Rural students' local knowledge of learning in formal and informal contexts.

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By

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Abstract

The general aim of this thesis is to illuminate the process of learning as it occurs in formal and informal contexts. The study focuses on South African scholars attending school in rural areas where the contrast between learning in formal and informal learning contexts is more pronounced than that in urban areas. The research draws on rural scholars' local knowledge of formal and informal learning contexts in order to gain a rich insight into how cognition is situated in different learning contexts. This is accomplished through investigating the structure of the respective learning tasks, the mediators involved, the task objectives and the means for achieving these objectives in the different learning contexts.

The thesis draws on a socio-cultural approach to the study of cognitive development to probe the activity of learning in a formal and informal learning context. Through the use of a context sensitive methodological methods especially Participatory Rural Appraisal (PRA) tools and techniques, it was possible to illuminate tacit local knowledge structures and to get participants to actively explicate their understandings related to learning in different contexts

The research results illustrate the assertion that the activity of learning is fundamentally situated in the learning context from which it arises. Learning is framed by the community of practice which structures affordances for situated learning, through mediation, within zones of proximal development. Learning in a formal context such as the school is often abstract, rule-based, standardised and theory related. Learners also find it difficult to reflect on the learning tasks and the mediational means used in a formal learning context. In contrast, the learning which takes place in an informal setting is often practical, individualised, flexible and environment based. This learning is structured around everyday activities and is dynamically defined and supported.

In a situation where a learner is exposed to dislocated learning contexts, the essential goal of educational initiatives is to bridge the gap between the two. This can be achieved through mediators creating effective zones of proximal development which facilitate the individuals adaptation between learning contexts. Exposing rural scholars' local knowledge of learning in formal and informal contexts allows for a fuller understanding of the cognitive development structured within formal and informal communities of practice. It is this understanding that is necessary to address the situation where learning contexts, drawing on different knowledge bases and ways of thinking, prove challenging and/or conflicting to the scholar.

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Chapter 1: Introduction

The ideas pursued in this research project have their origins in previous explorations into the cognitive demands generated by different learning contexts. On a macro level, prior research in this field has focussed on theoretically understanding processes of social transformation and the effects that these processes have on the behaviour of individuals (Gilbert, 1989 & 1995). On a more applied level, research has centred around the numerous challenges facing the sphere of education, particularly formal education and the practical problems faced by learners in attempts to meet the task demands of formal educational institutions (Miller, 1989; Craig, 1989 & 1991; Visser, 1995). These two strands of research constantly overlap, accentuate and inform each other. The present study draws on these ideas in attempts to probe the micro-situation of the learner in the learning context.

The general aim of this thesis is to illuminate the process of learning as it occurs in formal and informal contexts. The study focuses on scholars attending school in rural areas where the contrast between learning in formal and informal learning contexts is far more pronounced. The research draws on rural scholars' subjective interpretations of the learning tasks involved in formal and informal learning contexts. This implies an investigation into the goals associated with these learning tasks, the locations where learning takes place, the actors involved in the learning process, as well as, the techniques used by these actors to promote learning.

1.1 Theoretical background

The central concern of this thesis is the activity of learning in different contexts. It is proposed that the activity of learning is socially defined, interpreted and supported and thus learning is fundamentally situated in the context from which it arises (Rogoff, 1984). In this conception the learner's interpretations of experience and the meanings which they attach to learning will be determined by their involvement with the tasks structured for learning within their society.

The thesis will draw much of its analysis from the socio-historic approach to cognition and learning. The socio-historic viewpoint provides a framework for the closer analysis of how contextual mastery of cultural knowledge is accomplished. Central to this premise is the idea that it is through structured activity that other, more experienced, persons are able to provide a new learner with the structure and resources to go beyond their present capabilities and enable them to learn and practice new ways of thinking (Vygotsky, 1976).

Structured activity is contextually defined within what is known as a community of practice. A community of practice is a socially created cultural context which supports, controls, structures and provides "affordances", in the form of activities, for individual learning and thinking, and thus generates the construction of knowledge (Lave, 1993). The body of knowledge encapsulated within activities in a particular community of practice is known as local knowledge. Local knowledge refers to the everyday knowledge which the community of practice employ to be able to guide, control and explain actions within specific contexts (Gilbert, Van Vlaenderen & Nkwinti, 1995)

The schooling situation and the home situation are examples of two very different communities of practice in relation to the activity of learning. It follows that since the nature of local knowledge is intimately related to activities, then the activity of learning in two different communities of practice would potentially create two different forms of local knowledge.

When one engages in activities with different mediators within different communities of practice, for example the home and the school, it follows that the individual will adopt new forms of knowledge and new rules and tools to regulate learning, thinking and action. An investigation into the local knowledge related to learning in a formal and informal learning context has the potential to reveal the dynamic of the cognitive development of the individual.

1.2 Contextual background

Contemporary South African society is in a process of rapid social change. This changing social milieu has created a tension between the learning context of the home/community and the learning context of the school (Gilbert, Van Vlaenderen & Nkwinti, 1995). The school represents a context that provides structured and institutionalised learning following established curricula and plans. Alternatively, the home and community provide a context for the informal and spontaneous learning with which all people engage through their daily experiences.

It has been argued that the differences between the formal and informal learning contexts are particularly accentuated within rural settings in South Africa (Gilbert et al., 1995). Among the reasons for this are factors such as parents' and grandparents' limited education in relation to that of scholars and the isolated nature of rural communities in which the school acts as a "modernising" agent.

Schooling by its very nature demands distinct forms of ideological, behavioural and cognitive conditions. These conditions could prove challenging and/or conflicting to the rural scholar, due to the fact that his/her existing knowledge base and ways of thinking may be different from that which is used in the schooling situation. This difference is chiefly due to the different task demands which the student faces in the two different communities of learners. The rural scholar in particularly finds himself/herself contextually immersed between these polarised learning contexts.

The schooling situation is a particular site which requires that a learner engage in a number of unique and challenging activities at different levels by employing appropriate knowledge, practices and resources. These activities are often abstract, rule based, standardised and theory related. In contrast, learning in an informal setting such as that represented by the home or community, is characterised by activities which are practical, individualised, flexibly structured and environment based (HSRC, 1981). These activities and goals of learning in a formal schooling environment, as well as, the tools used to accomplish such goals are often very different from the activities, goals and tools which characterise the everyday traditional tasks of the rural

scholar. Furthermore, traditional everyday tasks are often characterised by different intellectual skills, practices and contextual resources.

In order to come to a better understanding of the psychological dynamics of rural scholars when they interact with learning tasks within these two different learning contexts it is vital to focus on the learners' interpretations of the meanings which they attach to learning in these contexts. These subjective interpretations of the rural scholars represent their local knowledge. Local knowledge refers to the tacit and spontaneous interpretative frameworks used by individuals to make sense of the everyday (Gilbert et al., 1995). Illuminating rural scholars' local knowledge allows an insight into the tacit and spontaneous interpretive frameworks used to make sense of the everyday within different communities of practice. Thus one can gain an insight into how the rural scholar is able to guide, control and explain his/her actions related to learning within different learning contexts.

1.3 Methodology

The current study attempts to probe rural scholars local knowledge of the learning which they perform in formal and informal learning contexts. An investigation of these issues presents a particular methodological challenge. The traditional use of interviews and/or surveys would be inadequate in attempts to illuminate local knowledge structures. The use of these methods would be unable to tap into the contextual richness of scholars' subjective understanding of their local knowledge. The nature of the research problem requires a method which attempts to study the human being in context in all his/her complex variety.

It is essential to adopt a methodology that can elicit a rich description of learning activities to illuminate the tacit and contextual local knowledge of learners engaged in different communities of practice. Furthermore, since local knowledge is directly embedded in activity, a methodology is required which engages the subject in an activity that will reveal the subject's local knowledge.

The research uses Participatory Rural Appraisal (PRA) tools and techniques in an attempt to actively elucidate the students' local knowledge and identify the different communities of practice in relation to learning. PRA consists of a number of techniques which are used to enable local people to collectively share, enhance and analyse their own knowledge of life and their local conditions with the active participation of the constituency in the entire process (Van Vlaenderen, 1992). The techniques used engage the participants in collective discussion and promote the active use of physical objects and/or visual representations which are available for those present to manipulate and alter as the discussion probes deeper into the intended phenomena (Chambers 1994).

The research followed a particular sequence. In the first sequence, two separate PRA workshops were carried out with two different samples of rural scholars in order to probe the core areas of the scholars' lives in relation to which they construct local knowledge. The objectives of this sequence were twofold. Firstly, the workshops were used to gain rich descriptions of the central elements of the rural scholars' lives in order to illuminate the lived worlds of the participants. Secondly, the workshops were used to identify two characteristics learnt within opposing communities of practice upon which to structure the rest of the research. One characteristic was selected as being representative of an informal community of practice in relation to learning, and another as representative of a formal community of practice in relation to learning.

The second sequence consisted of two stages. In the first stage a series of PRA workshops were used with one sample to elucidate their local knowledge of the informal area selected from the initial workshops. The second stage consisted of PRA workshops carried out with the same sample in order to elucidate their local knowledge of the formal area selected from the workshops in the first sequence. The second sequence was performed with the objectives of illuminating the learning context in relation to the different communities of practice, as well as, the mediators and the mediational means involved in the learning process.

The method, unlike traditional positivist approaches that separate data collection and data analysis, recognises that data analysis is an ongoing and dynamic process. Through encouraging the processes of collective thinking and joint decision making

by using PRA techniques, the participants come to contextually interpret and actively reduce data into a manageable and concise form. As a result much of the data was thematically grounded through contextual data analysis by the participants and the facilitator whilst the research process was ongoing.

The research project also made use of the reading guide method as proposed by Brown, Tappan, Gilligan, Miller & Argyris (1989). The reading guide is an interpretative tool which was used with the aims of furthering the analytical process with the thematically reduced data. The development of a reading guide begins with the generation of a set of questions through which data is read. Further development of the reading guide or the development of second and third order reading guides facilitates further and deeper exploration of the material obtained from the PRA exercises.

The current study attempts to promote a deeper insight into the psychological dynamics of rural scholars as they interact with learning tasks within different learning communities. This insight will potentially highlight the differences and similarities between informal and formal learning and in so doing illuminate the ways that contemporary South African society organises formal and informal learning opportunities in the broad sphere of education. But more importantly, the current study will highlight the cognitive development of rural scholars as they contextually engage with different learning tasks in different learning contexts.

1.4 Overview of chapters

The thesis is divided into six chapters. In the following chapter, Chapter 2, the framework guiding the thesis will be sketched. This will provide a contextual insight into the social, theoretical and methodological concerns driving the research project. In Chapter 3 the focus is on the research design and includes sections on the research goals, the sequence of data collection and analytical issues. Chapter 4 addresses the results of the research process and includes an analysis of the data collected. Chapter 5 contains a concise discussion of the results. The final chapter consists of a conclusion and provides a summary of the main issues dealt with in the course of the thesis and a number of recommendations for further study.

Chapter 2: Context

In this chapter different facets of the context of the research are elucidated. This includes the social context, the theoretical context, the meta-theoretical context and the methodological context.

2.1 Learning in a rural context

The current study revolves around scholars attending school in rural areas and probes into the learning that takes place in formal and informal learning contexts. The rural focus is not insignificant as the Central Statistical Services (CSS) estimate that more than half (51,7%) of the current South African population live in rural areas (CSS, 1996).

A focus on rural students illustrates that 7 699 000 persons between the ages of 5-24 attend school/colleges/universities/technikons in non-urban areas, as opposed to 5 397 000 who attend in urban areas (CSS, 1996). This figure means that 59% of individuals between the ages of 5-24 who are attending educational institutions, attend institutions geographically based in rural areas (CSS, 1996).

Hartshorne (1992) claims that there exists a dearth of research regarding education in rural areas. He goes on to say that there is a dire need for focussed insights into the educational situation in this locality. There thus exists a significant population of rural based individuals attending educational institutions in rural areas which remain under researched.

This study makes use of the term rural in attempts to preserve a focus on students not residing in urban settings. The term rural is thus used here to allude to settings which are peripheral to urban settlements and have been historically disadvantaged in that they often lack adequate state provided services and are marginal in terms of social, educational and economic resources to deal with impending change.

Change is often slow in reaching rural communities, in particularly those communities which have limited access to the economic, social and educational infrastructure often associated with urban areas. Despite this inaccessibility to these resources, change does occur in rural areas and communities do interact with agencies of external change (Gilbert, 1995). This change is often exogenously driven and controlled by urban links and the nature of this change determines whether it plays a constructive or destructive role in the rural environment (Gilbert, 1995). This exemplifies the rural-urban nexus which exists in contemporary South Africa and it is this nexus which provides the basis for the current investigation into learning in different contexts

While some rural individuals may not be directly influenced by changes occurring in society at large, increased access to formal schooling and thus the knowledge of other agents of change means that rural students are inevitably going to confront new contextual systems of knowledge in some form (Gilbert, Van Vlaenderen & Nkwinti, 1995). In this sense the school represents a potential "engine of change" where issues relating to curricula, regulations, staffing and control are directed from National and Provincial levels.

Coombs (1990) provides a useful typology for understanding the issues related to different learning contexts. He makes the distinction between formal, non-formal and informal education. Formal education refers to the learning processes that arise from structured and institutionalised learning which follows established curricula and plans such as that normally associated with schooling. Non-formal education refers to the educational endeavours which are organised and consciously designed to serve the particular learning needs of sub-groups in the community e.g. the church and crèche. Lastly, informal education is synonymous with the contextual, flexible and spontaneous learning which all people engage with through their daily experiences. An example of informal learning is the learning which takes places within the community or family.

The Human Sciences Research Council (HSRC) makes the distinction a little clearer. They distinguish between fields of education, namely formal and informal education (HSRC, 1981, p.1). Formal education is education that takes place in a planned manner at recognised institutions such as schools, colleges and universities. Formal

education is essentially institution based, teacher-centred and standardised. Alternatively, informal education is education that occurs spontaneously in everyday life, for example within the family circle and the neighbourhood. In informal education, the family or community is the primary education instrument, the emphasis is on learning rather than teaching and the learning is usually environment based and flexible.

Although such mutually exclusive distinctions are problematic, they do identify that educational processes are not homogenous and that they take place in different contexts. It is the consequence of this that forms the focus for this thesis.

Schooling demands distinctly unique forms of ideological, behavioural and cognitive conditions (Bishop, 1989). The formal schooling context is a particular site which requires that a learner engage in a number of detailed and challenging tasks by employing appropriate knowledge, practices and resources. These tasks and their respective goals, as well as, the tools used to accomplish such goals are often very different from the tasks, goals and tools which characterise the learning which the rural scholar engages in, in an informal context. Furthermore, traditional everyday tasks are often characterised by different intellectual skills, practices and contextual resources (Bishop, 1989).

Ultimately, the rural scholar finds himself/herself engaged with these different learning contexts, where each context has its own unique task demands. The school represents a context that provides structured and institutionalised learning where academic tasks are structured according to established curricula and plans. Alternatively, the home and community provide a context for the unplanned, uninstitutional and spontaneous learning which all people engage with. This learning is directly related to everyday tasks that the learner performs within society.

Students often find it problematic to equip themselves to surmounting the change generated by learning in different contexts (Craig, 1989). As mentioned above, these students often reside in settings in which they do not have access to particular resources. Parents and grandparents often have limited education in relation to that of scholars and thus cannot assist them in overcoming the conflict generated by changing

surroundings (Gilbert, Van Vlaenderen & Nkwinti, 1995). The thesis makes use of scholars from rural settings as units of analysis because it is precisely these students who's knowledge is exceedingly challenged when they confront change in the context of learning.

In a period of rapid social change, the rural scholar has to learn to adapt to the challenges offered by a new and different educational and learning milieu with abstract and divergent task demands. The rural scholar thus finds himself/herself in the dialectical process between knowledge transformation and preservation. Investigating the scholar in this process has the potential to reveal the generative mechanisms of individual development (Miller, 1984). An investigation into the cultural programs that order and regulate learning in different contexts in times of change provides the unique opportunity to study the essence of phenomena in the process of development and transition from one state to another (Craig, 1989). It is thus in the context of change that learning in different contexts can best be illuminated.

Lastly, due to a lack of research into the plight of rural students, a need exists for in-depth analyses of scholars in rural areas in order to probe this micro-situation in which pupils find themselves (Gordon, 1987). This requires directing research efforts towards understanding the various learning contexts which the rural scholar oscillates between (Hartshorne, 1992). These sentiments are echoed by Rogoff (1984) who claims that it is only through attending to the role of the influences played by schooling, immediate contextual tools and especially the instruction provided by adults and peer experts in various activities, that a research effort can probe into the generative mechanisms guiding an individuals' cognitive development within a social context.

2.2 Local knowledge

It is with the above circumstances in mind that the focus of the present research was placed on rural scholar's subjective interpretations of the meanings that they attach to learning activities within formal and informal learning contexts. Worded in a more

succinct manner, the research attempted to gain an insight into rural scholars' local knowledge.

Local knowledge refers to the everyday knowledge which a specific community of practice employs to be able to guide, control and explain actions within specific contexts (Gilbert, Van Vlaenderen & Nkwinti, 1995). Local knowledge is often unique to a community of practice where it remains tacit and not immediately reflected upon in everyday use. Local knowledge is thus the common sense wisdom which individuals possess and use in their everyday lives.

