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**UNIVERSITY OF CAPE TOWN**

**SCHOOL OF EDUCATION**

**FACULTY OF HUMANITIES**

**INVESTIGATING THE CONTRADICTIONS IN PRE-SERVICE  
TEACHERS' PERCEPTIONS ABOUT THE PROCESS OF  
TEACHING AND LEARNING IN SOUTH AFRICA'S  
CLASSROOMS: An Activity Theory analysis.**

Minor Dissertation presented for the

Degree of

**MASTERS IN EDUCATION**

By

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**Supervisor: Dr. Joanne Hardman**

**March 2009**

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## ABSTRACT

This dissertation asks the question: Are there contradictions in pre-service teachers' perceptions about the process of teaching and learning? First, it investigates whether there are contradictions in pre-service teachers' perceptions and then examines what these contradictions are. It then analyses these contradictions to see whether there are patterns of contradictions across all of the pre-service teachers.

In order to answer these questions an exploratory case-study design is adopted in which in-depth interviews are used to probe six pre-service teachers' perceptions of teaching and learning. Data gathered through the interviews were analysed using Activity Theory. In particular, the analytical framework developed by Hardman (2005b) is used to surface contradictions in oral discourse.

South Africa has gone through immense transformation over the past decade and the education system has been a part of this change. Engeström's Activity Theory is used as it explains innovation and change through expansive learning: we do not simply work with what we know we also change what we know in order to work with our surroundings. Activity Theory places the pre-service teachers' perceptions into a socio-historic context: they do not exist in a vacuum. This thesis mobilises the notion of 'contradiction' as a methodological tool to uncover sites of tension and potential change. With the immense changes happening in the country and the education system it is highly likely that there are changes which have created contradictions within pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms. Engeström (1999) explains that contradictions are the potential sites of change. If there are contradictions within the pre-service teachers' perceptions about the process of teaching and learning these will be worked out over time and there is the potential that there will be change within this activity system. It will be argued that perceptions and beliefs influence practice and so changes in the pre-service teachers' perceptions will result in change in their practice. This has potential application in pre-service teaching programmes where contradictions can be used as devices to facilitate pedagogical change in pre-service teachers' perceptions prior to their entering schools. Methodologically, this dissertation draws on Engeström's expansive

learning methodology but is limited to the first step in the expansive learning cycle: the identification of contradictions. Future research aims to complete the entire cycle.

Findings indicate that there are contradictions within these pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms. There are also three main patterns of contradictions across the six pre-service teachers that were interviewed namely: primary contradictions about the teacher's role; secondary contradictions between the subject and object; and a contradiction between subject and community.

The pre-service teachers interviewed in this study are about to head into the world of teaching, many of them have already been appointed into teaching positions for the following year. These pre-service teachers will work through these contradictions, which are the potential sites for change. The presence of these contradictions, these 'double binds' indicates to me that change will happen in these students when they reach the classroom. Contradictions necessarily need to be resolved, whether progressively or regressively. Knowing what types of contradictions arise in pre-service teachers' perceptions about teaching gives us insight into what ultimately plays itself out in classrooms. This dissertation argues that it is vital to understand pre-service teachers' perceptions in order to understand what is happening in South Africa's classrooms; why something is happening in South Africa's classrooms; and what could potentially happen in South Africa's classrooms.

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# CHAPTER 1

## INTRODUCTION

### 1.1. Locating the Study

Since the abolishment of apartheid in South Africa transformation has been crucial in the country. The transformation of South Africa's schooling system has been a difficult process, and the process continues. Transformation has taken place at many levels, all of which have influenced the curriculum South Africa has today.

Inequality under the apartheid system plagued South Africa for many years and unfortunately, as would be expected, the education system played an integral role in this inequality. In the 1950s the education system became a tool for apartheid with the introduction of The Bantu Education Act in 1953. Coloured Education followed soon after, in 1955. Along with these separate systems there were the Indian Affairs Department and various White Departments allowing all people to be separated into their different 'racial' groups. This separation allowed different groups to receive a level of education that the department felt was appropriate for their 'racial' group. Inequality ran deep and the level of education differed dramatically across the different groups.

With the abolishment of apartheid and a new government, South Africa has experienced great transformation, as has the education system. Redressing the inequality of the past has become an important aim and the education system, as can be expected, plays a vital role in this.

The 1995 White Paper on Education and Training provides a whole chapter entitled *Transforming the Legacy of the Past* that includes the point:

7. In achieving this goal, there must be special emphasis on the redress of educational inequalities among those sections of our people who have suffered particular disadvantages, or who are especially vulnerable ... (DoE, The White Paper on Education and Training, 1995:21).

It is not only equal education today that is the focus of the curriculum, rather there is also a focus on trying to rectify what has already occurred. This runs in accordance with the Constitution of the Republic of South Africa, which, as the National Curriculum Statements explain, the curriculum is based on.

However, it was not simply a move from apartheid education to equal education that created the transformation within our education system. The new curriculum also marked a change in our pedagogical thinking and practice. Two movements are particularly relevant: the movement to progressivism and learner-centred education and the movement to an outcomes based education system (Muller, 2002). Both of these changes have had their problems. Another relevant change in the education system is the incorporation of computers into the classroom and teaching and learning.

The shift from a more traditional, fundamentalist pedagogy to a more progressive approach to teaching and learning is a shift that has occurred internationally in a number of different countries, although it may appear under the guise of a different term (Muller, 2002).

Progressivism was a reaction against a more traditional pedagogy (Muller, 2002). The driving force behind progressivism was social justice as it became clear that the working class were being disadvantaged by the schooling system (Muller, 2002). It is not surprising then that South Africa followed this movement in its equality drive.

However, as Eberstadt (1999) states, “progressivism, in practice and in theory, is fast losing ground” (cited in Muller, 2002:61). As Muller (2002) explains progressivism claimed to provide equality, allowing the disadvantaged in the education system to receive equal education opportunities. However, this has not occurred.

With the move to progressivism came a move from content-based teaching and learning to an outcomes based education system. This system requires outcomes to specify what needs to be achieved, thereby allowing learners to understand what they are aiming for, enabling them to better achieve these aims:

It strives to enable all learners to reach their maximum learning potential by setting the Learning Outcomes to be achieved by the end of the education process (DoE, NCS, 2003:2).

These outcomes can be broken up into critical and developmental outcomes and specific outcomes. Critical and developmental outcomes are general, broad outcomes that integrate the learning areas in a single direction. There are seven critical outcomes and five developmental outcomes.

In the Further Education and Training phase there are Learning Fields, which align subjects together e.g. all languages fall under the Learning Field *Languages*. Within FET subjects do not have distinct boundaries. Integration is an important principle behind the curriculum, both in terms of subject integration and in terms of integration of knowledge and skills. The 1995 White Paper on Education and Training discusses this integrated approach in Chapter 2, p15:

### **An integrated approach**

...

- 3 ...the Ministry is committed to an integrated approach to education and training...
- 4 An integrated approach implies a view of learning which rejects a rigid division between "academic" and "applied", "theory" and "practice", "knowledge" and "skills", "head" and "hand". Such divisions have characterised the organisation of curricula and the distribution of educational opportunity in many countries of the world, including South Africa. They have grown out of, and helped to reproduce, very old occupational and social class distinctions. In South Africa such distinctions in curriculum and career choice have also been closely associated in the past with the ethnic structure of economic opportunity and power.

Therefore, in the South African curriculum, subjects are not recognised as rigidly as they have been historically (DoE, NCS, 2003:6). Each subject consists of specific Learning Outcomes (LO) for their particular learning area. It is the Learning Outcomes that help to define the subject; however this definition is a broad definition (DoE, NCS, 2003:6). The Learning Outcomes are described according to the knowledge, skills and values that a learner should acquire.

The curriculum also provides Assessment Standards (AS), which describe what the learner should be able to do in order to demonstrate that a specific outcome has been achieved. Assessment occurs continuously, rather than a single assessment at the end of the year (CASS).

To involve the learner with both the theoretical and the practical has become important in the current curriculum. “Making the curriculum relevant” has been a catch-phrase throughout the reforms of the education system.

The shift to outcomes based education has not occurred without problems. The implementation of Curriculum 2005 was not as smooth as was hoped for and a review committee was appointed to investigate the issues. Curriculum 2005 was the General Education and Training phase, and Further Education and Training followed closely in its footsteps. The same principles were applied to both phases. One of the issues that was noted was the fact that there was too much focus on the outcomes without specifying or stating how those outcomes should be achieved i.e. what needs to be put into the system (inputs) in order to achieve what is desired (outputs) (DoE, 2000). The curriculum was under-specified, leaving teachers uncertain as to what should be taught. The result was far from the equality South Africa strives for. Different classrooms were experiencing varying levels of education (Reeves, 2004; Taylor, 2006) as teachers were uncertain about what should be taught in order to achieve what was required.

The Review Committee identified a number of shortcomings within the curriculum and the system. Outcomes based education still forms the basis of the curriculum, although there is now more specification as to how those outcomes should be achieved, with the teacher playing a greater role than in Curriculum 2005. Although the curriculum has been revised it still encourages a learner-centred approach to education.

The move from the apartheid era also saw a move into globalisation; South Africa once again became accepted into and involved with the world market. There has been increasing concern that South Africa cannot compete internationally and education has been in the forefront of this concern. There have been a number of studies done looking at South Africa’s schooling in comparison to other systems. One of the most well known recent studies is the Third International Mathematics and Science Study (TIMSS) (Martin, 2000), in which South Africa’s

performance was shown to be very poor. There is a serious concern about national schooling being able to compete at international standards.

Relating to these changes is the incorporation of computers into education. Computers are not only relevant to South Africa; they are relevant – even essential – to living in the global society being constructed in the modern day. If the education system aims to prepare its learners to be a part of this society, technology skills need to play a large roll within schools. The use of computers in classrooms is vital, not just to make learners technically able, but for them to be able to access information.

Within the context of these changes pre-service teachers are moving out of an education system that they were schooled in and moving into a very different education system where they will be expected to teach. The current study analyses a group of pre-service teachers' perceptions and beliefs about the process of teaching and learning within the context of this change. As will be discussed, teachers' perceptions and beliefs about the process of teaching and learning and what is actually happening in their classrooms are essential when trying to understand teaching and learning and when trying to explain what actually occurs in classrooms.

The study will adopt an Activity Theory approach which allows analysis of pre-service teachers' perceptions within a socio-historic context and which explains innovation and change.

Engeström (1999) explains that contradictions are the potential sites of change. Change happens all the time as no activity system is static. A change in one area may conflict with another which may create contradictions and drive further change. With the level of change that South Africa has experienced over the past decade it is highly likely that there are changes that have created contradictions within pre-service teachers' perceptions of teaching and learning. If there are contradictions in these pre-service teachers' perceptions they will be worked out over time and will potentially result in a change in the system. As will be explained, teachers' perceptions influence teachers' practice. If we understand the contradictions in pre-service teachers' perceptions we will be able to better understand, and therefore be better prepared for, possible change in education.

## **1.2 Focal research question/problem and breakdown into sub-questions**

The research focuses on a group of pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms. The thesis investigates whether there are contradictions in pre-service teachers' assumptions about teaching/learning in the classroom and if so, what form these contradictions take. Engeström (1987) has indicated that contradictions are sites of change and it is as potential sites of change that the notion of a contradiction is used in this study. The following questions suggest themselves:

- What are pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms?

and:

- Are there contradictions in pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms?
- What are the contradictions in pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms?
- Given certain contradictions, what potential change in these teachers' assumptions can we hypothesise?

## **1.3 Rationale**

Putnam and Borko (2000) argue that most of the innovative ideas in education and research communities are mainly focused on students and the impact they will have on students and learning. As they state:

Less attention has been paid to teachers - either to their roles in creating learning experiences consistent with the reform agenda or to how they themselves learn new ways of teaching (Putnam & Borko, 2000:4).

The South African education system has experienced a number of significant changes over the past decade. Teacher education plays a vital role in ensuring that teachers are prepared for the

new and changing environment they are going to enter. Many of them will not have experienced that environment very much in their own education experience, perhaps not at all. Robinson (1999) explains:

It has been argued that teachers' teaching styles are mainly influenced by the way they themselves were taught, and that formal training does not impact significantly on classroom practice. For new South African teachers, however, contexts have changed so dramatically in the last 10 years that past experiences of schooling will not be adequate to meet the demands of the present and the future. Teacher education, therefore, assumes a vitally important role in developing teachers who can meet the needs of the new context (Robinson, 1999:192).

It is clear how important it is to educate teachers about learning and teaching in order to ensure they understand how it happens in South Africa today, and in order to ensure that this understanding – this knowledge – is able to be transferred into the desired practice. There have been a number of studies done looking at the gap between policy and practice. This research is focusing on pre-service teachers' perceptions about the process of teaching and learning. This is not their knowledge about the policy, nor is it their practical teaching, it sits somewhere in the middle, influenced both by the theory that they have learnt and the teaching practices that they have experienced in their school experience practicum. As will be argued, understanding teachers' and pre-service teachers' perceptions about teaching and learning allows one a greater understanding of why something happens as it does in a classroom.

