Table 3.4). However, no participant rated higher education as *not* having an influence on their report-writing effectiveness.

Table 5.7 Rating extent of higher education practices influencing report-writing effectiveness

Practices	A lot	%	ave	%	little	%	not	%
Higher education / Tertiary practices	2	28	3	44	2	28		

* **bold = highest percentage influence**

The participants were also given the theme of higher education practices as an influence on report-writing practices as an open topic category to discuss without any interview prompts during the focus group discussions. Their discussions supported the *average* rating of higher education influence on their writing effectiveness as illustrated in Table 5.7. Brad blames all the characteristics of poor writing such as “tenses, inaccurate words, spelling mistakes, bad sentence construction, and poor message structure” on “bad education. Bad schooling to a large extent... it depends on your aptitude”. Gus also blames his writing ability on the teachers as “If they don’t make language alive, you suffer”. However, Gus also argues that, “excellent subject

marks in our profession do not automatically make one skilled in communication, probably quite the opposite”.

5.7.1.1 Engineering course influences

Most of the participants describe their studies as forming the “foundation to relate to the work environment” which enabled them to apply information. Clive describes this as being able to “relate to a lot of things which you’ve learned- everything is obviously not at hand. You may revert back a lot of times to what you have learned - a lot of administration work is required especially with component engineering - forms documents and procedures”. Clive also differentiates between general engineering as a broad area of study and tertiary studies, which focus on a specific area, and “you can’t classify it as the same”. He relates this difference to the difference between report writing during his studies and report-writing in the workplace. Report writing at Technikon was project and assignment based, requiring research and information. However, in the workplace, the reports are test based and reports are drafted on test results obtained. Although there are differences between higher education focuses and workplace requirements, Clive describes his studies as providing “generic” understandings, which can be applied in workplace settings. He describes this understanding in the excerpt below:

... it helps in a way you might not use everything now but you can focus on certain things so engineering is broad and you will use it sometime. You are dealing with components and so you know the technical training and generic skills will help. Being in engineering background it gives you the engineering understanding in terms on how to do your job and how to think the way things work.

Greg regards the four years spent at university as being sufficient to bring engineers to an “efficient level”. He believes that without tertiary training, he “would not be able to write or integrate as easily as I had”. Gus agrees that workers without extra studies battle to write a report, as “often their handwriting is terrible and the language is bad. It is easier to explain in words than to write for most of the guys”. Moses agrees, “I do not think the Technikon background was not relevant”. Tani also describes her higher education training as teaching her to apply information and write

professionally as writers cannot be subjective and “can’t show your own prejudices and how you see things, you are more factual... It should be objective”. In the excerpt below, Tani describes her higher education practices as being practically relevant especially regarding communication skills:

For me in terms of practical it is close to what we are doing here. Our teacher was very strict especially with the grammar and how you structure your communication. Without that background when I came here I would have battled. I am glad I had that background. So it was not for nothing.

As engineers are usually more technically inclined, writing is often something they have to do during their studies rather than something they want to do as they are “always technical minded”. Therefore, the participants highlight the influence of the report template and report structure on their report-writing effectiveness rather than the mastering rhetorical practices, revealing the focus of disciplinary content rather than rhetoric forms during their higher education studies. The following higher education literacy practices were identified by the participants as specifically influencing their report-writing effectiveness in the workplace:

Face:	templates, layout, formatting basic report writing memos, essays and different letter styles basic language skills
Tani:	objective and factual language use report structure communication skills
Marvin:	report templates basic writing skills
Brad:	organising thoughts writing according to specific standards writing in context note writing report writing
Greg:	report types written report structure

The rhetoric skills the participants outline in their engineering programmes are, however, insufficient to provide the levels of “social cognition” (MacKinnon 1993:52) and rhetoric forms that are determining features of professional writing contexts. Rather as Hinkel's (2004) research suggests, there is a need for explicit instruction in advanced writing (Chang & Swales 1999 in Hinkel 2004:5) in their engineering and training programmes. Raimes (1994 in Hinkel 2004:10) also confirms that L2 writing requires a developed L2 proficiency as well as writing skills that pertain to the knowledge of the discourse conventions and organising the information flow (see 2.3 Writing theory background and 2.4 L1/ L2 differences). Then as L2 proficiency increases, the writers will become “better able to perform in writing their second language, producing more effective texts and attend to larger aspects of their writing production” (Cummings 1994:201).

5.7.1.2 On-the-job writing influences

Face, however, does not rate tertiary or higher education practices as having any influence on his report-writing effectiveness when he responds, “I don't think so” and “It did not help me a lot. The practical side of my education helped me more”. For example, the report templates used during some of their studies were similar to the previous company's report templates and so are described as being “helpful”. Marvin also does not rate his higher education as preparing him for the workplace as the work was “more basic” and as he “did not do it (write reports) everyday”, he “didn't get a chance to develop my writing skills very much”. Moses found it problematic that his communication classes were in Afrikaans and that although the lecturers were “brilliant communicators”, they had “no engineering background”. Face also describes the difficulty of coming from an Afrikaans schooling background as this means “a lot of self finding and struggling at first” as although he was strong with mathematics, he failed it because of the language. However, now he is able to “just write in English”.

These comments support research findings that engineering programmes often view text rhetorically frequently directed solely towards teaching individuals to produce quantitative data. As a result, many emerging

engineers fail to see that knowledge is rhetorically constructed and, therefore, Haas (1994 in Winsor 1996:7) argues that it may be hard for students to see writing as rhetorical and contextualised. Writing only becomes real when writers engage in authentic language tasks such as those required by their profession. For MacKinnon (1993:52), the increasing of writers' "social cognition" levels is vital so that they are able to effectively represent their social environment made up of a complex of readers, their purposes, histories and expectations as relevant for the rhetoric (see 2.9.2 Professional genre texts).

The importance of learning to write in authentic settings is verified by some of the participants. Gus's report-writing practices benefited from a combination of university experience, technical reports and regular practice that helped him to write effective technical reports in the workplace. This perspective is shared by Clive in his answer to the question, *What would you say gave you the most expert knowledge in terms of writing, here in the workplace or at Technikon?* In his response, Clive rates the importance of the workplace for learning and gives his reasons in the excerpt below:

... the workplace. But someone else might differ. For me the most experience came in the workplace. Because you've adapted to the procedures, the systems and everything. Technikon is short and you have different subjects all the time. The time you spent on a subject is not as long as what you will do in the workplace.

5.7.1.3 Computer literacy influences

The importance of computer literacy is also emphasised by the participants as the engineering environment is electronically updated "daily and weekly". Therefore, the younger engineers who have had exposure to computers since primary school "catch on much quicker" and Gus believes that "the older guys suffer a bit with computer skills. They are less efficient but they are learning". Gus also highlights the need for "fast" typing is a necessary skill especially as everything is computer based. He relates this need to his practice of writing three or four pages and then he has to "type this thing" so he "usually rather gives it to friends" because of his slow typing speed. Gus suggests that those

entering the engineering industry in the future will need to “acquire all these programs and skills and they are going to have to have skills”.

For Gus, therefore, there is a causal relationship between higher education institutions and the workplace.

5.7.1.4 Workplace and Higher Education links

Because of writing demands on engineers in the workplace, Gus speculates on “how much is been done by business to let schools know and tertiary institutions know what sort of writing employees in the workplace require” especially presentation skills. This is an issue as most of the participants rate their workplace experience and practices as developing their writing effectiveness as “it is just the continuous thing that improves quality all the time”. Greg also stresses the importance of practice as “regular practice helped me to do technical reports in the workplace. Just practice”. Possibly because Clive rates the workplace as providing the necessary experience and learning, he gives this as a reason for not continuing with his studies to BTech and MTech levels as it will “not benefit me really, that is my personal feeling”.

According to Gus, there should be more links between the workplace and schooling institutions; however, as each industry has different requirements, he feels it is up to the industry to inform the educational institutes of their “differing needs and the education departments to implement the required standards”. In this endeavour, Gus believes that institutions of higher education should concentrate more on the technical fields and on what the workplace requires.

However, learning to produce appropriate discourse is a complicated, ongoing process and includes learning the organisation’s culture before writers can perform competently with knowledge of the social context within which they work (Winsor 1996:9). Therefore, Brown (1988 in MacKinnon 1993:51) concludes that on-the-job experience is the major source of learning rather than schooling.

5.7.2 Future practices

Moses, reflecting on organisational and system changes within the situated context, describes practices as always evolving and uses as an example, the speculation that new systems are already in the pipeline for the new organisation. Continual advances in technology have also quickened the pace of workplace system changes. Moses describes how electronic advances in the technical field of report writing have interacted with report-writing practices as in the past, reports could not be more than one page, and “if you can’t put in two pages, it is wasted”. Before, when Moses sent a report, a cover sheet was requested because “they can’t handle more paperwork. Now I send everything”. Therefore, as communications have become increasingly electronic, practices have changed with systems like Acrobat enabling “huge” reports of 200-300 pages with large files to be emailed.

With the electronic and digital age, the speed of report processing has also quickened. Whereas before communication was by word of mouth with smaller projects taking up to six months, reports are now logged weekly. In addition, reports and tests can also be updated, with all concerned audiences monitoring test progress as updates are logged all the time. Databases are also available so that anybody can access information.

For the future, the participants describe report presentations becoming increasingly important using PowerPoint as well as teleconferencing. These presentation forms will enable interaction to take place and questions asked whereas previously input or discussion was more limited in report-writing practices. Software programmes and multi-media tools like Excel for graphs and drawing of parts also contribute to the electronic report formats making the use of visual aids like graphs and pictures integral components of report content. Therefore, digital technology will continue to transform communication rapidly, fundamentally changing linguistic communication with new media of communication encouraging greater “hybridity and fluidity in communication” (Canagarajah 2005a:xxiv).

Literacy competence will include using different modalities of communication (sound, speech, video, photographs) and different symbol systems (icons, images, spatial organisation, charts and words) and multiple registers, discourses and languages. As texts will become increasingly “polysemic, multimodal, and multilingual” (Canagarajah 2006:26) and with sound bytes, “multivocal” (Canagarajah 2005a:xxiv), workers will need to engage with multiple textualities and discourses. Digital technologies have generated new genres of communication, conventions of rhetorical use for English (see 2.8.2 Complexity of workplace writing). Knowledge, therefore, is not something that is once achieved and then forever stays the same, as reality does not stand still but by using language, practitioners can create knowledge in all fields including science and technology (Collins 1985 in Winsor 1996:6).

5.8 Conclusions

Chapters four and five attempt to articulate the complex array of dominant causal practice relationships embedded and interacting within the research site’s sociocultural organisational structures. These associations causally structure structures through actual and/or subconscious actions in response to organisational structures. Using Miller’s (1984:159 in Parks & Maguire 2000:157) definition of genre as “typified rhetorical actions based on recurrent situations”, dominant causal practices are often recurrent and interact with a “complex convergence of several intertwining factors and local realities on the ground” that are “produced, shaped and sustained by particular ideologies and historical forces” (Ramanathan 2005:22). These historical and institutional forces embedded within the situated context activate causal practice relationships implicating the participants and construct “ways of doing” report writing.

Critical realism does not necessarily demonstrate successful causal explanations but rather seeks out substantial relations or connections of situation practices within wider contexts to illuminate part-whole relationships (Sayer 2000:21-22). Therefore, chapter six attempts to find representativeness of associations, “fit” or connect the highly specific causal

relationships built up in chapters four and five with wider contexts and possibly suggest reasons for the experiences and cultural forms that have been reconstructed.

Chapter 6 Conclusions

6.1 Introduction

As social context implicates written genre competence, effective writing and writing development are often linked to the socialisation of writers into specific discourse community practices (Parks & Maguire 2000:164). Chapters four and five discuss the complex array of dominant practices embedded within the research site's sociocultural structures which causally sanction "ways of doing" report writing, revealing the implications of covert and overt organisational mediating practices (Parks & Maguire 2000:157) on writing and the writer. These mediating practices are often activated by historical and institutional forces within the situated context of which participants may or may not be consciously aware. However, as these practices are recurrent and interact continually and contingently with report-writing practices, they implicate the participants' perceptions of acceptable report-defining features and literacy meanings at the research site.

Chapters four and five discuss the following dominant practices that causally interact with and implicate report-writing practices and literacy meanings at the research site. These include:

- ❑ report acceptance practices
- ❑ feedback practices
- ❑ assisting practices
- ❑ control practices
- ❑ maintenance practices
- ❑ change practices
- ❑ culture practices
- ❑ other (higher education and future) practices

6.2 Dominant practices interacting with literacy perceptions

The participants' perceptions of literacy are implicated as the complex recurrent convergence of dominant practices causally assist, control, maintain and change report-writing practices at the research site. In turn, by participating in report-writing practices, the participants appropriate "internal goods" (Tsoukas 1998 in Ramanathan 2005:26) or "relevant language" (Parks

& Maguire 2000:160) as regulated by “implicit and explicit rules” or practices embedded in the institution’s structures to reach “standards of excellence” (Tsoukas1998 in Ramanathan 2005:26). This situation is made more complex as institutional rules or practices are not static but causally and contingently interact with the “history of the changes relevant to the practices and relevant to the ends to which technical skills are put” (Tsoukas1998 in Ramanathan 2005:26). These structuring structures causally influence the participants’ understandings of literacy as “writing and the writer are implicated in the discourses, ideologies and institutional practices of which they are part” (Baynham 1995:208).

6.2.1 Report acceptance as event

As the practice of report acceptance is essential for report issue, it represents the main causal relationship, outcome or event. Report acceptance triggers or has a direct causal relationship with supervisor feedback and revision practices which causally interact with specific writing practices and “objects that are contingently related” (Sayer 2000: 16) such as participant identity and authority. The supervisors play the role of “expert or more knowledgeable others in effecting change in collaborative contexts” (Parks & Maguire 2000:147) linking mediation or intervention practices to “socioculturally defined motives and actions involved in carrying out a goal-directed task” (Lantolf & Appel in Parks & Maguire 2000:147). As the supervisors’ feedback tends to focus on L2 language or linguistic errors rather than technical detail when reports are submitted for approval, literacy for the supervisors and participants is often defined by correct language use rather than accurate technical details revealing the embedded notion that knowledge is not viewed rhetorically or that text is transparent.