In contrast to formal knowledge, which deals primarily with abstract principles and conceptual theories not immediately related to life, local knowledge is defined by the very context from which it emerges. In this manner local knowledge can be described as the practical and concrete knowledge generated through everyday contextual activities. Individuals use their local knowledge to build up rich interpretative frameworks in order to elucidate their immediate experiences which are borne out of actions in their everyday environments (Gilbert, 1995).

The use of the term local knowledge is deliberately used instead of the term traditional knowledge. Traditional knowledge indicates a static body of knowledge which glorifies past wisdom and is passed on from generation to generation. Local knowledge, on the other hand, is not "immortalised folklore" rather it consists of tacit and spontaneous interpretative frameworks which are dynamically generated through embedded practical activities (Gilbert, 1995).

2.3 Metatheory: Cultural psychology

The concept of local knowledge and its contextual nature is informed by ideas unique to the cultural school of psychology. Cultural psychology perceives individuals as holistic wholes who are intimately related to their immediate context, culture and culture bound tools (Shweder, 1991). The basic tenet to such a socio-cultural approach is that cognition and human mental functioning are seen to be situated in social interactional, cultural, institutional and historical context (Wertsch & Kanner, 1992). In such an analysis, cognitive development is seen as a fundamentally social

and cultural process which reflects the co-ordination of an individuals' "biological capabilities and constraints with cultural values and opportunities" (Gauvain, 1995). Cultural psychology thus allows an insight into conceptualising the relationship between the individual and context.

A cultural approach to psychology is in direct contrast to the traditional cross-cultural psychological approach which grounds itself in the assumption that it is possible to study the individual in terms of a mechanistic and individualistic construction (Misra & Gergen, 1993). The aim of cross-cultural research is geared towards prediction through the control of the behaviour of cultural entities. In social research of this kind, culture is seen as an independent entity or package of variables. Through methodologically assigning variables into experimental conditions the researcher is unable to accurately study processes such as those posed by rapid social change (Misra & Gergen, 1993). Rather the researcher is left with correlation's which cannot accurately reveal the structure of the relationship between the individual and his/her immediate context. Cross-cultural research thus results in the emergence of a "culturally decontextualized science of behaviour" where culture is separated from the individual and vice versa (Misra & Gergen, 1993).

Cultural psychology, on the other hand, places an emphasis on cultural definition and cognitive situatedness. Geertz (1975) traces this argument through its historical implications and concludes that human beings are inseparable from their immediate contexts, in such a way that, "what man is, may be so entangled with where he is, who he is and what he believes, that he is inseparable from them" (p.35). Furthering his argument, Geertz requests that culture should not be seen as a set of concrete behaviour patterns, but rather as a "set of control mechanisms - plans, recipes, rules, instructions - for the governing of behaviour" (p.44).

Ultimately, the proponents of cultural psychology assert that there exists a fundamental relationship between the individual and the surrounding cultural context. This relationship is central to understanding the individual within society. Attempting to separate the individual from his cultural context for the purpose of study would prove futile and unrealistic. Acknowledging that the cultural environment impacts upon the way in which an individual thinks and behaves within the world implies that

cultural factors need to be accounted for when psychological interpretations are being made.

2.4 Vygotsky: Activity theory

A concise and conceptually rich body of theory which draws on a cultural approach to psychology can be gleaned from the Soviet socio-historical school of psychology and in particular the works of Vygotsky. Vygotsky (1978), in drawing on his genetic method, provides a unique framework with which to study activity and the cognitive development of the individual.

Central to Vygotsky's thesis is the concept of mediation. Mediation implies that through cultural contact with others that the individual is able to raise his/her level of development to a potential more advanced one. This cultural transformation takes place through activity, in what Vygotsky calls the "zone of proximal development".

It is in the zone of proximal development, by means of culturally defined mediated activity that "every function in the child's cultural development appears twice: first on the social level, and later, on the individual level; first between people (interpsychological) and then inside the child (intrapsychological)" (Vygotsky, 1978, p.57). It is in this way that children are enculturated in the course of their development into an affiliation with the mechanisms, the language, and the rituals of their society (Serpell, 1994)

This view articulates the premises of the cultural school of psychology at a more micro level and is consistent with Geertz's view of culture. Individuals engage in goal-related activities with more knowledgeable others within a particular social milieu, and it is through this task related contextual engagement that the individual begins to experience and practice the culture specific control mechanisms, rules and recipes. This socio-historic proposition provides an explanation of the means by which culture becomes a part of how a person thinks, learns and relates to others and his/her environment (Vygotsky 1978). Yet individuals, by nature of their own subjective interaction with others, are not just passive receptors, they can actively

engage in moulding their culture for themselves and future generations. This reflects the co-constructive nature of socio-cultural engagement.

Taking this idea a step further Vygotsky elaborates on the manner in which mediation takes place. Vygotsky refers to this process as internalisation and describes it as the procedure whereby a "neophyte" is able to make his/her own, that which is mediated by the more knowledgeable "other". This internalisation takes places through active engagement with contextually embedded tasks. These tasks typically involve a significant other/others who employs/employ "mediational means" such as tools and language, and these mediational means shape the action in an essential way (Wertsch, 1991).

The actual process of mediation occurs at two levels (Wertsch, 1991). The first level is the interpersonal level where actual people mediate experience through the creation of joint activity in the zone of proximal development. The second level of mediation occurs at a semiotic level. This includes signs and psychological tools which emerge through an individual's active engagement within a cultural environment. Psychological tools are socially constituted and historically developed and make possible an individual's participation in the surrounding intellectual and social life. Thus, it is through the culturally situated process of mediation in interaction with psychological tools that the child internalises situated knowledge and experiences and uses these to develop his/her own means of self-mastery (Wertsch, 1991).

It is through embedded mediation that the individual learns the appropriation, use and adaptation of social practices, materials and symbolic tools developed by their own culture (Gauvain, 1995). Thus, we come to know by actively engaging in social practices which provide: "frameworks for what are appropriate goals for thinking; opportunities to practice ways of thinking; and tools or the means for thought" (Gilbert, 1995, p.5). In other words, individuals learn to think about and solve problems in their everyday lives through forms of activity which reflect the plans, rules and recipes of their culture. It is through contextual activity that the prevailing culture influences the way individuals interpret the language, the signs and symbols of their world, and they do this according to the goals of their society (Tollman, 1991).

The implication of Vygotsky's theory is that a society's generative mechanisms are inherent in the process of mediation. In adopting this socio-historic perspective a researcher can obtain meaningful insight into the individual and society's culturally specific cognitive mechanisms. In this conception individuals gain entrance into a specific social setting or cultural milieu such as the home or school, and through engagement with cultural specific activities, such as learning, in the presence of a more knowledgeable other/s employing mediational means, individual's are able to progress to self mastery.

Any activity is defined by tasks which consist of goals, the tools used to reach these goals, the mediators involved and their mediational means (Wertsch, 1985). Social settings or cultural contexts differ in terms of their tasks related to activity. Thus the learning tasks related to a formal context such as a school differ from the learning tasks related to an informal context such as the home. Thus these contextually embedded tasks differ in terms of their structure, the mediators involved, the task objectives and the means for achieving these objectives; and the extent to which they differ on these characteristics determines the extent to which the knowledge they produce is similar (Gilbert, 1995).

2.5 A Community of practice

A unifying concept which reflects the ideas related to different cultural contexts and different task-related activities is that of a community of practice. Communities of practice are culturally bound and socially constructed webs of belief, which are essential to understanding the community of practices' actions (Geertz, 1983). A community of practice provides a cultural context which supports, controls, structures and provides "affordances" for individual learning and thinking, and thus the construction of knowledge (Lave, 1993).

Learning is defined within a community of practice as a process of "the historical production, transformation and change of persons" (Lave & Wenger, 1991). This transformation and change produces a contradiction in meaning between "newcomers" and "old-timers", with the newcomers becoming members and being

"absorbed" into the community of practice, and eventually reaching the level occupied by the old-timers.

Learning takes place in a community of practice as it becomes constituted through the sharing of purposeful patterned active tasks. When one engages in these tasks with different mediators within different communities of practice, it follows that the individual will adopt new forms of knowledge and new rules and tools to regulate learning, thinking and action. Miller (1989) details the process whereby an individual in learning a task, learns not merely about the task and its content, but about the cultural form of that task, that is the rules and regulations which frame it. It is the cultural form of the task which defines it in terms of its relation to other things and thus give it meaning for the individual.

It is through enculturation within a community of practice that the individual begins to sharpen his/her sense of what constitutes the appropriate knowledge, cognitive machinery and pertinent learning activity (Brown, Collins & Duguid, 1989). It is through an individual's explicit and tacit engagement in contextually defined tasks that an individual endeavours to learn and adopt the behaviour and belief systems of the focal community of practice. Through contextual observation and practice individuals come to adopt the "plans, rules and recipes" for the governing of behaviour and begin to act in accordance with the norms and epistemologies of the specific community of practice.

Mediated activity thus becomes the pivotal concept in the theory of socio-genesis. It is only through active engagement with others in a goal related cultural activity that the individual is able to glean the "plans, rules and recipes" of a particular community of practice. This activity is mediated by a more knowledgeable "other" through the use and practice of cultural specific tools. Therefore, any research attempt which aims to adequately understand the cognitive development of the individual must pay specific attention to the forms of contextually defined mediated activity and the actors involved in mediation.

Given that there exist different cultural contexts that consist of different mediators and different forms of activity, it follows that one can define different communities of practice. In relation to this study the formal and informal sites for learning for rural scholars can be understood as different communities of practice. In this conception then we can define the school as a particular community of practice and the home/community as another community of practice. The two communities of practice or contexts of learning, faced by the rural scholar may differ in terms of the structure, objectives and the means for achieving the objectives. The extent to which they differ on these factors determines the extent to which the knowledge they produce is similar (Gilbert, 1995).

Rural scholars, therefore, come to understand guide and control their contextual actions related to learning through tasks which take place in a formal learning context and an informal learning context. This learning activity is culturally mediated by significant others within these informal and formal learning contexts. Stated differently, the scholars come to adopt frameworks for understanding the rules and regulations governing learning within a community of practice by contextually interacting with the various mediators in goal related tasks. These goal-related tasks are central to the two communities of practice as concerns learning. In order to come to an understanding of the cognitive complexity of a community of practice, an investigation is needed into the cultural context which creates these learning tasks and the various actors which participate in the learning activities.

In investigating the different cultural contexts related to learning, it is vital to link the idea of local knowledge to communities of practice. The rural scholar employs culturally embedded local knowledge frameworks to be able to guide, control and explain everyday actions within a community of practice (Gilbert et al., 1995). If local knowledge is dynamically constructed by rural scholars in a number of different contexts, it follows that one set of predefined local knowledge may not exist but rather there could exists bodies of local knowledge intricately linked to contexts and activities.

The theoretical perspective argued for in the above determines how one would approach the study of learning in different contexts. It can be postulated that the different communities of practice in formal and informal settings potentially produces different forms of local knowledge. This study aims to investigate the veracity of this statement. If formal and informal learning contexts do indeed allow for different forms of local knowledge, the study will attempt to expose the structure of the respective learning tasks, the mediators involved, the task objectives and the means for achieving these objectives in the different learning contexts. The research effort would thus gain a dynamic picture into the generative mechanisms of the different communities of practice.

2.6 Methodological context

Vygotsky claims that when individuals are studied, the observer is confronted with fossilised forms of behaviour. This implies that psychological processes have become automated and acquire an outward appearance that conceals their true essence. According to Miller (1984), in order to gain deeper insight into these psychological processes, it is necessary to return to the source and reconstruct the history of the manifest products as they are expressed in the activity of performance.

The implications of this socio-historic viewpoint is that, in order to adequately probe the dynamic generative mechanisms of rural students' psychological functioning, it is imperative to unpack the process by which mediation takes place. Only through adopting a methodology which adequately probes the cultural embeddedness of mediation can one gain an insight into the individual and the society's cultural specific cognitive mechanisms. As Crook (1991) puts it, "our unit of analysis becomes activity in a context and the study of cognitive change, therefore, must dwell on the settings in which understandings are acquired" (p.13). Thus research initiatives need to place a focus on people engaged in sociocultural endeavours with other people, working with and extending cultural tools, institutions and practices inherited from previous generations.

A further methodological challenge is posed by the fact that local knowledge is tacit and often difficult to articulate. Thus asking people directly for their local knowledge is an incomprehensible task. A methodology is required which intervenes at the level of activity, because it is here that the true nature of local knowledge begins to emerge. It is only through studying participants' active engagement with tasks that reveal local knowledge that the research can hope to tap into local knowledge structures and study their richness and variety. The aim of the methodology within this paradigm should be to expose (as opposed to extract) the contextual local knowledge structures as they are applied in meaningful activity within a community of practice.

It is clear from the above that the traditional positivist perspective to social research cannot adequately explicate the phenomena under study. Positivism implies an emphasis on reductionistic and experimental approaches which attempt to make possible the prediction and control of the phenomena under study (House, 1991). Such approaches study human beings in a symbolically reduced and statistically aggregated fashion and fail to capture the symbolic mediation which is central to the process of individual development (Chambers, 1994). Alternatively, it has been argued that interpretivist approaches to social research provide a more balanced and authentic view of social reality in that human beings are studied in all their complex variety (Cresswell, 1994). Yet interpretivist approaches are often offset with value-laden biases where the researcher or facilitator, being the primary instrument for data collection and analysis, interacts with subjects in forming an inductive opinion based on assumptions and inferences (Cresswell, 1994).

In an attempt to enhance both relevance and trustworthiness, Chambers (1994) calls on social science researchers to abandon the deductive and context free reductionistic rigor of positivist approaches, as well as, the value laden and researcher subjective inductive processes involved in an interpretivist approach, in favour of approaches and methods which encourage active engagement with those participating in the study. A "participative" approach to social science research advocates that the researcher abandon his/her attitude of assuming a controlling role in the research process and rather engage with the researched community at a partnership level (Van Vlaenderen, 1992). This approach to research is not in favour of abandoning research rigour, rather it advocates that rigour must be achieved through the use of alternative

research designs and methods. Comstock (1994) advocates that it is only through the process of critically investigating the intersubjective understandings of participants, through participants' active involvement in the research process, that one can come to interpretive conclusions. This active participation involves enabling people to share, enhance and analyse their own local knowledge about their surrounding conditions (Chambers, 1994).

In a participative approach, knowledge is dynamically constructed which exposes the collective feelings of the constituents. Participants in the research process actively and dynamically refine their collective experiences and local knowledge of particular phenomena through the creation of goal related contextual activity (Chambers, 1994).

Participatory approaches and methods also assist in making tacit bodies of local knowledge more explicit. This is accomplished through providing joint activities through which people can collectively examine their local knowledge in relation to the contexts and communities of practice within which these bodies of knowledge are embedded (Van Vlaenderen, 1992). Local knowledge becomes integrated into the activity and formalised where it can be openly reflected upon and refined. Collective discussions between participants facilitate the ongoing dynamic development of local knowledge.

Participatory approaches to research reflect a relatively recent development in social science research. These approaches have emerged mainly out of the context of developing countries, where an incompatibility has developed between traditional social science methods and the needs and problems faced by people in Third World societies (Chambers, 1994). The principles behind participatory approaches include direct learning from local people, offsetting traditional research biases, optimising trade-offs, seeking diversity and facilitating contextual analysis by all participants (Van Vlaenderen, 1992). One such emerging family of approaches and methods is called Participatory Rural Appraisal (PRA).

PRA has been described as a basket of participative research tools (Van Vlaenderen, 1992). It consists of a number of methods which are used to expose (not extract) local peoples' contextual knowledge through promoting critical self-awareness and sharing.

The researcher is the catalyst and facilitator in the community process rather than a mere data collector or analyser in charge of the research process (Van Vlaenderen & Gilbert, 1992). The main principle surrounding PRA is the existence of on-site learning through joint activity that takes place in a face-to-face manner. In this manner, insight is gained from participants' local physical, technical and social knowledge that is informed by their engagement within different communities of practice.

PRA methods combine data gathering with learning and action as integral parts of the research process (Van Vlaenderen, 1992). It is through adopting these techniques that individuals can group together and collectively investigate problems and/or issues with the active participation of the constituency in the entire process. Through this process, a collective analysis can be mounted, in which the constituency not only develops a better understanding of the problem and/or issue at hand but also come to analyse the underlying structural causes and/or reasons of the problem (Chambers, 1994).

The use of PRA techniques in this project implies the assumption that communities possess well established bodies of local knowledge and methods of problem solving that are used for engagement in numerous contextual tasks and problem solving situations. It is through the application of PRA methods that the researcher is able to define a more substantive and richer picture of participants contextual reality by exposing participants local knowledge since this contextual reality is informed through the symbols and theoretical concepts as defined by the participants themselves.

The use of PRA methods promotes improvisation and constant cross-checking (Chambers, 1994). Traditional research biases are thus avoided as the researcher seeks to enable local people to share, enhance and analyse their knowledge of life and local conditions. This is accomplished through triangulation. Triangulation, as used in this sense, implies that through a combination of collective progressive learning, approximation and cross-checking, participants can provide data which is internally consistent and reliable (Smith, 1995). Consistency and reliability is promoted through a process which builds in means to test a whole range of plausible theoretical and

experiential interpretations and coming to a collective agreement through plural investigation (Chambers, 1994). Further research biases are offset due to the fact that the PRA process is people driven and not researcher driven.