Using a case study design (Yin, 1984), I undertook to investigate the perceptions of a group of pre-service teachers about the process of teaching and learning, and to analyse this data to see whether there are contradictions in these perceptions. If there are contradictions in these perceptions they are the potential sites of change as these pre-service teachers go out into the world of education and put this knowledge and these perceptions into practice. This thesis, then, represents an attempt to understand pre-teachers' assumptions about teaching and learning. To this end I draw on Activity Theory and argue for using the notion of 'contradictions' as a methodological tool with which to investigate pre-service teachers' perceptions.

## 1.4. Theoretical Framework

There are few learning theories that not only look at the learning of knowledge as we know it, but also look at the innovation of knowledge and the way we learn how to deal with new situations, changing what we know in order to deal with novelty. Activity Theory is a theory that explains such innovation and it will be discussed in greater depth in the theoretical framework. I will look at pre-service teachers' perceptions about the process of teaching and learning as an activity system. Analytically, I draw on the work of Popova and Daniels (2004) and Hardman (2005b)<sup>1</sup>, which provides an analytical framework, drawn from Engeström's systems work, with which to analyse interview data. As will be elaborated upon, no activity system is static: it is continuously developing and changing.

Engeström explains that contradictions in an activity system drive change (Engeström, 1999). As Russell (2002) states "a change in any element of the activity system may conflict with another element..." (Russell, 2002:316).

Therefore, if there are contradictions within the activity systems of these pre-service teachers' perceptions about the process of teaching and learning one can expect change to happen. If we do not drive that change in a direction that will encourage adherence to the principles of South Africa's curriculum, they may occur in ways that we do not anticipate, or even want.

Engeström, Engeström and Suintio (2002) argue:

There are deep constraints and built-in obstacles to the collaborative self-organising and expansive learning in schools. One is the socio-spatial structure based on autonomous classrooms, teachers working as isolated individual practitioners, and the school functioning as an encapsulated unit (Engeström, Engeström and Suintio, 2002:211).

Teachers work alone with their classes, often facing challenges alone. Depending on the school they work in, the department they work for and the support structures available, they may never really get a chance to voice what they understand is happening in the process of teaching and learning. The pre-service teachers that took part in this study are about to enter this world. Although they have spent a year in an institution where reflection and analysis is encouraged, but

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<sup>1</sup> These studies are discussed in the Theoretical Framework chapter.

any contradictions in their perceptions about the process of teaching and learning will probably be dealt with alone once they are qualified teachers.

The study analysed six pre-service teachers' perceptions about the process of teaching and learning. All six pre-service teachers were in the final months of completing their post-graduate certificate in education at the same university when the interviews took place. They had all experienced teaching practicum lasting a total of approximately three months during the year.

The study analysed the pre-service teachers' perceptions using interviews which are analysed according to activity theory. This will be explained further in the Methodology chapter.

The pre-service teachers in this study are about to enter into the world of education, many of them already have positions in schools for the following year. If there are contradictions in their perceptions about the process of teaching and learning in South Africa's classrooms these contradictions will be worked out as they move into teaching in South Africa's classrooms and if we do not understand these contradictions the potential change could be in a direction we do not anticipate or want.

### **1.5. Dissertation structure**

In order to answer the questions posed the dissertation is set out in the following way: the first chapter is a literature review which discusses literature relevant to this study. The literature reviewed argues that teachers' perceptions are important when analysing classrooms, what happens in teaching and learning and why certain things happen rather than others. As will be discussed, when there are great changes such as South Africa has experienced, it is vital to take teachers' perceptions into account in order to ensure the changes are occurring as they have been envisaged.

The second chapter sets out the theoretical framework and places this study in an Activity Theory frame as this is a theory that allows the pre-service teachers' perceptions to be analysed within a socio-historic context. This is vital as these pre-service teachers' perceptions are not isolated from their socio-historic context. Activity Theory also explains innovation and change, which is essential to this study.

The third chapter describes the methodology and explains the procedures used to analyse the pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms. Interviews were used to access the pre-service teachers' perceptions and these were then analysed according to activity theory.

Chapter 4 discusses relevant validity and reliability issues as well as ethical issues for this particular study.

Chapter 5 presents the analysis of the empirical data. This analysis identifies activity systems for each pre-service teacher. These activity systems are analysed and then patterns of contradictions are drawn from this. As will be discussed, there are three main patterns of contradictions.

Chapter six discusses these findings. Chapter seven concludes the paper with reference to the questions posed in chapter one and provides recommendations for future research in this fecund area.

## **1.6. Conclusion**

This chapter sets out the study.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1. Literature Review

This study looks at pre-service teachers' perceptions about the process of teaching and learning in South Africa. Freeman (2002) points out that up until Walberg's 1977 article "*Decision and perception: New constructs for research on teaching effects*" the idea that teachers' mental activity or thinking influenced the classroom was not acknowledged (Freeman, 2002). Freeman argues that up until the mid 1970s the teacher was viewed as somebody who simply implements others' ideas, essentially without thinking about them, plus they were viewed as being neutral when entering teaching education programmes. The belief was that teachers had no views about what teaching and learning actually was (Freeman, 2002).

Freeman describes 1980-1990 as "the decade of change" where many of the concepts about teacher thinking that we know today were reconceptualised (Freeman, 2002:3). The most influential unit of analysis during this time was teachers' decision making, this allowed access to how teachers thought (Freeman, 2002). This change was then firmly established from 1990-2000, which Freeman titles "the decade of consolidation". During this time, and consistent with the post-modern view that there is not much that is absolutely fixed, it was understood that "thinking reflects social identity – who you are, your background and experience, your purposes, and your social context" (Freeman, 2002:9).

According to Freeman this progression has allowed for three main benefits: the first being that more voices are accepted in the discussion about teaching and learning, teachers are given a chance to input their ideas and knowledge, which are accepted as legitimate and important; the second is that teachers' voices can allow greater understanding about the intricacies, complications and difficulties related to teaching and learning: they allow for an understanding that nobody else can really give; the third is the fact that there is now more involvement between researchers, teachers and teacher educators (Freeman, 2002).

This study will be taking a closer look at teachers' voices and perceptions in the new South Africa. Freeman (2002) argues that teachers' voices allow for a greater understanding about teaching and learning, they can reflect on the environment in a way that nobody else can. In this study I agree with the idea that teachers' voices reflect the environment that they are teaching in, however I take this further, and in accordance with Activity Theory (which will be discussed further in the theoretical framework) I will argue that their voices can also change the environment that they are teaching in. This study will be looking at those sites of change, or contradictions. As will be explained in the theoretical framework, it is the contradictions within an activity system that create the sites for change within that system. This study does not look at the actual change; rather, it identifies the contradictions within the pre-service teachers' perceptions, indicating these contradictions are the sites for change.

Paavola, Lipponen and Hakkarainen (2004) argue that it is becoming increasingly important to understand how new knowledge, mediating artefacts and practices are produced. In their paper, *Models of Innovative Knowledge Communities and Three Metaphors of Learning* (2004) they analyse and compare three models of innovative knowledge communities: Nonaka and Takeuchi's model of knowledge creation, Engeström's model of expansive learning, and Bereiter's model of knowledge building. One of the common arguments amongst these three models is that previous conceptions of learning have been insufficient for dealing with new knowledge or change (Paavola et al., 2004). Paavola, Lipponen and Hakkarainen (2004) argue for a knowledge-creation perspective that will assist in the understanding of the new and innovative. They argue that this is especially important in today's knowledge society, not only in the work environment but also in our everyday environment and almost every aspect of life, because of the way that we need to deal with knowledge. In today's world we construct and change what we know in order to deal with our environment. It is important to realise that when faced with an issue people do not simply use only what they have learnt, but will often change and come up with new and innovative ideas in order to deal with what they are facing.

Engeström's theory of expansive learning explains how new and innovative ideas and practices occur. As he explains, one should not be asking how the new is generated from the old because "the new is not generated from the old but from the *living movement* leading away from the old" (Engeström, 1987:46, author's emphasis). Engeström (1987) indicates how Vygotsky's

microgenetic method explains variation but is unable to explain creative activity. That is, this method is unable to account for how new activity systems come into being. Engeström (1987; 2005) meets this methodological need by developing a method capable of tracking the expansive learning that people and systems undergo through interaction (Hardman, 2008). This study will use Activity Theory in order to analyse the contradictions in pre-service teachers' perceptions of teaching and learning in South Africa. The current study represents an elaboration of the first step of an expansive learning cycle: the identification of contradictions within an activity. There has been great change in the education environment over the past decade and teachers had to adjust to that change. However, as will be discussed further, teachers also have the ability to create change within their environment. Contradictions are the sites where change will occur. These moves are elaborated in more depth in the theory chapter.

In the move from apartheid South Africa to the new, democratic South Africa the country has gone through intense change in all sectors. Harley, Barasa, Bertram, Mikeson, and Pillay (2000) argue that South African policymakers have not taken into account how much needs to be "unlearned" by teachers in South Africa because what is understood to be right in education today is very different to what was understood to be right in education two decades ago.

In South Africa, within the past decade of change, there have been studies done about teachers' perceptions of these changes and the roles they have to play within the changes and the new expectations. Harley, Barasa, Bertram, Mikeson and Pillay (2000) is one such study, which looks at teachers roles in the *New South Africa* in their paper "*The real and the ideal*": *teacher roles and competences in South African policy and practice*. They argued that in many developed countries teachers professionalism has become "*restrictive*" with policy tightly controlling what teachers should and should not do, but in South Africa the policy documents attempt to do the opposite by providing teachers with an "*extended*" professionalism (Harley et al, 2000: 288). Their study looks at the policy-into-practice difficulties and analyses a number of teachers' perceptions about their roles as teachers. They found that although policy in South Africa allowed for "*extended*" professionalism, in practice professionalism was "*restricted*" (Harley et al, 2000:288). This is a good example of how there is a difference between what policy expects and what really happens in practice. The pre-service teachers' perceptions and beliefs investigated in the current study may not be as was expected according to the policies. It is vital

to understand these teachers' voices and perceptions as they provide an insight into what underpins what happens in class that nobody else is able to (Harley et al., 2000). Teachers adapt to change, but as has been argued above, they also adapt the knowledge, the tools and the system that they are in when faced with a challenge.

Some interesting points came out of Harley et al. (2000). Firstly, teachers perceived that the roles expected of them by the policy were impossible to achieve by an individual teacher, but they should be achieved by a school as a whole (Harley et al, 2000). In the language of Activity Theory, the change demanded by the rules and the community in which the teacher worked is perceived to be too great for a teacher to take on alone. The authors argued that the technical specifications of the policy created an unattainable ideal that "*fails to capture the 'heart' of the profession*" (Harley et al, 2000:288). What the policy misses out on is the "something extra" that teachers provide, the something that cannot be stipulated within a policy document, and by trying to stipulate this, the policy document's expectations become unattainable. Teachers react in different ways to these unattainable expectations, not always in line with what the policy would have hoped to achieve.

Harley et al. (2000) found that teachers' personal values impacted on certain roles and when policy challenged these personal values teachers generally followed their own values as opposed to policy (Harley et al. 2000). This means that there is a great difference between what teachers know they should be doing (according to the policy) and what they actually end up doing due to their personal values, perceptions, beliefs and assumptions about what teaching and learning is about. The community that the teacher teaches in was also found to be relevant; teachers did not generally go against the community's beliefs, even if these were not the same as those stipulated by policy (Harley et al. 2000). One teacher in the study was quoted as saying:

"Do I, as a teacher, do what my employer tells me or what the community where I live and work demands?" (Harley et al. 2000:295).

Activity Theory argues that all action takes place within a socio-cultural context and it cannot be understood independently of that context (Engeström, 1987). Teachers are working within a certain community, according to certain rules, not only policy rules but personal values and morals, personal understanding and experience of education, teaching and learning, as well as

influence from the community where they live, which all takes place within a historical framework. As Harley et al.'s (2000) study argues conflict between these personal beliefs or community beliefs and the policy meant that the teachers did not necessarily act according to the policy. They did not do what the policy stipulated they should be doing, rather they adjusted their actions to be in line with what their community or they themselves thought was more appropriate. Activity Theory would approach this change by focusing on the contradictions mentioned above as 'conflicts'. Activity Theory explains that a change in any element in a system may conflict with another element and drive further change. If we do not take into account teachers' personal viewpoints, their perceptions and their reality in their community there may be change within the education system that we do not anticipate. The pre-service teachers involved in this study are at the end of their post-graduate teacher education, most of them have already been appointed into teaching positions. Their perceptions, and if there are contradictions within these, will go with them into their teaching positions. Any contradictions have the potential to cause change, and if we do not take those contradictions into account the change in the system may be unexpected and unwanted.

Harley et al. (2000) argues that policy needs to be realised in a real world rather than an ideal world and South Africa's policies often did not take into account the harsh realities of the real world of South African education. Enslin and Pendlebury (1998) state that:

...formal changes cannot guarantee better practice, and where policy makers take little account of the context and agents of implementation, policy may impede rather than enable transformation (Enslin and Pendlebury, 1998:262).

What is particularly important here is the awareness of how important the reality and the practical really are. Without understanding the agents (the teachers), the classrooms and communities in which teaching and learning is going to happen, as well as the tools which are going to be used to teach the material, the policies will not only be ineffective but may obstruct positive change in South Africa's education system. Through Activity Theory, this study looks at pre-service teachers' perceptions about teaching and learning in South Africa's classrooms, including their experience in the classrooms and communities, the learners they teach, the tools they use as well as the theory that they refer to and their understanding of the policies that they work with. Contradictions within these perceptions are the sites for change and it will be argued

that if we do not take these contradictions into account change may occur in a way that is not expected and potentially not desired within South Africa's education system. Since the abolishment of apartheid, policies in South Africa have focused on transformation through its focus on equality today and redressing the inequality of the past. As Enslin and Pendlebury (1998) argue, without taking teachers' reality and perceptions into account this transformation will not take place the way it is envisioned.