In response to dominant approval practices, the participants realise that report acceptance requires, “continuous exercise” and the “more you do it, the more you learn about the style of your manager”. Therefore, like the participants in MacKinnon’s (1993:46) study, the participants learn to appropriate and manipulate assisting practices such as supervisor feedback “to help them produce satisfactory documents” to ensure report acceptance. These

practices include the participants replicating supervisors' writing styles, incorporating specific supervisor purposes and standardising institutional discourse conventions like word use to achieve report acceptance. In the process or practice interaction, the participants gain "social cognition" (MacKinnon 1993:52) as their contextual knowledge increases their awareness that readers or audience count. Therefore, writing quality and success relate or link with the ability of writers to "internalise the discipline's knowledge claims and institutional culture" (Parks & Maguire's 2000:148).

However, not only do the causal relationships interacting with report-writing practices construct literacy meanings through complex connections with various practices triggered by the report acceptance event, the practices also interact with the participants' sense of self or identify as various practice relationships assist, control, maintain and change report-writing practices within the discourse community's organisational structures. These interactions result in "contingent" (Sayer 2000:16) relations occurring as various associations are brought into contact and causally influence each other. Sayer (2000) explains contingent mechanisms as the interaction of two or more objects related to each other in the sense that they could exist without each other but when brought into contact and interact, they causally influence one another and once this happens, "new mechanisms may arise" (Sayer 2000:16). For example, the *Received Tradition* is activated when claims made about language difficulties are related to apartheid ideologies or cultural backgrounds. This relationship then causally constructs identity as well as L1/L2 status effects and schooling background issues. Mother tongue or L1/L2 status also interacts contingently with peer collaboration practices, knowledge and rhetoric divides, higher education approaches as well as identity construction.

Figure 6.1 below illustrates the complexity and intricacy of the causal relationships interacting continually and contingently with the report acceptance event. These relationships also interact with the participants' report-writing practices, causally structuring and constructing definitions of text, identity and power.

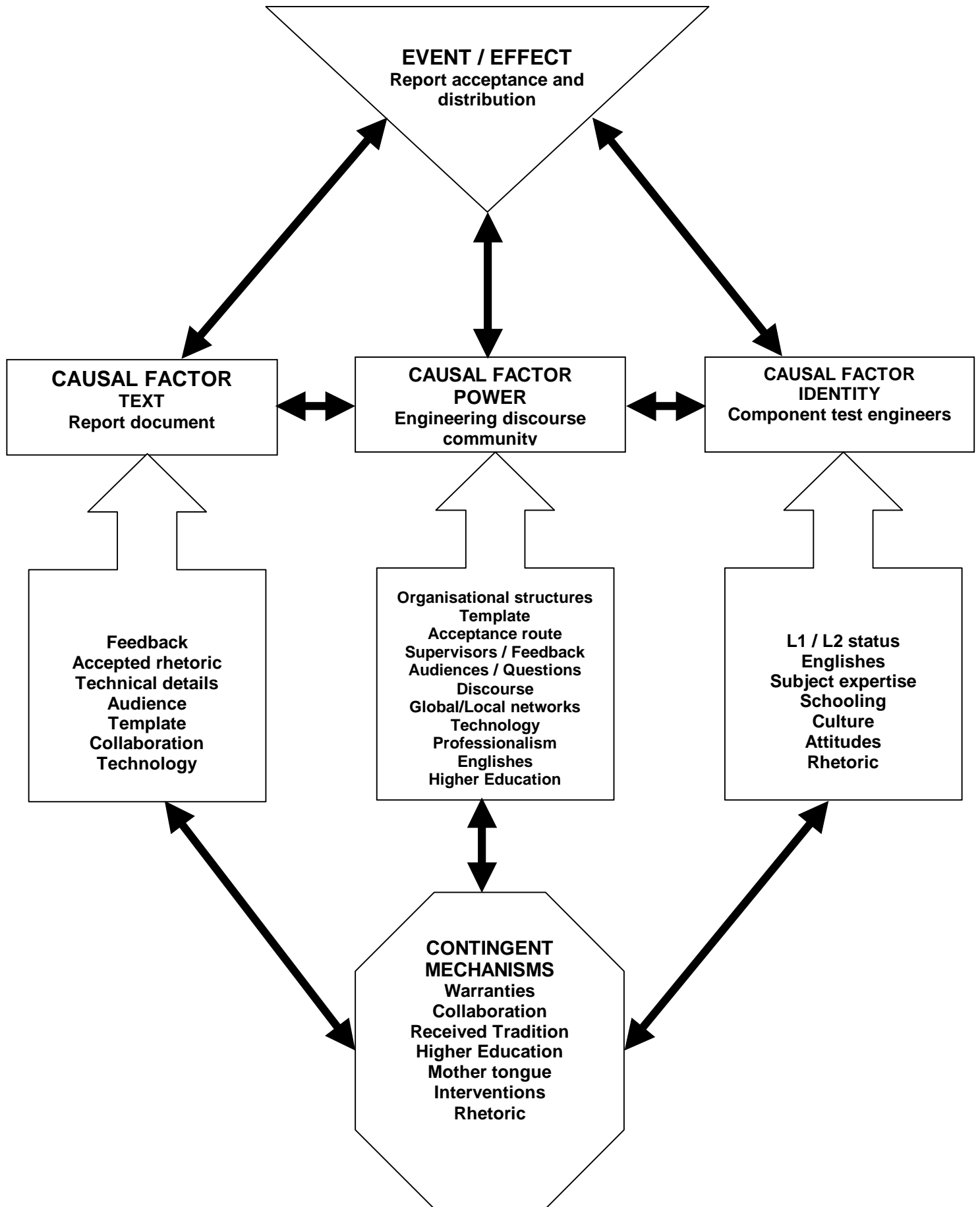


Figure 6.1 Model of causal and contingent relationships

As social scientists are typically not only dealing with systems that are open but ones in which there are many interacting structures and mechanisms, the risk exists of attributing the effects to one mechanism (and its structure) which are actually due to another. Therefore, the problems of defining causal responsibility in complex open systems are best dealt with by studying examples which provide contrasts in aetiology, such as the absence of otherwise common conditions, or by the asking of a series of characteristically realist questions (Sayer 2000:16). These questions usually relate to necessity and not regularity and involve “counterfactual, rather than associational thinking” (Sayer 2000:16). The study revealed common causal conditions or associations of literacy constructions implicated by report approval practices as defined by:

- ❑ Supervisor feedback : linguistic versus content accuracy
- ❑ Distribution list audience : local and global contextual knowledge
- ❑ L2 proficiency : L1 / L2 distinction
- ❑ Revision and editing : continual practice and self-editing
- ❑ Institutional systems : templates and technology
- ❑ New media varieties : graphs, pictures, photographs, drawings

However, the absence of otherwise common conditions reveals that literacy constructions seem not to be related to practices that do not influence report approval such as:

- ❑ Collaboration : teamwork and peer support
- ❑ Higher Education : workplace application
- ❑ L1 proficiency : rhetoric standards
- ❑ Interventions : short courses / training

The participants’ definitions of literacy are, therefore, located within the understanding that literacy is always situated within specific social and organisational practices which shape and are shaped by interacting social actions or practices undertaken in response to recurrent dominant practices embedded within discourse communities (Bazerman 1988, Paré & Smart 1994, Swales 1990, 1998 in Parks 2001:407). Therefore, the participants’ understandings of literacy are strongly or directly constructed by the causal mechanism of supervisor feedback practices.

6.3 Common approval practices that define literacy

6.3.1. Supervisor feedback

The participants support the practice of supervisor feedback as a shaping mechanism on their report-writing practices as feedback is described as the “most reliable thing”. Therefore, the participants tend to accept language-focused feedback and apply it to their reports, as they often “don’t have a choice”. This also demonstrates the interaction of authority of the broader sociocultural institutional context constraining writers to “appropriate relevant language resources” (Parks & Maguire 2000:166).

However, a consequence of supervisor feedback practices is that the participants tend to describe literacy in terms of correct wording or terminology, grammatical correctness, appropriate sentence structures and no spelling errors. For example, as feedback emphasises correct words, the participants often emphasise the importance of correct technical terminology to ensure clarity for various audiences. This is a concern for most of the participants and a complex understanding as technical meanings are locally situated and often there are no standard global terms. Acceptable words do not only include technical terms but colloquial word meanings and word connotations like *failure* in reports because of warranty implications. In addition, as the supervisors tend to focus on correct language use or rhetoric, these language elements are often cited as indications of writing competency.

As a result, there is a tendency especially by the L2 participants to view content and discourse disparately. Gus, a L1 participant, links language use and technical data when he concludes that incorrect language can lead to misunderstanding in the same way as incorrect technical information can be “disastrous” for test results. Clive also confirms the need for report content and structure to be checked before being issued. In Parks and Maguire’s (2000:167) study, the nurses were also not content simply to go for meaning but also made an effort to “get it right”. The supervisors support the participants’ perceptions regarding the feedback focus on language use in their questionnaire responses, as grammatical structures detract from the

accuracy of technical data and conclusions. The supervisors, therefore, recognise that data is a “rhetorical construct” (Winsor 1996:32) and the presence of data does not “obviate(s) the need for rhetoric” (Winsor 1996:33). However, a consequence of the language feedback focus is that the L2 participants tend to disassociate literacy with report data by emphasising that feedback does not change their report content. They, therefore, tend to substitute data for rhetoric whereas for the engineer, it is part of rhetoric (Winsor 1996:32).

As a result, the L2 participants tend to define their writing competency and literacy according to supervisor feedback practices, which emphasise:

- ❑ Correct wording
- ❑ Correct grammatical expression
- ❑ Correct spelling
- ❑ Report clarity
- ❑ Complete technical details
- ❑ Report flow
- ❑ Formalised report structure and consistency

The supervisors’ perception that the participants are accepting of technical feedback, “positive to constructive technical advice” but more critical of or sensitive towards language feedback does not support the participants’ perceptions regarding language and technical feedback. Albert describes receiving of “criticism from a peer” on technical issues as “ordinarily not a problem” for the participants whereas being “corrected/criticised with regards to the use of language/grammar is often taken personally”. Therefore, although the participants suggest that they accept language feedback, the supervisors perceive them as being sensitive and less open to language feedback and more accepting of technical feedback. The supervisors’ observation is, however, supported by Brad describing himself as feeling “silly” when his writing quality is commented on “your manager comments about the quality of the writing and not of the actual content... The way you presented the content might be slightly incorrect and you feel silly”. This suggests that although the participants appear to accept language feedback,

they are sensitive to language feedback issues as their identity is often shaped by discursive practices.

Therefore, a related contingent connection is that feedback practices interact with identity causing some of the participants to experience a sense of powerlessness and negative or “damaged identity” (Collins & Blot 2003:xviii) as L2 speakers. This is supported by the L2 participants describing themselves as feeling “stupid”, “silly” and “a bit at a loss” in their responses to feedback practices rather than being in control, positive and empowered. Although the participants in MacKinnon’s (1993:47) study also found feedback “enormously frustrating at times”, it enabled them to learn more about their readers and their information needs as well as “more about Bank discourse conventions, and more about the business functions”. MacKinnon’s participants became less personally threatened and less depressed about feedback as time wore on and described feedback as the “main (vehicle) for learning” about the institution and its activities, “readers’ needs, and standards and expectations for documents” (1993:47). Some of the engineer participants also acknowledge that their writing needed feedback as “English will always be my second language” connecting feedback contingently with their L2 proficiency levels. They also, however, view their writing as “developing” and becoming “more successful” through supervisor comments as their writing changes “became less and less”.

The language emphasis also links no mistakes with literacy and writing quality and supports Rosenfeld’s et al (2001 in Hinkel 2004:21) study which demonstrated “unambiguously that L2 grammar and vocabulary skills play a crucial role in student academic success” and the assessment of text quality is often perceived as having no syntactical, lexical and discourse errors. This construction of literacy also reflects the embedded institutional context requiring professional documents to meet certain quality standards for global and local audiences. Therefore, the distribution list acts as a causal influence on supervisor feedback, as the discoursal contexts of the various report readers interact with text meaning supporting the importance of understanding “what your reader is going to be doing with the information” to give it in a

“useful way” (MacKinnon 1993:46). Therefore, the wider institutional context interacts causally with supervisor feedback practices to shape and control report-writing practices and these also connect contingently with report integrity and related warranty claims. These social pressure interactions are compelling forces that often motivate participants to develop and write reports of acceptable standards, demonstrating that contextual knowledge also defines literacy meanings for the participants and supervisors.

In addition, as supervisor feedback often focuses on report readers, the participants also learn “more on how to converse with non-technical people”.

6.3.2 Distribution list audiences

Britton (1988 in MacKinnon 1993:41) was perhaps one of the first empirical researchers to underline the importance of context to writing development, especially the significance of audience- and function-related aspects in the development of writing. Britton also warns against “mistakenly treat(ing) writing as a single kind of ability, regardless of the reader for whom it is intended and the purpose it attempts to serve” (1978:13 in MacKinnon 1993:42). Literacy as a practice, therefore, recognises the importance of audience in writing, “what others have in their heads”. However, this is a complex practice requiring micro- and macro-contextual knowledge to write in “a useful way” (MacKinnon 1993:46) for various audience levels. The reality of writing for audiences with different technical and language levels causally interacts not only with report writers and potential audiences, but also with the supervisors as approvers in the report acceptance practices.

These report approval practices, however, enable the participants to understand that reports need to be complete and clear to convey the “required message” and this requires not only accurate test and technical details but also rhetorical clarity for various audiences. However, this is a complex practice which Brad illustrates by providing two examples of the importance of audience contextual knowledge for meaningful writing. Firstly, he points out that the writer needs to think about what people “don’t know”. And, secondly, he emphasises the necessity of not omitting details familiar to the writer and assuming that the readers have “this knowledge”. This direct context and

audience writing relationship illustrates the complexity of “writing as a cultural practice and not merely as a technology of representing speech” (Canagarajah 2005:85).

The participants, therefore, need to develop “social cognitive ability” or “audience sensitivity” (MacKinnon 1993:46) to effectively represent their social environment and the participants describe this as writing from an “outsider’s point of view” what *all* the “others have in their heads” including audiences from different departments and countries. Therefore, in report-writing practices, it is vital for participants to “know your audience” so that messages can be “put across” accurately as people have “different perceptions in their minds”. For the participants, this practice also requires writing for an English L1 manager who “thinks in a different style” as well as *thinking* of various audiences on the report’s distribution list. A participant in MacKinnon’s (1993:46) study describes the difficulty of writing for different audiences as, “You have to know what people know and don’t know and that takes time”.