The key techniques used in the process of PRA consist of participatory diagramming and visual sharing. These are common elements in most PRA exercises. For example in matrix exercises participants are collectively asked to construct a matrix with two axes to enable people to examine a particular aspect and then to explore strategies in relation to this aspect. A table or matrix is created with paper or even sketched on the ground and participants debate and discuss the categories that they wish to include on a certain subject of interest. Once everyone is clear with the elicited categories, each person is given a number of tokens and then asked to rank or score criteria in terms of personal value. The weighing up of categories provides a basis for further discussion and collective evaluation. The number of tokens placed on a category represent its importance in terms of the subject of interest (Gilbert, 1996).

An exercise such as this creates a joint activity that includes open discussion of preferences and action. An elaborate matrix is graphically drawn on-site for all those present to discuss, manipulate and alter the physical objects or representations. Matrices provide a tabular format where the progression of ideas can be openly and jointly debated by all participants (Gilbert, 1996).

Similarly, drawings can be used which incorporate collective ideas and insights. A drawing can be created on paper or sketched on the ground. Everyone present can see what is being "said" because it is being "shown". Collectively participants decide what is to be included and they all participate in debating, adding and modifying the details included in the drawing (Chambers, 1994). A drawing could be practical in the form of an area or village, or it could be abstract in the form of a representation of an idea. New and complimentary information can be added to the drawing in order to build up a cohesive and holistic image of ideas (Chambers, 1994).

The significance of PRA techniques is manifold. Participants are collectively motivated and given a voice and the outcome is that the focus is able to move from the individual to the group. Groups build up collective and creative enthusiasm, where

all voices and opinions can be heard, detailed, cross checked and added to. Despite the fact that the topic of interest may be determined or suggested by an "outsider", the role of PRA is not to "extract through questions" but rather to initiate a process of active representations and analysis (Chambers, 1994, p.1263).

The use of participatory rural appraisal methods provides a platform for the richness and depth of local knowledge to emerge where it can be better studied and understood (Van Vlaenderen & Gilbert, 1992). In this manner these tacit knowledge structures become explicit and tangible where they can actively induce collective reflection and comment. The use of PRA techniques allows those people with a deep understanding of local knowledge to reveal their wisdom to others but at the same time enables others to express their wisdom (Gilbert, 1996). Subjective and tacit local knowledge structures are brought out into the open and exposed. When local knowledge is made explicit it can be better reflected upon and collectively analysed and in so doing, the participants move from "being a respondent to an outsider's knowledge" to being a "presenter and analyst of their own knowledge" (Chambers, 1994, p.1268).

Information gleaned through traditional research methods become second-person accounts, unverified and owned by the interviewer. Exercises use visual cues that enhance collective thinking and joint decision making as they visually represent depictions of places, ideas and opinions. The learning through PRA exercises is progressive and the information is visible, semi-permanent and public, where it can be checked, amended, verified and owned by the participants (Chambers, 1994).

2.7 Revisiting the research question

The initial problem sketched in Chapter 1 can now be recast in a succinct and theoretically richer form. Taking the view that cognition is situated, one can propose that the rural individual is enculturated through mediation into specific communities of practice. Each community of practice is defined by particular tasks, goals, actions to achieve those goals and contextual tools. It is through the individual's active everyday engagement with members and tools of his/her community of practice that he/she begins to internalise the local knowledge of that community of practice.

The nature of local knowledge is directly related to contextual activities that are embedded within a community of practice. Different communities of practice engage in different tasks and activities. If learning is the focus of study, then the rural scholar will have different bodies of local knowledge in relation to the learning activities which are promoted by different communities of practice.

It has been argued that formal and informal learning contexts can be understood as different communities of practice. Thus the aim of the project is to come to an understanding of rural scholars' local knowledge related to formal and informal learning contexts from the perspective of the student himself/herself. This is done to illustrate the communities of practice which are dominant in the life of rural students and the mediational tools present. Understanding how rural scholars participate in learning activities in the socio-cultural learning contexts of the school and the context of the home/community reveals something of the generative mechanisms which operate in these contexts (Miller, 1984).

In order to illuminate students' understandings of the nature of learning in these different contexts, it is important to use tools which facilitate the collection of tacit local knowledge. Participatory Rural Appraisal is a appropriate basket of tools which promotes a collective analysis by the participant constituency and allows them to collectively analyse the underlying structural causes and/or reasons of the phenomena under investigation. PRA accomplishes this through creating a joint activity that makes use of participatory diagramming, visual sharing and discussion in order to check, amend and verify participants' inputs.

Chapter 3: The Study

This chapter provides a focus on the research design through illuminating the research goals, the sequence of data collection and other methodological and analytical issues.

3.1 Goals

The goals of the research are threefold.

The first goal is to identify core areas of rural scholars' lives in relation to which they construct local knowledge. This aim is primarily to identify two core areas that relate to different communities of practice upon which to explore learning at a deeper level. An additional aim of this goal is to gain an insight into the lived worlds of rural scholars through their own subjective descriptions.

The second goal is to identify rural scholars' local knowledge of learning in an informal setting. This goal is divided into four sub-goals, these are:

a) What kinds of elements must be learnt?
b) Where does such learning take place i.e. the learning context?
c) Who acts as mediators?
d) How does such mediation occur i.e. what are the techniques and tools employed in the mediational process?

The third goal is to identify rural scholars' local knowledge of learning in a formal environment. This implies an investigation into a community of practice which structures formal learning opportunities and includes an exploration of the sub-goals (a) to (d) mentioned above.

The aim of the second and third goals is to explore the bodies of local knowledge related to different learning contexts and in so doing document their possible similarities and differences. In this manner the research will be able to reveal a rich

picture of the dynamics of cognitive development associated with formal and informal learning contexts.

3.2 Research design

Given the need to remain sensitive to context and the importance of the idea of activity it was necessary to adopt a research design that encapsulated these concerns. A research design needed to be developed which could create an understanding of the learning contexts of rural students combined with a methodological approach which would engage students in a collaborative process thus enabling them to reveal their tacit knowledge about learning in two different communities of practice. As a result of this it was necessary to construct a research sequence consisting of 2 phases.

In Phase 1 the goal was to explore the domain of learning in two different learning contexts. The aim of the goal was to identify activities in the lives of the rural student sample that relate to formal and informal learning. In Phase 2, two of the specific activities elicited in Phase 1 where examined in depth. One activity that is related to a formal learning context and another activity related to an informal learning context.

Phase 1 consisted of research undertaken on two groups of participants. A matrix was used with each group to create a joint activity which could expose the students' local knowledge of elements or categories contextually learnt in their everyday lives. An attempt was made in Phase 1 Part 1 to obtain a group of participants from a deeply rural area and in Phase 1 Part 2 a group of participants were selected from a peri-urban area. This was done in order to compare and contrast the results obtained from these two groups and investigate the diversity of participants' responses. Two similar categories were selected from each group where the first category represented something learnt in an informal learning context and the second category represented something learnt in a formal learning context. The two selected categories provided the focal pillars for study in Phase 2.

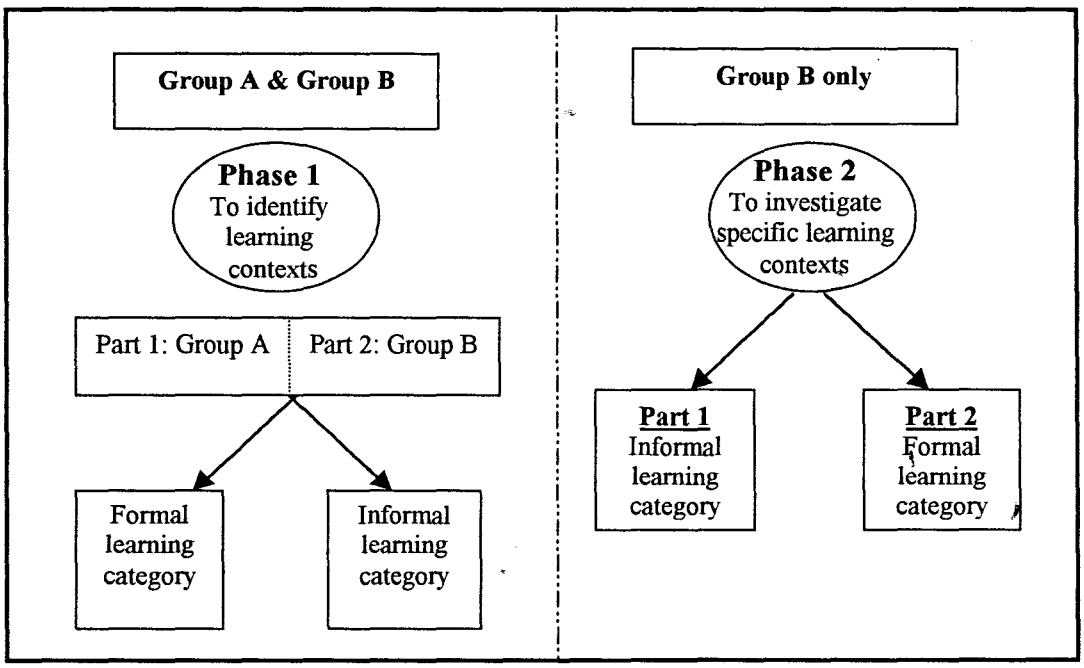
Phase 2 consisted of two separate parts. Phase 2 Part 1 involved a number of workshops which revolved around elucidating the category selected in Phase 1 as being representative of something learnt in an informal learning context. Phase 2 Part

2 involved a number of workshops which revolved around elucidating the category selected in Phase 1 as being representative of something learnt in a formal learning context.

Both Parts 1 and 2 in Phase 2 consisted of engaging participants in exercises which made use of collaborative activities in order to probe their understandings of learning in formal and informal contexts. These exercises were also able to expose the participants' tacit local knowledge of learning in these two contexts.

The overall research design is represented in figure 1.

Figure 1: Diagram of research sequence for Phase 1 and Phase 2.



3.2.1 Participants

The participants used in the study consisted of matric pupils attending high school in the Eastern Cape.

In Phase 1 the participants consisted of two groups. Group A were used in Part 1 and Group B were used in Part 2.

Group A consisted of 8 matric participants (4 female and 4 male) attending a rural high school in the Amathole Basin in the Ciskei. This school setting can be described as deep rural since the area lacked facilities such as a local authority, electricity, running water and was at least 30 kilometres from the nearest town.

Group B consisted of 12 matric participants (6 male and 6 female) attending Ukanyo High School in the Alexandria district Eastern Cape. The school setting can be described as peri-urban in that the school was on the boundary of the small town Alexandria. However, a significant amount of the group of participants (7 members) were from surrounding farms and rural areas and merely attended school in Alexandria.

The participants used in Phase 2 were Group B as described in Phase1 Part2.

3.2.2 Sampling method

Two main sampling techniques were used in selecting the two respective groups of participants. Firstly, convenience sampling was used to select two rural schools that differed in terms of their rural/urban distinction. This was accomplished in order to obtain varied and rich data in Phase 1 that would inform the goals of the study. Convenience sampling was used again to generate a pool of matric students from the selected schools who were willing to participate in the study and able to meet at selected times.

Purposive sampling was then used to select a smaller group from the pool. The object of purposive sampling was to ensure that the final group of participants met the requirements of the study in that they suited the desired characteristics as stipulated by the researcher.

Three primary criteria were utilised for the purposive sampling. Firstly, the nature of the methodology required that small groups be used in a group setting and therefore the number of participants selected were 8 and 12 respectively. The second criterion was that the groups contained equal proportions of male and female representatives.

This was done in order to account for any gender variability and to provide richer, more varied, accounts of personal experience. Lastly, individuals were drawn which, according to the governing school body, could adequately and succinctly express their viewpoints on the issues being studied.

3.3 Data collection

Numerous workshops and focus groups were conducted with the participants in Phase 1 and 2. The workshops and focus groups consisted of using PRA tools such as matrices and drawings to collect data. The process of data collection was enriched by using PRA techniques in order to encourage contextual debate and collective understanding (Chambers, 1994).

A Xhosa interpreter was used to facilitate the communication process where necessary. The workshops provided a platform for contextually transcribing and analysing data and the participants were actively involved in both these ventures. All verbal exchanges within PRA exercises were recorded using electronic equipment and transcribed for use in the process of data analysis. These transcripts are available from the researcher on request.

The data was systematically collected in Phases 1 and 2:

3.3.1. Phase 1

Two workshops were organised in Phase 1. In Phase 1 Part 1, group A was involved in a workshop and thereafter an identical process was followed with Group B in Phase 1 Part 2. The Participatory Rural Appraisal (PRA) technique of a "visual matrix exercise" and "focus groups" were used to collect data in both workshops.

A matrix exercise, resembling a needs analysis, was used to gather data. The exercise involved the participants freely eliciting categories of "current knowledge". Current knowledge is used here to represent the most overt areas of importance in the groups' lives. These areas would provide an insight into the scholars' lived worlds and hence

they would represent domains within which the scholars actively produced local knowledge.

Two questions were posed to the group of participants, these were "What is important to you in your lives?" and "What is central to who you are and who you want to be?".

The participants were asked to split up into two smaller focus groups. Participants were given the option of making two mixed gender groups or to remain in groups of the same gender. Both group A and group B decided to form two groups, one consisted entirely of male participants and the other of female participants. This split ensured that all categories of current knowledge could be elicited irrespective of gender specific themes. The research and a research assistant acted as facilitators for both groups. A scribe was selected in each focus group and categories were written down.

In a plenary session all the categories were freely debated and discussed with the collective group of participants. When all categories were exhausted, they were written onto cardboard pages and placed onto the floor. The participants were given the opportunity to collapse categories that they felt overlapped with others. These new categories were written onto new pieces of cardboard and subsequently replaced those that overlapped.

Explanations of each category were discussed in the plenary session and added to the cardboard pieces (in a different colour marker) so that that each individual category was clearly defined and understood. Each member of the group was given 8 tokens and then asked to weigh up the categories in terms of its importance in his/her respective lives. Participants were instructed to independently weigh the categories in which ever manner they saw fit. Thus a participant could place one to eight of their tokens on one category or spread them across categories in different weightings.

The final result was a list of categories which were collectively allocated tokens. The pattern of allocation was discussed in terms of ranking where the numbers of tokens against each category provided a weighting for such ranking.

The aim of the workshops was threefold:

Firstly, the workshops served as rapport building between the researcher and the participants in Part 1 and Part 2. This was important because the participants used in Phase 1 Part 2 would be the participants used in Phase 2.

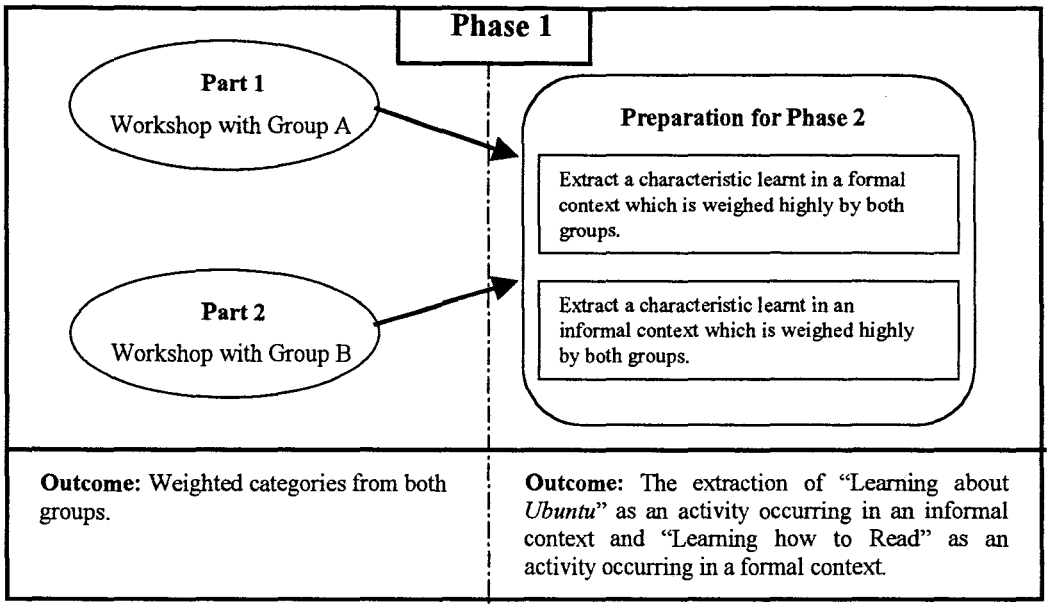
Secondly, the workshops focussed on eliciting categories of current knowledge from Group A (Part 1) and Group B (Part 2). These categories would be those which the groups felt adequately reflected spheres of their everyday lives such as their interests, aspirations and cultural traditions. The proposed categories elicited would reflect areas upon which rural scholars' dynamically create local knowledge in the everyday. Thus the second aim was to elicit categories in order to compare and contrast them between the groups of participants in Part 1 and Part 2.