As Harley et al. argue:

If policy is to move beyond political symbolism and social meliorism, it must look squarely at "what is". And schools and teachers "as they are" make it manifestly clear that policy on teacher roles and curriculum – in fact the entire edifice designed to transform South African education – will stand or fall on the basis of the support offered to teachers in the implementation of the policy, *as well as the extent to which the support deals with teacher beliefs and assumptions*, and not only the outward signs of changed practice. Changes in teacher practice may be significant, but they are *superficial if profound changes do not occur at the level of teachers' beliefs* (Harley et al. 2000: 301, my emphasis).

Policy changes may prove irrelevant if teachers are unable or unwilling to work with them. It is vital to understand teachers' perceptions and beliefs about the process of teaching and learning in order to understand whether the changes that have taken place in the education system are working, and also to ensure there is an understanding of where future changes may take place. If we do not take teachers' perceptions into account in terms of these changes we are losing an essential piece of the puzzle. The policy changes will not work if teachers do not believe in them or understand them, as Harley et al. (2000) argue the changes are artificial if they do not happen at policy level and at the level of teachers' beliefs.

As has been explained, teachers' perceptions and beliefs have not always been accounted for when analysing teaching and learning. However, as is argued in this study, teachers' perceptions are absolutely vital in order to understand what is really happening in the classroom, and in order to understand what may happen in the future. Hollingsworth (1989) analyses pre-service teachers' cognitive change in learning to teach. She argues that the beliefs about education that

the pre-service teacher enters the training or education programme with is the most influential in their understanding about teaching and learning. She found that pre-program beliefs limit the pre-service teachers' understanding about teaching and learning (Hollingsworth, 1989). Beliefs about education are influenced by the education you receive yourself (Robinson, 1999). This is particularly relevant in terms of teachers' perceptions and beliefs in the new South Africa. The way that teachers today were educated in schools is very different to the way they will be educating learners in schools. Current pre-service teachers' experiences with education during their own schooling quite often conflicts with what they learn about the process of teaching and learning during teacher training or education programmes. Education today is very different to the way it was during apartheid years, where fundamental pedagogics was pervasive and only 'white' schools had access to adequate resources, even the early moves to progressive pedagogy have yet to impact fully on an entirely new cohort of teachers. According to Hollingsworth (1989) these pre-program beliefs are particularly influential, and therefore problematic in South Africa, if we are to ensure that policy changes really do occur in practice.

Hollingsworth's study broke down pre-service teachers' understanding into three parts: content and subject specific pedagogy; general pedagogy, or management and instruction; and the ecology of learning in classrooms (Hollingsworth, 1989). In terms of the ecology of learning in classrooms she focused on academic tasks arguing:

Beyond knowledge of the subject and pedagogy of teaching and managing students, teachers need to know how pupils learn in classrooms. That is, teachers must comprehensively understand both theories of knowledge acquisition and the social nature of learning in classrooms to define and clarify their roles as teachers ... skilled teachers know how to merge knowledge of human learning, subject, and pedagogy into specific academic tasks. As yet an unacknowledged part of the teaching knowledge base, the convergence of these areas in academic tasks appears to be so central to an understanding of the complexity of teaching and learning in classrooms (Hollingsworth, 1989:163).

As mentioned previously, in the 1980s a common unit of analysis was the decisions teachers made in order to understand what they were thinking: in this situation Hollingsworth looks at the academic tasks teachers implement in order to understand teachers understanding about teaching

and learning. She argues that it is the academic tasks that allow access into the complexity of teaching and learning, and will access a deeper understanding about the decisions of the teacher.

Hollingsworth (1989:168) found that teachers only focused on, and really thought about, students' learning through academic tasks once "general managerial routines" were in place. Therefore focusing on teaching and learning doesn't happen until a teacher is happy that he/she can manage a class. Hollingsworth (1989) states:

Regardless of the extent of subject matter knowledge, every preservice teacher who failed to routinise knowledge about classroom management also failed to reach the point of understanding pupils' learning from academic tasks (Hollingsworth, 1989:177).

Pre-programme beliefs had the most influence over both the managerial routines and the academic tasks implemented by the pre-service teachers (Hollingsworth, 1989). This means that before a teacher is able to focus on teaching and learning, which is often assumed to be the main focus in the classroom, s/he focuses on managing the class. The most influence over both the managerial and the academic routines are the pre-service teachers' pre-programme beliefs, which will be in part influenced by their own school experience. This means that the pre-service teachers will have to work through any routines that they may believe in (due to the influence of their schooling experience) that conflict with the policy stipulations today. According to Harley et al. (2000) when there is conflict between teachers' beliefs and policies teachers do not necessarily follow policy. This means that the managerial routines that the teachers follow may not be in line with policy, and according to Hollingsworth (1989) study classroom management needs to happen before teaching and learning can really take place in the classroom.

Bramald, Hardman and Leat (1995) argue that pre-program beliefs can be changed depending on the pre-service teacher training or education programme. The pre-service teaching education programme needs to take pre-service teachers' beliefs and perceptions into account, and it needs to work with these beliefs and how they relate to the practice of teaching (Bramald et al., 1995). If the teaching education programme does not deal with these pre-service beliefs then the teacher is likely to adopt practices that they remember from their teachers when they were at school (Bramald et al., 1995). In South Africa within the context of great social change, the experiences that teachers had when they were at school are markedly different to the education system as it is

today. As has been mentioned previously, the pre-service teachers would have experienced a more fundamental, content based approach to teaching and learning, whereas now the curriculum asks for a more progressive, outcome based approach to teaching and learning. It is therefore important that teaching programmes take into account and deal with pre-service teachers' perceptions and beliefs about what the process of teaching and learning is about. The current study looks at the pre-service teachers' perceptions about teaching and learning at the end of their teacher education certificate training. The contradictions that are noted here are those with which these teachers will enter into the profession.

Contradictions in pre-service teachers' perceptions about the process of teaching and learning are potential sites of change (as will be discussed in the theoretical framework). If these contradictions are not taken into account and worked through these potential changes may not be in line with what the Education Department is hoping to achieve in South Africa's education system.

What is clear is that external influences can have a great effect on teachers' perceptions about the process of teaching and learning (Harley et al., 2000). However there is also another side to this: what pre-service teachers perceive about the process of teaching and learning impacts how they deal with external influences and issues such as managerial routines and planning (Hollingsworth, 1989).

Copenhaver, McIntyre and Norris (1981) looked at what pre-service teachers know about classrooms in order to study their planning of lessons. They argued that a lack of knowledge would result in bad planning and wasting of time. What they found was that pre-service teachers' understanding was often very superficial. They argued that "...if pre-service teachers lack appropriate tools for analysing the teaching process and possess only general impressions of that process, they will have difficulty optimising instruction" (Copenhaver, McIntyre and Norris, 1981:34). The current study investigates pre-service teachers' perceptions about the process of teaching and learning. I argue that by accessing and understanding these perceptions we will have a greater understanding about the future of our classrooms, and the issues that need to be dealt with.

The current study adopts an Activity Theory framework for studying pre-service teachers' perceptions of teaching and learning because Activity Theory situates pre-service teachers' perceptions in a socio-historical context. Previously Activity Theory has been used primarily to study technology in classrooms (Hardman, 2005a; 2007; Lim & Chai, 2004) and learning in the workplace (Engeström, 2005); therefore there is little literature available that utilises Activity Theory to study pre-service teachers' perceptions of teaching/learning.

In terms of teachers' and pre-service teachers' perceptions, there have been a number of method-specific papers written discussing challenges and the way teachers perceive or think about teaching and learning in terms of a particular learning area or method, for example: Freeman (2002) looked at teacher knowledge and learning to teach in English Language Teaching; Kowalchuk (1999) looked at Art student teachers' perceptions of practice; and Golombek (1998) studied language teachers' personal practical knowledge. The current study is working specifically with Activity Theory as a tool to analyse pre-service teachers' perceptions about the process of teaching and learning in general, rather than a method specific focus.

Activity Theory has predominantly been used to study technology in classrooms and expansive learning in the workplace, often in the form of developmental work research (Daniels, 2007). However, there are a number of studies that are relevant to this study, which are discussed below.

Providing a foundation for developing a language of description in the current study, Popova and Daniels (2004) focus on the concept of the "object" in Activity Theory. Popova and Daniels (2004) refer to Engeström (1993) when they explain the object in the following way:

"...mind evolves through tool-mediated object-oriented- activity that unites the mind with the real world of objects and events. 'A *subject* refers to the individual or subgroup whose agency is chosen as the point of view...the *object* refers to the "raw material" or problem space at which the activity is directed and which is moulded or transformed into *outcomes* with the help of physical and symbolic, external and internal *tools* (mediating instruments and signs)' (Engeström, 1993, p. 67)" (Popova and Daniels, 2004:196).

This concept will be discussed in greater depth in the theoretical framework. Popova and Daniels's (2004) paper analyses historical transformation of pedagogic practice in Russia. Their

particular focus was tracking the change in the ways that people prepared for employment before and after the fall of the Soviet regime. Through their research they were able to demonstrate that there is a link between the pedagogy at the school at the time that the individual was educated, the individual's motivation and the employment position that the person holds currently.

What is particularly noteworthy in this study is that they deal with the methodological implications of Activity Theory and the concept of the object, arguing that the practical applicability of the theory does not receive enough attention (Popova and Daniels, 2004). They argue that although the theory is constantly changing, being refined and developed, it is not used enough methodologically. In fact they take it so far as to say:

... at times a theoretical discussion loses its value if it does not involve analysis of empirical data at a very early stage of inquiry. We believe that through employing the CHAT concepts in empirical research that we can develop them theoretically (Popova and Daniels, 2004:203).

They argue that the theory has its roots in everyday practice, and if you do not use the theory it loses its worth. They use the concept of the object in order to access, and answer, the research questions (Popova and Daniels, 2004). Engeström (2001) explains that the object is the central part of the activity system, and understanding the object enables one to understand the whole system. Popova and Daniels (2004) refer to this in their argument, and so focus on the object in their study. They found that this enabled them to identify links between how individuals were taught about employment at school and the individuals working lives.

However, through the study they also argue that they found the subject to be an essential part of understanding the object.

Before interviewing the subjects it was impossible to capture a clear understanding of the object (Popova and Daniels, 2004:204).

They argue that the relationship between the subject and the object needs to be developed further. In the current study the perceptions of the subject (the pre-service teacher) is being analysed. Interviews will be used in order to access the subjects' position, and to try and look for contradictions in the system.

In her paper *Activity Theory as a framework for understanding teachers' perceptions of computer usage at a primary school level in South Africa*, Hardman (2005b) also focuses on the object. Hardman analyses contradictions for potential change of teachers' perceptions and focuses on the object because when the object of a system changes the whole system changes (Hardman, 2005b; Engeström, 1987). She uses the notion of contradictions to analyse her interview data for sites of potential change in her investigation of teachers' perceptions of using novel technology in four disadvantaged schools in South Africa. Hardman (2005b) refers to Vygotsky (the forefather of Activity Theory) and argues that his work serves as a reminder that one must be aware of the socio-historic conditions that have preceded and brought about the production of new knowledge and new practices. Activity Theory takes this socio-historic situation into account.

Hardman (2005b) looks for contradictions when new technology is placed into four primary school mathematics classrooms in South Africa. Her methodology involves using interviews with the teachers (the subject), arguing that there is a "methodological need to develop a coherent account of how one studies technological innovation and its impact at the level of teachers' perceptions as well as at the level of actual practice" (Hardman, 2005b:260). Her argument runs in line with my argument: she explains that depending on how teachers perceive a novel tool will relate to how they use it, whether effectively or ineffectively:

Consequently, in order to understand how teachers appropriate the computer as a teaching/learning tool, one must first understand teachers' perceptions of the novel tool. Here I develop a line of argument to suggest that a first step in tracking pedagogical shifts empirically begins with understanding teachers' perceptions of what it is they are working on and what motivates them to use tools to act on problem spaces (Hardman, 2005b:260).

Hardman argues that the teachers' perceptions influence their actions: by accessing teachers' perceptions one will have a greater understanding of their actions and what happens in the classroom. If there are contradictions there will be change, therefore knowledge of these contradictions in teachers' perceptions will allow a greater understanding of what is happening in classrooms.

Hardman (2005b) focused on the problem space (the object) that the teachers perceived they were working on and did find that there were two systems in operation, with two objects. Her study found that there were contradictions in how the teachers approached the use of the novel technology. This was especially evident as a contradiction between their expressed desire to use the computer as a tool to develop students' creativity and the need for students to obtain pass marks on standardised tests, which, for these teachers, militated against the use of the computer as an exploratory tool.

Hardman's study worked with in-service teachers and not pre-service teachers (as opposed to this study which works with pre-service teachers) and the focus is on technology in classrooms. The current study focuses specifically on pre-service teachers' perceptions about the process of teaching and learning in South Africa as they finish their teacher education and start their teaching careers. However, Hardman's study does offer the current study an analytical framework, a language of description with which to approach the empirical data collected in the current study. She uses Activity Theory as a framework for understanding how teachers use technology. Hardman (2005b) collected data through interviews, among other observations. This allowed her to develop an analytical grid which was then used to examine the data. The current study will also be using Activity Theory but the focus will be on understanding pre-service teachers' perceptions of the process of teaching and learning in South Africa. A similar procedure using interviews and an analytical grid is also used in this study.