Therefore, when writing reports for specific and varied audiences, literacy is defined by writing that facilitates clear and easy understanding of the message by all audiences on the distribution list. According to the participants and supervisors, this understanding requires writing that:

- ❑ is clear and concise
- ❑ has familiar wording / terminology (not technical)
- ❑ has simple sentence structures
- ❑ has no spelling errors
- ❑ is not technical but straightforward
- ❑ is not negative but positive
- ❑ follows set procedures / structures
- ❑ no details omitted
- ❑ is accurate

However, as the participants’ criteria for literacy is often contingently associated with their supervisors being English L1, the L2 participants’ responses to supervisor feedback seem to suggest that L1 standards are particular, with supervisors demanding an exclusive “English way of thinking” style. As identity is discursively situated, the way people use and respond to

language can be damaging or constructive to identity (Swales 1990). Johns' (1997 in Hinkel 2004:4) study of NNS graduates also describes L2 speakers as feeling frustration and alienation because they believe that views on their writing skills were "unreasonably demanding and exclusive and their own best efforts unvalued and unrecognised". This is supported by the participants describing themselves as feeling stupid, silly, lost and having little influence on their feedback outcomes.

The other two L2 participants (not Afrikaans-speaking) also interact with supervisor feedback either accepting feedback (Marvin) or not experiencing it (Tani). Tani, however, tends not to associate supervisor feedback with their being L1 in their responses to feedback.

6.3.3 L1 standards

The L2 participants, especially those from Afrikaans-speaking backgrounds, usually associate their report feedback with supervisors being English L1, linking feedback to their L2 language difficulties. In the study, however, L1 report acceptance standards are not exclusive to L1 supervisor standards, as a L2 participant also describes an Afrikaans supervisor as always commenting "there is something wrong". This supports findings that even highly advanced and trained L2 students continue to exhibit numerous problems and shortfalls rhetorically (Leki & Carson 1997, Prior 1998, Santos 1988, Hinkel 2004) and that meaningful data does not consist of "self-evident facts" (Winsor 1996:5).

The reality of problematic L2 writing competency is supported by Silva's (1993:668) survey of NNS writing research which concludes that in general compared to NS writing, L2 texts are "less fluent (fewer words), less accurate (more errors), and less effective (lower holistic scores)... and exhibited less lexical control, variety, and sophistication overall". Johns (1997 in Hinkel 2004:4) supports these findings by describing the academic papers that L2 students produce as "vague and confusing, rhetorically unstructured, and overly personal" (see 2.4 L1/L2 differences). The faculties that Johns (1997 in

Hinkel 2004:4) interviewed also described NNS writing as lacking basic sentence-level features such as:

- ❑ Appropriate use of hedging (particles, words, phrases or clauses to reduce the extent of writer's responsibility for extent of truth value of statements, show hesitation or uncertainty i.e. often, some, few)
- ❑ Modal verbs
- ❑ Pronouns, active and passive voice
- ❑ Balanced generalisations
- ❑ Exemplification

In research known as *error gravity studies* (Santos 1988), many studies have addressed perceptions of error gravity with L2 linguistic errors viewed as “bothersome” and affecting students’ overall evaluation (Ferris & Hedgecock 1998:199). Santos (1988) concludes that lexical and semantic errors are considered to be particularly grievous in L2 academic texts with Ferris and Hedgecock (1998:199) describing the “most egregious” grammatical errors as being:

- ❑ Word order
- ❑ Verb tense
- ❑ Word morphology
- ❑ /t/ deletion in cleft constructions
- ❑ Relative (adjectival) clauses
- ❑ Subject-verb agreement

Errors that have less of an impact on text include:

- ❑ Articles
- ❑ Prepositions
- ❑ Comma splices
- ❑ Spelling

In contrast, as L1 writing ability or competency is closely linked to fluency and expository discourse conventions (Raimes 1994 in Hinkel 2004:10), L1 participants tend not to experience much language-related feedback in their reports. Greg, a L1 participant, describes this innate L1 language proficiency in his response to the question, *Would someone tell you that you need more detail?* He answers, “I normally just feel that I must do it (make the changes)” without the errors being pointed out to him. Also regarding supervisor

feedback, he acknowledges, “there is sometimes feedback. But is not very often that they will come back and ask you to change something” and there is “positive feedback” or he “hardly ever get(s) feedback from the supervisor”. Gus, another L1 participant, also agrees that although he sometimes has to “change the grammar to make it more simplistic”, he has never had feedback “to say things are not right. Or the language is not right”. Therefore, as the L1 participants often do not relate report revision with supervisor feedback, a causal relationship exists between their writing competency and report acceptance. Whereas for the L2 participants, the supervisors “constantly comment” on their language use, linking L2 rhetoric with supervisor feedback and report revision which impact contingently on identity and power issues.

The L2 report acceptance relationship is supported by Albert and Phillip in their comments to questions relating to improving the participants’ writing quality. Albert feels that he does not know what can be done to improve writing quality, as it is “almost never” or “very seldom” that reports need no feedback. However, as the L1 participants suggest that they rarely need to revise their reports, the causal link is between supervisor feedback and L2 linguistic error as Albert describes the participants’ “language and grammar issues” as “tedious and frustrating”. This association also suggests that the supervisors are less tolerant towards typical L2 linguistic error than towards “typical native speaker errors” (Ferris & Hedgecock 1998:199). Literacy is, therefore, often implicated by L1 standards which Brad describes as “rigid” supporting Hinkel’s (2002 in 2004:35) observation that academic discourse is governed by several rigid conventions in its rhetoric structures and language conventions. Hinkel (2004:ix) states “to put it plainly, no matter how well discourse is organised or how brilliant the writer’s ideas may be, it would be hard to understand them if the language is opaque”. Celce-Murcia (1991:455 in Hinkel 2004:37) also emphasises that “the importance of a reasonable degree of grammatical accuracy in academic or professional writing cannot be overstated”.

Johns (1997:58-59 in Hinkel 2004:36) summarises the findings of text analysis on academic text and points out that several lexical and syntactic

features are highly valued “in general expository academic prose”. These include:

- ❑ Lexical precision and careful use of vocabulary
- ❑ Careful and purposeful uses of text “maps” and “signposts”, such as discourse and metadiscourse markers (for example, *First*, this essay discusses... and *then...*)
- ❑ Appearance of writer objectivity and impersonal register (for example, avoidance of first-person pronouns and use of “author-evacuation”, the strategic passive voice, and *it*-cleft constructions (for example, *it seems, appears that*)
- ❑ Non-judgemental interpretations of information, findings, and events (for example, avoidance of emotive descriptors – nouns, adverbs, and adjectives such as *great, wonderful, exciting, terrible*)
- ❑ A guarded stance in presenting argumentation and results (for example, employment of frequent hedges such as modal verbs, adverbs of frequency, or linking verbs)

However, as long as the supervisors process the report revisions themselves, the participants’ writing competency will continue to be implicated by L2 linguistic errors.

6.3.4 Revision and editing

Although the participants emphasise the importance of doing own revisions, they are usually referring to revising technical details and report content. The supervisors tend to *only* do grammar revisions by making “small changes”, “swapping words or restructuring my sentence or deleted the sentence and replace with his own” but they emphasise that “it is not the content” so revisions are “nothing fundamental”. Therefore, language concerns remain a priority for the supervisors and this is reflected not only in their questionnaire responses, but in the initial meetings with the supervisors and chief engineer at the research site (see 3.3.2.1 Site meetings). Although the participants were described as good technically, the supervisors as well as the chief engineer expressed concern about the language proficiency levels of the L2 participants. The supervisors related their difficulty in writing effectively and clearly to grammar difficulties, especially plurals and stated that they were unsure whether these problems could ever be eradicated.

Literacy is implicated in the supervisors' revision practices which causally link linguistic error and writing competency with especially correct use of:

- ❑ Tenses
- ❑ Spelling
- ❑ Simple sentence constructions
- ❑ Sentence structures / word order
- ❑ Vocabulary / technical, formal "everyday English"
- ❑ Clarity and conciseness
- ❑ No negatives

The participants, however, only regard it as problematic if the supervisors process content changes rather than "editing changes" as they emphasise the importance of doing their own revising by adding "extra detail", "more background information" and taking the "irrelevant things out". A possible explanation for the differing participant/supervisor perceptions of language and technical detail revision is that the supervisors often revise language to give clarity of meaning minimising the need for technical revisions. This conclusion is supported by experimental studies (Ferris 1995) demonstrating that writers correcting errors "universally brought about improvement in the quality of text "and at the same time led to a 44% improvement in content expression" (James 1998:26 in Hinkel 2004:47).

Although Phillip describes consistent feedback as "helpful and serves the purposes to improve the future output of the report writer" and as "an essential tool to develop the report writer", he acknowledges it is "not fully utilised" as the supervisors often do the revisions themselves. It is quicker for supervisors to make the "required changes... rather than to recycle the report back to the writer", especially grammar and spelling errors. The participants agree that supervisors often make the changes "depending on deadlines" and "if time is limited, the user does it for me". However, the practice of supervisors doing revisions causally links supervisor feedback and supervisor revision with rhetorical errors and indirectly, with technical details.

However, if the L2 speakers are to develop L2 linguistic proficiency as well as writing competency that "pertain to the knowledge of discourse conventions

and organising the information flow” (Hinkel 2004:10), they need to become independent editors of their texts instead of relying on their supervisors dealing with errors and revisions. Therefore, the educational goal of error correction is to help L2 writers become editors of their own text by increasing their awareness of ubiquitous errors and improving their noticing skills. The explanation of erroneous structures and their correct uses will also contribute to overall instructional input in L2 learning (Ellis 1994, 1997, James 1998 in Hinkel 2004:49). However, as these practices may need to be persistent and even repetitive to be effective, it is important that supervisors are “consistent in correcting, underlining/highlighting, and shifting responsibility for editing errors to students” (Ellis 1984 in Hinkel 2004:50). The need for the supervisors to take responsibility to improve feedback is supported in the final comment made by Phillip, “approvers need to be more disciplined in taking the time to provide complete and constructive feedback to report writers”.

6.3.5 Institutional systems

As many established corporations have their own preferred ways of not only conducting business but also of achieving communicative goals, players within organisations must learn to play the game according to established organisational preferences (Bhatia 1999:27). For most of the participants in MacKinnon’s (1993:46) study, an increased knowledge of the social and organisational contexts had a significant effect on their writing development, including “understanding the power structure”. In a large hierarchical organisation this requires accommodating the larger dynamics of organisational life, including knowing who is deciding what and who needs what information. In MacKinnon’s (1993) study, therefore, a key to the participants’ writing development appeared to be a much greater awareness of and sensitivity and adaptiveness to the particular demands placed on writing by the Bank.

While social cognition and context demands affect writing development, a rhetorical perspective also often characterises the outcome of the participants’ writing development as this often interacts with report approval and issue practices. The participants need to develop as writers and as members of a

community of writing by incorporating system practices not only by standardising their writing practices, submitting report drafts for approval, responding to feedback in various ways but by testing their assumptions about authority to make interpretive claims. This requires the learning and conceptualising of the writing-related roles of others to assume and adjust individual writing-related roles (MacKinnon 1993:52).

Therefore, while the report is part of “systematic management” (Yates 1989 in Winsor 1999:221), participants must enact with its systems. The systematic surface of any organisation is then, to some degree, created in improvised actions that people take to adjust to common and contingent events, with patterns and contingency always co-existing. Therefore, all reports are directed to the event of report acceptance, with all participants sharing this common purpose and all activities or practices directed towards this event. Besides the importance of contextual knowledge and rhetorical awareness for report acceptance, the participants in the study needed to incorporate the standardised report template as the tool for ordering and negotiating the system to get the task done. Therefore, the report template and report submission practices provide a common practice understanding that allows the activity to go forwards even if “discontinuities persist” (Winsor 1999:222). However, the template as a tool is also one of the sociotechnical resources that allow the organisational context to mediate, control and maintain institutional practices and standards.

6.3.6 New media varieties

For the engineer today communication acts and rhetorical discourse include not only written text but also pictures, graphs, photographs, illustrations and hyper links. For example, Winberg (2006:87) describes a typical architectural heritage report as incorporating various media types in the written report such as “photographic and the detail archives, and plans that were cross-referenced with the schedule of historical items, the photographic and detail archives”. Tani uses the example of sending various media in her emails to ensure audience understanding, “email and graphics ... might explain in

words and people might not understand. When you attached a picture or graphic, it makes it easier”.

In addition, as computer-mediated communication (CMC) has become the “linguistic norm” (Kern 2006:203), report knowledge is not transmitted through text but also through multimodal forms of communication.

Therefore, although computer technology is text-based, requiring reading and writing as key modes of online and digital language use, Kern (2006:195) describes the Internet as complexifying literacy that goes beyond the skills of encoding and decoding texts as it:

- ❑ introduces multimedia dimensions that go beyond print textuality
- ❑ alters traditional discourse structures
- ❑ introduces new notions of authorship
- ❑ allows users to participate in multicultural communication communities

In addition, as CMC becomes increasingly multimodal, communication dynamics will continue to change as text increasingly integrates speech, writing, images, colour, sound, animation and combine the “logics of time and space” (Kern 2006:197). These multimodal forms in turn interact with language activating new forms of discourse because of the “relative leanness” (Kern 2006:194) of CMC creating a different dynamic which is often “less correct, less complex, less coherent than other forms of language use”. Crystal (2001 in Kern 2006:194) adds that simplifications like omissions of prepositions, copulas and auxiliary verbs are not just a matter of typing economy but likely represent dialect features reflecting pressure to accommodate many diverse groups.

However, as accommodation sometimes goes beyond simplification, these simplifications may become multicultural hybrid forms, which while differing from traditional literacy forms, are hybrid forms of English for particular contexts. Canagarajah (2005a:41) describes the effects of locality, globility and hybridity as “unsettling of boundaries between different domains of social language use resulting in discursial hybridity – intermixing of discourses and

genres” (see 2.8.2 Complexity of workplace writing). Technology, therefore, offers a means to rethink conceptions of language, communication and society.

At the research site, reports are being transmitted or communicated increasingly through PowerPoint presentations as well as through teleconferencing to increase long-distance collaboration (see 5.7.2 Future practices). Therefore, in the future network-based communication will increase and shift the report’s audience and context to local and global virtual audiences who will respond and interact verbally with report content. Therefore, the participants need to be aware of both changing media forms and practices including what it means to become a competent communicator in a virtual world. Language competence *per se* is not the key variable in successful global and local intercultural exchanges with individual and institutional constraints negatively interacting with effective communication leading to disengagement or missed opportunities for knowledge generation (Ware 2003, 2005 in Kern 2006:199).