Thirdly, and most importantly, two categories of current knowledge, weighted highly by both groups of participants in the PRA exercise, were selected to be used as the focal areas of Phase 2. These categories would be used in Phase 2 in order to probe rural students' local knowledge of learning in different learning contexts.

In keeping with the goals of the research the category of "Learning about *Ubuntu*" was selected as an activity that is related to an informal context and "Learning how to Read" was selected as an activity that is related to a formal context.

A full explanation of the results from Phase 1 can be found in the following chapter. The data collection process in Phase 1 is graphically represented in figure 2.

Figure 2: Graphical representation of data collection process and outcome in Phase 1.

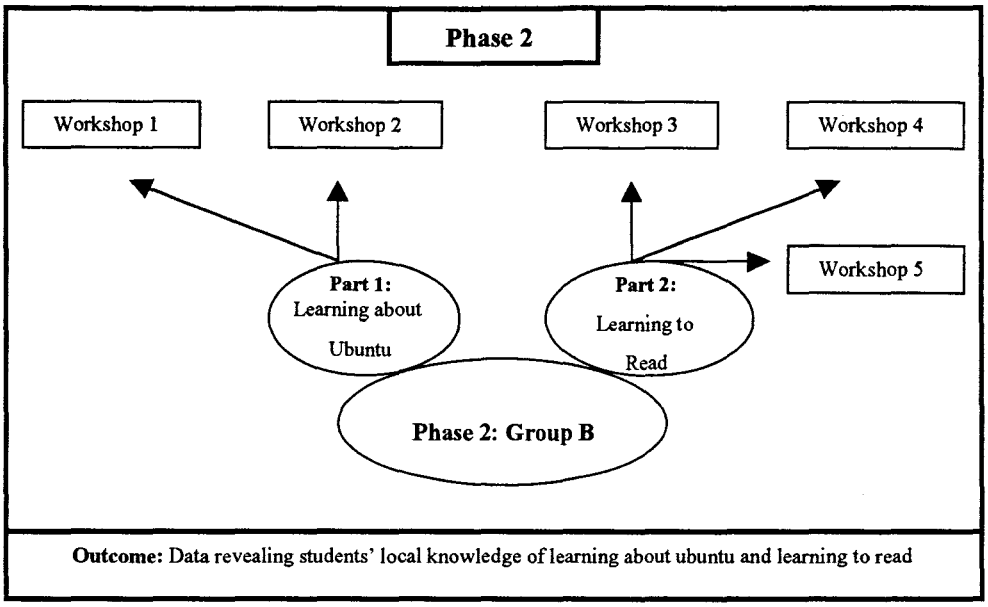


3.3.2 Phase 2

In Phase 2 data was collected from the participants making up Group B. It involved 2 workshops structured around exploring the activity of "Learning about *Ubuntu*" in Phase 2 Part 1; and 3 workshops structured around exploring the activity of "Learning to Read" in Phase 2 Part 2. Thus in total Phase 2 consisted of 5 workshops.

These workshops made use of a number of different PRA exercises such as visual matrix exercises, visual drawings and focus groups. It was originally anticipated that two workshops would be carried out on the activity of learning *Ubuntu* and two workshops following a similar structure would be carried out for the activity of learning to read. But due to difficulties with data collection in Phase 2 Part 2, it was decided to structure a further workshop to probe the activity of learning to read. The data collection process in Phase 2 is graphically represented in figure 3.

Figure 3: Graphical representation of data collection process and outcome in Phase 2.



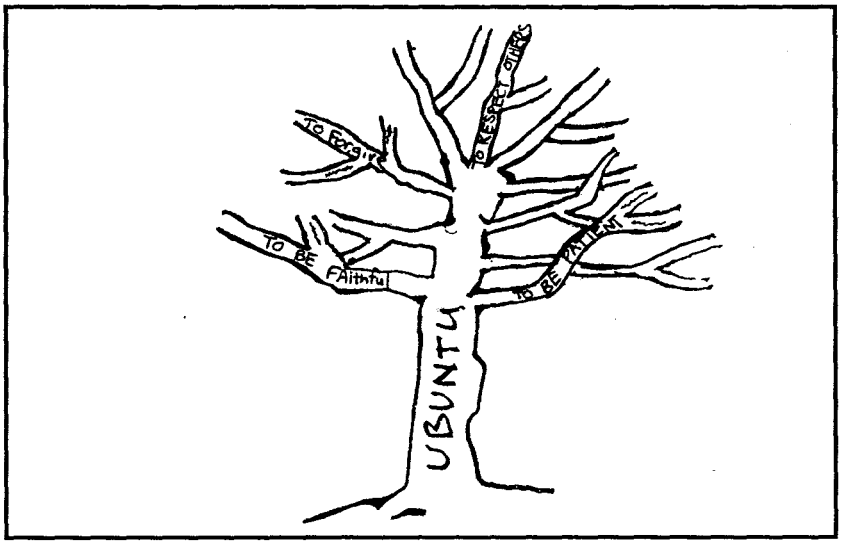
The aim of the five workshops was to obtain data that would allow an insight into the bodies of local knowledge of rural students related to two activities. Where one activity represents learning in an informal context and another represents learning in a formal context. This included the elements that are learnt, the mediators responsible for learning and the mediational tools present. The PRA exercises used in the workshops attempted to engage participants in joint activity which would reveal their local knowledge of learning about *Ubuntu* and their local knowledge of learning to read.

3.3.2.1 Phase 2 Part 1 Workshop 1

In the first workshop of Phase 2 Part 1 an exercise was devised which involved exploration into the category of "learning about *Ubuntu*", elicited from phase 1. A graphical representation of a large tree with numerous branches was drawn and placed on a wall. The word "*Ubuntu*" was written on the trunk of the tree. The group were broken up into smaller focus groups and asked to discuss the characteristics of a person who had *Ubuntu*. This was phrased in the following ways, "What aspects of personality does a person with *Ubuntu* have, that a person who doesn't have *Ubuntu*, lacks?" and "What do you have to learn in order to have *Ubuntu?*" These questions were written on a large sheet of newsprint and placed in full view of the participants.

The question was discussed in plenary in the presence of the researcher and Xhosa translator who facilitated a deep discussion of the question at hand. In the plenary group, the characteristics were discussed and debated and then participants were given coloured pens to write the ideas, as text, into the picture as the manifold branches of the tree. This exercise assisted the participants in visualising each characteristic and seeing how the sum of these characteristics collectively described the concept of *Ubuntu*. An example of this visual exercise is graphically represented in figure 4.

Figure 4: Graphical representation of tree figure used in workshop in Phase 2.



The group further elucidated each characteristic, so that through explanations of the characteristics, a common collective definition could be understood. These definitions were added to the picture, by participants, and drawn in as sub-branches. This exercise allowed an in-depth visual representation to be built up of a fairly tacit phenomenon namely participants' local knowledge of learning *Ubuntu*.

The materials used in Phase 2 Part 1 Workshop 1 consisted of coloured markers and newsprint to illustrate the tree graphic and write in the text.

3.3.2.2 Phase 2 Part 1 Workshop 2

In attempts to glean a richer and more insightful exploration of participants' local knowledge on the learning of *Ubuntu*, the characteristics elicited in Part 1 Workshop

1 were studied at a much deeper level in Workshop 2. This involved a follow-up PRA exercise where each characteristic elicited in Workshop 1 was further investigated.

A method was devised using a matrix format whereby each characteristic was probed in order to find out: **where** the subject obtained the characteristic in everyday life; **who** was responsible for mediating the characteristic and; **how** a person learnt and/or obtained the characteristic. One axis constituted columns containing the characteristic, and the other axis constituted rows pertaining to where, who and how. The matrix was drawn with coloured marker on a large piece of newsprint and placed within the circle of participants. A separate matrix was created for each characteristic. An example of the type of matrix used in this exercise is graphically represented in figure 5.

Figure 5: Graphical representation of matrix exercise used in workshop in Phase 2.

	Ubuntu = **TO BE FAITHFUL** To see through all your promises
Where do you learn **to be faithful**?	
Who teaches you **to be faithful**?	
How do they teach you **to be faithful**?	

Participants discussed and debated the "answers" to the "questions" posed in the PRA activity. Participants were actively engaged in writing up characteristics into the matrix whenever there was group consensus on that particular characteristic. In this manner participants were able to visually build a coherent picture of the learning context related to learning characteristics related to *Ubuntu*. The joint activity involving collective discussion and visualisation helped to create a shared understanding of the subject matter. It is through the process of coming towards this shared understanding that the tacit local knowledge structures of the participants became more explicit.

The materials used in Phase 2 Part 1 Workshop 2 consisted of coloured markers and newsprint to illustrate the matrix exercises, as well as, write in the text in the form of categories.

3.3.2.3 Phase 2 Part 2 Workshop 1

The third workshop in Phase 2 Part 2 attempted to probe into the activity of "learning to read". An visual PRA exercise identical to that used in Phase 2 Part 1 Workshop 1 was used in this workshop. A graphical representation of a large tree with numerous branches was drawn and placed on a wall. The word "Reading" was written on the trunk of the tree.

The following guiding questions were used to facilitate discussion and debate, "What characteristics does a person who is able to read have, that a person who isn't able to read lacks?" and "What do you have to learn to become a reader?" The group were broken up into smaller focus groups and asked to discuss the proposed question. The researcher and Xhosa translator were constantly present and facilitated deep discussion of the question at hand.

In the plenary group, the characteristics were further discussed and written into the picture, by the participants, as the manifold branches of the tree. The group further elucidated each characteristic, so that through explanations of the characteristics, a common collective definition could be understood. This exercise allowed an in-depth visual representation to be built up of a fairly covert phenomenon namely participants' local knowledge of the activity of learning to read.

In the course of the exercise it became apparent that the participants were having difficulty applying themselves to the demands of the task. The participants were, individually or collectively, unable to provide characteristics of a person who is able to read.

Participants reflected on the consequences of reading rather than the characteristics that a reader has and a non-reader lacks. Thus the participants structured the PRA activity to reflect the outcomes associated with reading instead of the actual characteristics or skills needed to enable one to read.

The materials used in Phase 2 Part 1 Workshop 3 consisted of coloured markers and newsprint to illustrate the tree graphic and write in the text.

3.3.2.4 Phase 2 Part 2 Workshop 2

It was clear that the participants had a difficulty in trying to probe the formal learning context related to learning to read, and this was a significant result in itself. The participants seemed to restructure the task demands framed by the overarching research questions and they set more achievable demands by changing the PRA exercise questions to something which they could more readily answer. The researcher decided to work with the participants' change in research focus instead of starting from the beginning. One of the central features of PRA techniques is their flexibility and variety and thus a similar matrix exercise was used as the one used in the workshop in Phase 2 Part 1 Workshop 2 with "learning about *Ubuntu*".

In attempts to glean a richer and more insightful exploration of participants' local knowledge on the formal learning of reading, the elicited consequences of reading were studied at a much deeper level in this workshop. This involved a follow-up PRA exercise where each consequence elicited in Workshop 1 was further investigated.

Separate matrices were constructed for each consequence of Reading elicited in Workshop 3. This was done in order to probe **what** is read to provide the outcome of reading, **where** is it read and **who** are the actors involved in teaching a person to read. It was hoped that this "new" form of matrix would provide rich data that could deepen the data analysis regarding learning in a formal learning context.

The nature of the activity was thus changed from a simple PRA matrix such as that performed in Phase 2 Part 2 Workshop 2 to the structuring of a different PRA exercise in order to compensate for participants' overt difficulty in meeting the demands of the

original task. The nature of the PRA exercise thus needed to be adapted in attempts to obtain data reflecting participants' local knowledge of the activity of learning in a formal learning context.

The participants collectively discussed and debated the actors involved in teaching students to read. The main actors involved in mediating reading skills were further investigated within two small focus groups. The aim of the focus groups was to probe and discuss the manner in which reading is taught by the actors elicited in the plenary group. The groups were instructed to discuss "What roles do teachers and yourself play in learning how to read" since these were the two main actors elicited from the plenary group.

The researcher and Xhosa translator facilitated discussion and debate in both groups. The results were then fed back into the plenary group were they were written up into a table. The group refined the elicited roles until a group consensus existed.

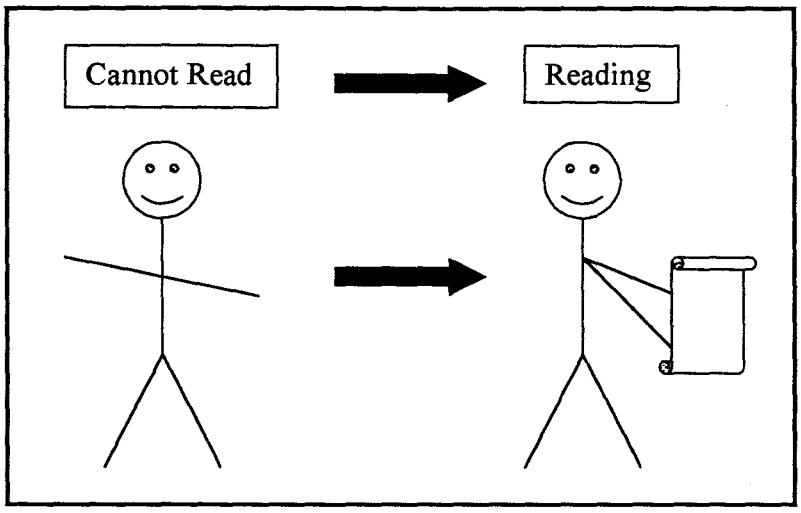
The materials used in Phase 2 Part 1 Workshop 4 consisted of coloured markers and newsprint to write and illustrate the matrix exercises.

3.3.2.5 Phase 2 Part 2 Workshop 3

Due to a lack of adequate data probing the activity of learning to read, it was decided to structure an additional workshop with the participants in attempts to elicit rich and insightful data such as that elicited in Phase 2 Part 1 about the activity of learning about *Ubuntu*.

A visual PRA exercise was used with the participants in order to retain the focus on the learning of reading skills. Two participants were selected and instructed to draw two figures. One participant was then instructed to draw the figure reading a book. The other participant was instructed to draw a similar figure yet this figure did not have a book. A stickman was drawn by the first participant reading a book, and the second participant drew another stickman who was merely standing. The title "reading" and "cannot read" were added to the drawings. An example of the drawing used in this exercise is represented in figure 6.

Figure 6: Graphical representation of drawing exercise used in workshop in Phase 2.



The question posed to the participants was, "What do you have to know in order to move from being a non-reader to a reader". The drawing was used to illustrate this point, where an arrow was drawn from the picture of the stickman to the picture of the stickman reading.

Two small focus groups were created with the researcher acting as a facilitator and the Xhosa translator acting as an interpreter for both groups. It was necessary to form focus groups with the participants in order for the facilitator to continually refine the participants' answers in terms of the questions posed to them. Thus the facilitator made sure that the participants did not change the nature of the questions posed but rather that they adhered to the task demands of the PRA exercise. The facilitator promoted collective discussion and analysis of the research problem through the continual use of the drawings in order to promote discussion.

Participants once again attempted to change the nature of the joint activity in order to participate effectively in the interaction. The participants went so far as to voice their opinions on the difficulty of the structured task. In attempts to aid the participants, the researcher made continual reference to the drawings and the situated task demands. In addition the researcher physically acted out the part of a person trying to learn to read. This acting consisted of a person holding a book upside down, then length ways, then attempting to read from right to left and attempting to read from the bottom of the page to the top.

These PRA techniques proved to have some success and participants began to come to some understanding of the task demands of the activity. Participants where collectively able to define characteristics which one needs to learn in order to read. These characteristics were elicited after much debate and discussion in plenary amongst the participants and where facilitated by the PRA exercises as described above.

A representative participant wrote each characteristic on a separate sheet of newsprint. The participants then discussed the mediators responsible for the learning of the characteristics and the mediational means used in the learning of the characteristic. The questions posed to participants was, "Who actually teaches you this skill/rule?" and "How do they teach you this skill/rule?" A participant then wrote the discussed "answers" to each characteristic separately on the respective newsprint pertaining to that characteristic.

In this manner quality data was collected which reflected participants' local knowledge of the activity of learning to read. The PRA techniques used in Phase 2 Part 2 promoted a shared understanding which was created through the joint activity structured by the exercises.

The materials used in Phase 2 Part 2 Workshop 5 consisted of newsprint for all drawings and text; and coloured markers for writing.

3.4 Limitations of the data collection process

The novelty of "voicing one's opinion" may have impacted on the free flow of discussions. Pupils may not have been accustomed to discussing their opinions and interests with strangers. In order to counteract this limitation, the participants were continually reassured that a "correct" answer did not exist and that the researcher was interested in their own subjective opinions. The effectiveness of this measure cannot be evaluated yet the participants showed a willingness to participate in group discussions. The participants seemed at ease to answer questions yet any deeper exploration of themes or topics required frequent prompts from the facilitator.

A problem with communication occurred, despite the presence of an interpreter and a request to speak in Xhosa (most participants' mother tongue) if necessary, the participants persisted in speaking English. Although participants did not have problems making themselves clear in spoken English. The PRA framework attempts to account for this limitation through the availability of group help and visual aides. Furthermore, the researcher, in the role of facilitator, often made individuals elucidate their views and offer examples in order to come to a group understanding of answers and opinions.

