CHAPTER 2:

RESEARCH ORIENTATION

2.1   Introduction

The research project undertaken in this study was outlined in Chapter 1. As pointed out in that chapter, the question posed in this research necessitates method development in line with the integrated theory adopted.   To some extent, the research in this study problematises both the theoretical domain and the empirical object: it is my belief that the one must always inform the other. Prior to beginning the study proper therefore, this chapter examines the research orientation that is adopted in this project.   In addition, the chapter gives a brief overview of the data and methodology used in analysis.

2.2   The role of theory

Research, in my view, is an activity that aims at the understanding and explanation of phenomena, and through this at contributing to knowledge production. Research is an activity both in the physical and in the socio-cultural sense. With regard to the latter, it is not the only means of knowledge generation (new knowledge may, for example be generated through practical or theosophical means), but it is one which carries particular value in a particular segment of society.   By its nature then, research is a culturally-loaded activity.

Research cannot be neutral. Moreover, research cannot proceed without some form of understanding of the world and its relations. This understanding or theory may be implicit rather than explicit in the work, but is inevitably present. In the explicit sense, 'theory' refers to a body of thought that guides

our understandings of the world. In the same manner as research, theory provides a means of transforming practice by "transforming the ways in which practice is experienced and understood" (Higgs, 1998, p.3).

The focus of research may be at the level of the empirical or at the level of theory itself. The levels are different and should not be conflated; however, developments at one level should inform developments at the other. There is a necessary connection between our understandings of the world and our experiences of it. The physical world itself, however, in contrast to the social, exists independently of our own theories and experiences, and provides the 'material resistance' against which our theories and forms of experience will be tested.

The understanding that I have adopted is thus fundamentally realist in conception. This epistemology is described by Keat and Urry (1980) as follows:

> The realist shares with the positivist a conception of science as an empirically-based, rational and objective enterprise, the purpose of which is to provide us with true explanatory and predictive knowledge of nature. But for the realist, unlike the positivist, there is an important difference between explanation and prediction. And it is explanation which must be pursued as the primary objective of science. To explain phenomena is not merely to show that they are instances of well established regularities. Instead we must discover the necessary connections between phenomena, by acquiring knowledge of the underlying structures and mechanisms at work.... Thus, for a realist, a scientific theory is a description of structures and mechanisms which causally generate the observable phenomena, a description which enables us to explain them. (cited in Mouton, 1993, p.227)

In a realist conception then, the aim of 'science' or research is to expose the causal 'structures and

mechanisms' which underlie and explain social relations and individual actions, very often at an unobservable level. Understandings of these mechanisms or causes may themselves be theory- or culture-based, and do not have the status of objective fact. However, a good theory, and by implication research, contributes to this explanation.

The value of a particular theory, in this account, cannot be confirmed though hypothesis testing. Although social knowledge is seen as an object, it is not a static object: within this model, "invariant empirical regularities do not obtain" (Mouton, 1993, p.233). Since empirical regularity is required for any model of science which has as its aim to formulate propositions or hypotheses on the basis of the theory and to set out to confirm or disconfirm these hypotheses on the basis of empirical results, in a realist conception, theory cannot be related to research through "deductive procedure"(op cit).

Moreover, theory, in this understanding cannot be tested through its predictive ability. Since the object and the subject of study in this model are mutually implicative, and since knowledge production itself does not locate outside of this relationship, "knowledge production in the social sciences may be causally and internally related to the process of the production of the objects concerned." (Mouton, 1993, p.234). Thus,

> (a)ll investigations and analyses are made from the perspective of some particular
> theory or theories ... they are theory dependent or theory laden, and this is so
> regardless of whether or not the underlying theory is declared, admitted to, or spelt
> out. There can be no such thing as a neutral examination, or an examination which is
> objective either in the sense that it is a-theoretic or else sufficiently eclectic so as to
> encompass all theoretical perspectives... (Harris, 1982, cited in Hargreaves, 1985,
> p.25)

This 'causal interdependency' between the objects of social theory and the theory itself, "precludes

any form of historicism, that is, the doctrine that it is possible to deductively predict future social phenomena or events" (Mouton, 1993, pp.234 - 235).