More important for online communication than linguistic accuracy is politeness and a willingness to be socialised into and follow the online community ‘s discourse rules especially personal involvement (Hanna & De Nooy 2003 in Kern 2006:199). Lam’s (2003 in Kern 2006:196) study shows how social contexts shape language use in online environments and also most importantly how online communication shapes social contexts and participants’ identity formations. Therefore, along with CMC is the notion of text identity for understanding how texts are composed and used digitally to represent and reposition identity in networked computer media or in “new forms of identity construction” (Kern 2006:183).

To address the wide range of connections, genres and skills in computer use Warscauser (2003 in Kern 2006:195) argues for the need to develop electronic literacies to meet digital technology skill needs (see 5.7.1.3 Computer literacy influences). Gus also suggests that those entering the engineering industry in the future will need to “acquire all these programmes

and skills” as “the older guys suffer a bit with computer skills”. However, this will also include socialising present engineers and those entering the engineering field into appropriating not only effective digital text and technical skills but also network interaction practices.

6.4 Absent practices not defining literacy

As it is problematic defining causal responsibility in complex open systems, examples providing contrasts or absences of otherwise common conditions (Sayer 2000:16) are revealed by contingent practices indirectly interacting with report approval practices. These absences include notions that report collaboration practices, Higher Education systems, L1 proficiency and institutional intervention practices are limited in effectively constructing literacy as they are perceived as not causally influencing the effective writing of texts as socially constructed genres.

6.4.1 Collaboration practices

Bhatia (1999:22) describes professional genres as becoming increasingly cooperative endeavours involving complex interactions in the preparation of texts within a wide variety of co-authoring arrangements rather than individual activities (Smart 1993 in Dias et al 1999:9) supporting a social construction of literacy (see 2.9.2 Professional genre texts, 2.9.3.2 Discursive processes and genre and 5.6.3 Teamwork). Although Ede and Lunsford (1990:56 in Kleimann 1993:56) also describe workplace collaborative acts as “a fact of life”, the participants tend to disregard teamwork and horizontal peer collaboration as assisting practices because they “seldom” make use of it. Rather their vertical collaborative act is to causally interact with test requestors during the component testing procedures and with their supervisors in the report acceptance process to produce texts.

Although research reveals the gradual abandonment of writing as a solitary act and workplace writing becoming a collaborative or social activity (Odell & Goswami 1985 in Dias et al 1999:9) with a full understanding of the writers’ processes and products not occurring without close reference to their place

and role in their particular contexts. Gollin (1999:269) also describes as reasons for collaboration the need to cover a range of fields that might be beyond the professional scope of an individual writer. However, as the organisational context requires individual tests by component engineers, the report-writing activity becomes the exclusive writing act of individual participants thereby limiting the need for horizontal collaboration apart from the occasional need to have grammar checked.

However, false assumptions can be made and false conclusions reached about workplace writing without a close assessment of cultural influences within which the participants play out their individual preferences (Winsor 1990 in Kleimann 1993:57) possibly causally related to educational practices encouraging individual performance. Therefore, although situated collaborative practices suggest a causal relationship between the institutional context and report-writing practices contingently implicating a tendency of limited rather than active culture of teamwork practices, this may be a false conclusion and relate rather to the type of report being written. However, as research has revealed that “staff reflect the values of their environment” (Brown & Herndl 1986 in Kleimann 1993:57) and the act of writing can have a symbiotic relationship with the organisation (MacKinnon 1993), the practices also causally link writing practices with vertical rather than horizontal collaboration practices.

6.4.2 Higher Education systems

A study by Bronzino et al (1994:184 in Winsor 1996:12) found that undergraduate programmes often do not emphasise group dynamics and, therefore, engineers are often unprepared for teamwork contexts. The majority of the programmes rather emphasise individual performance with the traditional engineering approaches emphasising the mastery of technical knowledge and not teaching skill areas like teamwork skills and general communication skills. These Higher Education practices, therefore, also causally interact with collaboration practices not linking social writing acts and practices to literacy construction.

In addition, as report data is a “rhetorical construct” (Winsor 1996:32), the presence of data does not preclude the need for rhetoric. However, the L2 participants tend to disassociate literacy with technical details and substitute data for rhetoric whereas for the engineer, it is part of rhetoric (Winsor 1996:32). This understanding is causally related to engineering study programmes not emphasising the contextual and rhetorical nature of knowledge. As a consequence, students and engineers are often not able to view written texts as containing anything other than “fixed knowledge whose origin never occurs to them to question” (Winsor 1996:7). This relates contingently with engineering courses promoting an arhetorical understanding of text by limiting exposure to authentic language tasks such as those required in professional contexts. These practices are also confirmed by the participants relating their writing development to on-the-job writing practices rather than to schooling practices (see 5.7.1.1 Engineering course influences, 5.7.1.2 On-the-job writing influences).

Therefore, as participants in an academic speech and discourse community, professional engineering experts in Higher Education will need to take measures to ensure continued influence and relevance as workplace writing practices changing rapidly, and more importantly, to find ways of depending more significantly on one another while striving to fulfil shared goals. Therefore, engineering higher education programmes need to make careful judgements in deciding which workplace discourse practices to include in their pedagogy and design meaningful and authentic ways to train students in both “social accommodation and innovation to prepare them well to handle the challenges of communicating effectively within and across social contexts in future workplace settings and situations” (Spilka 1993:218) (see 5.7.1.4 Workplace and Higher Education links).

6.4.3 L1 proficiency

As report acceptance practices causally interact positively with supervisor feedback practices and L1 proficiency levels, this suggests that L1 standards determine writing quality and construct organisational literacy definitions. Raimes (1994 in Hinkel 2004:10) describes L1 writing ability or competency

as being closely linked to fluency and expository discourse conventions. Therefore, L1 errors tend not to affect text comprehensibility and are more tolerated. The Straub and Lunsford teacher commentary categories (1995 in Ferris 2003:18) also suggest that while L1 corrections usually relate to discourse conventions, teacher comments focus on grammar and mechanics in L2 texts which are regarded as the domain of linguistic knowledge (Truscott 1996 in Ferris 2003:150). These L2 academic text errors are regarded as the “most egregious” (Ferris & Hedgecock 1998:199), which are not tolerated in academic discourse.

The language focus practices in supervisor feedback also support the causal link with no mistakes and literacy as well as writing quality supporting Rosenfeld's et al (2001 in Hinkel 2004:21) study which demonstrated “unambiguously that L2 grammar and vocabulary skills play a crucial role in student academic success” and the assessment of text quality is often perceived as having no syntactical, lexical and discourse errors. This construction of literacy also reflects the embedded institutional context requiring professional documents to meet L1 proficiency standards.

Contingently related to this association is the causal effect that the L2 participants may never acquire the required proficiency without specific instruction or interventions to develop L2 proficiency on the part of management.

6.4.4 Institutional interventions

Silva (1993:668) summarises his survey of NNS writing research by concluding that L1 and L2 differences need to be addressed if these writers are to be “treated fairly, taught effectively, and thus given an equal chance to succeed in their writing-related personal and academic endeavours”. Chang and Swales (1999 in Hinkel 2004:5) and Raimes (1994 in Hinkel 2004:10) also conclude that L2 writing requires a developed L2 proficiency as well as writing skills that pertain to the knowledge of the discourse conventions and organising the information flow. For Hinkel (2002, 2004:5), the attainment of academic L2 proficiency does not mean mere exposure to L2 vocabulary,

grammar, discourse, and formal written text. Therefore, explicit instruction in advanced academic writing and text is needed as NNS graduates even after years of ESL training, often fail to recognise and appropriately use the conventions and features of academic prose (Chang & Swales 1999 in Hinkel 2004:5) (see also 2.4 L1 / L2 differences, 4.3.1.4 Report acceptance and L1/L2 status influences and 5.6.1 L1 / L2 Language status).

Hinkel (2004:54) points out that the following aspects of L2 academic writing are in need of at least some degree of polishing and additional work for practically all academic L2 learners:

- ❑ Academic vocabulary, and specifically, nouns and verbs
- ❑ Sentence boundaries and phrase construction
- ❑ Verb tenses in academic discourse
- ❑ Passive voice functions in academic prose
- ❑ Noun clauses
- ❑ Hedges
- ❑ Textual cohesion devices

Studies also reveal that peer rather than teacher feedback needs to be implemented as it forces writers to exercise thinking as opposed to passively receiving information from the teacher. Peer feedback also enhances writers' communicative power by encouraging them to express and negotiate their ideas and to develop a sense of audience (Mendonca & Johnson 1994:766) and it gives opportunities for critical reflection (Bell 1991:65 in Ferris 2003:70). However, research has also shown that teacher feedback has a greater impact on revision than peer response (Ferris 2003:29). The most important peer feedback complaints are that peers do not know what to look for in writing and do not give specific, helpful feedback as they are either too harsh or too complimentary in their comments (Ferris 2003:70). However, research on peer response for L2 writers is positive, as ESL writers are able to give one another feedback that can be utilised in revision and that is often helpful to them. This is supported by Greg who describes his helping L2 colleagues resulted in their becoming "more confident" not only with writing skills but computer skills as they learnt how to "manipulate data" and were told or shown "how to do alterations" (see 4.3.2.2b Peer feedback practices).

However, Allaei and Connor (1990 in Ferris 2003:83) observed that culturally mixed groups might experience problems in working together because of differing expectation and intercultural communication patterns. This is supported by Brad who refers to the complexity of working in a “multicultural environment” and Gus’s practice of not using peer feedback as his colleagues are Afrikaans or Xhosa speaking, “So when it comes to language, I will do the writing”. He also regards L2 and L3 speakers as the “biggest barrier” in the workplace (see 5.6.1 L1 / L2 Language status). Therefore, concerns have been expressed on the effectiveness of peer feedback as technique where there are various cultural groups (Carson & Nelson 1994 in Hinkel 2004:46). Hyland (2002 in Hinkel 2004:47) also points out that L2 students may perceive revision to be error correction that can be culturally uncomfortable because it entails “criticising peer’s work”. However, more importantly, the educational goal of error correction is rather to help L2 writers become independent editors of their own text.

Yet, L2 writers can be empowered by giving them greater control in their writing with explicit teaching and analysis of L2 grammar structures, combined with extensive writing practice to raise their awareness to notice rhetorical discourse structures in academic writing, so reducing the number of NNS errors. However, besides instituting L2 discourse instruction as an intervention, independent self-editing skills for L2 learners are also necessary (Ferris & Hedgecock 1998:200) so that writers become self-sufficient in editing their own writing.

Editing practice requires much training and practice (and practice, and practice), however, as L2 proficiency increases, writers will become “better able to perform in writing their second language, producing more effective texts and attend to larger aspects of their writing production” (Cummings 1994:201). This practice may seem “difficult and daunting” as written academic discourse is “highly conventionalised and its features are recurrent... with the groundwork in place and consistent practice, producing academic writing is actually relatively easy” (Hinkel 2004:37).

While editing feedback may not be effective for all writers, the absence of interactive feedback or strategy training will ensure that the participants may never take seriously the need to improve their editing skills or have the knowledge and strategies to edit their writing effectively. In addition, if the practice of supervisors revising linguistic errors continues at the research site, L2 rhetoric proficiency levels will remain problematic and causally influence report acceptance negatively.

6.5 Where to now?

Much has changed to construct literacy in professional situated research sites from the New London Group's pointing out that traditional literacy pedagogy means "teaching and learning how to read and write in page-bound, official, standards forms of national language" (1996:61 in Canagarajah 2005:270). Multiliteracies have now emerged as the norm to "negotiate multiplicity in discourses" using "multiple languages, multiple Englishes, and communication patterns that more frequently cross cultures, community, and national boundaries" (New London Group 1996:64 in Canagarajah 2005:270). These multimedia varieties are indicative of global citizenship and subcultures which provide a flexibility allowing individuals to function adequately in different contexts.

However, these new discursal varieties impact causally and contingently on central literacy constructs, linguistic identity and single language primacy discrediting notions of mother-tongue speaker or L1 and L2 differentiation (Canagarajah 2005a:16). Although these discursal varieties implicate dominant definitions and practices that insist on identifying speech communities according to homogeneous constructs, values and use of language, as long as dominant discourses are ideologically empowered, there will be little tolerance or causal influence for multiple languages and literacies to exist side-by-side. These practices will continue to interact contingently with discourse communities recurrently causally implicating definitions of speech communities and remapping writing complexities "as a cultural practice and

not merely as a technology of representing speech” (Canagarajah 2005a:85). As literacies become increasingly defined and constructed by a range of multimodal representations, “mutual negotiation of dialectical differences by communities in interpersonal linguistic communication, without judging intelligibility purely according to *native* speaker norms” (Canagarajah 2005a:85) will be encouraged. As a consequence, all parties of speech and text discursal situations will need to adopt strategies of speech accommodation and negotiation to achieve intelligibility (Canagarajah 2005a:48).

6.6 Making claims

Chapter 1 indicated that this study was intending to describe what literacy means to component testing engineers responsible for report-writing practices in a South African automotive industry. As these engineers’ definitions and construction of literacy is implicated by various dominant practices embedded in the socio-cultural structures of the organisation, their literacy meanings interact causally with dominant institutional practices implicating their report-writing practices.

These meanings, however, are causally related to actual and real dominant practices which interact with literacy understandings (Sayer 2000:10-12). The real dimension, for the engineers, are the institutional practices or structures or whatever exists (natural or social) like report acceptance and supervisor feedback practices as well as the use of the standardised template and global distribution lists. However, these structures have causal powers to influence the participants’ perceptions of the actual when the powers of various dominant practices are activated. Therefore, the participants’ understandings of literacy are activated by these practices, especially those which impact on report acceptance and distribution.

Firstly, as feedback practices tend to focus on linguistic errors, the participants tend to perceive rhetoric and engineering knowledge as separate entities rather than knowledge construction being dependent on rhetorical

interaction within a professional community. As the participants tend to accept a rhetorical view of language and see it as a neutral and transparent medium rather than a means to persuade and effect action, they attribute their language problems to the inefficiencies of human beings and to L1 standards rather than their individual creation of knowledge. Therefore, as activated by dominant feedback practices, the participants construct literacy in terms of correct language, word and spelling use, rather than engineering discourse and rhetorically constructed contextual knowledge.

Secondly, the meanings the participants attach to dominant feedback and organisational practices are reflected in their describing of these practices as “rigid” and their compliance with imperatives such as “must”. These responses reveal the embedded forces which control not only literacy definitions but identity definitions as the participants associate literacy with their supervisors being L1 and their L2 status. As a result, the participants often experience feelings of “damaged identity” (Collins & Blot 2003:xviii) as these practices impact negatively on both their writing practices and identity structures.