3.5 Data analysis

The guiding assumption behind this research project is that research is a process of generating meaning and understanding. Bearing this is mind the current research initiative adopts an interpretive approach to data analysis. According to the interpretive approach, investigation involves interpretation (Packer & Addison, 1989).

In describing the fundamental ideals of hermeneutics, Paul Ricoeur (1981) claims that interpretation involves constructing meaning. This meaning is a singular totality where the "relation of part to whole is ineluctably circular". Ricoeur (1981) goes on to claim that "the presupposition of a certain whole precedes the discernment of a determinate arrangement of parts; and it is by constructing the details that we build the whole" (p. 175). An interpretative approach based on this "hermeneutic circle" involves the researcher in the very process of constructing meaning, where validation proceeds in a "cumulative fashion through the mutual reinforcement of criteria which taken in isolation would not be decisive but whose convergence makes them plausible and, in the best case, probable and convincing" (Ricoeur, 1981, p. 271)

The analytic procedures adopted in an interpretive approach are exploratory, discovery-orientated and theory-generating rather than hypothesis testing (Kelly & Van Vlaenderen, 1994). The analytic process in an interpretative approach involves a continuous spiral of critical examination between theories and data which is determined by the material and tools available to the researcher, as well as, his/her explicit and/or implicit research goals (Craig, 1988). Attempts at understanding and interpretation arise at the moment of decision regarding methods to collect

information from the field. What may count for data in the analytic process is "not restricted to objective facts focussed on in a descriptive account, but also includes the ideas about the descriptions and ideas about these ideas and so on" (Craig, 1988, p. 102).

The interpretation of meaning begins with reflections made by the researcher during data collection, the literature review evolves as the questions guiding the data interpretation evolve, and the conclusion and literature review continue to influence each other until the point of completion (Kelly & Van Vlaenderen, 1994). This reflective analytic process where meaning is built on prior meaning, guides the research and provides for a continuous dialogue between understanding and interpretation, hence interpretation and understanding of the subject matter is continuously revised and changed throughout the entire research initiative (Packer & Addison, 1989).

In the present context the analytic procedure was embarked upon with a view to investigating participants' local knowledge of learning in formal and informal learning contexts. This analytic procedure can be seen as an ongoing process that commenced from the inception of the literature review, to participants' engagement with structured activities, through to the completion of the research thesis. The analysis of data was thus intricately related to the research process. In this sense the pool of "data" used in the interpretation of meaning in the current project consists of the researchers personal experience of mediation in joint activities with participants, documents, tables and drawings extracted using the PRA techniques, transcriptions of all verbal exchanges within PRA exercises and the researchers field notes. In this manner interpretive meaning is not solely built out of participants' local knowledge of learning in learning contexts but it is also enriched by descriptions of their performances on the structured research tasks, results of their actual performances on these tasks and the researcher's experiences in the field.

The spiral process of data analysis was enhanced through the use of PRA techniques. These techniques facilitates a reduction process, where meaning was clarified through collective thinking and joint decision making by the participants in response to the researchers prompting questions. PRA tools are able to do this through structuring

activities whereby the progression of ideas can be openly and jointly debated by all participants until its logical conclusion (Chambers, 1994). Data is thus openly and contextually checked, amended and verified by the participants so as to improve the validity of data analysis (Chambers, 1994).

In the interests of deepening the understanding of participants' local knowledge of learning in formal and informal learning context, the analytic process was further enhanced through the use of a reading guide. The act of interpretation thus went through two mutually beneficial phases in the current project. The first phase consisted of active participatory interpretation that was contextually and collectively orientated with the participants and the researcher. The second phase that made use of the reading guide, introduces the next level of interpretation. This level solely involved the researcher.

The reading guide method (Brown, Tappan, Gilligan, Miller & Argyris, 1989) is a way of structuring the process of interpretation from the reduction of data to the discussion stage. The data is reduced by developing a reading guide, which is a set of questions, through which the data is read. In this way, features of the data are highlighted and these make the data meaningful in terms of the questions asked (Brown et al., 1989).

The development of a reading guide begins with the generation of a set of questions through which data is to be read. Further development of the reading guide or the development of second and third order reading guides will facilitate further and deeper exploration of the material obtained from the data collection process (Brown et al., 1989).

In terms of the current study, the pool of data mentioned above formed the material through which the researcher was able to obtain an initial understanding and interpretation. The reading of the data leads to the construction of better questions to ask the data, and hence better understandings and interpretations (Brown et al., 1989). The controlled use of the reading guide allowed a descriptive and contextually rich analysis of the data to take place.

The construction of the reading guide involved returning to the theory in the literature review and reflecting on the PRA data, transcripts of interactions in the workshops and field notes. This was done in to ensure that the emerging reading guide was appropriate to the aims of the research while at the same time remaining true to the data that was collected. The reading guide developed for this project reflected the research goals of each phase of data collection. The Reading Guide for Phase 1 data analysis reads as follows:

- What areas of life are important to rural students in relation to the generation of local knowledge?

The Reading Guide for Phase 2 data analysis was divided into two readings of the available data. The first reading dealt with learning in an informal learning environment and the second reading dealt with learning in a formal environment. The reading guide for Phase 2 data reads as follows:

- Does the data provide elements of what must be learnt?
- Does the data identify where learning takes place i.e. the learning context?
- Does the data identify mediators?
- Does the data identify how such mediation occurs i.e. the techniques and tools employed in the mediational process?

These questions provided a framework for enhancing data analysis. Data relating to each reading using the reading guide was underlined with a different coloured pen. Data relating to each reading was brought together and summarised. Much of the data was already reduced and summarised in the form of tables and this made reduction and interpretation easier. A reflexive process of working with tables, transcriptions of verbal interactions, field notes and the researcher's own experiences, and returning to the data repeatedly, constituted the emergence or construction of the final interpretation. Reading the results in the following section will highlight how this took place in the course of the research process.

Chapter 4: Results and Analysis

The results in this section will be in the format of the research sequence and as specified in the reading guide. Thus Chapter 4 is divided into Phase 1 and Phase 2. The tables that are provided in this section are directly reproduced from the tables and matrix exercises used in the actual workshops. The text in these tables is recorded verbatim in order to preserve intended meaning and thus may often be grammatically incorrect.

4.1. Phase 1: Core areas of students' life

Two workshops were organised in Phase 1, the first workshop was carried out with Group A and another identical workshop with Group B. The Participatory Rural Appraisal (PRA) technique of a visual matrix exercise and focus groups were used to collect data in both workshops. The matrix exercise involved the participants freely eliciting categories of "current knowledge" through asking them the questions: "What is important to you in your lives?" and "What is central to who you are and who you want to be?" Each member of the group was given 8 tokens. Participants were instructed to independently rank the elicited categories by placing their tokens on the written categories in terms of subjective importance to their own lives. Both groups of participants (Group A and Group B) produced lists of core areas of their lives that require their own local knowledge.

Table 1 provides a basis to compare and contrast the outcomes of the PRA activity in which Group A and Group B participated. The results are written in the form of the core areas elicited followed by short descriptions of each category. This is followed by the proportion of the total group which "voted" for the category (the actual allocation of tokens is provided in brackets).

Table 1 Participants response to: "What is important in your lives?" (Proportional scores of Group A and Group B on matrix exercise in Phase 1.)

Group A (Amatole Basin Sample)		Group B (Alexandria Sample)	
Studies * To obtain knowledge about world * To obtain a job * To learn facts through school and reading	27% (17)	Being with the Family *Respect (imbeko: discipline and Ubuntu) *Tradition *Happiness	14% (13)
Culture * Preserving culture and traditions * Ceremonies, traditions and values such as Ubuntu	23% (15)	Reading * Obtaining information and Pen Friends *Improve conversation	14% (13)
Entertainment/Sport * Soccer * Volleyball	13% (8)	Church *Teaches religious behaviour *Protection against bad influences	12% (12)
Religion * Going to church with family * To tell you what is wrong or right	11% (7)	Occupation *Improve std. of living and Success *Help others and understand their needs	12% (12)
Nuclear/close family * Talking with parents about life and world * Help with solving problems and seek advice	9% (6)	Music *Memories and happiness *Messages (can empower)	8% (8)
Sexuality issues * Obtaining a husband/wife * Risks of STD's e.g. AIDS	8% (5)	TV *Entertainment *Learn about other cultures' behaviour	8% (8)
Entertainment * Playing and listening to music * Art	5% (3)	Customs (Traditions) *Identity *Learn history and Respect (ukuthobela)	6% (6)
Intimate relationships * Opposite sex	5% (3)	Sport *Fitness/health/discipline and Fame *Friends/profession/skills	6% (6)
		Meeting People *Make Friends and Learn others views *Understand others' languages	6% (6)
		Learning Languages *Communication *Meeting other people	4% (4)
		Dancing *Friendship, Enjoyment and Fitness	3% (3)
		Study in other places *Return to Alexandria to develop others	2% (2)
		Debate *Learn others' views and gain knowledge *Gain confidence/improve conversation	2% (2)
		Touring *Meet others and learn their traditions/conditions	1% (1)
Total Number of Tokens	64		96

The elicited categories represent the different areas of activities in the rural scholars' lives that they deem important. It is only through an investigation into these prevalent activities in the participants' lived worlds that the fossilised behaviour or the "plans, rules and recipes" which dynamically guide the participants will avail themselves for study.

The results from phase 1 reveal a number of rich and interesting insights into the participants' lived worlds. Group A (consisting of participants from a deep rural background) elicited 8 categories in the PRA exercise. Group B (participants attended

a school in a peri-urban area on the boundary of the small town Alexandria) elicited 14 categories in the PRA exercise.

The group of participants from Alexandria elicited more categories than the group from the Amatole Basin. The categories offered by the Alexandria participants covered a wide array of subjects. A number of categories mentioned were unique to the participants from Alexandria such as touring, television, dancing, debate and learning languages. The group from the Amatole basin, despite having elicited fewer categories, also provided a range of subjects. Unique to this group were categories pertaining to sexuality issues and intimate relationships.

Many of the elicited categories were explicitly similar such as "Religion" from Group A and "Church" from Group B. Despite the fact that some of the categories might not explicitly seem similar when comparing Group A and Group B, there exists a similarity in many of the descriptions of the characteristics of certain categories. The descriptions of the category of "culture" in Group A clearly overlapped with the descriptions offered for the category "being with the family" elicited from Group B. The overlap is made clear through the use, by both groups, of the words tradition and *Ubuntu*, and both groups' allusions to a common set of values. In a similar manner there existed a similarity between the categories of "studies" elicited from Group A and "reading" elicited from Group B. Both groups provided the descriptions of obtaining information and knowledge; and both referred to the skill of reading.

The explicit and implicit similarity between the characteristics elicited by the two groups reflects the shared interests that are central to the lived worlds of the participants. However the larger amount of categories elicited by Alexandria sample reflect the more urban links of the Alexandria group (Group B) an example of which is television. Television would probably be unavailable to most individuals in the Amatole Basin due to the lack of electricity. Furthermore, categories elicited from Group B such as touring, debating and learning languages, is a reflection of greater accessibility to various economic and educational resources which are usually lacking in areas of a more rural nature.

The PRA exercise provided a framework to illustrate the core areas of the groups of participants' lives that require local knowledge. The fact that Group B has elicited more categories than Group A illustrates the cultural variability between the two groups. Many of the elicited characteristics are implicitly similar for both groups yet the characteristics which differ illustrate the cultural variability of the two groups when faced with a similar active task in the form of the PRA exercise. This cultural variability comes about through the situated activity of reflecting on the culturally defined actions and tasks that frame the participants' everyday lives.

The characteristics and categories such as "respect", "*Ubuntu*", "traditions" and "values" can be said to represent characteristics that are traditionally learnt in informal learning contexts. Yet categories such as "studies", "reading", and "sport" echo sentiments often associated with learning of a more standardised nature and according to fixed rules and regulation which usually takes place in a formal learning context.

The presence of particular categories related to different learning contexts illustrates that learning does not take place in one homogenised setting but rather the learning of elicited characteristics is spread across different learning contexts.

4.1.1 Preparation for Phase 2

Two categories were selected from the heavily weighted categories in the lists of categories obtained from the two groups of participants in Phase 1. These two categories were chosen as they were considered to reflect fundamentally different learning contexts which structured different learning tasks.

The first category, namely "*Ubuntu*", was selected by the researcher for two reasons. Firstly, it best fitted what was understood to be a characteristic associated with an informal learning environment. This implies that the quality of *Ubuntu* is normally learnt in an informal, non-institutional learning context and the learning of *Ubuntu* is directly related to everyday experiences. Secondly, both Group A and B had scored elements of the term highly in the matrix exercises (23% of Group A and 14 % of Group B).

Similarly, the second category, namely "Reading", was selected by the researcher for two reasons. Firstly, it best fitted what was understood to be a characteristic associated with an formal learning environment. This implies that reading is normally learnt in an formal institution learning context and the skill of reading is governed by fixed abstract patterns and rules. Secondly, both Group A and B had scored elements of the term highly in the matrix exercises (27% of Group A and 14 % of Group B).

The category "*Ubuntu*" is a complex and richly meaningful term which echoes numerous community orientated values. Furthermore, the learning of it is not institutionally based, rather it is commonly associated with a home and community setting where it is learnt as an implicit mode of spontaneous engagement or behaviour. The meaning of the word loosely implies some form of moral code or respect, and it embodies concepts such as humility, caring, trust, good manners and neighbourliness (Gilbert, 1995). In learning "*Ubuntu*", no fixed and abstract rules or structures exist, rather the concept maintains a fluid and dynamic nature in different settings as it is contextually mediated. *Ubuntu* is clearly a characteristic learnt in an informal context.

In comparison, the category "Reading" embodies a more formalised and standardised conception. Reading is usually taught by a skilled and experienced other and in attempting to teach it, one generally follows established curricula and plans as often associated with a formal learning context. This form of learning usually takes place in an institution in the presence of other learners. The skill of reading clearly represents a characteristic that is learnt in a formal context.

The learning of Reading represents a fundamentally different learning activity than the learning of *Ubuntu*. The use of PRA tools to tap into rural scholars' local knowledge of these learning activities creates the potential to provide rich insights into the psychological aspects of learning in the respective learning contexts. These two categories served as the focal pillars around which the issues of the students' local knowledge of formal and informal learning contexts could be further investigated in Phase 2.

4.2 Phase 2

The results in this section will be divided into two parts. Part 1 deals with the informal learning context associated with learning *Ubuntu* and Part 2 with the formal learning context associated with learning to read. The reading guide developed for Phase 2 and the goals of the research were used in order to structure this section of the thesis. Thus the results are reported in the manner that they succinctly answer the questions as posed by the reading guide and goals of the research in both Part 1 and Part 2.

4.2.1 Phase 2 Part 1: Learning *Ubuntu* in an informal context

4.2.1.1 Identifying the core traits of *Ubuntu*

A PRA exercise was devised to probe into the core traits related to *Ubuntu.* Questions posed to participants were "What aspects of personality does a person with *Ubuntu* have, that a person who doesn't have *Ubuntu,* lacks?" and "What do you have to learn in order to have *Ubuntu?*" A drawing was constructed which allowed a graphical representation to be built up of the core traits of *Ubuntu.*

Participants fully grasped the demands of the PRA exercise and the researcher was able to collect rich and insightful data. The participants were able to come up with 13 characteristics commonly associated with a person who has the quality of *Ubuntu.* Table 2 illustrates the characteristics of *Ubuntu* provided by the group of participants and the definitions that they used to promote their claims.

Table 2: Core traits of *Ubuntu* (Data generated from PRA exercise).

Characteristic	Explanation
• To respect others	
• To create friendship and sharing between people	Same way as we have met you and now you are our friend.
• To have sympathy with others	Share in mourning at someone's death Offer support when someone is grieving
• To have peace with other people	Harmony among all people in community
• To be patient with others	To be calm in all situations
• To be faithful	To see through on all your promises
• To displays unity and co-operation	Those who have the knowledge and power help those who don't. Bafana Bafana needs to unite to reach their goals.
• To not be a troublemaker	
• To gives Encouragement to others	Need motivation for doing a good thing Gives personal support to others
• To be a person who doesn't change	Constant and always the same temperament.
• Helping the community	Helping street children Discouraging crime
• To accept everyone	The rich or poor / The able(normal) and disabled
• To pay attention	Irrespective if it is a big problem or a small problem.
• To forgive others	Others what they have done to you (humble)

The results focussed on in this section provide an insight into the elements or traits that are learnt in an informal learning environment. Many of the traits described in this table are moral statements that are given by the participants as verbs. These pro-active moral statements echo particularly positive social ideals. By this it is meant that they focus beyond the individual and are more of a social nature. This can be seen in characteristics such as "give encouragement", "display unity", "respect others", "sympathy with others" and "have peace with others". These traits are seen as positive as many of them are perfect ideals that focus on the betterment of individuals and society. The social nature of these ideals lies in the participants' constant references to "others".

Many of these ideals which are learnt in coming to gain *Ubuntu* cannot be measured quantitatively as they only come about through explicit interactions with other individuals or society. "Faithfulness", "Acceptance" and "Encouragement" are some of the many examples that illustrate that the elements learnt are abstract, intuitively measured, subjective ideals which defy simple objective measurement.