In their paper *Understanding Innovation in Education using Activity Theory*, Russell and Schneiderheinze (2005) used Activity Theory to analyse how four different teachers dealt with a new technology in their classrooms.

Russell and Schneiderheinze (2005) argue that previous studies that look at innovation in education lack in a number of areas. One that is of particular relevance to this study is the teachers' goals and beliefs. As Russell and Schneiderheinze (2005) state:

Identifying and understanding teachers' goals and beliefs is critical to creating an evaluative analysis of reform efforts in education. Researchers have primarily understood innovations as independent variables; however, once they enter the classroom, the

innovations become part of a complex system of social and pedagogical interactions (Russell and Schneiderheinze, 2005:38)

This is in line with my argument that we have to understand the teachers as they put the policy into practice. We have to understand education in their eyes, how they perceive teaching and learning in South Africa's classrooms, in order to ensure that policy is effective.

As Russell and Schneiderheinze (2005) explain, innovation in a classroom does not occur in isolation, it takes place in a setting where there are existing rules and tools. A teacher needs to accommodate the innovation with what already exists:

When teachers attempt to implement a technology innovation in the classroom, they naturally face the complex challenge of fitting together new ideas with deep-rooted pedagogical beliefs and practices (Russell and Schneiderheinze, 2005:39).

In the current study, although teachers are not necessarily implementing a new technology, they are implementing enormous changes in education. Russell and Schneiderheinze's (2005) argument rings true in South Africa's situation: these changes do not take place in a vacuum. As has been argued, teachers own beliefs may conflict with these changes because of their own, very different, educational background, or even the community's beliefs and understanding about education because of entrenched pedagogical beliefs and practices. The current study hopes to shed some light on pre-service teachers' perceptions as they are about to enter the teaching profession. As Russell and Schneiderheinze (2005) explain, Activity Theory allows one to access the complexity of these innovations.

Joyes (2006) uses Activity Theory to look at teachers' perceptions about teaching and learning in his paper at the 23<sup>rd</sup> annual Ascilite Conference. Joyes (2006) uses the Learning Activity Analysis Tool (LAAT), a tool which analyses each activity component (similar to the interview schedule that will be used in this study), in order to understand tutors' perceptions about teaching and learning. The LAAT was a part of the computer study programme that was filled in by the tutors. As he explains in one of his examples:

It has been suggested earlier in the paper that data produced in the use of the LAAT has the potential for researching perceptions/beliefs of learning and teaching. ... It appears

from the LAAT entries that Angela's approach to learning and teaching is markedly different to the one underpinning the online materials that she was analysing (Joyes 2006:407).

The contradiction that Angela (the subject mentioned above) faced meant that she had to change something in the system in order to cope with it - she came up with more tools in order to ensure that this contradiction was resolved (Joyes, 2006). The current study will also be looking for contradictions in pre-service teachers' perceptions and will use a similar tool to the LAAT used in Joyes's (2006) study, however the focus is on what the contradictions are rather than how the pre-service teachers will work through them, which is beyond the scope of this coursework masters thesis. Working through the contradictions, creating that change requires more scope than this paper has. Expansive learning and change will be discussed further in the theoretical framework.

## **2.2. Conclusion**

As is evident through the literature, each element in the activity system of the process of teaching and learning interacts and influences the other elements in the system. Activity Theory states that a change in any single element in the activity system may clash with another element (or more than one element) and result in a change in the system. Whether or not there are contradictions in pre-service teachers' perceptions about the process of teaching and learning will be the focus in this study. If there are these will be the potential sites of change, as will be explained further in the Theoretical Framework. This theory will now be discussed at a greater depth.

## CHAPTER 3

### THEORETICAL FRAMEWORK

#### 3.1. Theoretical Framework

Vygotsky was the forefather of Activity Theory<sup>2</sup>, developing what has become known as the first generation of Activity Theory (Daniels, 2001:86). Vygotsky's theory is a socio-cultural perspective. As Daniels states:

... Vygotsky insisted that the individual and the cultural should be conceived of as mutually formative elements of a single, interacting system (Daniels, 2001:84).

Therefore, learning and development occurs on a social realm as opposed to an individual realm. It is through our different societies and cultures that we learn what we learn (Vygotsky, 1992). His theory emphasises the importance of mediating agents and tools. Development occurs through mediating agents in conjunction with interaction with the environment. He states that higher cognitive skills are mediated through tools (e.g. language, signs, and symbols) (Vygotsky, 1978). It is through collaboration with others that a person learns what he or she cannot do alone. What is developed at this interpsychological level is then internalised and moves to an intrapsychological level. It is here that Vygotsky's *zone of proximal development* is important.

Looking at the popular quote from chapter 6 of *Mind in Society* (1978) the *zone of proximal development* is:

...the distance between the actual developmental level as determined in independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978:86).

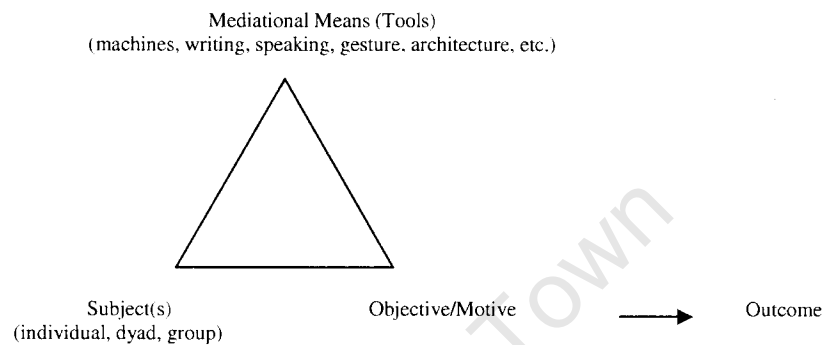
It is through collaboration with others that the child learns what he or she cannot learn alone. What is developed at this inter-psychological level is then internalised and moves to an intrapsychological level. This mediating agent need not necessarily be another human being; an

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<sup>2</sup> Although referred to as an Activity Theorist in the literature, he himself did not call himself an Activity Theorist.

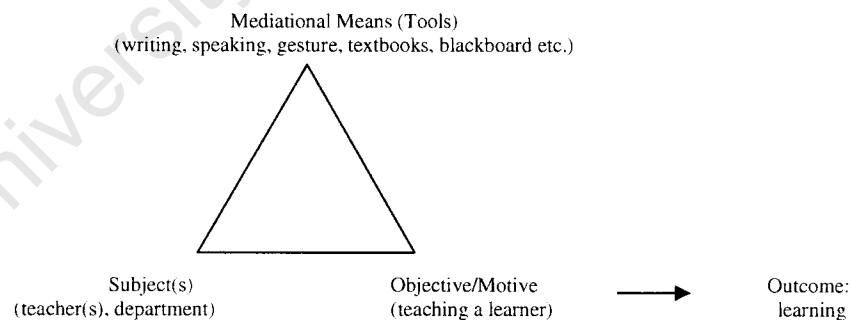
organised learning activity can also act as a mediating agent. Engeström (2001) explains that the concept of mediation is the core of the first generation of Activity Theory. Below is the first generation of activity theory model taken from Daniels (2001:86):

**Figure 1: First Generation Activity Theory**



Thus, we can understand this in terms of the process of the teaching and learning as:

**Figure 2: The Process of Teaching and Learning**



Vygotsky's work provides a good socio-psychological structure to understand and theorise about educational change (Hardman, 2005a). However, the focus tends to be more on the individual's action, not on the social structures, which will influence and limit the individual (Daniels, 2001). Change within the collective context effects change within the individual; this will be discussed further as second generation and third generation activity theory is discussed. As Hardman

(2005a) says about Vygotsky's theory: "The theory does not go far enough to illustrate how cognitive change happens within a collective context" (Hardman, 2005a:2).

It was one of Vygotsky's colleagues, Leont'ev, who developed the distinction between the individual action and the collective activity. He took activity theory to the second generation arguing that one cannot focus on a single activity system; one had to look at networks of activity systems. Engeström developed this further:

The third generation of activity theory as proposed by Engeström intends to develop conceptual tools to understand dialogues, multiple perspectives and networks of interacting activity systems (Daniels, 2001:91).

All activity is aimed at an object, this object is not necessarily physical and is developed historically - it does not simply appear. As Engeström and Meittinen (1999) explain these objects are common to society at large but local activity systems will use them in unique ways. The networks between the activity system allow for the movement of artefacts (Engeström & Meittinen, 1999). Engeström states:

The distinctive feature of human activity is that it is the continuous creation of new instruments which in turn complicate and change qualitatively the very structure of the activity itself (Engeström, 1987:46).

Engeström argues that activity theory can be understood according to five principles (Engeström, 1999). The following points are a summary of the five points provided by Engeström:

1. The activity system is the primary unit of analysis; actions, activities and operations are subunits and need to be understood in terms of the activity system as a whole. In terms of this analysis the activity system is the pre-service teachers' perceptions about the process of teaching and learning. The activities, actions and operations need to be understood within this system.
2. An activity system is multi-voiced. There are always a number of different ideas, customs, behaviours and desires occur within the system. These will influence and change the system. In terms of this analysis there are a number of different ideas influencing the system. Not only are there the differences between each individual in the

classroom (the teacher and each learner) but there are also differences in what is understood within the community and outside. South Africa is particularly multi-voiced as a people. However, it is not simply the people that influence the system; it is also rules and community governed by a certain division of labour. South Africa has gone through a huge transition, both as a country and within the education system, and these shifts will influence the system. This leads us on to the third point.

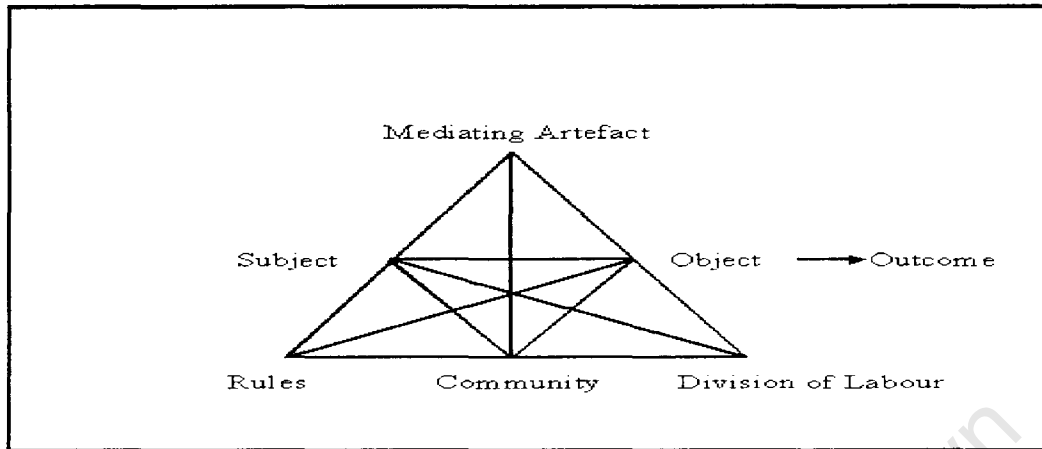
3. An activity system develops over time. The system is not static and it is important to look at it in terms of its history. South Africa's classrooms and education system has undergone awesome change over the past decade. We have seen a change from Content Based Education to Outcomes Based Education and from a more traditional, fundamentalist pedagogy to a more progressive approach. The changes in South Africa have meant significant changes in the education system.
4. Contradictions are fundamental to an activity system as they drive change. This is a vital point in this particular thesis, and will be discussed further in depth later in the chapter.
5. Expansive transformation is possible in an activity system. Contradictions may lead to intentional collective change.

Engeström (1987) explains:

It is essential that human activity cannot be reduced to the upper triangle alone. Human activity is not only individual production. It is simultaneously and inseparably also social change exchange and social distribution. In other words, human activity always takes place within a community governed by a certain division of labour and by certain rules (Engeström, 1987:4).

As we can see, Engeström is arguing for a far more social understanding, by taking and extrapolating Vygotsky's individual understanding.