Finally, this study causally impacts not only on engineering workplace practices but on Higher Education and future report-writing practices as digital technologies and systems interact increasingly with report-writing practices and contextual knowledge encompasses varied and different audiences influencing definitions not only of acceptable literacies but Englishes as well.

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APPENDIX A / PILOT QUESTIONNAIRE**Report Writing research****May-July 2004**

Name :
 Department :
 Mother tongue :
 Other languages :
 Qualification/s :
 Years of working :

Would you be happy to participate in further writing research?**Please answer as fully as possible (all details are important).**

1. What type/s of writing have you done (or still do) in your mother tongue?
2. What type/s of writing do you do in your second language?
3. What type/s of writing you did at school?
4. Describe the writing instruction you received at school? (How you were taught to write?)
5. What type/s of writing do you usually do in the workplace?
6. How experienced are you in doing the types of writing described in 5? (Explain your answer)
7. What assists you in your writing in the workplace?
8. What do you feel is difficult and easy when writing?
 - 8.1 Difficult:
 - 8.2 Easy:
9. Describe your role/function (what you have to do) when it comes to the writing of reports and/or documents.
10. What writing steps do you usually follow when writing a report / document?
11. What in your writing do you usually revise or edit (change)?

12. What things do you usually do to revise or edit your writing?
13. What usually classifies a report as final or complete for circulation?

14. Who and What determine an acceptable report/ writing in your department?
 - 14.1 Who?

 - 14.2 What?
15. What connection is there (if any) between writing at school and/or tertiary institutions and writing in the workplace?
16. What would identify as barriers you experience in the writing process?
17. What would you define as good writing?
18. What would you define as poor writing?
19. Any other comment/s about writing?

Thanks so much for all this effort 😊

APPENDIX B / PARTICIPANT QUESTIONNAIRE 1**Report Writing research****December 2005**

Name :
 Department :
 Mother tongue:
 Other languages :
 Qualification/s :
 Years of working :

Would you be happy to participate in further writing research?

Please answer as fully as possible (all details are important).

1. How would you rate yourself as a writer?
2. Explain your answer to 1.
3. Describe how the following have influenced your writing ability:
 - a. Mother tongue:
 - b. Schooling:
 - c. Work situation/s or department:
 - d. Supervisor / Manager:
 - e. Short courses:
4. What do you feel is difficult and easy when writing?
 - 4.1 Difficult:
 - 4.2 Easy:
5. Describe your role/function when it comes to the writing of reports/any documents.
6. What writing steps do you usually follow when writing a document?
7. Do you ever revise / edit your writing?
8. Explain your answer to 6.
9. What steps would you follow when revising/editing your report/writing?

10. Describe the influence/s you have on the final writing of a document?
11. Who and What determine an acceptable report/ writing in your department?
 - 11.1 Who?
 - 11.2 What?
12. What connection is there (if any) between writing in tertiary institutions and writing in the workplace?
13. How has your tertiary writing experiences influenced your writing?
 - a. Influenced
 - b. Not influenced
14. Describe how has this short course has influenced / not influenced your writing of documents?
 - a. Influenced
 - b. Not influenced
15. What would identify as barriers you experience in the writing process?
16. What would you define a good writing?
17. What would you define as poor writing?
18. Any other comment/s about writing?

Thanks so much for all this effort ☺

APPENDIX C / CONFIDENTIALITY AGREEMENT MEMO**memo****Re: Doctoral research at ... : Confidentiality agreement**

This confirms the confidentiality agreement discussed with ... on 20 September 2004. At the meeting, it was agreed that all mention of ... would be excluded from the proposed doctoral research. In addition, the confidentiality of all participants would be maintained.

The mentioning of has also been removed from the doctorate title to further ensure the confidentiality of the corporation and the participants. The title of the research now reads:

A critical ethnographic study of report writing as a literacy practice by automotive engineers.

Should you require more information, I can be contacted at:

Work:

Cell:

e-mail:

Regards

APPENDIX D / SUPERVISOR QUESTIONNAIRES

From: Phillip
Sent: Fri 2005/03/11 08:06 PM
To:
Subject: Re: FW: research input needed :-)

Hi

We are doing well in ... thank you. Adjusted now and enjoying all the new things....

Answers as requested:

1. How is feedback on reports usually given?

(i.e. telling / discussing / writing... Try to identify or describe your various feedback styles and the most frequent feedback style)

Feedback is most often given in the verbal form by way of discussion.

Feedback is also sometimes given in the written form (email describing the changes required or a marked-up report print).

- Describe how effective a verbal and discussion form of feedback is. Verbal and discussion form of feedback is effective. It provides me with an opportunity to fully describe the adjustments required in order to make the report more complete or accurate and convey the required message.
- How long would giving feedback typically take? 5 to 10 minutes
- Which form of feedback would you rate as the most effective (verbal or written)? Verbal

2. When is feedback usually given?

(when the report is completed or during the writing process)

Feedback is almost always given at the completion of the report (when it is submitted for approval).

- Would earlier draft submission (prior to report completion) facilitate improved reports? Explain your response. Perhaps – specifically where technical content is included in the form of results, tables and graphs, these could be submitted in a draft format to ensure that the body of the report is written around the correct and complete data and results.

3. What feedback do you usually give on the reports you oversee?

(Also, could rate the type of feedback from the most frequent type to the most seldom type given)

In decreasing order of frequency:

- 1) Report flow (clear objective, results, conclusions and recommendations)
- 2) Grammar and spelling
- 3) Consistency (eg. all graphs should be formatted the same etc.)

- What could be done to improve report quality ito of areas identified as needing feedback? My honest answer is "I don't know". We have tried so many courses on so several different occasions and have only had limited success. I can only suggest more training, specifically on report flow. This can be taught to someone. It's very difficult to teach someone how to spell and use grammar correctly.

4. How often do you make the changes yourself on reports? (Why?)

Very often. Although I know that consistent feedback is required in order to develop the report writer, often the urgency to issue the report in question is the overriding factor. It is significantly quicker for me to make the required changes myself rather than to recycle the report back to the writer.

- What is the response of the writer to your making the changes? Accepting.
- Would they know that their reports are being revised by you?

Yes – once I have made changes and approved the report, the report writer is on distribution of the report. In addition, I usually discuss the major changes (not discuss the grammar and spelling corrections) made with the writer and describe the reasons for making the changes.

5. What do you perceive as the writer's response to feedback given?

Accepting - I think the feedback is usually perceived as constructive.

- What supports your response describing the writer's response to feedback given as *accepting*?

When providing feedback I always describe the reasons why changes are required. On explaining this and discussing with the writer, we reach an agreement on how to best incorporate the changes required. Comments usually made by the writer during this process indicate agreement.

- What is *constructive* feedback?

Feedback which is helpful and serves the purpose to improve the future output of the report writer.

6. What is your reaction to the role of feedback in the report writing process?

I believe it is an essential tool to develop the report writer - but it is all-too-often not fully utilised

- How can feedback be more fully utilised to develop writers?

Report approvers need to be more disciplined in taking the time to provide complete and constructive feedback to report writers.

7. How often would a report need no or little feedback?

Almost never

- How can this be improved?

Perhaps the approver and the writer should conduct a brief review of the report intentions, technical data to be reviewed etc. prior to the writing of the report body. This could almost be seen as pro-active feedback.

8. Any other comments about feedback?

None

I hope this helps

Best regards

From: Albert

Sent: Fri 2005/03/11 08:35 PM

To:

Cc:

Subject: Re: FW: research input needed :-)

Hi

Please refer to answers below:

1. How is feedback on reports usually given?

(I marked-up a hardcopy of the report, showing corrections both technical and grammatical. Verbally, I would 'walk-through' the required modifications with the Engineer, and simultaneously suggest strategic changes to the report presentation to highlight the manner in which the conclusion was drawn)

- Is the feedback usually given in a conferencing type/dialogical interaction?
- How is the feedback *marked-up on the hard copy*?
- What facilitates the choice of medium to give feedback?
- How else is feedback /comments given (other than hardcopy and conferencing)?
- What grammatical feedback would typically be given?

- Would the report writer typically process all the feedback and then be responsible for rewriting the reports?
- What % of reports would need to be rewritten?

2. When is feedback usually given?

(After the initial/draft report has been submitted for approval)

- Would reports ever be submitted for feedback prior to the approval stage?

3. What feedback do you usually give on the reports you oversee?

(1. Language/grammar corrections 2. Omission of supporting technical data/information/background 3. Report structure with regards to presenting the results such that it shows the path to the conclusion)

- Rank the 3 areas identified as needing feedback from 1/ most frequent to 3 / seldom, if possible.
- Account for your above response.

4. How often do you make the changes yourself on reports?

(In cases where required changes were minimal (spelling/grammar), which occurred 15% of the time)

- What are the responses of the writers to your making the changes?
- Describe what you would categorise and major changes.
- Would major changes always be made by the writer of the report?
- Describe how the feedback would be given where major changes were needed.

5. What do you perceive as the writer's response to feedback given?

(The response was positive to constructive technical advice)

- What are the writers' responses to grammatical feedback
- Describe how feedback can be give positively and constructively.

6. What is your reaction to the role of feedback in the report writing process?

(I appreciate the opportunity to partake in the feedback on the report content, as there is a lot to be learned from the approach taken by the Engineer. I found wading through language and grammar issues tedious and frustrating, and this detracted from the discussion of technical data and conclusions)

- Describe how this situation can be eased/solved.

7. How often would a report need no or little feedback?

(Very seldom)

- What/Whose report would typically need little feedback?

8. Any other comments about feedback? to achieve

(Standardisation in the workplace is a necessary requirement, having said this, people have different viewpoints and means of expressing themselves, which often is 'verbalised' in the language they use, and as such it becomes a very personal issue. Receiving criticism from a peer with regards to technical issues, is ordinarily not a problem for Engineers, but when corrected/critised with regards to the use of language/grammar it is often taken personally , The situation requires one to be tactful, and this is not always possible in a busy work environment)

- Describe why feedback becomes a *personal issue*.
- Can you explain why language and technical feedback are responded to differently.
- Is feedback accepted with ease from supervisors rather than peers? Explain your answer.
- How often would peers give feedback on writing?

Regards

APPENDIX E / FOCUS GROUP DISCUSSION HANDOUT**PhD research / Focus group****1 December 2005 / 14:00**

Name:

Contact details:

Email:

Work:

Cell:

Qualification:

Institution:

Present Position:

Years:

Mother Tongue:

Other language/s:

Are you willing to be contacted if further information or clarification is needed? Yes / No

Group agreement for maintaining confidentiality

This form is intended to further ensure confidentiality of data obtained during the research data collection (interviews and questionnaires) in the study entitled:

A critical ethnographic study of report writing as a literacy practice by automotive engineers.

Please read the following statement and sign your name indicating that you comply with maintaining confidentiality.

I affirm that I will not communicate or in any manner disclose publicly information discussed during the course of this focus group interview. I agree not to talk about material relating to this study or interview with anyone outside of my fellow focus group participants and the researcher.

Name:

Signature:

Date:

Researcher:

Ice-breaker Tasks

1.1 Consider the list of factors below affecting writing and then rank their importance in influencing your report writing. (1 = very important + 10 = not important)

report templates
 questions asked on reports
 report integrity
 group collaboration
 report distribution
 supervisor feedback
 peer feedback
 revising report drafts
 report acceptance route
 report-writing style

As a group decide on a ranking

1.2 State the extent to which the following have affected your report-writing effectiveness.
(Tick the relevant box)

Practices	a lot	average	little	not
Feedback / supervisor				
Feedback / peers				
Revision from feedback				
Institution report-writing style				
Report collaboration				
Questions asked				
Distribution list				
Own practices				
Tertiary practices				
Institution practices/systems				
Other:				

Note:

- No correct answers
- Disagree/agree – make it known
- Speak in turns

THEME discussions / report writing

PRACTICES = Organised, dominant, recurrent patterning activities in relation to report writing at ...

1. REPORT ACCEPTANCE practices

Who is the “approver”? What is your role in this process?

My supervisor. He is on his own but sometimes he will come back to me if something is not clear to him. But I've got no influence ...

What determines an acceptable report in your department? You said your manager.

What will result in his approval? I don't know because what he normally does...He goes over it and he will take it further.

What usually classifies a report as final and complete for circulation? The *manager* normally reads through it. And then once he is happy with it then it is final. Someone else will sometimes read the feedback. It is still possible to re-issue it at a later stage.

Conclusions and technical details can still change. We will then have a discussion and will come to an agreement. I will then update it and rewrite it. It is normally the person who compiled the report who will do that.

How important is it to you whether a report comes back or not... Not really, but it is an indication of maybe how far you are in terms of with meeting the objective which was requested in the first place. One of the other engineers asked to do a test. ... *Most of the reports don't come back. It will be only 10% of reports that come back.*

2. REPORT MONITORING practices

Routing is a bit difficult? Yes there are more changes. I used to route to Albert, and he will give it to X who will be on copy and then to the various departments. Now I've got the trainee that's compiling the report, I will approve it ... *I am reviewing it basically and then my new boss is approving it and distributing it.* **What is the route back?** If it concerns everyone it will go to everyone otherwise *it might come back to me.*

Ja, because the rule is the manager is supposed to only read the first page and knows what will be following and the rest. *He doesn't need to read the rest.*

The higher the importance ... the higher up the structure the report goes to I will make sure someone proof reads it. When it's finished I will for the last time give it to my immediate manager to read it. Even if he is my immediate manager I see him as a colleague. ... Ja. It used to go to X now it is going to Y, then it goes to ... **So there is another step?** Yes. It all depends on who is in line for ... *Albert would normally give it his rubber stamp and X will more or less sign it off,* but if Y or someone else who is also Afrikaans will surely *bring it back to you and ask you to rewrite it,* it is difficult to say ... It all depends on their line of thought. Ok it is funny ... if X finds a problem he will come back to you and not give it to Z. It all depends on what mood he is in.

Ag usually he changed a nuance or something nothing fundamental.

Yes it (report) is basically complete *I would not date it if it were not complete.* All the information is in there and it is basically a second set of eyes that is running across the report. **Will that be your manager?** *Yes it will be somebody that is higher than you.*

3. COLLABORATION / ASSISTANCE practices

Who would usually give you a different perspective if you don't agree with what is said? It is always easier to go to *someone who wrote a similar report or understands the concerns that you are wording,* because we are trying to rotate the people in the department so there is always someone who has done a *similar report.* It is always easier to speak to those who have done it. **Are they quite accessible to you?** Yes our department is very open you can walk into anybody's office and ask what they think.