4.2.1.2 Identifying the learning context related to learning *Ubuntu*.

A PRA exercise was devised to elicit the place or learning context where characteristics related to *Ubuntu* were learnt. A matrix was constructed whereby each characteristic was probed in order to find out **where** the subject obtained the characteristic in everyday life.

Participants fared exceptionally well in this exercise and their local knowledge of the learning of characteristics related to *Ubuntu* was clearly expressed through the PRA exercises. Focussing on each characteristic of *Ubuntu* separately and at different levels, the participants were able to make their tacit local knowledge explicit and understandable. Table 3 reflects the outcome of the exercise.

Table 3: Participants responses to where *Ubuntu* is learnt (Data generated by PRA exercise.)

Ubuntu	Where do you Learn?	Ubuntu	Where do you Learn?
To respects others	*Home *Church *School and Societies *Amongst Friends	To give encouragement (support)	*Home *School *Social environment
To create friendship and sharing between people	*Schools and Societies *Journeys and taxi's *Touring *Churches	To be a person who doesn't change	*Church *Home *State President *School
To have sympathy with others	*Churches and *Community *Funeral services *Hospitals *Own family experience	To be faithful (seeing promises through)	*Social groups and School *Community *Business and *Church *Personal relationships
To have peace with other people	*Home *Church *School	To accept everyone	*At Home and Television *Mandela (State President) *School
To be patient	*In provoking situations *At school during studies *In a meeting *Playing sport *When something is being explained	To pay attention	*Meetings *School *Church *Home
To display unity and co-operation	*Sport clubs and at Home *Study groups *Social groups (bound together by similar experience)	To forgive	*Friends *Home *Church
Not to be a troublemaker	*Anti-crime meetings *Home *School *Church		

The data obtained reflects where a particular characteristic is learnt. This implies the location or context where learning activity is structured. It is apparent that the activity of learning *Ubuntu* characteristics is certainly not defined by any one location but that learning can take place in an array of locations and/or settings. The most common locations seem to be church, school and home but a number of other diverse options are given for most of the characteristics such as television, hospitals and taxi's. This reflects the dynamic nature of learning in an informal context, where the activity of learning is not fixed to a single homogenised location but rather different and new settings are utilised. There are thus many informal learning settings yet each setting is specific in that it promotes particular learning activity and it is through this situated activity that characteristics related to *Ubuntu* are internalised by the participants.

It is important to take notice that school and church are traditionally representative of formal learning settings yet they are also mentioned as places where characteristics related to *Ubuntu* are learnt. Learning opportunities are thus embedded in traditionally formal and informal settings wherever the individual interacts with others.

There is a contemporary dynamic to many of the proposed contexts where learning is facilitated. This contemporary dynamic reflects the shaping events and everyday contextual influences on the groups' immediate everyday surroundings. Examples of this are given through references to taxi's, anti-crime committee's and television.

It becomes clear that learning in an informal learning context takes place through an individuals' everyday life situations. Thus learning is situated in mundane everyday activities which encompass all aspects of life. An example relating to this was elicited from a participant on the subject of learning patience, who claimed:

> *"Yes, you can learn to be patient through life examples. You can learn to be patient through everyday life [everybody agrees]. That's how you can learn."*

The learning that takes place is also immediate and intimately related to activity in everyday life. An example of this was provided by a participant in describing the context of learning the characteristic of "unity and co-operation", who said:

"For instance, we are all here through the same experience, there is a bond."

The participant equated the immediate surrounding context of the workshop as an opportunity for learning. Thus the room where the PRA exercises were structured became an informal learning setting, where the researcher was able to mediate the characteristic of "unity and co-operation". A zone of proximal development was created through the joint activity created by the PRA exercise. Learning was immediate and this provided a rich example of how learning became intimately tied to the local context of the workshop. Thus informal learning cannot be disembedded from the immediacy of structured and situated activity. The example also proves that learning is not tied to one setting and that any setting can provide a platform for learning characteristics related to *Ubuntu*.

4.2.1.3 Identifying the mediators related to learning *Ubuntu*.

A method was devised which used a PRA matrix exercise in order to probe each characteristic of *Ubuntu* in order to find who was responsible for mediating the particular characteristic.

Table 4 illustrates the results from the PRA exercise reflecting the actors responsible for structuring the learning activity in an informal learning context. These actors can be referred to as mediators, and it is through purposefully mediated learning activity which is contextually embedded in informal learning contexts that individuals come to learn the characteristics associated with *Ubuntu*.

Table 4: Mediators responsible for mediating characteristics related to learning *Ubuntu* (Data generated by PRA exercise).

Ubuntu	Who teaches you?		Ubuntu	Who teaches you?	
To respect others	*Parents: *Mom, dad, grandfather *Priest	*Teachers *Friends	To give encouragement (support)	*Myself *Supporters *Teachers *Friends *Parents	*Relatives *Coaches *Social workers *Sponsors (bursaries)
To create friendship and sharing betw. People	*Friends *Priests *Students *Parents		To be a person who doesn't change	*Priest *Parent *President *Good friends	
To have sympathy with others	*Priest *TV and films *Parents		To be faithful	*Couples *Families *Government	
To have peace with other people	*Self *Parents *Friends *Priest	*National Leaders *Church People	To accept everyone	*Teachers *Psychologist *Parents *Friends *Actors *Social Worker	*Church *God *Nurse *Yourself *Nelson Mandela
To be patient	*Friends *Parents	*Teachers	To pay attention	*Yourself	*Leaders in the community
To display unity and co-operation	*People around you *Parents at home	*Leaders *Coach *Yourself (grouping with others)	To forgive	*Parents *Couples *TRC. *Friends *Priest	
Not to be a troublemaker	*Yourself *Friends *Parents	*Church *School *Anti-crime committee			

The actors responsible for teaching the participants the specified characteristics are extremely varied. These actors spontaneously interact with an individual in a number of everyday contexts. The dynamic and embedded nature of the actors involved in mediating the characteristics related to *Ubuntu* is illustrated by the participants' references to the researcher as a mediator. In this example the participant was explaining how the researcher mediated the characteristic of encouragement:

> *"You make us to talk and communicate"*
> *"You give us encouragement to talk and not be shy"*

Thus even the researcher through interacting with the participants was seen by the participants as structuring informal learning activity related to learning encouragement.

There is a contemporary dynamic to many of the proposed actors who facilitate learning that reflects the shaping events and contextual influences on the groups' immediate everyday surroundings. These include the mentioning of the Truth and Reconciliation Commission, psychologists, anti-crime committees and Nelson Mandela. This contemporary dynamic to the actors involved in mediation is opposite to what constitutes traditional mediators such as parents, teachers and friends. Parents, teachers and friends are culturally established roles generally equated with the activity of learning. In contrast, the participants have also included a number of actors involved in mediation who are intimately linked to contemporary surrounding events and contextual activities.

The fact that participants included a number of contextually specific actors illustrates that the actors involved in mediation in an informal learning context are drawn from people involved in the everyday experiences of the participants. The very fact that the researcher was highlighted as a mediator reflects the sociocultural embeddedness of mediated action.

When interrogating the "pool of data", it appears as if the participants refer to different types of mediation. The participants refer to social forms of mediation (through interaction with other people), as well as, mediation through abstract means. The social mediators constitute most of the elicited actors, such as friends, priests and parents. An example of learning which takes place during an interaction with other people was provided by a participant, in described the context of learning the characteristic of "having peace with other people", the participant claimed:

> *"By listening to the things that other people say, then you learn to accept their views."*

The abstract forms of mediation occur through less-concrete categories such as bursaries used in the following example to teach people encouragement:

> *"Like sponsors, students are given money and support to go further. Students are given bursaries."*

In this sense then bursaries can be seen as the material means which enable the reflection on the articulation of *Ubuntu*.

4.1.2.4 Identifying the mediational tools related to learning *Ubuntu*.

The last level of questioning through which the data was interrogated refers to the tools or techniques used in mediation. This pertains to the specific structured tasks that an individual engages in whereby the particular characteristics of *Ubuntu* are learnt. More specifically, this section investigates how specific opportunities for learning are structured. In Table 5 the results of the PRA exercise used to elicit data on the mediational techniques structured to promote learning are presented.

Table 5: Mediational tools related to learning *Ubuntu* (Data generated by PRA exercise).

Ubuntu	How do you Learn?	Ubuntu	How do you Learn
To respect others	*Punishment *Communication of what is wrong and right *Sharing views *Quoting from the Bible	To give encouragement (support)	*By listening to those that teach *Students are given bursaries *By seeking somebody (problem get support) *Reward (e.g. wages)
To create friendship and sharing between people	*Communication *Talkative *Making Jokes	To be a person who doesn't change	*Being Patient *Talk problems out *Lessons from Bible
To have sympathy with others	*Visiting the sick and dying * Seeing those in less fortunate positions *Helping others *Seeing others that are less fortunate	To be faithful (seeing promises through)	*To be placed in a position of trust *Remind yourself to be faithful *By reading the bible *Being the same person
To have peace with other people	*Following what other people say *Following examples *Reading from the bible *During social events: funeral *Being with others	To accept everyone	*Following examples of other accepting others *Making friends with other people. *Being together and communicating with others *Not to discriminate *Following teachings
To be patient	*Own life situations *Seeing other peoples behavior	To pay attention	*Discipline yourself *Embarrassment (made an example of in class) *If someone gives an order, do what you are told.
To display unity and co-operation	*Seeing unity in a group with others. *Making friends *Own experience in forming groups *Being talkative (allows acceptance) *Seeing leaders and how they behave when they are facing problems	To forgive	*By reading the bible *Taught by parents *By seeing a person forgiving another person *By being given advice from someone above you
Not to be a troublemaker	*Reading the bible *Punishment and *Not gossiping *Seeing troublemakers and how they are handled *Hearing about punishment in courts *By not telling lies *Parents lessons *Watching TV		

Through using the reading guide to interrogate the pool of data, regarding the tools and techniques used in mediation, it became apparent that the data could be examined at a deeper level.

There appeared to be different forms of mediation at work in the various descriptions of how the characteristic of *Ubuntu* is learnt in an informal learning context.

The data suggests that mediation may occur through the direct action of another person. This is constant with the concept of mediation as propagated by Wertsch (1991). The significant other actively structures joint learning activity for the learner and creates a Zone of Proximal Development. Thus the learning is motivated and controlled by the significant other involved in the process of mediation. Participants give examples in this regard such as:

> *"Following teachings." [To learn acceptance of everyone]*
> *"By being given advice from someone above you." [To learn to forgive]*
> *"Taught by parents lessons'." [To learn not to be a troublemaker]*
> *"Through punishment." [To learn to respect others]*

Mediation may also occur through the use of ritual ways of behaving which come about as a result of routine everyday practice. This form of mediation comes about as a form of direct social obligation practised in an individual's life. The individual is intimately tied to the situation in which the particular characteristic is learnt. These ritual ways of behaving often take the form of practising previously internalised rules and recipes for life which are directly experienced in social context. Examples of this form of mediation are provided by the participants such as:

> *"During the social gatherings we can learn from other people just by being with them." [To learn to have peace with other people]*
> *"In hospital you can visit those that are sick and dying and in less fortunate positions." [To learn to have sympathy with others]*
> *"They can be talkative and then we can make friends also by making jokes." [To learn to create friendship and sharing between people]*
> *"I can learn to have sympathy with others through attending, funeral services." [To learn to have sympathy with others]*
> *"Through my own experiences in forming groups." [To learn to display unity and co-operation]*

Mediation may also occur through a reflection on personal observations within a particular cultural context. Personal observations include anything that the participants subjectively witness and then form a subjective opinion on. This is a similar form of mediation as described above yet here mediation comes about as a result of indirect social activity. The individual comes to internalise the characteristics related to learning *Ubuntu* through focusing on everyday contextual events from a distance. Examples of this form of mediation came about in statements such as:

"Seeing unity in a group with others and following their example." [To learn to display unity and co-operation]
"Seeing leaders and how they behave when they face problems." [To learn to display unity and co-operation]
"Seeing a person forgive another person." [To learn to forgive]
"Following other's examples." [To learn to have acceptance of everyone]
"Punishment by law and hearing about the punishments." [To learn not to be a troublemaker]

All of these forms of mediation described above reveal the social nature of activity. The third form of mediation as described above also illustrates how mental functioning in the individual is derived from participation in social life. Wertsch (1991) quotes Vygotsky with the following:

> *[Higher mental functions'] composition, genetic structure, and means of action [i.e., forms of mediation] – in a word, their whole nature - is social. Even when we turn to mental [i.e., internal] processes, their nature remains quasisocial. In their private sphere, humans retain the functions of social interactions. (1981, p.164)*

So even though the individual is not directly involved in any interpersonal social activity per se, the nature of his/her activity is still social in nature.

4.2.2 Phase 2 Part 2: Learning to read in a formal context

A PRA exercise was devised to probe into the core traits related to reading. Questions posed to participants were "What aspects of personality does a person who is able to read have, that a person who cannot read, lacks?" and "What do you have to learn in order to read?" A drawing was constructed which allowed a graphical representation to be built up of the core traits of reading.

The participants seemed to have a problem applying themselves to the demands of this task. Participants were often silent and required constant probing questions in order to get them to converse. The researcher continuously requested the participants to focus on the central question that was asked of them.

The nature of the activity of the PRA exercise changed due to the obvious difficulty participants were experiencing with the given task. The participants dealt with the conflict created by the inability to understand the task demands of the joint activity by changing the central nature of the activity. In other words, participants changed the task requirements of the activity to fit their thinking on the subject of learning to read.

In this respect participants reflected on the consequences of reading rather than the traits related to a person who is able to read. The participant could obviously not answer the question with the same comparative ease as they answered the question related to *Ubuntu*. Through reconstructing the activity of the PRA exercise, the participants have disclosed the difficulty they have on engaging in the activity of reflecting on the cognitive activity of learning to read. The results of this PRA exercise are given in Table 6 that appears on the following page.

Table 6: Core traits of reading (Data generated from PRA exercise).

Characteristic	Explanation
• Provides Information	Advertisements to keep in touch with sales Jobs and Posts available Facts on countries and Sports Information (accidents, lost relatives)
• Gives messages	Poem: Can teach you the right and wrong behaviour.
• Improve your ways of behaving with other people	See how others (characters) act in situations. Put together experiences of all you have read
• Gain experience	By learning facts Learning about other cultures
• Improving communication	Learning new words e.g. English reading
• Learn more about our culture	Where we come from
• Reading can teach confidence	Reading an English book will give the confidence to try and speak English
• Provide enjoyment and entertainment	
• Escape from feelings	You are never alone if you have a book, you can use it to escape from things that plague you
• Gives skills to allow independence	Leads to getting a job Can ensure that you have success and thereby improve your standard of living.
• Reading enables you to learn how to write	These two lead to each other. (Reading = Writing)

Given that students transformed the activity and provided the consequences of reading rather than the nature of learning to read, the researcher decided to work with the participants' change in focus. One of the central features of PRA techniques is their flexibility and variety and thus a matrix exercise was created to probe into each consequence of reading elicited in the prior workshop. Separate matrices were constructed for each consequence of reading. Columns were created in the matrix to

probe: **what** is read to provide the elicited consequence of reading, **where** is it read and; **who** are the actors involved in teaching a person to read. These columns were used in the hope that the data elicited would provide insights into the learning context related to learning to read, the mediators involved in mediating reading skills and the mediational tools used by these mediators. The results of this PRA exercise are reflected in Table 7.

Table 7: Participants responses to what type of material is read, the context of reading and the actors involved in learning how to read (Data generated by PRA exercise).

Reading	What type	Where	Who
Provides Information	Magazines, Readers digests, Newspapers, cinema screens, stories (books), TV Talk	*Home *School *Library *Cinema	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.
Gives Messages	Local Newspaper Adverts from Newspapers, Christmas cards, Bible	*Home *School *Library *Church	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further. *Priest: Allow to practice
Improve your ways of behaving with other people	Bible, stories - can learn lessons, Poems, Books	*Home *School *Church	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further. *Priest: Allow to practice
Gain Experience	Magazines e.g. recipes Doing Homework e.g. experience in math's and essays	*Home *School	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.
Improving Communication	Newspapers, Stories, Books, Cinema Screens	*Home *School	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.
Learn more about a culture	Tourism magazines, Stories History Books	*Home *School *Library	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.
Reading can teach confidence	Reading anything in English - imitating and practice	*Home *School *Library	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.
Provide enjoyment and entertainment	Greeting Cards, Billboards, Stories Cartoons(comics) Magazines	*Home *School	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.
Escape from feelings	Books, Problem pages (agony aunt)	*Home *School *Library	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.
Gives skills to allow independence	Content Subjects e.g. BE, economics. Drivers License book, Recipes in magazines	*School *Home *Driving School	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.
Reading enables you to learn to write (and writing to read)	Did not go into	Did not go into	*Teachers: Language teachers; guidance teachers. *Yourself: Motivated to take it further.

The table reflects that the activity of reading is practised in many different settings. It also illustrates that the actual material read comes in many different formats. The type of reading material is extremely varied with examples such as everyday reading material like school books and then more obscure reading material such as Christmas cards. The settings where reading is practised seem to be quite similar for most categories with frequent reference to the school and the home. Yet interestingly, the participants only refer to the "teacher" and "yourself" as the main actors involved in mediating the reading skills which allow a person to engage in the activity of reading different types of material. A 'priest" is mentioned once but this also alluded to practising.