However, theory must be tested in some sense that goes beyond pure internal logical consistency (Hargreaves, 1985). In a realist account, this is provided for in that, while the theoretical frame simultaneously generates and explains, it also provides a means for description and interpretation. The utility of such description or interpretation, and of the explanatory account offered, is open to investigation (Layder, 1993). That this investigation is itself not limited to the perspective of the theory concerned is provided for by the nature of the object itself:

> while the interpretations of phenomena can and often do reflect the theoretical predilections of the researcher, the range of possible explanations is not entirely limitless, not completely the product of theoretical / ideological bias; for the object itself as a real object places definite limits on the interpretations that can be made of it. (Hargreaves, 1985, p.30, drawing from Thompson, 1978)

The relation between theory and the empirical work deriving from it is thus crucial: "(e)mpirical work of high quality consists of a continuing dialogue between theory and evidence where each is continually interrogated against the other as well as being tested for its internal consistency and coherence" (Hargreaves, 1985, p.28).

Whilst the existence of a prior theoretical framework may limit the possibilities for interpretation, and thus for the development of new theory, theory development of the framework is possible within its own constraints. Layder (1993) suggests that these developments will, primarily, be "outgrowths of the master framework" (p.52). He shows, however, how theory generation (as opposed to development) within the general framework is possible by distinguishing between general theory, which must be seen as a network or "integrated clustering of concepts propositions and world views"

(p.15) and which does not have a direct correspondence with empirical observation, and micro-theory: substantive and formal theory. Substantive theory is "theory developed for a substantive area"(p.42), whilst formal theory is "theory developed for a formal or conceptual area of sociological enquiry"(op cit). Either of these two forms of theory may be generated directly through empirical data, and formal theory may, in addition, be generated through the analysis of substantive theory. General theory is not simply an accumulation of these 'micro-level' theories, but should inform micro-level theory: "any ... 'dissolving' of elements into each other wrongly ignores the distinctive properties of different levels of social reality, and thus has the effect of producing empirical analyses which are incomplete and lopsided" (p.103). A general theoretical framework therefore provides understandings on the basis of which micro-theory (formal and substantive) can be developed. In Layder's view, this

> enables social research to address the problem of the division between macro and micro levels of analysis in sociology by concentrating attention on the organic links between them ... Such an approach directly opposes those which assume either that one level can be reduced to, and explained by, the other more 'favoured' level, or that the less favoured level can simply be tacked on to the 'more important' focus of analysis. (op cit p.8)

2.2.1 The role of the researcher

The 'theory-ladenness' of investigation pointed to above, in addition to pointing to a relation between theory and object in social science, points to a relationship between theory and investigator, and to a relationship between theory and method. The researcher, as an individual situated within a social world, brings to the investigation a set of assumptions, beliefs and knowledge values which themselves will shape the nature of the research. Thus, "the theorist's identification and interpretation of data will reflect his or her particular theoretical and value orientations and ... the resulting

explanations will therefore be prone to ideological contamination" (Hargeaves, 1985, p.28). Knowledge about research itself, expressed in the researcher's method, will be an indication of ideological orientation, not only of the researcher, but also at the level of societal values:

> to acknowledge that knowledge systems are related to particular historical groups in society is to recognise that our forms of reason and rationality embody limits and pathologies. The knowledge of inquiry is always socially and culturally bound. The position of researchers is defined by their affiliation with other groups and interests in society. (Popkewitz, 1984, p.183)

Theories adopted are thus themselves historically, rather than universally, situated, and reflect specific socially and culturally situated 'rationalities' which function to provide "a logic to frame problems and their solutions. To select and organise schemes for analysis and interpretation (thus) has consequences beyond 'descriptive' reporting" (op. cit. p.185).