I would usually ask somebody... okay, ideally I wouldn't ask anybody... sometimes I would ask somebody in my group maybe one of my fellow engineers *but if I know that*

somebody else from another department might be involved I would get somebody from there and ask them if they understand it... Then I get a clearer much better feedback ...

What will you use to assist you? *I will ask someone to read for me and tell me if it makes sense to them.*

What assists you in your writing in the workplace? You said same formats and common interests *similar reports and templates*. *Yes when I do a test for the first time it takes time to see the reports, discuss the objectives and your recommendations and conclusions and putting your results together... once you repeat maybe the same test on another vehicle with a different system*

Normally have to use excel to put the data together and compare the components and measuring the different insulations in the vehicle to reduce heat levels from the exhaust.

4. REPORT INTEGRITY practices

You said: Questions about content and validity. What can be done to overcome these concerns? *Sometimes you for instance you find a part to be failing and they say ja you should understand that you drive on gravel. For me failure is failure and to sweet talk it and say if the vehicle is used on tar it might cause trouble... You are not allowed to say that it will fail. That frustrates me. It makes you doubt the results. If you're not clearly stating it you imply that there is a problem. For a technical person it would always be a problem.*

*Some would try and emphasise concerns as being from the records, he is more worried about what caused the problem. Where others are more worried about the effects of the ... Where you actually being in line...many managers for instance X, he comes from outside meaning a dealership, and he always thinks in the line of what it will cost the customer where you will get a *technical manager that will ask what caused the problem. He doesn't want to know what the cause is; he just wants to know what the failure is. Is it that that the cause is a warranty issue?* Yes, and it is the perspective and background of the manager. That is my perspective.*

I try to present it as accurate as possible. But you can't stall for the sake of getting things 100% - and the next person might not judge it they are only interested in the results. The main thing they read is the objective, results and conclusion to see whether the objective has been met. If there are recommendations they will obviously look at that. But I've looked at other reports and the body and content is not as well populated as my reports.

In the motor industry small details are important right down to the date because information comes in small packages in the first place so you have to really look at the detail and make sure the details are right. Everything has to be right. Otherwise if you want to put it together it in a picture it might not make a lot of sense. That is the whole thing sometimes when you miss some detail you might affect the integrity because you think it is inconsequential but at the end of the day it is actually quite important. It often happened.

You also said writing a bad report as not to offend anyone. What is a bad report? *Meaning testing the component and it fails. You cannot offend the guy who has the parts tested. The parts people don't like failure you are not even allowed to use a negative word like failure. We have been requested not to use the word fail or failure because of legal reasons. This is only in the last month. The fact that something did not pass people take it very personally. It means extra work for that person. It keeps the whole project back. I will try to be human and feel a bit for the poor oke - give a person a chance to explain but I can be blunt. It is my style to be blunt I don't like to beat about the bush. I will rather use the word *deficient* instead of *failure*.*

5. FEELING / AFFECTIVE practices

If your manager makes a comment how do you feel about that? *I don't have a problem with that.* If he marks, it should be fine once I will make changes but if he marks the same thing three or four times I *will feel insulted and wonder if he can't make up his mind.* But it has not come to that.

Your response to comments and suggestions? *My response is positive.*

You can write it how good it will come back with some comment. My response is ... *I will always laugh and fix it. You don't have a choice.* The more you do it the more you learn about the style of your manager.

What is usually suggested to you in your writing? They will just. if it is something *silly they will give me a slap behind the head* and ask why do you have two of the same there and the next thing... *I will say sorry and quickly change it.* It is normally detailed. Usually you have to write down a lot of copy and lines and think Ok, how can I also make this work? At the end of the day when you are finished you will know if you left out something. *I sometimes feel stupid. You want to be accurate and you don't have a lot of time to go over things.*

My manager is English he thinks in a different style as we do and you have to get into his way of thinking otherwise *he would rip your report to pieces and you have to write it over and over again.*

6. LITERACY practices

What suggestions would Albert usually mark on your report? That is more about in terms of *tenses or something.* It is simple things. At the end of the day the report might leave South Africa or to suppliers... it is confidential but it needs to be good with *no negatives.* All the names will be on the report

What do you do to revise and edit? The input that Albert gave you- **Does it pertain to spelling and grammar or technical aspects?** It varies. He might say, listen the way you word it, you should not *word it negatively but rather positively.* So the connotation should be positive. It had to meet the criteria. For instance I said there is no reason why that part could not be used. *So I had to change it.* For example you must think how people will interpret it. Anything that is negative, example *no* or *can't* can be perceived as being wrong. You just have to word it positively. *Yes sometimes I will have to change the grammar to make it more simplistic.* I never had feedback to say things are not right. Or the language is not right. *We just processed what is questioned in the engineering section.* After 60 days you have to delete anyway so someone else might say that you must add something else. You can issue another test procedure as happened in the past and that will be on the next report. So there can be follow-on

You said - Proofread copies, handout for proof reading, then submit to manager who sends back for corrections. It will normally be grammar. *He will change the grammar.* My manager is English. Any report will always come back. You can write it how good it will come back with some comment. My response is ... *I will always laugh and fix it.* You don't have a choice. The more you do it the more you learn about the style of your manager.

It depends on how much time I have. I always spend time on *rereading the reports.* I always go back and I like things to be as good as it can get.

Does poor writing exist in engineering? Ja like I said when someone reads it and there is a blank expression and you can see they don't understand it. It takes normally a week to compile and write a report.

7. CONTROL / AUTHORITY practices

Who is the “approver”? **What is your role in this process?** My supervisor. He is on his own but sometimes he will come back to me if something is not clear to him. *But I’ve got no influence* what I find out is what makes the report longer sometimes you test one component and four derivatives and it is difficult to consolidate all the results in one report. It makes the report bigger

Will the comments influence the report? It depends sometimes it become a huge document and *a certain manager will defend his department* we always make everyone feel that they can make changes but if something happens or goes wrong *it is not our fault*.

What is meant by taking it further? Distribution of the report to the relevant parties. *He is the one who have the power to distribute the report to the people concerned*. If I do a trial test solely for our record keeping or something like that we don’tbut he will distribute it to the relevant people. He will do it and my name is still on the report and I will copy it as well. *He will deal with any questions*. Sometimes it will go straight to him and ...

Within that was there a system whereby you improved or didn’t improve? Ja, he will say this is a better way to put it. **Were you open to that kind of thing?** Yes, of course. *Sometimes I was thinking should I argue about this, because I don’t always agreed with him but then*. **Why would you not agree with him?** *Because sometimes I think I’m right, but they grew up in English so they will obviously have to say no, but I know how it should be....*

Are reports never changed once issued? Explain your answer. No once it is issued it is issued. *There is a system that is in place when it is issued it is locked. If something is wrong you can discuss it with the person who locked the report - you can ask him to unlock it*.

In your reports and testing, you are in charge? Yes what will happen if there is a test ... *there is procedure to follow which is written out by ... or whoever and you have to follow it. We are responsible for our own reports. The supervisor is the go-between the senior engineers and us*.

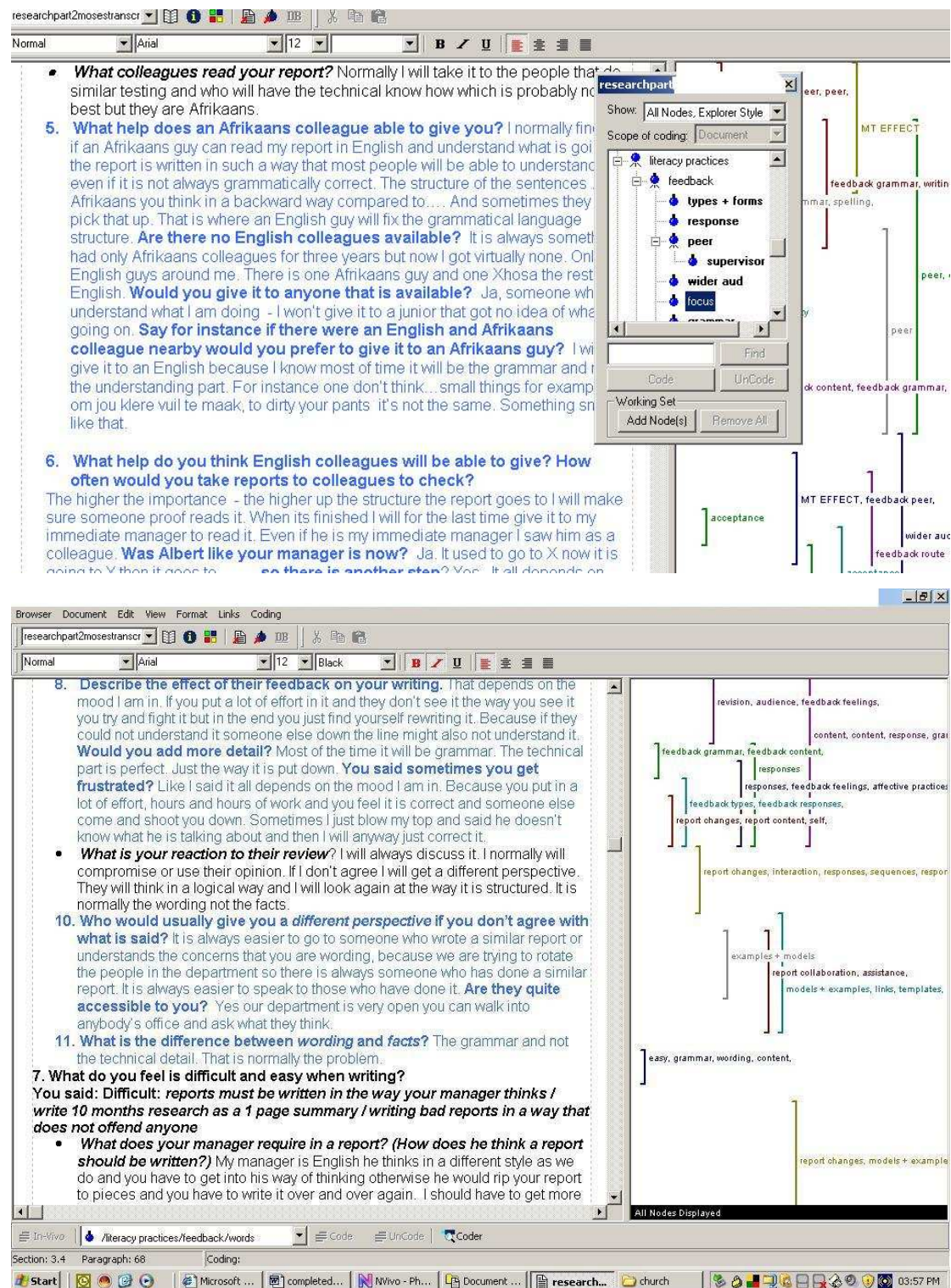
8. MAINTENANCE / CHANGE practices

9. TERTIARY / HIGHER EDUCATION practices

10. FUTURE report writing practices

THANK YOU ALL SO MUCH! Keep in touch ☺

APPENDIX F / NVIVO CODED TRANSCRIPT EXAMPLES



APPENDIX G / TRANSCRIPT EXAMPLE

Font and Colour key:

- ❑ **Blue bold** = Interview 2 questions and comments
- ❑ **Blue unbolded** = Interview 2 responses
- ❑ **Black Bold** = Interview 1 questions and comments
- ❑ *Black italics* = Interview 1 responses
- ❑ *Black italics yellow highlighted* = probe questions from Interview 1

Interview Part 2 / 26 / July 2005 / 14:30 / Moses
(Based on research interview 3 / 22 February 2005 / 10:00)

Qualification: NDip Mechanical engineering
Department: reliability vehicle engineering
Work experience: 5 years
MT: Afrikaans

I just want to ask you did you read the transcription? Yes I read through most of it, but did not finish it all. **Did you have any comments on what was said or how it was done?** No not at all. **Are you quite happy that it was a true reflection of what we....** Yes I can't remember all we said. **Nor did I. There was two questions – so that was that and what in terms of research getting people to give responses and respond to things like interviews and questions – what would you say is the most problematic thing for someone like you in the work place to actually do something like this?** I think making time where you can sit down and concentrate long because this is quite a document – to sit and read through it and concentrate and not going off and start gibberish or even be sarcastic – you have so much distractions and the only time you can do this is after hours where you can do it on your own. **So it is a practical thing more than reluctance or not being able Is it more practical?** I think just because of – I have such a workload for something like this it comes to you want to do this but it is a thing that can wait and if you wait you will wait forever. **Thanks for that – You will see on page 2 ...**

What types of writing have you done/do in your mother tongue? In the workplace? *Ja luckily the people working under me are all Afrikaans. I always speak Afrikaans. It is just at official meetings that we speak English. Emails will only be in Afrikaans if it is sending out to friends. Very seldom work related. I normally have to write in English. I've got a spelling dyslectic problem and working for four years straight in English makes me so much better to communicate in English than in Afrikaans. It is easier for me to spell correctly in English than in Afrikaans.*

1. What types of writing do you do in your second language? You said reports. I communicate mainly via email to give feedback what is currently happening. So that all happens in English because I speak to German people all the time – no work related except speaking in Afrikaans.

2. What type/s of writing did you do at school?

You said normal language report writing. English second language – it would be report writing in the sense of essays, writing reports on books and the letters. Namibia is totally Afrikaans. I am totally South African.

3. Describe the writing instruction you received at school. (How you were taught to write?) You mentioned styles of writing letters, short stories, essays and reports What styles were taught? *In English we just wrote letters that is only one part of the curriculum the rest was Afrikaans. You had your projects where the styles were exactly the same.*

4. What type/s of writing do you usually do in the workplace?

Reports Any other? The amount of what you do is once a month.

I have to write basically a summary report about everyday of what I do. It is normally about five pages. The writing part is very technical. Route mileage etc for every vehicle. I use templates. Once a month I will do a proposal. My line of work is purely technical.