Figure 3: An Activity System



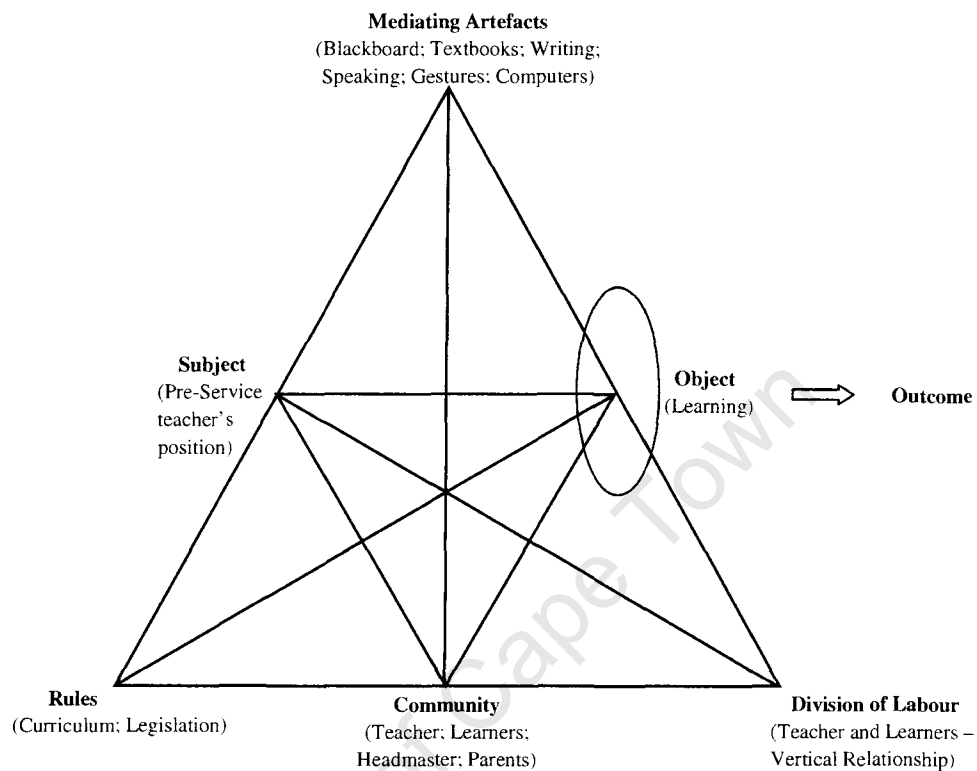
(Source: Engeström, 1987:75)

Figure 3 provides a graphic representation of a basic activity system. The subject, which in this student is the pre-service teacher, acts on the object (perceptions of teaching/learning) using mediating artefacts in order to achieve an outcome, in a context in which rules impact on the subject's actions and where a division of labour exists in the community. This initial articulation of an activity system has subsequently been developed further.

Looking at the above points we understand that no activity system is static; it is continuously developing and changing. The tools, the division of labour, even the object, are all shifting and changing over time (Lim & Chai, 2004:221). It is important to understand (and has been stated above) that change within and between activity systems occurs due to contradictions in and across these systems (Daniels, 2001). As Engeström (1987) explains, contradictions drive change. Russell (2002) states "a change in any element of the activity system may conflict with another element..." (Russell, 2002:316).

We might construct a hypothetical model of an activity system of pre-service teachers' perceptions about the process of teaching and learning as follows:

**Figure 4: Activity System of pre-service teachers' perceptions about the process of teaching and learning**



If we look at the above system (Figure 4) and we take into account the transformation that has happened in South Africa and South Africa's education system over the past two decades, we realise that the process of teaching and learning in South Africa must be undergoing major changes. The current study is going to analyse a group of pre-service teachers' perceptions about the process of teaching and learning and whether or not there are contradictions in that system. Within Engeström's theory of expansive learning it is due to contradictions in and across activity system that expansive learning takes place. As Engeström explains, expansive learning requires an "*instinctive or conscious mastery of double binds*" (Engeström, 1987:16). A double bind is understood to be an issue within society that cannot be resolved by the individual alone; instead, through co-operative actions new forms of activity emerges or expansive learning happens (Engeström, 1987:16). Expansive learning is not individual, it impacts and changes the whole system and everybody and everything within the system. An individual may be influential in this but it has to be communicated and transferred, and only once it has grown to be more than the individual does it have the opportunity to become expansive learning. Engeström (1987) states:

Human development is real production of new societal activity systems. It is not just acquisition of individually new activities, plus perhaps individual creation of 'original pieces of behaviour' (Engeström, 1987:20).

Engeström now reformulates Vygotsky's *Zone of Proximal Development* to state:

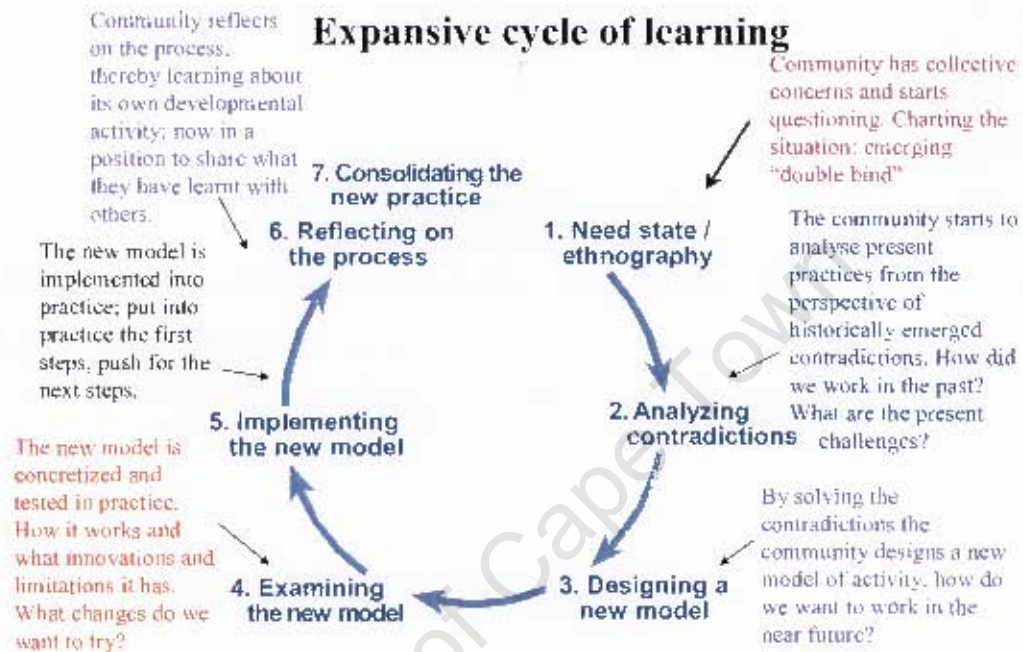
*It is the distance between the present everyday actions of the individuals and the historically new form of the societal activity that can be collectively generated as a solution to the double bind embedded in everyday actions* (Engeström, 1987:21).

One can see that this understanding is far more focused on the social; it is not an individual process. The activity (focusing on the double bind) is taking place within a community governed by a certain division of labour and certain rules which have been historically influenced and created.

University of Cape Town

The following illustration of the expansive learning cycle has been taken from Hardman (2008):

Figure 5: Expansive Cycle of Learning



As can be seen in the above figure (Figure 5), a need state or a state of questioning leads to contradictions. The focus of this study is the primary contradictions, the need state, or questioning, as is reflected in the above figure as the starting point of the cycle (Figure 5, number 1).

The primary contradictions, or the need state that the subject faces, is where there are competing alternatives and the subject is directionless. This is a questioning state, a state of uncertainty and need. It is important to realise two things about this need state: firstly, it is never arbitrary or accidental, it is historically created; and secondly, it may not be immediately solved, it may last a long time and may or may not necessarily lead to expansive learning (Engeström, 1987: 17-18). As Engeström explains, the need state could also be resolved through 'regression' or looking at what tools we already have, but it may be resolved through the creation of new tools, or

expansive learning (Engeström, 1987:18). Therefore, this need state could lead to expansive learning (and therefore change) if the above cycle (Figure 5) was implemented.

In order to lead to expansive learning the community would need to start analysing the contradictions (step 2 in Figure 5) in order to design a new model. As can be seen in Figure 5 the analysis would involve questioning present practices within the context of the past, so in a socio-historic context. Step 3 involves the design of a new model of activity that overcomes the contradictions in step 1. In step 4 and step 5 the new model is examined and implemented which leads to the final stages where, in step 6 and step 7, it is open for reflection and consolidation.

I will not be implementing the entire expansive learning cycle in this study. This study is the first step of the expansive learning cycle, I plan to complete the whole expansive learning cycle in future work (PhD). There is great potential for further research here, creating a change laboratory with teachers or pre-service teachers in order to witness potential change. However it is important to take the expansive learning cycle into account in this study as contradictions within pre-service teachers' perceptions about the process of teaching and learning could lead to expansive learning if the cycle was implemented.

### **3.2. Conclusion**

This chapter introduces readers to the theoretical basis of the current study. It does this by tracking the historical emergence of Activity Theory from the work of Vygotsky, through Leont'ev's elaboration of that work to the final articulation of Activity Theory as forming the theoretical foundation for expansive learning. The current study utilises Activity Theory because it provides a framework with which to analyse perceptual data in context. In the following chapter, I develop an analytical framework, or language of description moving from the high level Activity Theory concepts to the empirical data and back again.

## **CHAPTER 4**

### **METHODOLOGY**

#### **4.1. Research Design**

This study is using Activity Theory in order to analyse pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms. The use of Activity Theory places the study in an interpretive framework. The study makes use of qualitative methods. This chapter will discuss these methods, validity and reliability issues, as well as ethical issues relevant to this study.

In order to answer the questions in the current dissertation an in-depth understanding of pre-service teachers' perceptions about the process of teaching and learning is required. The design adopted in this study is a case study in order to understand a certain phenomenon in depth – pre-service teachers' perceptions about the process of teaching and learning.

The sample of pre-service teachers is small in order to allow for a deeper analysis into what they perceive about the process of teaching and learning. There are three men and three women, all in their early twenties. They are all in an education program for Secondary and Further Education teachers at the same Higher Education Institute. The pre-service teachers are majoring in different teaching methods which should allow for the process of teaching and learning to be the focus - as opposed to the content of what is being taught. Although the interviewees are pre-service teachers, they are nearing the end of their teacher education and many of them have positions in schools for the following year, once they have graduated.

I developed a greater understanding of the pre-service teachers' methods and teaching practices as I supervised their University Teaching Practical Experience for a period of approximately six weeks. This allowed a greater level of trust and communication to develop, as well as a greater level of understanding into what they were saying. During the interviews reference was made to events experienced and witnessed during the Teaching Practical Experience.

**Table 1: Participants in the Study**

Pre-service teacher	Male/Female	Learning Areas/Subjects at Secondary and Further Education Level
Charlotte	Female	History and English
Kate	Female	Art and Design
Lisa	Female	History
Mike	Male	Natural Science, Physical Science, Biology and Maths
Carl	Male	History
John	Male	Maths, Life Science and Natural Science

## **4.2. Data Collection**

Data for this study was collected using semi-structured interviews (see Appendix 1).

### **4.2.1 Interviews**

The interviews allowed for probing of certain types of knowledge: the perceptions of the process of teaching and learning. As the study focuses on the pre-service teachers' perceptions it is essential to find out what those are, the interview process allows access to those perceptions as the interviewees were communicating how they perceive things and what they believe things to be.

It is important to realise that a researcher and, in this case, an interviewer, can never be completely independent from the situation. There is no absolute truth and, as Maxwell explains, in qualitative research it is possible for there to be "different, equally valid accounts from different perspectives" (Maxwell 1992:283). However, as will be discussed, it is important to ensure that the researcher remains as independent as possible. In an interview process it has been argued that there is no way an interviewer can be absolutely passive, the interview process is an *active* process, a process whereby knowledge and information is shared (Holsten & Gubrium,

2004). However, as Legard, Keegan and Ward (2003) argue, one should seek to obtain a balance in interviews where the participants are able to discuss their beliefs, knowledge and feelings. The interviewer cannot be completely passive as they should be questioning and probing issues that come up, however it is also important to be neutral in these issues, allowing interviewees the space to discuss their views (Legard et al., 2003). It is also important to realise that interviewees may, at times, seek approval from researchers, and it is better to be neutral in all responses (Legard et al., 2003). However, neutrality should not mean that an uncomfortable atmosphere is created, it is important that the interviewee feels comfortable enough to open up and discuss the issues honestly (Legard et al., 2003). As has previously been mentioned, I spent time with the interviewees during their Teaching Practical Experience and so by the time the interviews were conducted they were comfortable talking to me. They were able to refer to events experienced during the Teaching Practical Experiences and know that I had a greater understanding because I had observed them.

A semi-structured interview was used to guide the discussion (Appendix 1). The questions were open-ended in order to encourage the pre-service teachers to open up around their perceptions of teaching and learning in South Africa's classrooms. The semi-structured interview allowed the pre-service teachers a certain freedom in their discussion but still focused the discussion to answer the particular issues being studied. The interview questions were structured along the Activity Theory categories: subject, mediating artefacts, rules, community, division of labour, object and outcome.

Each pre-service teacher was interviewed alone to ensure that they could express their perceptions without the influence of others. All of the interviews took place in English, the home language of both the interviewer and the interviewees. The interviews took between one hour and two hours long. They were audio-recorded and transcribed by the researcher as soon as possible after the interview. The transcribed text was then analysed according to the same categories that the questions were structured, the categories from Activity Theory.

#### **4.2.2. Language of Description**

This study undertook a qualitative analysis. The transcribed text was interrogated using codes derived from Activity Theory and based on the same categories that the semi-structured interview was arranged. Table 2 provides a Language of Description which takes the Activity Theory concepts and defines them according to this study. The term “language of description” is drawn from Bernstein’s (1996) articulation of an analytical framework as:

...a translation device whereby one language is transformed into another. [...] A language of description constructs what is to count as an empirical referent, how such referents relate to each other to produce a specific text and translate these referential relations into theoretical objects or potential theoretical objects. In other words, the external language (L2) is the means by which the internal language (L1) is activated as a reading device or vice versa (Bernstein, 1996:132-133).