There are two implications of this understanding of the situatedness of researcher, method and theory. The first is at a political level, and concerns the moral obligations of the researcher. For Popkewitz, a 'critical posture' is necessary, through which "(t)he possibility of a science of our human condition emerges from making problematic what is accepted as normal and natural" (1984, p.194). The task of the researcher is thus to continually scrutinise his / her own assumptions in order that these be made explicit and available for criticism. Gee (1990) would concur. In his view,

> (o)ne always has the (ethical) obligation to (try to) explicate (render overt and primary) any theory that is (largely) tacit and either removed or deferred when there is reason to believe that the theory advantages oneself or one's group over other people or other groups. (p.22, brackets in original)

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The second implication of this understanding is at the level of empirical practice. Here, an acknowledgement must be made of the role that the researcher plays in constructing (framing) and interpreting the data. Data can be framed and interpreted in any number of ways: "(t)here are always, in principle, many interpretations of a text, a text can always be interpreted at different levels (more or less deeply), and interpretations can never be 'proven'" (op cit, p.111). Far more important, then, than attempts to limit interpretative bias, is an account which makes explicit the researcher's perspective and assumptions, and which provides, for the reader to judge, as full a rendering of the data and interpretation process as possible (Guba and Lincoln, 1989).

2.2.2 <u>Orientation</u>

A distinction is commonly drawn in research literature between studies which can be described as hermeneutic or interpretive (Hesse, 1990) or 'qualitative' (Bogden and Biklen, 1982) and those which can be described as positivist or quantitative. This distinction is illustrated in the table below:

<u>Positivist interpretation of natural sciences</u>	<u>Hermeneutic interpretation of human science</u>
Data direct, theory-independent	Data interpreted
Objective laws and concepts	Correlations and ideal types
Language exact, univocal	Language equivocal, contextual
Concerned with closed experimental systems	Concerned with open systems
Unified comprehensive, progressive theories, hence predictive	Almost none such, hence mostly non-predictive
Overriding pragmatic criterion	No single overriding criterion
Only marginally concerned with interests and values	Concerned essentially with interests and values

Non-self referential	Self referential

Bogden and Biklen (1982) further describe the five main features of qualitative research as being that it uses 'natural' (rather than experimentally produced, artificial) data, that it is descriptive, that it is "concerned with process rather than simply with outcomes or products", that it is inductively analysed, and that it has a strong focus on 'meaning' (pp.27 - 29).

The distinction between the two types of research may, however, be somewhat artificial. Gee (1999b) cautions that one should not see research in terms of 'grand categories', such as 'quantitative' or 'qualitative', as theory and method should constantly and reciprocally inform and construct one another (p.6).

The distinction between the two may also be inadequate, as Habermas (1974) has shown. At the time of his writing, the social sciences had emerged from a period of domination by the positivism and empiricism characteristic of the natural sciences, and, in reaction, interpretive perspectives had become popular. Habermas suggested that these interpretive or hermeneutic sciences were an insufficient response to positivism, as they remained at the level of the subjective, and did not take account of the objective reality within which these subjectivities are formed and must act (Carr and Kemmis, 1986). Habermas distinguishes in his work between three 'knowledge-constitutive interests' - the technical, the practical and the emancipatory. Within the technical domain, instrumental knowledge which has as its object technical control over natural objects predominates. Within the practical domain, interpretive understandings ("understanding and clarifying the conditions of meaningful communication and dialogue", op cit, p.135) which can inform and guide practical judgement are the aim. Within the emancipatory domain, interest lies in power and its operations:

what is required ... is a method that will liberate individuals from the causal efficiency of

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those social processes that distort communication and understanding and so allow them

to engage in the critical reconstruction of suppressed possibilities and desires for

emancipation. (op cit, p.137)

Within this domain, therefore, the knowledge that is sought is explanation: an account that makes

evident and thus transformable the relations between social phenomena.