The participants unanimously agreed that the teachers who actually mediated the skill of reading were the guidance teacher and the language teacher. It is clear agreed that these teachers have a clearly defined role and responsibility concerning the activity of mediating reading skills. The participants also viewed themselves as being instrumental in the activity of learning reading skills. The role of the individual is described as being a passive motivator to practise the already learnt skills.

Given that the participants reconstructed the PRA activity and that the researcher wanted to probe deeper into the students' local knowledge of the formal context of learning to read, it was decided to run a final PRA workshop with the participants. A visual PRA exercise was used with the participants in order to retain the focus on the learning of reading skills

The question posed to the participants was, "What do you have to know in order to move from being a non-reader to a reader". A large visual drawing was used to aid discussion and debate. Answers and statements elicited from the participants were written onto the newsprint to act as a reference point for further discussion. The participants still struggled to accomplish the task demands set by the PRA activity and they continually changed the nature of the PRA activity by reflecting on the consequences of reading. It became clear that the participants were still having difficulty with the demands of the activity.

In the same manner as before, the participants reconstructed the activity involved in the PRA exercise due to the difficulty they had with the activity of exposing their local knowledge of the activity of learning to read. In this final exercise the participants constantly tried to change the task demands of the PRA exercise and in response to this were constantly reminded by the researcher of the manner in which the task should be approached in the PRA exercise. In attempts to aid the participants, prompts were made by the researcher in the form of the researcher physically acting out the part of a person trying to learn to read. It was during an interaction of this nature that one participant claimed the following:

> *PARTICIPANT: This is difficult.*
> *FACILITATOR: Why do you think that it is difficult?*
> *PARTICIPANT: It is difficult because – Let's say you know something but you can't speak that thing, you can't say it. It is naturally known but you can't say it!*
> *FACILITATOR: Does everybody think the same?*
> *PARTICIPANT: I think to me it is a big problem because I don't even know for myself how I am able to read. I want to think how I learn and what I must know but it is difficult.*
> *FACILITATOR: Does everybody find it like this?*
> *PARTICIPANTS: Yes. [at least five participants]*

It is clear from the above that the participants had difficulty in expressing their local knowledge of the activity of learning to read in a formal learning context. The framing assumptions and elements behind the skill of reading are intuitively known to the participants but they claim that they cannot express these things. Hence the participants reference to something that is "naturally known". It is hypothesised that the task demands that are structured by the mediators in the formal learning context of learning to read are not explicit. The structure and goals of the activity are tacit and known by the "teachers" but not by the "learners" in the activity of learning to read. This is the classical structure of formal activity where mediators do not explicitly communicate disembedded understanding yet it is the basis of the activity that is learnt by the "learners". The underlying structure and goals of the activity are internalised by the individual in coming to mastery of the activity yet these elements are mediated in a tacit manner and thus cannot be easily reflected upon by the learner in the PRA exercise.

The pool of data used for data analysis in Part 2 consisted chiefly of transcriptions of all verbal exchanges within PRA exercises (available from the researcher on request) and this was supplemented with the researcher's personal experience of the joint

activity within the boundaries of the PRA exercises with participants. In addition to this the analysis was deepened through the use of actual documents, tables and drawings extracted using the PRA techniques, and the researchers field notes. Segments of text referred to in the following section are recorded verbatim from the transcripts of dialogue and thus may be grammatically incorrect.

4.2.2.1 Identifying the core traits of reading

An analysis of the total pool of data reflects a number of traits that are learnt in coming to learn how to read. Some examples elicited by participants include:

"the alphabet"
"combining words into sentences"
"punctuation changes your tone"
"break up sentences with a full stop"
"read from left to right"
"read from top to bottom of page"

The elicited elements learnt reflect the fixed rules which govern reading. The knowledge of these abstract rules is vital in coming to learn how to read. It is clear that the knowledge of merely a few of the elicited rules does not make an individual a proficient reader. Rather an individual is required to understand all of the given rules, and the relationship between them, in order to reach the level of proficiency expected of a reader. Thus the elements learnt in a formal setting are not solitary components rather they are part of a complex and established set of predefined elements making up a body of knowledge.

4.2.2.2 Identifying the learning context related to learning to read

Participants were of the opinion that reading was learnt in a number of contexts. In a similar manner to the exercise on learning about *Ubuntu*, participants reflected on the context where reading is practised. Thus the students saw the activity of practising to read as part of the activity of learning to read. Evidence of this can be found in the following contexts where one can learn to read, as provided by the students:

"Libraries in school"; "Cinema"; "Adverts"; "Street names"; "Television"

Nevertheless, the following statement was also provided in an exchange with the students:

> *FACILITATOR: So, all in all, where is reading taught [use picture] in coming from this to this?*
> *PARTICIPANT: Libraries*
> *[Xhosa]*
> *FACILITATOR: What are you doing in the library? [silence] Maybe practising? So you can practice your reading?*
> *PARTICIPANT: Yes, and also at home.*
> *FACILITATOR: Where else can you practice?*
> *PARTICIPANT: In adverts...streets...and television.*
> *FACILITATOR: Yes but where do you actually* ***learn*** *how to read?*
> *PARTICIPANT: Only at school.*
> *FACILITATOR: Does everybody agree?*
> *PARTICIPANTS: Yes [all].*

It appears overwhelmingly that the students see reading as being mediated primarily in the formal learning context of school. So therefore the school is the only context where the skills of reading are mediated. Yet it is important to note that reading is also practised in a number of informal contexts.

4.2.2.3 Identifying the mediators related to learning to read

The participants only focussed on two actors involved in the in the act of mediation namely the "teacher" and "yourself". In the process of refining the PRA exercise reflecting where reading was learnt, one participant claimed the following:

> *PARTICIPANT: I also think that you can add teachers and yourself in for all of the coming ones because you only learn to read once.*
> *FACILITATOR: Does everybody agree with this, do you only learn to read once?*
> *PARTICIPANTS: Yes*
> *PARTICIPANT: Once you know it you can use it and practice it.*

This excerpt contains two important points. The first is that the participants collectively agree that the two main actors involved in the mediation of reading skills are themselves and the teacher. The second is the fact that the participants claim that reading is only taught once and then it is mastered through continual practice. The assumption can thus be made that learning in a formal learning context is structured around mastering certain bodies of knowledge and once the rules governing these bodies of knowledge have been internalised then the individual practices what has been mediated in order to gain proficiency. This is reflected in the following interaction on the roles of the actors in the learning dialectic:

PARTICIPANT: I think that it must be the teacher who teaches you but he cannot do it with out my help.
FACILITATOR: What role do you play in learning to read?
PARTICIPANT: I must want to do it
PARTICIPANT: Yes I must be motivated to carry on an practice or else I will learn nothing. Like if somebody doesn't go to school then he will not learn to read. He must make himself go and want to read books for learning.

An aspect that comes to the fore is the reflexive nature of participants thinking in that they included themselves in the learning differential. Their role, as motivator, is part of the learning dialectic which is formed with the teacher. In focussing attention on the situation where reading is learnt, it becomes clear that the individual enters into a dyadic learning-teaching relationship with the teacher in a school setting. The role of the teacher is framed by the activity of teaching the individual the skills to learn how to read (the elements reflected in the section above); and the role of the individual is to respond accordingly by attending to what is being taught and practising the skills until they are internalised and can be used in everyday use.

The teacher who is responsible for teaching reading is not just an ordinary teacher, rather the task of mediating the skills of reading are carried by a specific teacher. This is apparent in the following interaction:

FACILITATOR: Which teachers help you to read? Specific teachers?
PARTICIPANT: The teachers who are teaching language teach us.

Overall, it becomes clear from the data elicited on reading that there exists a role specific dyadic interaction between the individual and a teacher. An important facet to this learning-teaching dyad is that neither actor exists independent of the other. Both have to engage in particular activities successfully in order to ensure that the skill of reading is learnt correctly. Mediation took place at an interpersonal level through the activities embedded primarily in a school context.

4.2.2.4 Identifying the mediational tools related to learning to read

The mediational tools and techniques used in the activity of learning to read are provided in Table 8. This data was generated from transcribed interactions between the researcher and participants in the workshops in Phase 2 Part 2.

Table 8: The mediational tools and techniques used in the activity of learning to read Data generated by PRA exercise).

Tools and techniques	Explanation
• Asking you to repeat the alphabet, vowels, numbers and words.	" A teacher can ask you to repeat the alphabet" " Like the vowels and numbers" "If he says the word then you must say the word" "You learn together and learn the sounds with the words" "The words depend on the alphabets, if you can match those alphabets, you can end up having a word." "It is like you are singing, there is less chance of you forgetting."
• Giving people a chance to read aloud in class.	"You must follow the reader and then you will learn from his reading." " If you say different words aloud, you will learn how you can combine them as sentences." "I think that when you are saying it out aloud, then if you read them incorrectly, someone can help you."
• Giving reading assignments	"The teacher can give you assignments" "It helps me to practice my writing and maybe if I must read to do it"
• Showing you pictures	"The teacher can help by showing you pictures such as an apple is an A" ...."When you read it again it will help you because you can see it." "It helps you to be able to pronounce the word and to see that the picture agrees with what you are pronouncing" "When they see it again, they will recognise it and they will know how to spell it."
• Teacher writes on board	"Ok, so if a teacher is standing and writing on the board. You will see that he is writing from left to right and he maybe asks you to read what is written there. I think that that is natural. You see him writing from left to right and then you know I must start reading from where he started writing and then go in that direction he goes."
• Formal lessons	"They will tell us that a sentence must have a full stop and a comma and at the beginning a capital." "The teacher gives the people a book and he says the book on the left hand side the page has a red line from top to bottom and you must not write over that line. That is how we learn." "The teacher tries to show you how to read a sentence with a question mark. I think the tone must not be the same."
• Correct you where you are wrong	"A teacher can correct you when you are wrong"
• Punishment	"If you make mistakes you are asked to leave the class." "Also by punishment"

These elicited techniques or tools used by the teacher indicate the structured opportunities for mediation. These structured opportunities are in the form of particular tasks that are used in order to teach and refine certain reading skills. These reading skills are collectively internalised and the individual comes to know, understand and practice the patterns and rules that regulate the activity of reading. Isolating these structured learning tasks gives a first hand insight into the mediational means used in a formal learning environment in attempts to teach the skill of reading.

The first structured technique elicited from the table alludes to repetition exercises. The participants refer to the teacher "asking you to repeat the alphabet, vowels, number and words". Through these structured verbal repetition tasks, where the

learner repeats the alphabet or vowels, he/she comes to internalise them himself/herself. The category "giving people a chance to read aloud in class" also draws on the technique of repetition and pronunciation in order to assist in the learning process. Yet the focus here is on practising, correction, pronunciation and inducing confidence. Both of these techniques draw on verbal cues in order to promote learning. Repetition as a form of imitation is an active process which significantly impacts on the development of skills through a process which encourages joint activity.

The following category, "giving reading assignments" is a particular manner of ensuring that the individual understands the structure and rules that govern reading. An individual is given the opportunity to read alone and in this manner a space is provided for the individual to practice reading skills which have already been mediated. The participants also see the writing of assignments as a good manner to improve reading skills because the individual has to read in order to successfully meet the demands of the writing task.

The next category, "showing you pictures", reflects the technique whereby visual examples are provided by the teacher to ground the basics and advanced elements of reading into everyday examples and concepts that students understand. The pictures used by the teacher are linked to a word on the actual cards. The following response was recorded verbatim:

> *PARTICIPANT: It is easy to see what you are learning about and to make sure that it's an apple.*
> *FACILITATOR: This picture of an apple, is that all that's on the chart, or is there something written on the chart?*
> *PARTICIPANT: It says apple.*
> *FACILITATOR: Do you think in seeing that, it helps you to...how does the process work?*
> *PARTICIPANT: It tries to make you to be able to pronounce that word and to see that the picture agrees with what you are pronouncing.*

In this manner visual cues are used in order to aid recognition and learning. The category pertaining to the teacher writing on the board is also a tacit visual cue which is used to illustrate the manner in which one reads from left to right. Thus a formal standardised rule governing reading is tacitly mediated by active visual examples provided by the teacher.

The category "formal lessons" is used by the participants to allude to the actual formal classroom learning activities in the form of lessons which were structured in order to mediate the rules and regulations governing reading. Individuals learn these rules by means of interpersonal verbal communication. These include lessons on the rules of punctuation, as well as, lessons on how to read from top to bottom and left to right. These represent the fundamental frameworks governing reading. Further verbal cues are offered with the learning technique of the teacher "correcting you when you are wrong". Here verbal cues are used to illustrate mistakes to the individual and in this manner teaching them the correct rules governing reading.

Lastly is the technique of punishment, which is used by teachers as an incentive not to make mistakes. The thinking behind this is obviously that the fear of punishment will make students more attentive and act as a motivation to learning.

Through actively drawing on all of these techniques the teacher hopes to bring the learner to a particular level of competence where he/she can come to know, understand and practice the patterns and rules which regulate the activity of reading. These techniques are explicitly structured into the learning tasks at school and are chiefly teacher driven. The responsibility of the scholar is to practice these already learnt skills.

Chapter 5: General Discussion

This chapter explores the results of the study at a deeper level.

5.1 Learning in formal and informal contexts

It becomes apparent when assessing the results that there exists numerous differences between students local knowledge of learning in a formal context and their local knowledge of learning in an informal context. These contexts differ in terms of the elements that are learnt, the settings where learning takes place, the mediators responsible for learning and the mediational means used in the respective context.

Guberman and Greenfield (1991) claim that informal learning contexts are framed by what is known as everyday cognition. Everyday cognition entails practical spontaneous everyday activities with appropriate embedded concrete and specific tools aimed at acquiring social acceptance, efficiency or "getting the job done". Thus learning occurs in an informal context within the setting of immediate and meaningful action, work, and use (Bishop, 1989).

The results of scholars' local knowledge related to learning in an informal context reflect the above. The activity of learning Ubuntu in an informal learning context is centred around the internalisation and mediation of proactive and positive social ideals. The aim of learning is focussed beyond the individual and is of a social nature focussing on the betterment and improvement of individuals and society at large. Furthermore learning is practical, individualised, flexibly structured and environment based.

Learning opportunities for learning about Ubuntu in an informal learning context are embedded in immediate activities. The shaping events and influences of these activities reflect a contemporary dynamic. Mediation occurs at interpersonal, group and abstract levels as it is embedded in the mundane and everyday activities which frame aspects of everyday life.

In contrast, formal learning contexts are framed by an organised pattern of instruction specifically designed to educate (Guberman & Greenfield, 1991). This is apparent in results reflecting the rigidly structured rules regarding learning how to read. The principle aim of learning in a formal learning context is the establishment of an organised system of schooling which, through standardised methods, attempts to impart abstract reasoning skills and theoretical cognitive knowledge (Scribner & Cole, 1973). Learning is product orientated and teacher driven and the components learnt are often fixed and abstract elements making up a body of knowledge. The nature of the mediational relationship is essentially dyadic and takes place in the classroom between the individual and the teacher.

The activity of learning to read seems to be tied to one limited context even though it is practised in various contexts. The activity itself is governed by a number of fixed and organised rules. These rules are learned individually and synthesised together to constitute a coherent system of knowledge. The individual enters into a dyadic learning-teaching relationship with the teacher in a school setting where the role of the teacher is that of mediator and the role of the individual is to respond accordingly by attending to what is being taught and practising the various skills until they are internalised and can be used in praxis.

A variety of mediational means are used in the two different communities of practice. These are directly embedded in the socially constituted and historically developed learning activities structured within the different learning contexts. In a formal learning context mediators make active use of repetition exercises, reading assignments, formal lessons, visual cues and punishment to mediate the skills of reading. In an informal learning context, internalisation is promoted through the direct action of others, ritual ways of behaving and reflections of personal observations.

Ultimately, the formal and informal communities of practice differ in terms of their contextually embedded tasks related to the activity of learning. These tasks related to learning often involve historically devised means such as material and symbolic tools and formal and informal social interaction processes provided by the specific community of practice (Gauvain, 1995). It is through these mediational tasks that the individual comes to internalise the cultural goals and values of the specific

community of practice and ultimately, it is this structured activity that drives and directs the cognitive development of the individual.

An investigation into the local knowledge of rural students regarding learning contexts illustrates the different learning activity prevalent in the two communities of practice. These differences are apparent in the differences in mediators, settings and mediational means, and therefore the knowledge which they produce is different (Gilbert, 1995). The difference in the type of knowledge was highlighted in the fact that participants had great difficulty in reflecting on their local knowledge of learning to read in a formal learning context as opposed to learning about Ubuntu in an informal context.

The fact that learners had difficulty in expressing their local knowledge regarding learning to read could be due to the abstract and inflexible nature of the community of practice within formal learning contexts. The learner cannot reflect on the process of learning as the mediational act is deductive, abstract and orientated outside of everyday embedded activities normally associated with informal learning.