Describe a typical technical writing style. Can you try and describe what goes in technical writing? Ok a technical writing was more factual more facts based and to the point. There are a lot of abbreviations. Are they standard abbreviations? Standard in ... -we have a 23-page document of abbreviations in ... alone. **So that is an international abbreviation and if you use it anyone will know what you are actually talking about? I am not sure I don't think so. But they have got access?** In ... South Africa everybody is supposed to. But you won't use abbreviations in a document that is used world wide unless of course.... **You think that abbreviations in terms of academic writing I will use the full term and use the abbreviation afterwards and from then onwards I will use the abbreviation. Do you use the same technique?** If you are going to use an abbreviation more times in a sentence or document yes I will surely use that. **Are there any other non-standard forms of abbreviations besides your official listing?** Ja I think especially in the technical department there is quite a few that will overlap with the financial guys and you will be using the same abbreviation for different situations. **Thanks for including things like dates, sizes and that kind of information.**

How do templates assist this writing style? Man because we are using those templates it gives you a guideline what to write. And also it is limited to space and once it is limited to space and characters you already know how to shorten your sentence and the objective can be a paragraph and it gives you a very good guideline. **Did you ever read a template or report that was so concise that you could not understand it?** Yes that is a big problem with us because you get forced to use the template formats and being to the point. Two departments can be next to each other and use different abbreviations and wording and you will lose the whole terminology of the sentence just because they use words so factually based. If you use a word like hetrodowndown???? for own department everyone will know it but the other department won't know the word. That car suffers from hetrodowndown???? and you won't know what it is. What is it? That is when your vehicle gets to a frequency. When two frequencies match up. And you are driving it is just a peak normally from the wheels and the car goes through a shudder and nothing changes. A lot of frequencies just coming to peak together. **So that is the fancy word.** Ja.

I noticed that you.... the one report that I saw the time when you done the course there is another addendum where you will add the conclusions and recommendations – seems that you get the chance to extend - is that normal for all templates? Ja... **OK so you would have the concise template form and you will extend in terms of fleshing it out a bit?** Ja, because the rule is the manager is suppose to only read the first page and know what will be following and the rest. He doesn't need to read the rest. So this is actually say for instance you have to go back a year or two after writing a report and you are looking for a specific problem you would just refer to the front pages and you are suppose to pick it up and if you want to go into more details it is available. **And it is important you always have that part B?** Ja, because if someone wants more information or if you have a problem you need to put all the circumstances that work together to cause that problem you need to highlight it. Because it will always come up and someone will ask how and why. A lot of times you get that you got to a conclusion but six months down the line it was found that you were halfway in finding the problem and it was something else. You will give your circumstances and you will see the full extend.

5. How experienced are you in doing the types of writing described?

Spelling problem causes me to rethink sentences. Describe your "spelling problem"? *I am dyslectic I write the way I can't spell for the life of me. I hear words phonetically and that is the way I spell and that is why I have a problem reading be it in English or Afrikaans. I battle with both.*

What do you rethink in your sentences? *Especially when I get to a word and I can't spell it – it will take me a while I will use a synonym. I do go to spell check or use the thesaurus but if you spell as badly as I do it doesn't even give you the right spelling.*

What effect do you think your spelling has on meaning? Yes I get to words that I don't know how to spell it and then I will have to think on another line of attack to get the same message across. **Will you abandon the word?** I will normally try all the means and methods to get to it – normally it helps to ask your colleagues but sometimes they are not close by and you have to think of another way of writing. Our writing is a lot of time brackets. You have this amount of time to finish writing. **But Moses if I read your work, do you think I won't understand what you are talking about?** No I don't think so. I think it is very irritating for senior management to read something that is not spelled incorrect and you get ripped off big time for that. **If everything else is technically correct and structured well you know there might be...the fact that you have dyslexia that people should be able to sort that out?** Well many times when I come to spell check it doesn't help. **That amazes me that spell check can't help you.** You get like ... we were writing odour today and I battle - I had it oder and it gave me outdoor and order... **Do you ever use the Thesaurus?** Ja but in the technical parts the Thesaurus also does not help and you are back at square one. The technical words are also more difficult and you don't have a spell check for that.

6. What assists you in your writing in the workplace? You said you normally hand report to colleagues to review before submitting to my manager

What colleagues read your report? *Normally I will take it to the people that do similar testing and who will have the technical know how which is probably not the best but they are Afrikaans.*

What help does an Afrikaans colleague able to give you? I normally find that if an Afrikaans guy can read my report in English and understand what is going on the report is written in such a way that most people will be able to understand it even if it is not always grammatically correct. The structure of the sentences ... in Afrikaans you think in a backward way compared to.... And sometimes they won't pick that up. That is where an English guy will fix the grammatical language structure. **Are there no English colleagues available?** It is always something, I had only Afrikaans colleagues for three years but now I got virtually none. Only English guys around me. There is one Afrikaans guy and one Xhosa the rest is English. **Would you give it to anyone that is available?** Ja, someone who will understand what I am doing - I won't give it to a junior that got no idea of what is going on. **Say for instance if there were an English and Afrikaans colleague nearby would you prefer to give it to an Afrikaans guy?** I will give it to an English because I know most of time it will be the grammar and not the understanding part. For instance one don't think...small things for example *om jou klere wil te maak*, to dirty your pants – it's not the same. Something small like that.

What help do you think English colleagues will be able to give? How often would you take reports to colleagues to check?

The higher the importance - the higher up the structure the report goes to I will make sure someone proof reads it. When its finished I will for the last time give it to my immediate manager to read it. Even if he is my immediate manager I saw him as a colleague. **Was Albert like your manager is now?** Ja. It used to go to X now it is going to Y –then it goes to ... **So there is another step?** Yes. It all depends on who is in line for ...Albert would normally give it his rubber stamp and X will more or less sign it off, but if Z or someone else who is also Afrikaans will surely bring it back to you and ask you to rewrite it – it is difficult to say ... It all depends on their line of thought. Ok it is funny - if X finds a problem he will come back to you and not give it to Y. It all depends on what mood he is in.

What do colleagues review? (And when?) *They will check technical detail and grammar. I will do it 99% of the time. It just becomes part of the process. I will get a proof reader.*

What grammar is usually checked? It is mostly word order - it is using words where there are two words where you could use one that you don't know in English. That would be more grammar. **It gets better all the time – you are very bilingual in the way you speak?** I am just on my nerves!

Describe the effect of their feedback on your writing. That depends on the mood I am in. If you put a lot of effort in it and they don't see it the way you see it you try and fight it but in the end you just find yourself rewriting it. Because if they could not understand it someone else down the line might also not understand it. **Would you add more detail?** Most of the time it will be grammar. The technical part is perfect. Just the way it is put down. **You said sometimes you get frustrated?** Like I said, it all depends on the mood I am in. Because you

put in a lot of effort, hours and hours of work and you feel it is correct and someone else come and shoot you down. Sometimes I just blow my top and said he doesn't know what he is talking about and then I will anyway just correct it.

What is your reaction to their review? I will always discuss it. I normally will compromise or use their opinion. If I don't agree I will get a different perspective. They will think in a logical way and I will look again at the way it is structured. It is normally the wording not the facts.

Who would usually give you a different perspective if you don't agree with what is said? It is always easier to go to someone who wrote a similar report or understands the concerns that you are wording, because we are trying to rotate the people in the department so there is always someone who has done a similar report. It is always easier to speak to those who have done it. **Are they quite accessible to you?** Yes our department is very open you can walk into anybody's office and ask what they think.

What is the difference between wording and facts? The grammar and not the technical detail. That is normally the problem.

7. What do you feel is difficult and easy when writing? You said: Difficult: reports must be written in the way your manager thinks / write 10 months research as a 1 page summary / writing bad reports in a way that does not offend anyone

What does your manager require in a report? (How does he think a report should be written?) *My manager is English he thinks in a different style as we do and you have to get into his way of thinking otherwise he would rip your report to pieces and you have to write it over and over again. I should have to get more information and I come more in line with his line of thought and acceptance. And I make sure the structure is the same.*

What is needed to get into his way of thinking and acceptance? It is a lot of ... more the ... first what you want to achieve with the report. For me sometimes the essence of reporting that something failed where he doesn't see it that way. He sees it as it as something down the line that can cause maybe warranty claims. So he thinks of it in the bigger perspective. Or I said I complain from the stance... **The whole business working with someone – is it outlined expectations - so that you are clear in your mind where this is going?** After writing a few reports you start seeing each manager's different style. Some would try and emphasise concerns as being from the records, he is more worried about what caused the problem. Where others are more worried about the effects of the... and that is where the line of thinking comes in. Where you actually being in line...many managers for instance X, he comes from outside meaning a dealership, and he always thinks in the line of what it will cost the customer where you will get a technical manager that will ask what caused the problem. He doesn't wants to know what the cause is; he just wants to know what the failure is. **Is it that that the cause is a warranty issue?** Yes and it is the perspective and background of the manager. That is my perspective.

What is your response to your report being ripped to pieces? It is again like I said it depends on the mood I am in. Some days I can take it lying down and see my mistakes and other days I fight a bit I will verbalise my frustration. Would they discuss it with you or you said you write in red pen? It depends on what time they have to review it and he will sit down and use it in a red pen. Other times he will just glance at you and something doesn't make sense he will throw it back to you and ask to rewrite it. **There is no standard way?** It all depends on the time and mood.

To what structure is your referring when you say make sure the structure is the same? **You said once you keep on writing you make sure that your structure is the same as his.** Yes I think it more in the way the sentences were grammatically and the way he thinks. I will respect his background and it is then easier to structure your sentences and the emphasis is on what he is concerned about.

The wording - you have different companies working together. For instance the wording - in South Africa we talk about the fifth door and other people call it a boot. Or others call it boot level and you have to get it so that the manager will accept it.

What is difficult about summarising? You said to write ten months research, as a one-page summary is difficult. *Because I hate losing info ...I try to get everything in. But it is*

mainly pictures and details and you are expected to put it down on 4 sentences as general comment on the vehicle. I have come better at that – After writing so many reports I learned how to accommodate and writing all the major concerns.

What about writing many reports makes you a better writer? It is more in that line again where you don't have to think where this is going and you will start writing that way. **Moses, will you groom someone new as a new engineer who doesn't have the background.** Yes, the new guys get thrown in the deep end and it normally depends on the manager, it all depends on which manager he is.

You also said writing a bad report as not to offend anyone. What is a bad report?

Meaning testing the component and it fails. *You cannot offend the guy who has the parts tested.*

What offends the guy who tested the parts? If you write a report about poor design or failure it offends them. You are supposed to write the part didn't pass the test. You are not blaming the person who designed the part you blame the part itself. Many times the part failed because someone in the manufacturing process made a mistake. And now if you say poor design and it wasn't that you will take offence to it. Especially in this company where you never know who is your manager.

The parts people don't like failure you are not even allowed to use a negative word like failure. We have been requested not to use the word fail or failure because of legal reasons. This is only in the last month. The fact that something did not pass, people take it very personally. It means extra work for that person. It keeps the whole project back. I will try to be human and feel a bit for the poor oke - give a person a chance to explain but I can be blunt. It is my style to be blunt, I don't like to beat about the bush. I will rather use the word deficient instead of failure.

Describe a blunt writing style. You said you prefer saying it like it is. Yes, I don't like beating around the bush. Many times it might be a material problem and from personal experience it will know it is the design but the manager will say how do you know it is poorly designed and it is the small things. I will just come out and say it.

7.2 Easy: rough outlines. What is easy about rough outlines? *I work very structured I normally use templates I like to use things that are proven to work, my reports 114 pages are structured. I did the first one they way they wanted it, and then later in the report put the stuff in I want to. I will go the extra mile. To use the technology available. So far they are impressed even if it is more work. They have to work a little more.*

Describe your role/function (what you have to do) when it comes to the writing of reports and/or documents. You said sifting all the dates recorded for a test and then deciding what should be highlighted and possibly make suggestions on improving a product or test. What is involved in sifting information? *For instance the rim at the moment I am testing durability if your vehicle got a flat wheel it could be a splint in the tyre but it would be a minor concern. But if you have a failure for instance the rim you will mention that. Sifting means between minor and major concerns. Where did you get the information from? From ... or through the everyday data that I collected.*

What recommendations and suggestions are made? *I am a very creative thinker and I can never stop without making recommendations and suggestions. Especially when the product is due for the market. The people you are testing it for don't know what the market is like and I make suggestions so that the improvement comes out before the product ... I normally document it. I don't get response, but I do check if my recommendations have been acted on. It all depends on your expertise.*

Why are you not given a response to your suggestions? *Most of my reports go to Jen and I don't see anything after that - after it left here. They process my work and they do what they want. How do you check if your recommendations are acted on? Describe your responses to this information* Specially with the German things you must check when the next vehicle arrives, if it was changed but many of the things ... I talked about the mud flaps - I just get frustrated because three years down the line they still have a problem and I told them that the first day I tested it I told them it was poorly designed and there was a mistake. That is politics. It will be nice if they do follow on the suggestions I make. But if you

don't follow up you don't get any feedback. It is up to them to make a suggestion or recommendation.

Who else would make recommendations? *Ja, because I normally give it to the group engineer and get their input. It is general.*

What writing steps do you usually follow when writing a report / document?

You said - Proofread copies, handout for proof reading, then submit to manager who sends back for corrections. *It will normally be grammar. He will change the grammar. My manager is English. Any report will always come back. You can write it how good it will come back with some comment. My response is... I will always laugh and fix it. You don't have a choice. The more you do it the more you learn about the style of your manager.*

Describe the comments that normally accompany your reports. You said the type of comments are sometimes verbal or in writing or red pen or you can discuss it?

20. What have you learnt about a manager's style through rewriting and his comments? *Like I said it all depends on the time available to the manager to review it.*

Describe your proofreading / Describe proofreading by others

What type of corrections needs to be made usually? *You hand in hard copy and they will do the changes in red. It is just easier because the paper is in black or blue. Just like school.*

What is your response to changes in red? *Red makes me angry and we are right back at the beginning. I would always read through it and sometimes get extra frustrated because I can read it in Afrikaans and I can't see why they have a problem. I am reading and think it is the stupid language – but the red is quite aggressive to put comments down.*

22. Where are comments usually made on your draft?

What in your writing do you usually revise or edit (change)?

Compiling the conclusion - What details are usually changed? *Especially with words that is globally been used, specially the parts that we give local names. It is normally around that and the structure of the sentences. I am getting more in tune with the global use of words.*

What structures in sentences are changed? We have spoken about this. You mentioned just now that ...become quite interested in the questions. Where does the questions come from? *Mostly ... if it is Y it always is the person who have to interlink between you and the German counterparts they will ask to make clarity for themselves – it is mainly the language barrier. Here you would get the questions from the component engineer. Once the report is gone out the questions will come back to me and I am expected to answer as soon as possible.*

What things do you usually do to revise or edit your writing?

You said: Make it more grammatically correct so that non-technical people can understand the results.

What about grammatical correctness would help a non-technical person understand your results? *Yes specially with my reports going back to Germany. They think in German but they are reading it in English. You have to be one step ahead. So that you can write it so that they can understand it. I learned this style and if someone is not technically minded they will still understand it. I do get comments back from Germany. Also questions. Once the report is issued it stays the same.*

24. Describe the style you have learnt.

What usually classifies a report as final or complete for circulation?