Of particular interest in the context of this research is the distinction between description,

interpretation and explanation in Discourse analysis provided by Fairclough (1989). Fairclough

distinguishes between different levels of the production and interpretation of texts: at the outer layer

are the social conditions of this production and interpretation; these are situated within the broader

context in which the text is operating. Within this layer is the layer of interaction: the specific

instance of the process of production and interpretation. These two layers relate, in effect, to the

context of culture and the context of situation described by Halliday (see chapter 4). At the centre of

these conditions and processes is the text itself. Fairclough suggests that description is a process

which is concerned with the "formal properties of the text". Interpretation, in his view, is "concerned

with the relationship between text and interaction". Explanation, however, is "concerned with the

relationship between interaction and social context – with the social determination of the processes of

production and interpretation, and their social effects" (op cit, p.26). At the 'heart' of explanation is

thus "the question of how discourse cumulatively contributes to the reproduction of macro structures"

(1995, p.42).

The account offered above suggests that research that does not address the level of explanation does

not provide possibilities for the transformation or generation of social knowledge. In order that this

possibility be realised, it is suggested, the level of social relations must be addressed. The account

offered in this research thus attempts, in a micro-substantive manner, to make explicit the social

relations operating in the particular context of this study. However, good research, in my view, is not

necessarily the production of new knowledge: new descriptions or interpretations of existing knowledge, though they may not themselves challenge the status quo, may enable others to do so. My intention in this research, by marrying the fields of educational psychology, discourse theory and legal education is to provide possibilities within the latter for a new view of an existing phenomenon.

2.3   Data

Chapter 1 has sketched the four domains of study addressed in this research. To re-iterate, these are as follows: investigation of the context of culture of the research; investigation of the 'cultural models' or prior knowledges connected to the concept by students at the outset of study; investigation of the mediation provided in the interpsychological sphere; and finally, investigation of individual development of the concept informed by the previous analyses.

The data used in each of these analyses differ: the first of the investigations relies on a survey of the available literature on legal education. The second, third and fourth rely on the texts constructed in the particular course under study.   Texts are seen as an important site for analysis since, in Bernstein's terms, they are both an expression of pedagogical relations and a means of positioning subjects (Bernstein, 1990, see chapter 4). As Geissler says:

> Texts play a major role in the transmission of academic knowledge in schools. On the
> one hand, as texts to be read, they function as the source and authority for the knowledge
> to be acquired. On the other hand, as texts to be written, they serve as the demonstration
> that this acquisition has taken place. (1994, p.32)

In this research, the term 'text' is understood broadly: following from Halliday (1989), text is understood as a "social exchange of meanings" (p11). The word is thus used to describe both

oral and written discourse, as well as embedded semiotic meanings. In this regard, Leibowitz (2000) points to a "continuity of form" (p.20) between the spoken and the written. However, she suggests, writing is of particular importance in academia, as it is the "medium of evaluation and thus the gatekeeper of important action across all levels of the academy" (p.22). The texts of this course, of both teacher and student, which construct the learning to be analyzed, are thus a critical site for analysis.

 The course, 'Introduction to South African Law' is a compulsory credit towards either the Bachelor of Laws (LLB) degree, or the undergraduate legal major in the Bachelor of Commerce (B.Com) or Bachelor of Arts (B.A) degrees. The course is one of three in the first year of the undergraduate major, or five in the LLB degree, and is designed to provide students with a introduction to legal studies, giving them an overview of the 'geography' of the law, as well as some of its basic functioning and terms. In addition to providing this introduction to the legal world, the course acts also as an introduction to tertiary studies, particularly for the LLB students who do not take introductory subjects offered in other Faculties. The course runs over one semester (six months), with the offering of this course being, unfortunately, simultaneous to the other required first-year subjects: thus although skills such as how to read a case and how to structure an essay are addressed in this course, students may be required to use these skills in other courses prior to this introduction.