Lave and Wenger (1991) reiterate this statement when they claim that formal thinking is removed from the world so that this distance allows the knower to free himself/herself from the particularities of time, place and ongoing activity. Alternatively, everyday thinking and problem solving is defined by the very context from which it has emerged and it is practical and concrete in nature rather than theoretical and abstract. The learner thus uses this knowledge to elucidate their immediate experience which is borne out of action in their everyday surroundings (Gilbert, 1995).

The learning in formal contexts is product orientated in that a particular thing is taught but an understanding of the process or workings behind it are secondary to the individual learning the product itself. In contrast the learning which takes place in an informal learning context is more embedded in the process of everyday life. These everyday learning activities which frame life are implicitly understood by the individual. In this manner, questions probing learning in an informal environment are answered with comparative ease because the elements learnt, the mediators and the

mediational tools used are explicitly experienced by the individual through his/her interaction in the everyday social environment. Questions relating to learning in formal contexts are more difficult to answer because the individual, as well as, the knowledge that is mediated is removed from the everyday and is tacitly embedded within the formal learning activity.

5.2 Theoretical considerations

Adopting activity theory in social research yields a concise and rich set of explanatory tools with which to analyse different communities of practice. In the present project, activity theory allowed a unique framework with which to explicate contextual learning in a formal and informal context. Studying the activity of learning in these different contexts provided a vantage point to investigate the contextual mastery of cultural knowledge by the individual. As postulated by socio-historic theorists, it is only through investigating an individuals active and embedded engagement in contextually defined activity that we can come to understand the "plans, rules and recipes" which govern his/her behaviour.

The study of activity is vitally important because it has mediational qualities to it (Wertsch, 1991). Rural scholars partake in contextually defined, mediated activity in formal and informal learning contexts. These different forms of activity are defined by different goals, tools, tasks and actions (Wertsch, 1991). The formal and informal learning contexts provide the rural student with extremely different goals, tools, task and actions. Through mediation at an interpersonal and semiotic level, the rural student becomes part of two vastly different communities of practice.

Participating in joint activities allows the student to master specific tasks and operations such as becoming a proficient reader or a person who encapsulates the qualities of Ubuntu. The student internalises elements of these "operations" at an interpersonal level in the process of self-mastery within the community of practice. The rural student through mediation becomes a fully fledged member of the community of practice, where he/she then assists other learners in mastering the tasks and operations common to the community of practice.

It is clear that the activities and goals of learning in a formal learning context, as well as, the tools used to accomplish such goals are often very different from the activities, goals and tools which characterise the informal learning context. The differences between the learning contexts highlights the central socio-cultural theme of situated cognition. The activity of learning in a formal and informal context is socially defined, interpreted and supported and thus fundamentally situated in the context from which it has arisen (Rogoff, 1984).

Through contextually defined mediated activity in a formal learning context which is framed by specific goals, tools, actions and tasks the rural scholar is able to develop cognitively. The goal being to master the skill of reading, the student attends a school, where a skilled teacher uses structured and planned tasks such as repetition, giving reading assignments, showing pictures, formal lessons and punishment. The actions which are followed by the student to fulfil the tasks are framed through joint activity which comes about directly and indirectly through being constrained and enabled by the teacher. Semiotic mediation occurs simultaneously with the interpersonal situated mediational process (Wertsch, 1991). At a psychological level the student comes to know the metaphors, concepts and analogies employed by the community of readers.

Thus, mediation is socially constituted and historically developed and makes possible an individuals participation in the surrounding intellectual and social life. Transmission of culturally situated knowledge occurs through cultural tools and involvement with more experienced cultural members who use and convey the use of these tools to new members (Gauvain, 1995). Thus, in the schooling situation, it is through the culturally situated process of mediation in interaction with purposefully planned psychological tools that the child internalises situated knowledge and experiences related to learning to read; and he/she uses these to develop his/her own means of self-mastery (Wertsch, 1991).

A similar process occurs in an informal learning environment when the rural scholar engages in learning the qualities commonly associated with having Ubuntu. In this scenario the individual interacts with a number of different mediators in spontaneous everyday activity in numerous settings. The array of actors engage with the student in situated and meaningful activity and the student comes to learn through engaging in

tasks such as watching the direct action of another, exploring ritual ways of behaving and subjectively reflecting on contextual events.

It becomes quite clear that "mental action is fundamentally situated in cultural, historical and institutional settings" (Wertsch, 1991). Understanding the contextual embeddedness of cognition also helps to frame an understanding of learning as a socio-historic and inter-personal process, not merely a notion of personal change or development.

5.3 Methodological considerations

Adopting activity theory as a central theoretical premise of a social research initiative provides a unique framework through which to guide the research process through promoting context sensitive methodological tools and ideas by which to structure the actual study. Activity theory specifies the use of a methodology which sensitive to nuances expressed through engagement in joint activity.

A constraint confronted in this particular project is that the phenomena studied did not submit to causal analysis in the same sense as may be possible when investigating fixed patterns in nature. This is because people and societies, as well as the various institutions regulating human action are open systems and therefore it becomes increasingly difficult to obtain fixed empirical regularities (Craig & Griesel, 1989). The adoption of a cultural approach to psychology was imperative due to the nature of the data and research environment. The situatedness of cognition entailed using a different approach from that advocated by the cross-cultural view of psychology. Thus, a methodological approach based on the cultural conception of psychology provided an important framework with which to adequately study individuals' local knowledge of contextually embedded learning activity.

In order to come to an understanding of individual development attention must be given to the situated action which occurs at the juncture between the individual and society. Only through a focus on the manner in which an individual adapts and transforms his/her development by means of contextually defined activity can one document the processes whereby external social knowledge and culture are mediated

through others and internalised by the individual. Psychological studies based on this conception are particularly useful in a country such as South Africa where there exists large scale socio-cultural diversity coupled with rapid social change.

The use of PRA techniques helped to structure joint activities and in this unique manner data was collected and reduced by all the participants on-site. PRA techniques were instrumental in enabling tacit local knowledge to become objectified, where it could be formalised and collectively reflected upon. The use of other data collection methods such as interviews or questionnaires would have lacked the collective insight and depth which came through adopting PRA techniques. In this sense the researcher was able to explore the generative mechanisms operating at a cognitive level by focusing an investigation on scholars' local knowledge of the forms of contextually defined mediated activity, the goals and techniques of mediation and the mediators involved.

On another level, the entire data collection process tapped into the structuring of joint activity in the process of coming to an informed understanding of learning related to formal and informal contexts. Participating in structured activities provided participants with the structure and resources to go beyond their capacities and it enabled them to understand and vocalise new ways of thinking (Vygotsky, 1976). In the current study for example, through the use of drawings, graphical representations and acting, the researcher was able to structure a new joint activity to get the participants to accept the task demands of reflecting on learning to read where they clearly had a problem at the start of the exercise. Participants voiced the difficulty they were having with the activity and by jointly restructuring the activity in the learning context the participants were able to successfully meet the task demands.

Structuring joint activity using PRA provided a valuable resource in collecting data which allowed a first-person insight into participants reflecting on their local knowledge of learning formal and informal tasks. The PRA techniques used needed to be flexible and dynamic in order to enable participants to share, enhance and analyse their own tacit local knowledge. This allowed for the collection of rich data which would probably have been lost if other methods had been used.

The use of an interpretive approach to the analysis of data allowed for an exploratory, discovery-orientated and theory generating understanding of the pool of collected data. The spiral process of data analysis was enhanced through the use of PRA techniques and the reading guide method (Brown et al., 1989). The controlled use of both of these procedures allowed for an analysis of data which was descriptive and contextually rich. Furthermore, the use of these data analysis procedures adequately linked with the theoretical concerns propagated by a socio-cultural approach to cognitive development. In this sense the respective data analysis methods allowed for a deeper understanding of the data collected, whilst remaining sensitive to the concerns driving the project.

A methodological limitation of the study was that students did not speak in their mother tongue. This factor can influence results in that students cannot express themselves clearly or they use language economically and in so doing they obscure their intended meaning in the data collection process. Thus due to language barriers PRA exercises can lose their effectiveness in that participants do not engage fully in the structured activity of the actual PRA exercises. PRA is thus extremely reliant on the participation and group action of participants.

5.4 Implications for learning

Education broadly encapsulates all the learning which takes place in an individuals life regardless of where, when or how the learning occurs (Bishop, 1989). Yet taking cognisance of the fact that learning is primarily situated in the social context from which it arises allows a deeper insight into the challenges facing students in different learning contexts.

Drawing on Vygotskian (1978) theory, it becomes apparent that in order to enhance the outcomes of the learning/teaching situation in any context it is imperative to focus on the mediation which takes place in the zone of proximal development. For an effective ZPD to be created there must be a joint activity that creates a context for teacher and student interaction. This joint activity should aim towards heightening collaborative interaction and inter-subjective understanding, and in this manner

cognitive development can be fostered through assisted performance (Newman & Holzman, 1993).

Yet in applied observational studies into comparisons between classroom and home learning/teaching interaction, it appears as if traditional schools do not create optimal joint activity settings as is the case in the normal home environment (Tharp & Gallimore, cited in Newman & Holzman, 1993, p. 73). According to Tharp and Gallimore, it appears as if there is seldom evidence of joint or collaborative productive activity between teachers and students. This sentiment is echoed in numerous research results reflecting applied work regarding learning. Brown, Collins and Duguid (1989) claim that school activity is blatantly inauthentic and thus not fully productive of useful learning. Furthermore the authors claim that:

> "School activity tends to be hybrid [and] implicitly framed by one culture, but explicitly attributed to another..... This hybrid activity, furthermore, limits students' access to the important structuring and supporting cues that arise from the context" (p.34).

Pollard (1993) makes the point that while schools generally purport that learning is based on democracy and collaborative work, the learning practice is clearly marked by authoritative discourse and individualised work. The fact that rural scholars found it difficult to reflect on their local knowledge regarding learning in a formal environment supports this point.

Since local knowledge is defined as the tacit interpretative frameworks used to elucidate immediate experiences borne out of everyday activity (Gilbert, 1995) and the data illustrates that the scholars had problems reflecting on their local knowledge related to learning in a formal learning context, it follows that local knowledge related to a formal learning context is much more tacit than the local knowledge related to an informal learning context.

Brown, Collins and Duguid (1989) suggest that it is only through increasing a students' access to contextual structuring and supporting cues and increasing their involvement in collaborative work in a formal learning context, such as school, that

students can engage in the productive and "authentic" type of learning such as that produced in informal learning contexts. Lave and Wenger (1991) state quite clearly that while schools emphasise deductive and context-free knowledge transmission, it appears as if more effective learning comes about by concentrating more on forms of cognitive apprenticeship which utilises inductive, context related transmission.

In a similar vein, Newman & Holzman (1993) claim that a learning context which taps into the social nature of learning by creating a zone of proximal development through joint activity leads to increased learning. It is thus proposed that students would be more capable of reflecting on their tacit local knowledge of learning in a formal learning context if that formal learning context promoted learning activities which effectively utilised collaborative work, joint activities and forms of cognitive apprenticeship. In this manner formal contexts of learning would promote effective zones of proximal development.

5.5 Implications for the scholar in South Africa

In a society of rapid social change, there exists a fundamental tension between formal and informal learning contexts such as that represented by the home/community and the school. Furthermore, this tension seems particularly accentuated within rural settings in South Africa (Gilbert et al., 1995). The current project did not set about to explore this tension, rather it aimed to better understand the psychological dynamics of rural students as they interact with learning tasks within formal and informal learning contexts. Through focusing on rural scholars local knowledge of the settings where learning takes place, the mediators responsible for learning and the mediational means used in the different learning contexts, the research was able to explicate how learning is socially defined, interpreted and supported.

Yet in the light of the results of the investigation into formal and informal learning contexts, it becomes clear that these contexts are indeed extremely different, and thus there could exist a tension between the two. If there exists a fundamental tension between these learning contexts, particularly for rural students , then attempts should be made at different levels to be sensitive to the learning needs of these students. The essential task in sensitising these communities of practice towards one another is that

the fossilised recipes or "cultural programmes for ordering behaviour" (Geertz, 1975, p.44) in each community of practice are adapted to accommodate each other.

Attempts to bridge the dislocation between formal and informal learning contexts can be made through attempting to create zones for learning in each, which can be seen as effective zones of proximal development. These zones of proximal development would need to maximise opportunities for joint activity (Wertsch, 1991), as well as, make explicit the demands of structured learning tasks (Craig, 1989). Pollard (1993) claims that these conditions are available in an informal environment but the same is not true for a formal learning context, and thus he claims:

> If advances are to be made [in bridging the divide between formal and informal learning contexts in the classroom] there will need to be greater concentration on the social factors affecting pupil learning, and on the ways in which teachers can create classroom climates which allow for situations of 'high risk' and 'high ambiguity' to be coped with successfully [p.179].

In a more focussed statement, Newman and Holzman (1993), remark that classroom learning should attempt to mirror the socially organised everyday learning which takes place at home in the home and the community. Newman and Holzman's approach is based on creating meaningful connections between academic and social life through concrete learning activities. Teachers are called upon to systematically establish the necessary social relations outside the classroom that will change and improve what happens inside the classroom. In this conception "these social connections will help to develop students' awareness of how they can use the everyday to understand classroom content and use classroom activities to understand social reality" [p.81].

Chapter 6: Conclusion

6.1 Concluding remarks

Focussing the study on rural scholars local knowledge of the activity of learning in formal and informal contexts has allowed an insight into the zones of proximal development created in these communities of practice to regulate learning. Through illuminating the contradictions and challenges inherent in the way that contemporary South African society organises formal and informal learning opportunities, the research initiative has allowed for a more fuller understanding of the dynamic generative mechanisms situated within different communities of practice.

The research results illustrate the assertion that the activity of learning is fundamentally situated in the learning context from which it arises. Learning is framed by the community of practice which structures affordances for situated learning, through mediation, within zones of proximal development.

Learning in a formal context comes about through the role specific dyadic interaction between teacher and scholar in the school situation. It appears that that most of the mediational contact is directive, formally structured and homogenised when learning in a formal context. In the activity of learning to read in a formal context, the teacher uses a number of techniques to bring the learner to a particular level of competence where he/she can come to know, understand and practice the patterns and rules which regulate the activity of reading. These techniques are explicitly structured into the learning tasks at school and are chiefly teacher driven. The responsibility of the scholar is to practice these already learnt skills. These techniques are consciously planned into a standardised curriculum at school

In contrast, learning in an informal learning context takes place through situated everyday activities with a number of actors. There exists a contemporary dynamic to many of the diverse actors and places involved in the process of mediation in an informal learning context. These actors were socially situated within the activities that framed the individuals everyday life. In an informal learning context mediation is

chiefly non-directive, individualised and embedded in ordinary everyday existence through meaningful goal directed activities. The interpersonal interactions are not standardised and structured in the same manner as those in a formal learning context.

The schooling situation and the home situation are two distinctly different communities of practice as regards the activity of learning. In the rural schooling situation, where an individual enters a vastly different task related "cultural milieu" as is proposed by the everyday home setting, the individual can be caught in the crossfire between two distinctly different learning domains with different structures, objectives and tools for achieving those objectives. In these situations, rural scholars have limited resources from which to draw in order to mobilise themselves in attempting to adapt to address such change. This factor makes them susceptible to changes in the sphere of learning.

The essential goal of educational initiatives in this sphere is then to bridge the gap between these two learning contexts through adapting each to accommodate the other and through promoting the formal and informal learning contexts into effective zones of proximal development. Such a focus broadly encapsulates education to include and revere both formal and informal learning contexts which promote and value joint and collaborative learning activity.

6.2 Recommendations

Adopting a similar theoretical and methodological approach in subsequent psychological studies in the area of human development and cognition has a number of potential benefits. It is only through the analysis of activity settings coupled with the recognition of the socio-cultural basis of cognition that one can mount a rich and insightful investigation into the generative mechanisms governing human development.

The results of the current study, although clarifying some important issues regarding learning in formal and informal learning contexts, are by no means definitive. More applied research is needed into formal and informal learning contexts. In order to further enhance the current study, additional research efforts could focus on actual

task engagement within learning situations in a formal and informal learning context. This would allow a first-hand observational insight into the situated mediational processes which take place in these learning contexts. Furthermore, it would inform the current study which only probed into one side of the mediational relationship by focussing on the scholars' local knowledge of learning tasks in formal and informal learning contexts.

In the same vein, an applied investigation following similar theoretical and methodological approaches could be mounted into exposing the local knowledge of mediators concerning specified learning tasks as they occur in formal and informal learning contexts (i.e. learning to read and learning about *Ubuntu*). Insights generated through this process could provide a basis to compare and contrast the local knowledge of the mediators in a formal learning context with the local knowledge of mediators in an informal learning context. This would expose the goals of mediation and the mediational means used as viewed by the mediators themselves. These results could also then be compared and contrasted with the results from the current study. The potential outcome of an analysis of this kind would be to investigate if the different actors share similar or diverse definitions of mediational goals and mediational means, and the implications of this for learning in formal and informal learning contexts.

A further recommendation is that more applied studies be directed towards exploring the potential tension between learning in a formal context and learning in an informal contexts particularly as it occurs within rural settings in South Africa. The current study provides a basis to understanding the psychological dynamics of rural students as they interact with learning tasks within formal and informal learning contexts and thus provides the groundwork for a focussed study into the existence and educational ramifications of tensions between learning in these two contexts.

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