Manager

Describe what would usually result in your manager's approval for a document. *I don't know. I will try and get it approved the first time around. I am approaching an acceptable standard. There is a bunch of us that is writing reports and there is only one English first language engineer. Most of us are second language speakers. That is why we are so used to get the reports back.*

25. Do only second language speakers get reports back? *No, again it is more the ... once you are in tune with the manager's line of thought in sentence structure you can expect the report to go quicker.*

You say you are used to getting reports back. What do you feel about getting reports back? I am so used to getting it back - it came to a stage where I don't even proof read it, but then my manager starts putting pressure on me - you have to take responsibility. That frustrates me when you done everything you could and it still comes back.

27. What would be different with an Afrikaans-speaking supervisor? I don't think it would be a difference, but I was less experience at that stage which might have been the reason for it to come back, but afterwards it still goes to an English speaking person. So I don't think it would make any difference. But if someone rewrites your report it robs you of a learning process.

Who and What determine an acceptable report/ writing in your department?

13.1 Who? vehicle engineering manager. Anyone else? *Then it goes to the other group managers and it also goes to Germany.*

What?

What connection is there (if any) between writing at school and/or tertiary institutions and writing in the workplace? You said: Use a lot of nonsense to prove that you knew nothing at school... at work as few words as possible are used to show that you know what you're talking about and just enough so that other people do not know enough about the subject not to doubt you. *Yes it is like a comprehension test – you are expected to write sentences to show that you know what you are talking about.*

What proves that you know what you're talking about to all audiences?

What could affect getting the message across?

What is “a lot of nonsense”?

You will always find the person that think he knows more than you and you have to in that one sentence show that you know what you are talking about. For example driving on gravel roads. I have to write it in such a way that I don't offend the guy that designed the mudflats - ...It is just too difficult to explain.

Describe the person who would think that he knows more than you. That is more technically - for instance a component engineer will be specialising in a part but he won't know the testing it was subjected to. And once you tested a part you know the technically specs off hand. He will know it on paper and he will try to look better. He will try and battle you with words. This part will normally be during the process. Every weeks testing gets scrutinised.

What would usually offend the guy who designed the mud flaps? Again my favourite line is: They were not thinking. Down the line there is still problem. I complained two years down the line but they try and battle you with words. They did not do their work. I am just the tester. Now you have to look and see where the problem is. Would it be visually be acceptable if you let the mud flap hanging halfway? That is the thing – I would say the mud flap is not working. They would say if you make the mud flap like you want it will not be visually appealing to the customers. Normally ... **Maybe one year you will wake up and see that mud flaps have changed?** Ja

What would identify as barriers you experience in the writing process?

You said: Terminology and keeping it short. What “terminology” is a barrier”?

Especialy in the company there are so many different technical layers for.... there is no standard. You have to be aware of the differences. Your manager will have to know what words you can't us. You never know for instance the word tailback. Because in South Africa it is the back of the bakkie. In Germany it is the boot of a hatchback. I try and cater for the Germans. Some people don't understand the terminology. If you use an obvious word what we are used to they might not even know the word.

Describe the various standards for technical understanding.

What would you define as good writing? You said - No readers with blank expressions after reading your report. **What causes blank expressions?** *I always think of becoming a*

teacher. If you can explain something so that they understand it – a light went on and not the dumbstruck expression.

What would you define as poor writing?

You said: Questions about content and validity. What can be done to overcome these concerns? Sometimes you for instance you find a part to be failing and they say ja you should understand that you drive on gravel. For me failure is failure and to sweet talk it and say if the vehicle is used on tar it might cause trouble... You are not allowed to say that it will fail. That frustrates me. It makes you doubt the results. If you're not clearly stating it you imply that there is a problem. For a technical person it would always be a problem.

Does poor writing exist in engineering? Ja like I said when someone reads it and there is a blank expression and you can see they don't understand it. It takes normally a week to compile and write a report.

32. What causes a blank expression? I think as engineers as soon as something makes sense – the gears starts turning. You light up and thinking I could do it this way. If it doesn't start the gears turning then I know I will have to start explaining.

Any other comment/s about writing? No the research is not a problem the - problem was right in the beginning deciding who should go on the report writing course.

Thanks so much for all this effort ☺

Thanks so much for your responses and comments Moses, they have been such a help.

Regards

Any other comments? Specially things like this – we had this one class in communication at ... and it was in Afrikaans. And also the lecturers at ... – they may be brilliant communicators but they have no engineering background.

Were there a lot of changes in the motor industry? Yes, it is more international.

Everything is more standardised. We do have a lot of templates and we are trying to find out from ... what they expect, new report writing styles and new templates. There is a procedure for everything. It is coming from the States. We have a website and if you want to know anything you have to go to the website. And the managers don't have time to review all those things. **If you move from here to ... will it be similar?** I don't know – ... is more German orientated. So I won't know – Z came from ... and he might know the difference. **You are still in the process where you are learning skills that will translate internationally?** But like I said, the previous company I worked for was German orientated but it was totally different. The reports you wrote went out and the managers did not know what we were doing. Once you are a supplier ... got a controlling hand it is a very big company – what you write is going out and it is authority. Where if you are a supplier and you write something you are just the village idiot. But they always try and find fault with it. ... is the authority and their reputation - they will rather caution on the side.

APPENDIX H / ENGINEERING EXPERT COMMENTS

Marvin

1. Being creative is an essential requirement to be an engineer.
2. This comment surprises me. Every SABS specification that I have read has the same format, which is very similar to the one that is taught at Technikons.
3. Most engineers say that it is easier to write a technical report in English than their home language, because all of the textbooks that they used while studying were in English. In many cases technical words cannot be translated.
4. This is normally preferred in industry.
5. This could lead to a very confusing report, unless he is also using a dictionary to clarify the meaning of the word.
6. This is a very common problem.
7. This is not always possible.
8. This is a very difficult problem to overcome.
9. This type of problem is easier to explain in some form of matrix (or spreadsheet) than it is to explain in words.
10. The conclusion should be based on facts and not opinions. The logical approach is to use the test results to reach a conclusion, and then use the conclusion to recommend improvements.
11. This is a common problem.

Greg

1. This seems to be a contradiction. I thought the purpose of this template was to standardise the reports.
2. Engineers are supposed to be creative.
3. Checking your own work is always difficult. You tend to see what should be written rather than what is written.
4. This seems to indicate that his report writing is good.
5. This is a good habit.
6. This also indicates that his report writing is good.
7. I am surprised that so much of his work is repetitive. His skills are not being used.
8. My understanding is that these reports could have legal implications (such as warranty claims). I think he should draft the report first. Note 3 imply that he is drafting the report.
9. I agree that university graduates have far better report writing skills. The one reason is the final year project (which Greg has referred to). The other reason is that report-writing skills are assessed in ALL courses. A significant portion of the mark awarded for any report is allocated to the quality of the report. In some cases (when I was at Wits) some students failed a course because of poor writing.

Clive

1. Discussing the draft with the Manager is common practice.
2. This is normal.
3. A lot of Engineers prefer Excel to Word.
4. This is better than average.
5. This is very good practice.
6. Engineering does tend to have its own "language" that is not understood by non-technical people.
7. Getting a vague request for work to be done is a common problem.
8. A well-written executive summary should solve this problem.
9. No negative reporting could be part of ... 's organisational culture.
10. Industry does not use the report format that is taught at academic institutions. The format that is taught is often used for specifications, procedures, work instructions, etc, etc, but not reports.
11. This is a good habit.
12. With internal reports it is common to accept poor grammar, spelling, etc, as long as the facts are correct. With external reports, on a Company letterhead, the report represents the Company, and all aspects of the report must be good.

Gus

1. Most technical people do not enjoy reading or writing.
2. Writing an English report for a foreign audience needs good communication skills.
3. This is suitable for a local audience, but not foreign.
4. I agree with this comment. Poor communication / report wiring can have disastrous consequences.
5. These tools on a computer are not the solution to this problem. They must be used with caution (e.g. aid vs. aide).
6. No feedback normally indicates that the manager is satisfied with the report, and he has moved on to the next problem. No feedback should be interpreted as being positive.
7. Training vs. education. I am not convinced that anyone can be trained to write a report. This skill needs education, not training.
8. This is good foresight. Entering the global market does mean that report writing skills must improve.
9. A persistent positive attitude is part of ...'s organisational culture.
10. This is probably why the senior engineers are so particular about the quality of the reports.
11. I don't understand this comment. A computer merely replaces a typewriter. It does not make report writing easier.
12. This is the common American vs. English problem. I'm surprised that a person with 24 years experience needs advice.

13. There are advisory boards to do this. Poor communication skill has been discussed for more than a decade.

Moses

1. Most technical people in industry would like to assist with this sort of thing, but very few have the time to do it. Uninterrupted time does not exist.
2. He seems to be contradicting himself.
3. Another contradiction.
4. This sounds like filling in a form. I would not call it report writing.
5. In my experience it is not normal to explain abbreviations in technical reports. They are usually internationally accepted and it is taken for granted that the audience understands them. Industries also tend to develop their own "language" that is relevant to that industry only, and is seldom understood by those outside the field. The author of a technical report will assume that those outside the industry will not form part of the audience.
6. If all abbreviations and peculiar words were explained, the report would become too cumbersome, and would be considered to be poor writing. E.g., in the paper industry "broke" means waste. In writing a technical report the author should restrict his use of this word to mean waste, and use a synonym when the conventional meaning of "broke" is intended.
7. This is good record keeping, but very few people do it.
8. Poor spelling is very common in industry. In general reports usually go one level higher than the author. If a report were to reach Director level, it would normally be written by a Manager.
9. I'm surprised that these people have the time to proofread each other's work. This is not normal. Maybe it must happen.
10. A technical report on machine failure should include the circumstances leading to the failure, the effect of the failure, the root cause of the failure, and the recommended corrective action to prevent another failure.
11. This reaction is too extreme. It indicates that report writing is a serious problem.
12. This problem is not unique to the motor industry. It is the normal English vs. American confusion.
13. Being thrown in the deep end is normal. It seldom depends on the Manager.
14. This is normal in industry.
15. I agree with him. Corrections with a red pen is not constructive in this environment.
16. 7
17. This is a good positive attitude.
18. It is difficult to cater for a German and an American audience in one report. Writing in a second language makes even more difficult.
19. The frustration here is that the vehicle is designed in Germany, where there are no gravel roads. The designer would consider driving a vehicle on gravel to be abuse. Hence the conflict between the designer and the tester.

20. This is a valid comment. Many organisations insist that any written document on an official letterhead must be signed by a Senior Manager.

Face

1. I understand him finding English being a problem with his studies, but this should not have affected his command of maths.
2. I would not consider writing software to be report writing. All engineers can write software in one or more languages.
3. "Normal engineers" generally do not have a good command of language.
4. This implies that report writing is a part of the performance appraisal system. Very good idea.
5. Using diagrams, drawings, sketches, etc is common practice.
6. These functions should be used with caution. (E.g. writing in the passive voice is usually identified as being wrong. Technical reports should be written in the passive voice).
7. This is too rigid.
8. A non-technical person needs to know the difference between "the bold will rattle" and a car's loose suspension! A rattling bolt is irritating and annoying, but a loose suspension could lead to an earlier than expected funeral.
9. English vs. American.
10. Explaining abstract concepts is always difficult. In this case the word "current" could mean conventional current (which electrical engineers would use) or electron flow (which physicists would use).
11. Breakaway torque is a characteristic of an electrical induction motor. It should not be difficult to explain this to a mechanical engineer.
12. English vs. American spelling.

Brad

1. Written language is probably more accurate, but not necessarily easier. Relying on spell-check is also not a good idea. It often leads to a correctly spelled incorrect word.
2. Unusually good command of language.
3. Refer to 2.
4. Refer to 2.
5. I agree with him. The audience is the only good judge.
6. Being concise is very important in industry.
7. This is a very positive attitude to having his work corrected.
8. Refer to 7.
9. Refer to 7.
10. This is true for internal communication. However, external communication also reflects the professionalism of the Company. It must be correct.
11. External communication documents must be correct.

12. An apparent lack of confidence despite his good command of English. I don't know the reason for this.
13. Refer to 2.
14. Refer to 2.
15. Refer to 2.
16. This is a common problem for engineers. That is why we normally communicate with each other using drawings. Unfortunately very few other people can interpret the drawings correctly.
17. This is a typical logical approach used by technical people who tend to write well.
18. The conclusions and recommendations are the purpose of the whole process.
19. This indicates a good focus in his reporting. The customer is the most important audience.
20. Attention to detail is a trend throughout the transcript. Probably a good trait in his branch of engineering.
21. In the industrial world it is normal to not have enough time to do the job as well as you would like to. An unfortunate reality.
22. Refer to 20.
23. Refer to 20 and 21.
24. Refer to 16.
25. Refer to 10.

APPENDIX I / TEMPLATE EXAMPLE

Evaluation Report

* = Required field

Platform	Project/EV/O No.	Requirement No.	Procedure No.	VPP/VIA/UPC	Model Year	Model No.	PER/Report No.

Int. Reg. No. _____

Category: _____

Function: ☐ Development ☒ Validation
 Method: ☐ Math Based ☒ Hardware Based

Date: _____

Title _____

☒ Final☐ Interim☐ Reissue

No. _____

Date of Reissue: _____

To (Requestor): _____

Date of Request: _____

From: _____

Dates of Evaluation: _____

*Objective: (Required) _____

*Conclusions: (Required) _____

Recommendations: (As Required) _____

*Design Evaluated: (Required)

UTS Rating: (As Req'd)

Veh Mileage: (As Req'd)

*Part/Test Object Name(s) (Required)	Veh/Buck/PT/Part No./RPO: (As Required)	Revision Date/Level (As Required)

Distribution:

Name: _____

Loc: _____

Name: _____

Loc: _____

Name: _____

Loc: _____

Name: _____

Loc: _____

Name: _____

Loc: _____

Cc: _____

Author: _____

(Title/ Phone) _____

(Location) _____

Date _____

Approver: _____

(Title) _____

(Location) _____

Date _____

Approver: _____

(Title) _____

(Location) _____

Date _____

APPENDIX J / NVIVO CODED TRANSCRIPTS

As NVivo does not allow coded transcripts to be electronically copied, the coded transcripts have been printed out and added as Appendix J. The interview transcripts are in the following order:

- ❑ Brad
- ❑ Clive
- ❑ Face
- ❑ Greg
- ❑ Gus
- ❑ Marvin
- ❑ Moses
- ❑ Tani