**Table 2: Language of Description**

Activity Theory Concept	Definition in this project	Example from the interviews
Subject	The teacher's position; the teacher's understanding about how teaching and learning occurs.	"And basically you bring them a certain amount of information and try and draw extra out of them, or include them in as much of the teaching process as you can."(Kate)
Mediating Artefacts	Tools that are used when teaching and learning occur; what do the teachers use in order to be able to teach?	"...I like to use things like film and media, teaching to it because I think it makes it relevant and more accessible."  (Charlotte)
Division of Labour	What role does the teacher play in the classroom? What are the other roles in the classroom and how do they relate to the teacher?	"Well, I think the students need to have some sort of respect and some sort of confidence and they need to know your boundaries and (.) you know, and understand that you are the teacher and they are the student, even though you may take a back seat sometimes, you still have that, that position as teacher." (Lisa)
Community	Who is involved in teaching and learning?	Everybody [is involved in teaching in your class]. Absolutely everybody. Right up from the principal to the policies that are being developed outside of the school - that has an impact on the classroom." (Mike)
Rules	What are the norms and standards in the classroom?	"In terms of outcomes and where they are supposed to be by the end of their education and if I must teach something that is required as a building block for something then yes I must do it and that's where my responsibility lies." (John)
Object	What is the aim of a lesson?	"It's just, on a lesson to lesson basis I think it's just to ensure that learning is taking place." (Mike)
Outcome	What is the aim of teaching in general? What does the teacher hope to achieve?	"...creating people who are willing to study further and in that way contribute to society."  (Carl)

Analysing the text in this way then allowed me to draw up an activity system for each pre-service teacher. These activity systems represent each pre-service teacher's perceptions about the process of teaching and learning in South Africa's classrooms. These activity systems were then analysed for contradictions. Patterns of contradictions across the activity systems were then drawn out.

As has been explained, activity systems change and changes are driven by contradictions. Analysing for contradictions is the methodological tool in this study. Accessing these contradictions will allow a greater understanding of what is happening, and what could potentially happen, in South Africa's classrooms.

**Figure 6: Contradictions as methodological tools**

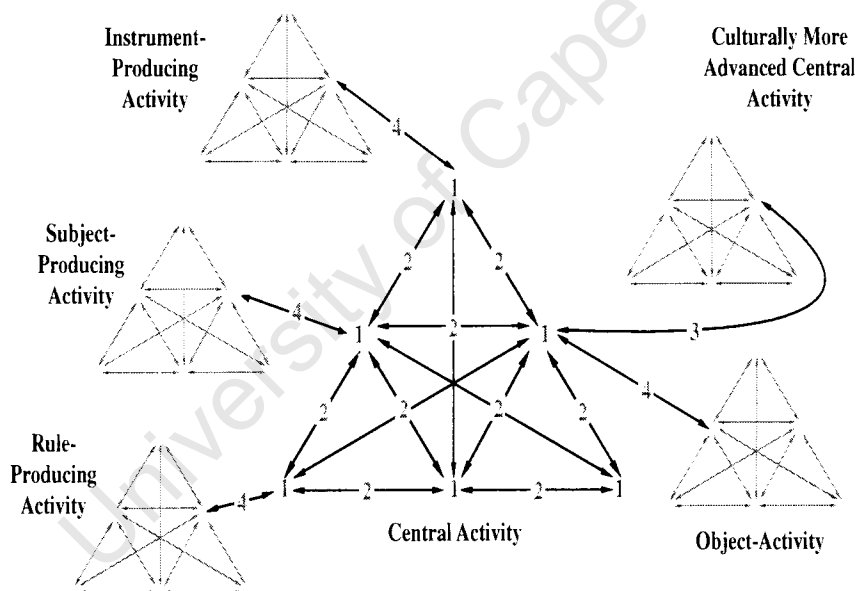


Figure 6 (above) illustrates contradictions. As has previously been mentioned, the current study uses contradictions as a methodological tool – contradictions drive change within a system. Contradictions can be understood according to four levels (Engeström, Y., 1987). Primary inner contradictions (1 in Figure 6) are within each constituent component of the central activity. Secondary contradictions (2 in Figure 6) are between the constituents of the central activity. Tertiary contradictions (3 in Figure 6) are between the object of the dominant form of the central

activity and the object of a culturally more advanced form of the central activity. Quaternary contradictions (4 in Figure 6) are between the central activity and its neighbouring activities. In the current study most contradictions arose at the primary or secondary level, as we shall see.

### **4.3. Validity and Reliability Issues**

This study is located in an interpretivist paradigm: it is qualitative. Maxwell (1992:281) argues: “understanding is a more fundamental concept for qualitative research than validity” (also in Wolcott 1990:146, cited in Maxwell 1992:281). He elaborates on this by presenting validity categories for the kind of understanding that qualitative research strives for. These categories will be looked at in terms of this study.

First, *descriptive validity* involves whether or not what is being presented in the study is accurate or not, that the researcher is not distorting what has been seen or heard (Maxwell 1992:285). This does not relate to the interpretation of what was seen or heard, that is discussed later. Descriptive validity concerns whether or not the actual words of the participant are presented accurately. In this study the interviews were recorded and transcribed in full in order to ensure the accuracy of what the participants said. This also allows me, as the researcher, to focus on the interview while involved in the interview process, as opposed to being distracted by the analysis of the interview. This is particularly important in the interview process in order to ensure questioning and probing of issues takes place at a deep enough level (Legard et al., 2003). It is vital that the interviewer is able to concentrate absolutely on the interview and what is being said during this time.

*Interpretative validity*, which is particularly important for this study, concerns accurately portraying the participant’s point of view or perception. As Maxwell explains: “... [qualitative researchers] are also concerned with what these objects, events and behaviours mean to the people engaged in and with them. In this use of the term meaning, I include intention, cognition, affect, belief, evaluation, and anything else that could be encompassed by what is broadly termed the “participants’ perspective”, as well as communicative meaning in a narrower sense” (Maxwell, 1992:288). A researcher can never be truly independent from the situation being observed and so it is impossible to obtain a completely independent account. However, qualitative research aims to understand and present the participant’s understanding as

independent as possible from the researcher. In order to achieve this it is important that the study builds from the participants' own language and the participants' actual statements and ideas are presented as much as possible (Maxwell 1992). I will do this during the analysis, presenting the pre-service teachers' perceptions in their own words.

The third category is *theoretical validity* which concerns a description's validity as a theory of some phenomenon (Maxwell 1992). This involves two aspects: firstly whether the concepts described are relevant to the phenomenon (also known as construct validity); secondly whether the proposed relationships among the concepts are valid (also known as internal or causal validity) (Maxwell 1992). I am working very closely with Activity Theory and, as has been described, my method and analysis revolve closely around this theory and its' principles.

*Generalisability* is the fourth category, which concerns whether or not what is being presented can be extended to other similar situations and can therefore be discussed in terms of a larger population (Maxwell 1992). Maxwell argues that generalisability in qualitative research is quite different to quantitative research because sometimes what is being argued is exactly that the results are different in certain settings (Maxwell 1992).

In qualitative research Maxwell refers to the generalising within a community or group as internal generalisability (Maxwell 1992). This is particularly important in an interviewing situation because often the interviewer is with the interviewee for a short period of time. This study does not aim to speak for all pre-service teachers, but aims to use Activity Theory in order to discuss what the contradictions are in a specific group of pre-service teachers' perceptions about the process of teaching and learning. What is of interest here is whether or not there are contradictions, not that all contradictions will be the same for similar groups.

Maxwell's final category is evaluative validity which concerns an evaluative framework being placed on what is being studied (Maxwell 1992). The evaluative framework being used in this study is Activity Theory.

Reliability concerns the consistency of a study (Kvale, 1996). This asks the question: if the study were to be repeated by a different researcher in the same circumstances (same context and same subjects) would it produce the same results? In order to try and ensure reliability the language of description as well as the interview schedules and coding schedule is included in this study,

which allows other researchers to access the methods used. In order to ensure reliability when interviewing the interviews were conducted in the home language of the interviewees (English). The questions were simple and were not leading. Steps were taken to ensure the interviewees understood the questions being asked and if need be questions were rephrased and broken down further.

#### **4.4. Ethical Issues**

All pre-service teachers gave their consent for the study by signing a consent form (see Appendix 2) that set out the purpose of the investigation, the features of the design and any risks or benefits that could be expected through participation in the study (Kvale, 1996). Participants' identities have been altered to avoid recognition and code names have been assigned to any schools that are mentioned during the interviews.

#### **4.5. Conclusion**

This chapter set out the methodological foundation of the current project. The thesis adopts an interpretivist stance to empirical data because the question posed seeks to understand a phenomenon, rather than to quantify it. The use of Activity Theory suggests the use of a contextualist methodology and in this thesis I utilise a case study design to gather a deep picture of pre-service teachers' perceptions of teaching and learning.

## CHAPTER 5

### ANALYSIS

The interviews with the six pre-service teachers were analysed according to Activity Theory and activity systems were created for each pre-service teachers' perceptions of the process of teaching and learning in South Africa's classrooms. These activity systems were then analysed for common contradictions within the systems.

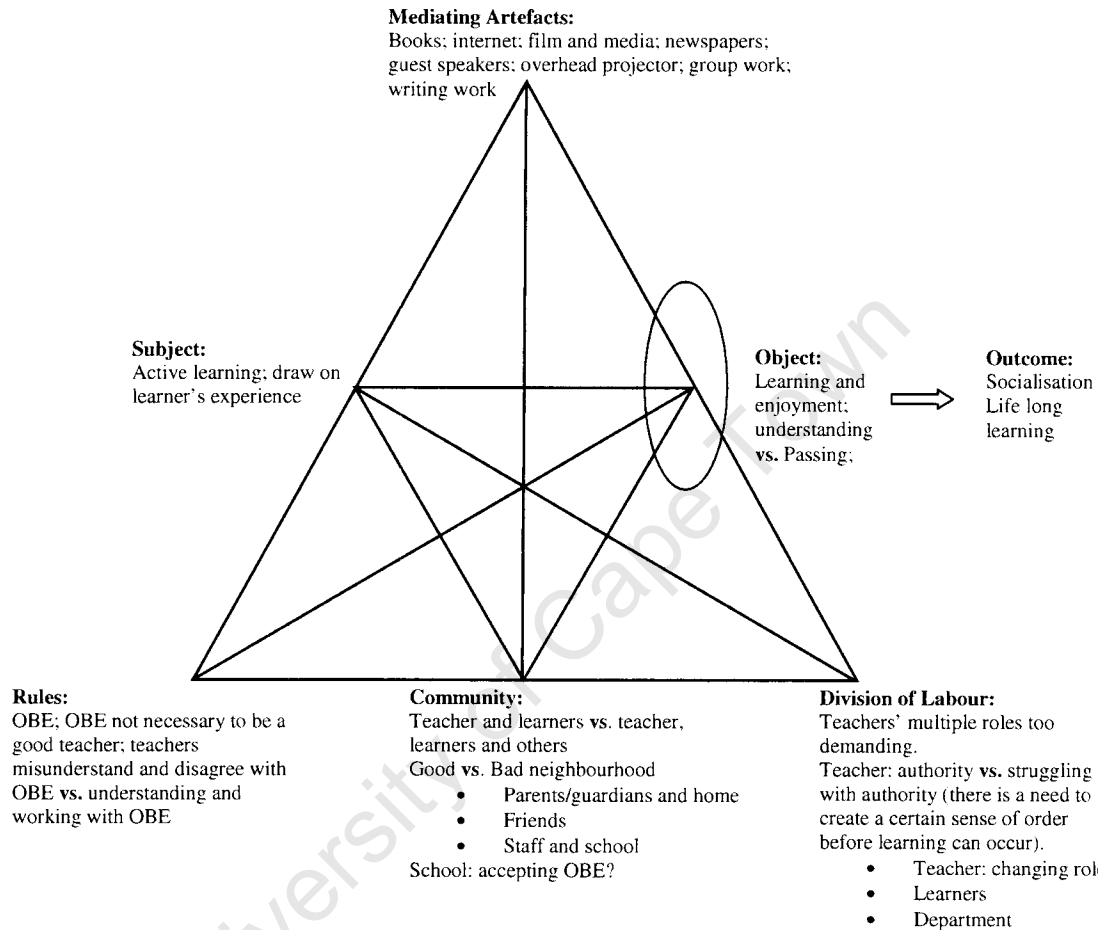
The following chapter will first present the activity systems that emerged from the analysis of the interview data for each pre-service teacher's perceptions of the process of teaching and learning in South Africa's classrooms. The chapter will then go on to present the patterns of contradictions that were predominant across all of the pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms.

#### **5.1. Pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms**

Each pre-service teacher's interview was analysed according to codes derived from Activity Theory. The data was then broken up into the categories that the semi-structured interview was based on, namely: subject; tools; division of labour; community; rules; object; and outcome. This analysis is attached (Appendix 2.1-2.6). This allowed activity systems to be drawn up for each pre-service teacher's perceptions about the process of teaching and learning in South Africa's classrooms. These are presented below.