The full class size in this course in the year of this study was approximately 350 students, which was felt at the time to be extremely large (the class has subsequently grown to over 900 students). For the purposes of teaching, in order that the class size be manageable, the class was split into five groups which were taught in parallel by five different lecturers. In this research, the sample was limited to students in a single class, taught by a single lecturer. This was to reduce variation in acquisition due to the effects of differing interactional processes.   Although an initial intention was to further limit the sample to students registered for a single degree (to reduce variation or confounding effects in discourse acquisition resulting from student apprenticeships into discourses appropriate to other

disciplines), it was found that this would have resulted in an inadequate initial sample, specifically with regard to sub-group composition. Post-graduate students registered for the course were, however, excluded from the study as it was felt that the inclusion of this group would have led to a pronounced confounding effect of prior discourse immersion.

Two further constraints were set on the initial sample for analysis: the sample was limited to those students for whom full sets of data (including marks and assignments not specifically included in analysis) were available; and the sample was constrained by ethical considerations, and by the need for student consent to be given for their work to be incorporated in the study. In this regard, a request for permission to use student work was circulated at the beginning of the course (see Appendix 1, volume 2). All but two students in the course granted permission for their work to be employed in this research.

The initial student sample size from which the subsequent samples for analysis were drawn was 84. The demographic breakdown for this sample is shown in Table 1 below:

Table 1: Class demographics (by degree and race)

	Indian	African Black	White	Coloured	total
BCom	2	2	12	0	16
BA	4	9	20	0	33
BSc	0	0	1	0	1
LLB	2	13	6	3	34
total	18	24	39	3	84

This table shows that students in the class were drawn predominately from the B.A and LLB degrees (39 and 38% respectively), with the remainder of the students primarily coming from the B.Com degree (19%). The breakdown by race shows a predominance of the white group (46%), with African

black students constituting 29% and Indian students 21% of the sample. The gender breakdown (not shown above but available to the researcher) was skewed in favour of females, with 67% of the group being female and 33% male. Matriculation results (also not shown above but available to the researcher) show a typical pattern of school achievement, with white students obtaining higher results than students from other groups. (These matriculation results are reflected in individual student details as a rating which is calculated from aggregated student results in individual subjects according to their grade in the subject. The minimum possible rating is 0, and the maximum is 40, with the ratings of students in this study falling between 19 and 33. An additional indicator used in individual student description is 'disadvantage index', which is calculated on entry to the Faculty from a examination of the biographical details of the application, and reflects social, education, gender and personal disadvantage experienced.)

The pass rate in the course for this sample in the year of this study was 59.6%. The pass rate in this course tends to be higher than those of other first-year law courses, and failure in this course without simultaneous failure in other law courses registered for is unlikely for a student. Of the 84 students in this initial sample, 48 (57.1%) have subsequently graduated; 5 (6.0%) changed degree, effectively dropping out of law; 21 (25.0%) students dropped out of university; and 10 (11.9%) students are still registered in 2004.

The primary data for the analysis in this research comprise two written texts (assignments) produced by students in response to an essay set on the topic "What is law?" The assignment was set twice in the course. The first was completed by students in the first week of term, and was intended, for the purposes of the course, to assess students' language performance. The second assignment was completed as an essay set at the end of the teaching semester (the final essay for the course), and was intended, for the purpose of the course, to provide a summative indication of what students had learnt during the course, not only in terms of content, but also in terms of skill (argument construction, writing skills etc.).

The analysis of student texts in this research is in two parts. The first (Chapter 6) is an analysis of the first student essay on the topic. For the purpose of this research, the analysis of this assignment was intended to provide an indication of students' conceptions of the concept 'law' prior to instruction. The initial sample used for this analysis comprised the full sample of students in the African black and white groups in the class (initial analysis had indicated that, to the extent that group differences could be found, they would most likely be found between these two groups). For the in-depth analysis, a smaller sample of 20 scripts was chosen: the sampling in this instance was stratified random (Brown and Dowling, 1998): 10 scripts were randomly chosen for analysis from each of the two groups.