**Figure 7: Activity System 1: Charlotte**

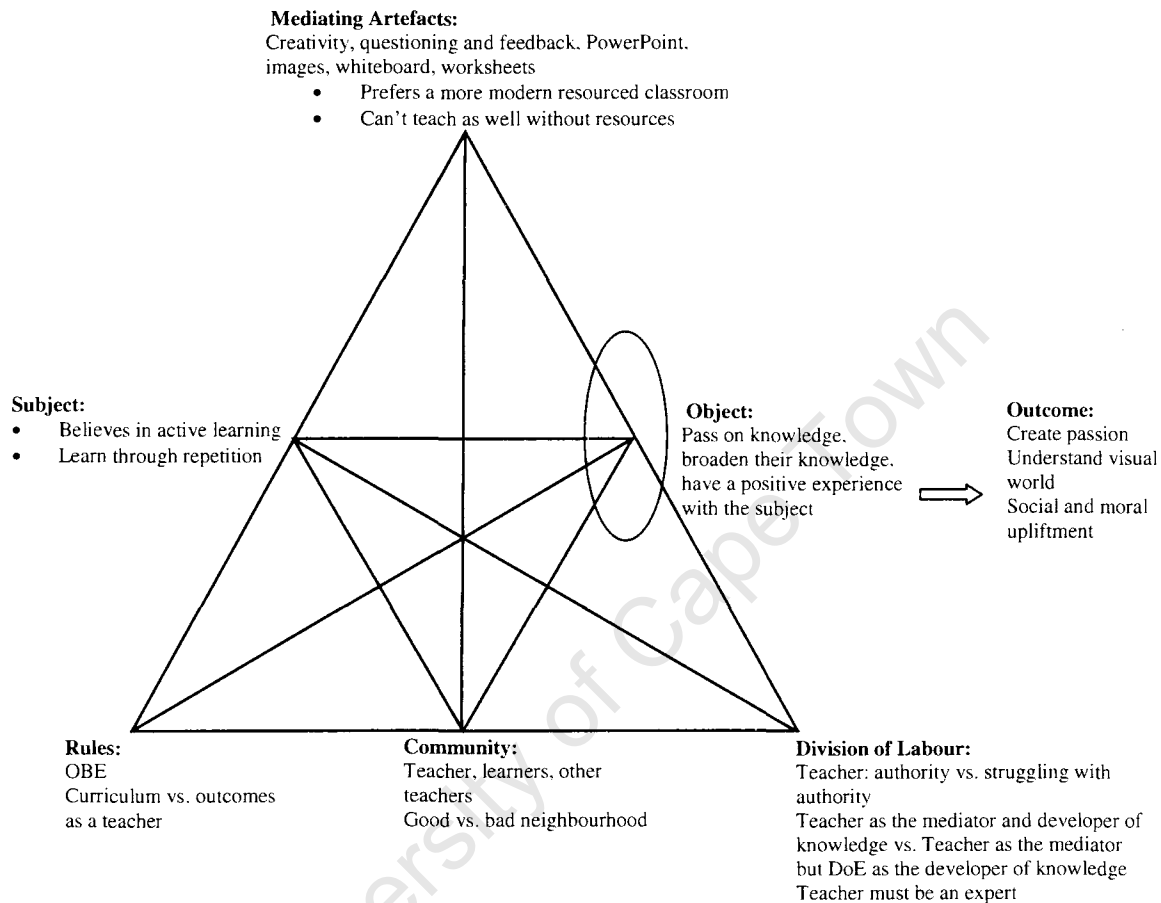
**Activity System 1: Charlotte: Pre-service English and History Teacher (Appendix 3.1)**



In figure 7 (above) we can see this pre-service teacher perceives that learning needs to be active and it needs to draw on the individual learner's experience. There are a number of primary contradictions. Within rules there is a contradiction as to whether or not teachers understand OBE, this pre-service teacher does not believe that it is necessary to follow OBE in order to be a good teacher in South Africa. The contradiction arises because the pre-service teacher will be expected to implement OBE in her teaching. She also perceives that not all schools in South Africa understand or accept OBE. There is a contradiction in the object as to whether the focus of teaching and learning should be in order to pass the exams or whether it should be about learning and enjoyment. That is, there is a contradiction between curriculum coverage versus deep learning. This pre-service teacher believes that the multiple roles expected of the teacher are too demanding and that the teacher needs to be in an authority role in order to teach. This teacher perceives that certain issues are worse in certain neighbourhoods: she perceives a difference between "good" and "bad" environments.

**Figure 8: Activity System 2: Kate**

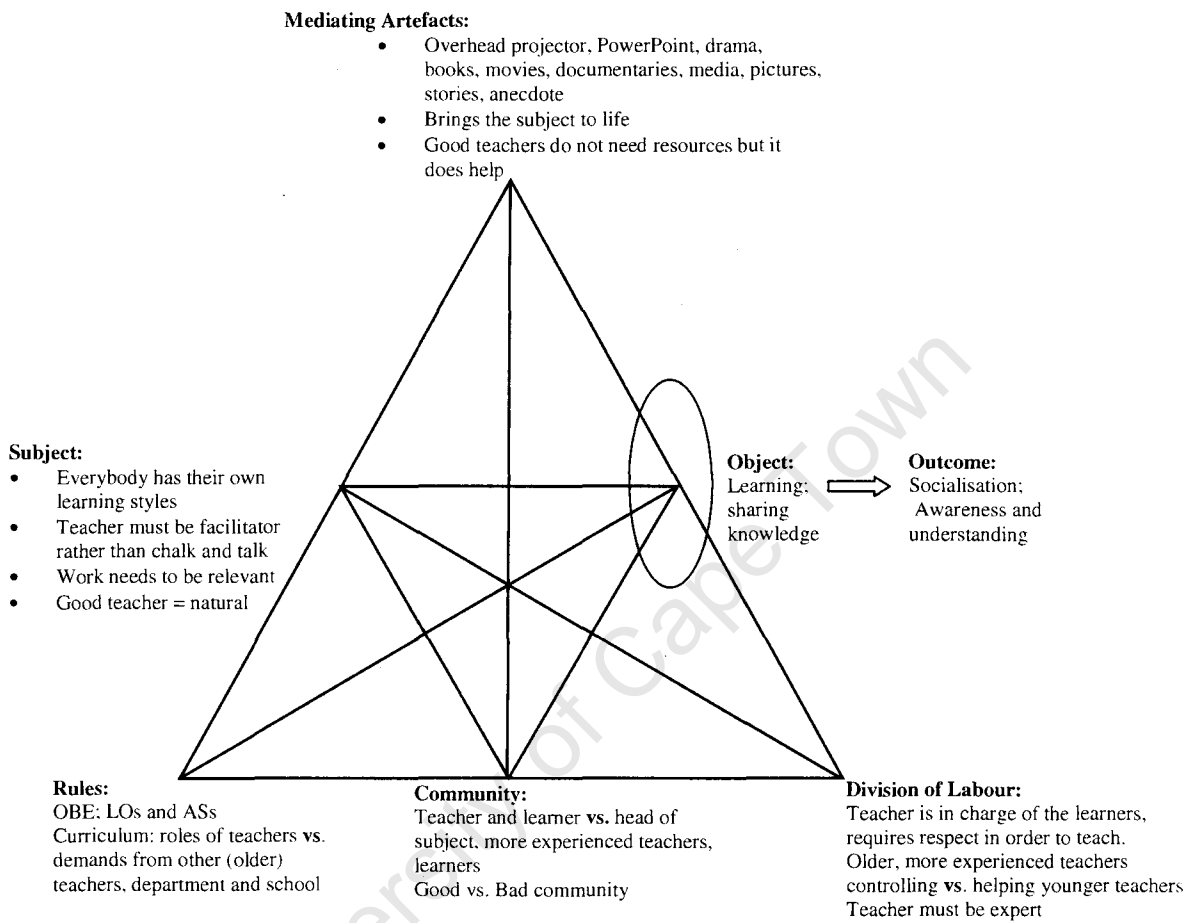
**Activity System 2: Kate: Pre-service Art and Design Teacher (Appendix 3.2)**



In Figure 8 (above) the pre-service teacher perceives that learning needs to be active. There is a contradiction in the rules where she perceives there is a contradiction between what is expected by the teacher and what is expected by the curriculum. Within division of labour there are a number of issues. She perceives the teacher needs to be the authority, and the expert, in the classroom but that teachers often struggle with this. She also perceives that teachers struggle with professionalism, that they are not recognised as developers of knowledge. She perceives that there are certain neighbourhoods and environments that exacerbate certain issues and perceives a difference between “good” and “bad” neighbourhoods.

**Figure 9: Activity System 3: Lisa**

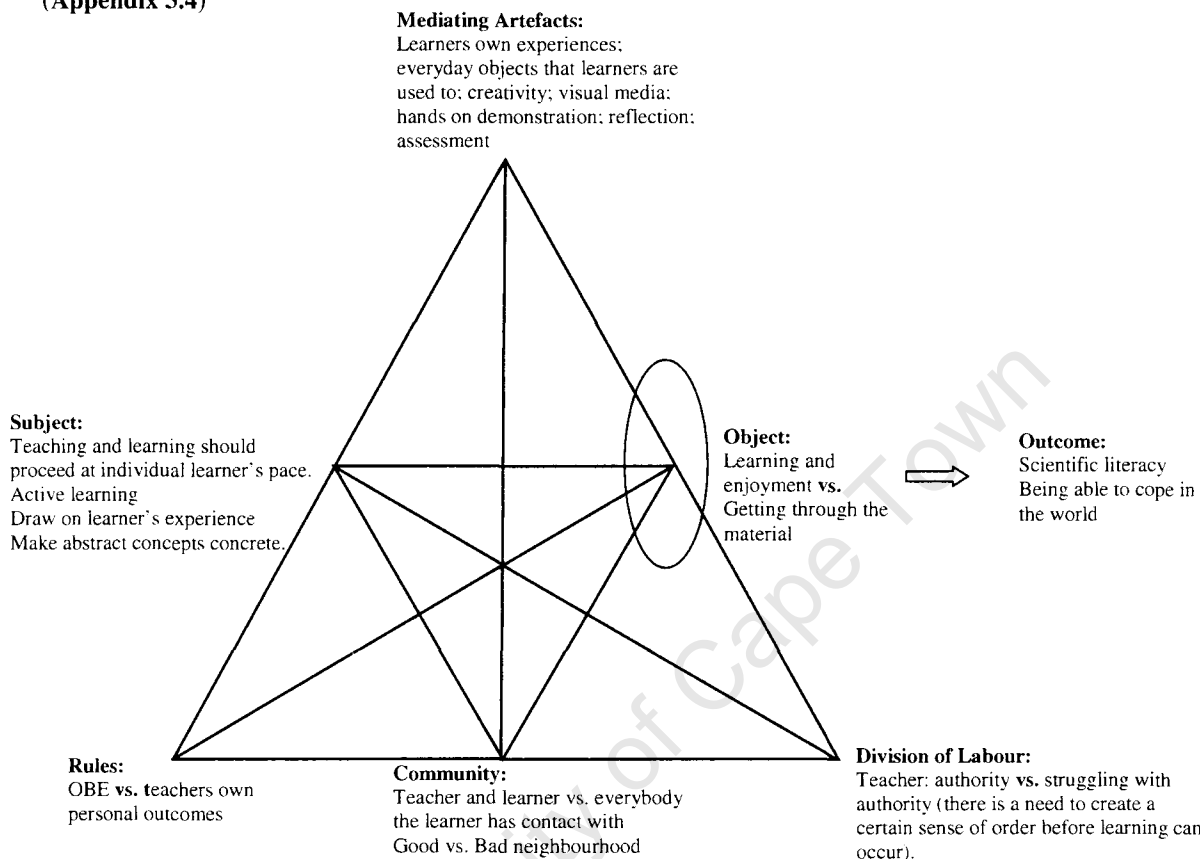
**Activity System 3: Lisa: Pre-service History Teacher (Appendix 3.3)**



In Figure 9 (above) we can see that the pre-service teacher perceives learning is individual and the work needs to be relevant. She perceives that good teaching comes naturally. Within rules there is a contradiction between what is expected by the curriculum and what is expected from some schools and departments. She perceives older, more experienced teachers limit the options of newer teachers creating an authoritarian relationship. She perceives that there is a need for the teacher to be in control in the classroom and the teacher needs to be an expert in order to teach. She perceives that in certain communities certain issues are exacerbated, she perceives a difference between “good” and “bad” communities.