The second stage of student text analysis (Chapter 8) focussed on plotting the development evident in student writings between the first and second texts. For this process of analysis, since the intent of the research was not to generalise but rather to examine the specific instance of development, a smaller stratified sample was selected: 4 scripts from each group were selected to give a total sample size of 8. Although the initial intention had been to use 'critical case' sampling (Dowling and Brown, op cit) for this analysis, this proved too difficult to implement: all cases were found to be equally interesting. Since the object of the research was to attempt to plot development broadly, rather than to focus on any specific instance of that development, it was felt that random sampling would be more valid. This random sample was drawn from the restricted sample in the first stage of analysis.

Details of students selected for the first restricted sample (20 students) and the second restricted sample (8 students) are provided in Chapters 6 and 8 respectively. Of interest to note at this point, however, is that although the mean results in the course for the two groups for the first restricted sample closely parallel those of the initial sample (the mean result for the African black group in the initial sample was 54.7%, and in the first restricted sample was 51.1%; the mean result for the white group in the initial sample was 63.4% and in the first restricted sample was 64.3%), the mean results in the second restricted sample, for the African black students, are noticeably lower. Thus, for the

final 4 African black students selected for this sample, the mean result in the course was 49.3%: 2 of the 4 students failed the course. None of the white students selected for the second restricted sample failed the course, and the mean result for this group was similar to that of the initial sample, at 62.8%. This final sample thus paints an exaggerated picture of the failure of African black students in the course. The picture is exaggerated, but not without basis, and the effect of the random sampling was not felt to be invalid.

For analysis of the mediation provided in the course, two sets of class texts were analysed: the course-pack, containing full lecture notes for the course was obtained, and relevant sections of this text were analysed. In addition, the full set of lectures in the course was taped, and relevant sections of this data were transcribed and analysed. This analysis is reported in Chapter 7.

2.4   Method

Gee and Green (1998) describe a critical question facing education researchers as being:

> how educational processes and practices are constructed across time by members of the classroom; how students take up, resist or fail to learn academic content through these processes and practices; and how discourse processes and practices shape what counts as knowing, doing and being within and across events in classrooms and other educational settings. (pp.119 - 120)

Although limited in its scope and intent, this study aims to contribute in some small way to these understandings.

In broad orientation, the methodology that is adopted in this research could be described as Discourse

analysis. Gee (1999b) outlines an approach to analysis that is useful for the purpose of this study. This approach does not specify a particular method or set of tools (Gee argues that there is no 'one right way' to perform an analysis, op cit pp. 4-5), but instead provides a set of "thinking devices" (p.9) through which one can interpret and analyse situated language (Discourse) activity.

Gee's approach is based on the understanding that there are five "areas of reality" involved in every situation. These 'aspects of situation' include a semiotic aspect (the sign systems involved in the context), an activity aspect (the specific activities involved in the context), a material aspect (the physical dimensions of the context), a political aspect (relating to social structures and their relations) and a socio-cultural aspect (which includes the other aspects as well as related interpersonal and value dimensions). These areas of reality constitute a system or 'situation network' whereby each is related to each of the others. In Gee's view it is through the repetition of situations that institutions are formed, which in turn "ensure the repetition and ritualization of the situations that sustain them" (op cit, p.83).

Gee points out that the focus in discourse analysis is on the semiotic aspect of situation, and suggests that any text or utterance "is composed of a set of grammatical cues or clues… that help listeners or readers… to build six things" (op cit, p.85). These six 'building tasks' include five relating to the different aspects of situation, and one, which he terms 'connection building' relating specifically to the intertextual properties of a text, or to the coherence between texts. In his words:

> Different grammatical devices contribute differently to these six tasks and many devices
> contribute to more than one at the same time. All together these six building tasks spell
> out the work of the semiotic aspect of the situation network, with special reference here
> to language. That is they are the work that we do with language (and other semiotic
> systems, such as gestures or images) to construct or construe a situation in certain ways.
> (op cit, p.86)

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He suggests four 'tools of enquiry' with which one can interrogate these building tasks: situated identity (the 'whos doing whats' in the situation); social languages (or the language practices connected to specific Discourses and differentiated from them by not including the broader cultural aspects); Discourses (in the full cultural meaning of the term, and including the grammar two forms particular to the Discourse); and conversations (ongoing debates in society which ensure that each piece of discourse is recognised, and that the intended meaning is chosen rather than plausible alternates, op cit, pp.12 - 13). Although much of Gee's own focus is on the use of Discourses and social languages as tools of enquiry, any one of these tools of enquiry will lead into the situation network and from there to all aspects of situation: "pulling on one you get all the others" (op cit, p.84).

Although a discourse understanding has been adopted in this study, the study is not a Discourse analysis per se. That is, its intention is not to interrogate Discourse or text (Discourse is not directly the object of the study, and text, although the object, is not the focus), but rather, to use the understandings provided by a discourse approach to examine development, or enculturation to the Discourse. The primary 'tool of analysis' in Gee's terms is thus situated identity. The approach adopted in this study is thus closer to what Scollon (2001) describes as mediated discourse analysis: "language (or discourse) is not the central focus of MDA, but rather it is the social action which is the focus" (p.143). The analysis is not, specifically, a textual analysis, and the focus is not on the lexico-grammatical features of the text; rather, as the understandings adopted in chapter 4 suggest, it is the meanings and values underlying the culture which must be acquired by the student and which therefore are crucial to the analysis.

Specific methods used in each section are related in those sections.

2.5   Construct Validity

> It is through attempts to deny this inevitable multiplicity and indeterminacy of
> interpretation that social institutions (like schools) and elite groups in society often
> privilege their own version of meaning as if it were natural, inevitable and
> incontestable. It is by stressing this multiplicity and indeterminacy - in the context of
> searching and ongoing investigations of meaning - that the rest of us can resist such
> domination. (Gee, 1990, p.112)

Validity, in research of this nature, is difficult to establish. As the Gee quote above points out, in an account which places emphasis on the situated and constructed nature of meaning, validity cannot be implied by reference to an external and independent 'reality'. Rather, there is a 'reflexive' relation between analysis and situation such that "both make each other meaningful ... The analysis interprets its data in a certain way, and those data, so interpreted, render the analysis meaningful in certain ways and not others" (Gee and Green, 1998, p.159).

It has been suggested above (see section 2.2.1) that the situated-ness of the researcher will determine not only the interpretation of the analysis, but also the selection of data to which this interpretation is applied. Thus, the validity of an analysis can not be claimed by reference to an objective reality, or by reference to the comprehensiveness of the data or analysis. Rather, in Gee's view, claims to validity should stem from the extent to which all the elements of the analysis work together to create a 'trustworthy' analysis (op cit, pp.88-89). There are three elements which in analysis work together to establish this 'trustworthiness': convergence, or the extent to which different analyses of the same data point to the same interpretations of that data; agreement, or the extent to which other analysts or 'native speakers' of the social language agree that such interpretation is credible; and coverage, or the extent to which an interpretation provides a basis for further interpretation of the same or different data.

This understanding relates to that provided at the beginning of this chapter on theory validity: in a realist account, it has been suggested, the ultimate test of theory validity will include the extent to which that theory provides an account which allows for plausible description and interpretation of the object. Method validity is subject to the same constraint.

Good research, on the one hand, is research that meets certain formal criteria for accuracy and thoroughness in reporting and which provides a version of reality that is regarded, by expert readers, as credible (e.g. Brown and Dowling, 1998; Bhatia, 1993). On the other, it is research which contributes in some manner to understandings of the world. The researcher herself, in this work as in all others, is not in a position to evaluate whether such contribution has, in fact, been made. This is for the reader to judge.