**Figure 10: Activity System 4: Mike**

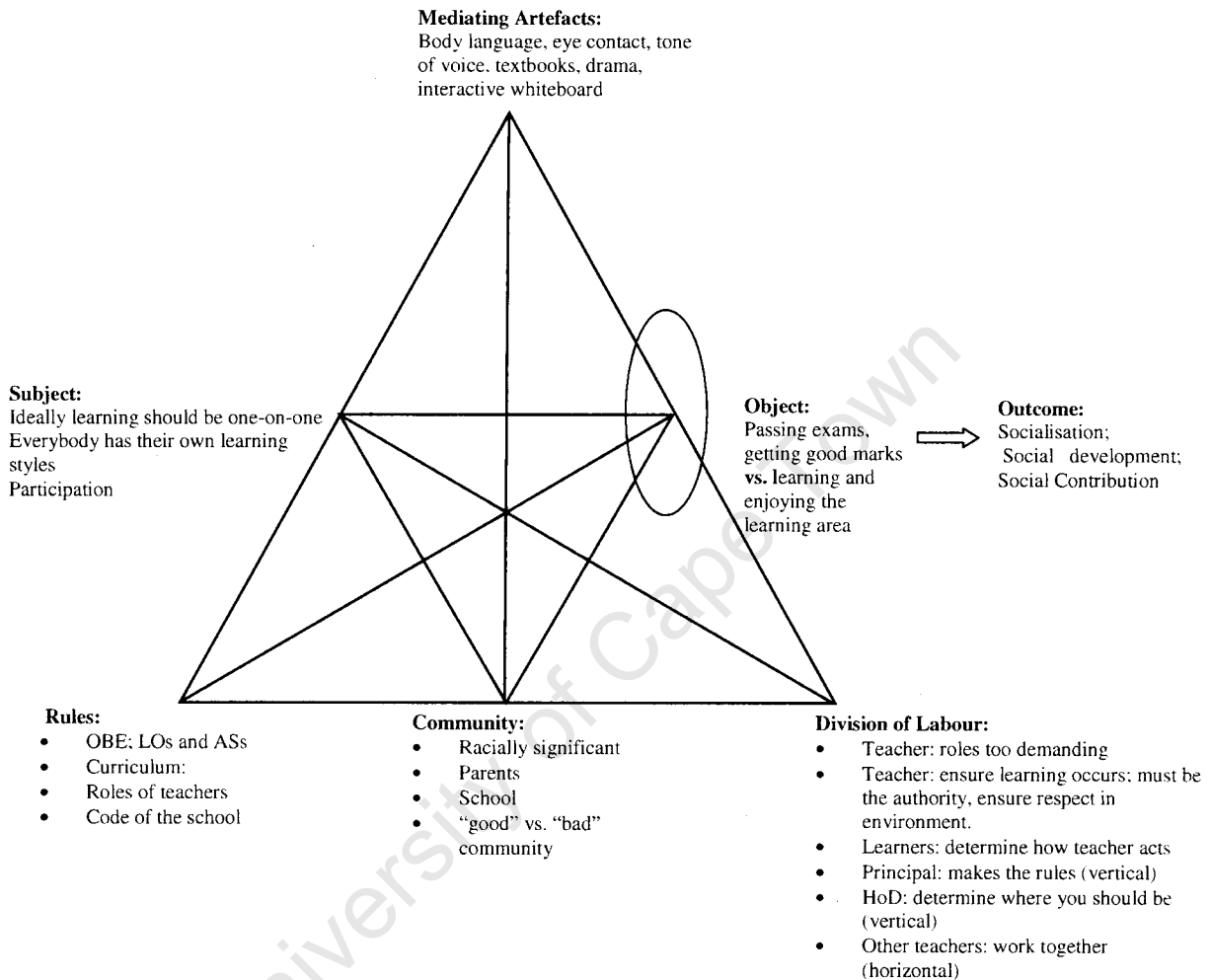
**Activity System 4: Mike: Pre-service Natural Science, Physical Science, Biology and Maths Teacher (Appendix 3.4)**



In Figure 10 (above) we can see that the pre-service teacher perceives learning should proceed at an individual's pace and should take individual experiences into account. He perceives learning should be active. There is a contradiction in the object between whether teaching and learning should focus on getting through the prescribed material or whether it should be about learning and enjoyment. So again, here we see the contradiction between curriculum coverage versus deep learning seen in the first activity system. The pre-service teacher perceives that the teacher's personal outcomes are not always the same as the curriculum's outcomes (OBE). He perceives that it is necessary for a teacher to gain authority and order before learning can occur. There is a perception that certain communities exacerbate certain issues, he perceives a difference between "good" and "bad communities."

Figure 11: Activity System 5: Carl

Activity System 5: Carl: Pre-service History Teacher (Appendix 3.5)

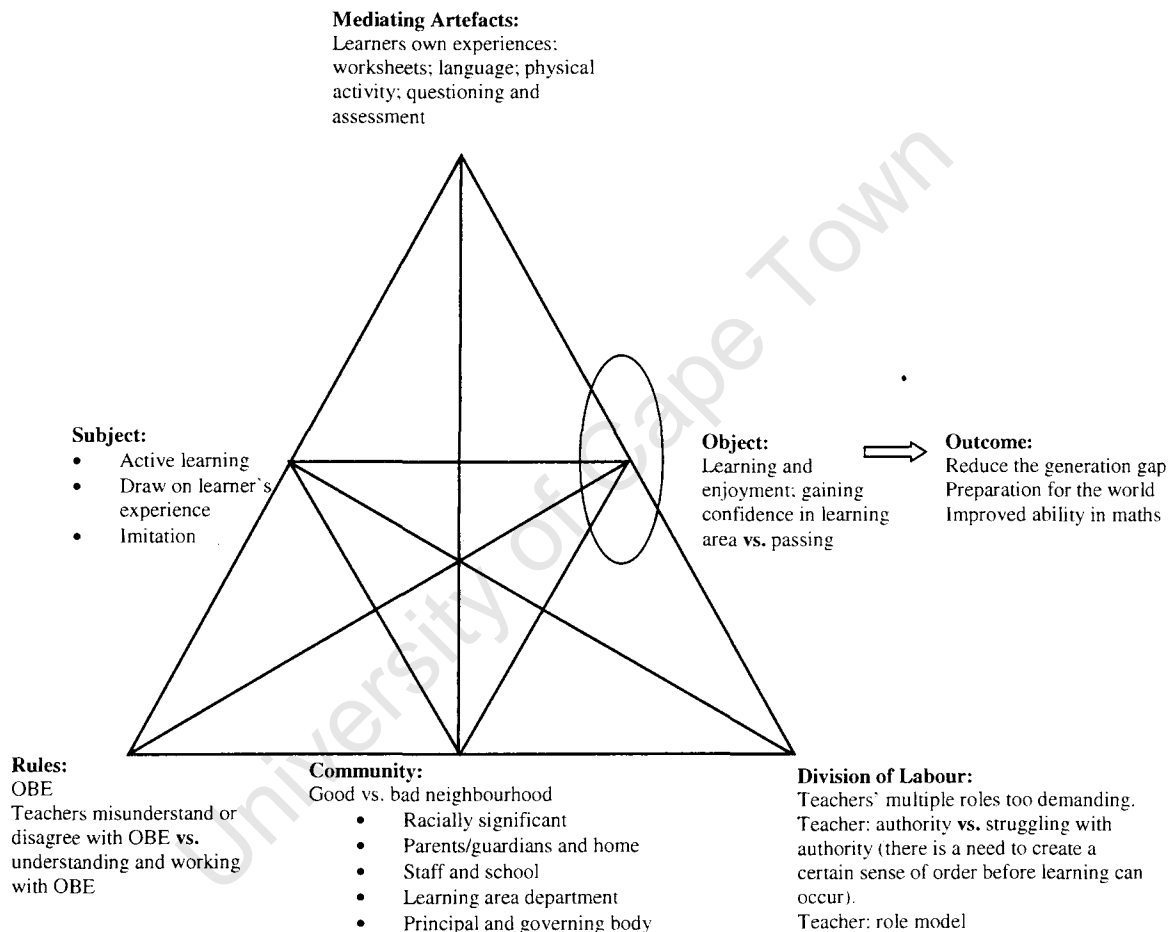


In Figure 11 (above) we can see the pre-service teacher perceives learning should ideally be individual as everybody has their own learning styles. There is a contradiction in the object as to whether teaching and learning should focus on passing the exams and getting good marks or whether it should focus on learning and enjoying the learning area. Once again, then, we see the prevailing contradiction pre-service teachers face is between curriculum coverage and deep learning. He perceives the roles expected of the teacher are too demanding and that in order to teach a teacher needs to be the authority and demand respect in the learning environment. He perceives a vertical relationship between the teacher and the head of department as well as the principal, there is an authority relationship here. This pre-service teacher perceives South Africa's classrooms as racially significant. He perceives that certain communities exacerbate

certain issues, the perception is that there is a difference between “good” and “bad” communities.

**Figure 12: Activity System: John**

**Activity System 6: John: Pre-service Maths, Life Science and Natural Science Teacher (Appendix 3.6)**



In Figure 12 (above) we can see the pre-service teacher perceives that teaching should draw on the learner's individual experience. There is a contradiction within the object as to whether teaching and learning should focus on learning and enjoyment or whether it should focus on passing the exams and the grade. Thus we see this familiar contradiction between curriculum coverage and deep learning that has been observed in other pre-service teachers' perceptual data. Within the rules there is a contradiction between teachers understanding and working with the curriculum and teachers misunderstanding or disagreeing with the curriculum. The pre-service

teacher perceives that teachers multiple roles are too demanding and that teachers need to create order and be an authority in the classroom before teaching and learning can occur. He perceives that South Africa's classrooms are racially significant. He perceives that certain issues will be exacerbated in certain communities: the perception is that there is a difference between "good" and "bad" communities.

## **5.2. Patterns of contradictions in pre-service teachers' perceptions about the process of teaching and learning in South Africa's classroom**

Above individual pre-service teacher's activity systems were identified. Contradictions in the individual activity systems were identified. This is the first step in the analysis and even in this initial process patterns of contradictions became visible. What follows now is an investigation into the patterns of contradictions across the various systems. The following three patterns of contradictions were found.

### **5.2.1. Pattern of Contradictions 1: What is the teacher's role?**

#### **5.2.1.1. Division of Labour: Teacher vs. Disciplinarian**

One of the most obvious contradictions within the teachers' perceptions is the role of the teacher: is the teacher there to instruct students in subject-content knowledge, or is the teacher's role one of regulation and management. This is a primary contradiction, occurring within a node of the system, rather than between two nodes. All of the pre-service teachers agreed that the teacher's role extends beyond the role of simply teaching and ensuring that learning happens.

#### **Extract 1.1.**

Mike: ... there is a lot more going on than just being a teacher.

(Mike interview, lines 276-277)

### **Extract 1.2.**

Kate: It's a lot more tricky than I thought... because there is a lot to consider. It's not just needing to know the information or needing to know how to present it. It's like a million people's personalities and problems and the other barriers like language. **So it's a million things to consider, even in the half hour lesson.**

(Kate interview, lines 362-365)

There were a number of roles outlined by the pre-service teachers that they perceived teachers take on in South African classrooms. There is also the perception that, particularly in South Africa, you may not only be the teacher of your learning area but of the language of instruction as well (especially when this language of instruction is English). This is due to the fact that many learners are learning a third or fourth language by the time they are in high school, and many of them have never been taught in their home language.

The South African government has stipulated seven roles that a teacher should take on (DoE, 1996). The pre-service teachers generally viewed this as being too demanding. There is the common theme that teachers' roles are too broad and the demands are too high.

### **Extract 1.4.**

John: I know that the policy talks about certain roles of that of the teacher but **I feel you can't adopt all these roles at the same time.**

(John interview, lines 356-358)

### **Extract 1.5.**

Carl: Well officially there are the seven roles by the government, which I can probably name two.

(Carl interview, lines 163-164)

A couple of the teachers had mixed emotions about this as they liked the fact that teachers could have a role that supports and helps others, but they were nervous about where their role started and where it ended.

### **Extract 1.6.**

Charlotte: **When does your role as a teacher stop? And I don't have an answer for you because I haven't decided myself.** And because I am so passionate about the power of teaching to create people who can contribute and who are passionate, I do think, and that's one of the main reasons I wanted to become a teacher, and why I do the subjects I do, because I think they create the space for discussions. And something that I also have to be aware of is that my moral values do not come across, you know. So I am not quite sure of all the roles, I am still thinking about that.

(Charlotte interview, lines 270-278)

There was also the perception that a teacher should only play certain roles: that taking on other roles oversteps the line and the teacher is no longer acting within her/his professional capacity.

### **Extract 1.7.**

John: I know that the policy talks about certain roles of that of the teacher but I feel you can't adopt all these roles at the same time. First of all the work load is tremendous and the time is very short and unless you talk to somebody after the lesson about the role of a **pastoral role or something that's not directly related to your field, you're crossing a line** where, I suppose older teachers would say you've crossed a line, maybe in the curriculum now or the policy saying you know you should be going a bit further than maybe a subject specialist. **But I feel that's very hard to do.**

(John interview, lines 356-365)

A role that was discussed by all of the pre-service teachers as playing a part in South Africa's classrooms is the role of disciplinarian and so I have used this role to analyse the contradictions present in the activity system due to the different roles that pre-service teachers perceive are involved in teaching.

Within the classroom environment the teacher is expected to teach and the learners are expected to learn. The power is placed with the teacher to control the pace and the selection of the lesson. The pre-service teachers' perception is that in situations where they had to take on the

disciplinarian role their control over the lesson may be at risk. A number of the pre-service teachers felt that this power struggle between the learners and the teachers could result in no learning taking place (as will be discussed further when looking at the contradictions in the object of this activity system). The creation of a space where there is respect and discipline was perceived to be necessary for learning to occur, but this is perceived to be a pre-requisite, not something that can happen at the same time. This goes in line with Hollingsworth (1989) argument that focusing on teaching and learning doesn't happen until a teacher is happy that he/she can manage a class. In the following extracts the pre-service teachers discuss the perception that the teacher needs to have the authority in a classroom situation in order for learning to occur; the authority needs to be created before the learning can happen.

#### **Extract 1.9.**

John: As I've observed, and I would like to be, (the teacher) is the person who **maintains the order such that everyone can speak**, that everyone is free to give a view that is not going to be laughed at and that once they have given a view I as a teacher must address it. (John interview, lines 324-327)

#### **Extract 1.10**

John: Unfortunately though the classes that I taught were **pretty disruptive in the way that there wasn't enough time for them to engage in themselves in a way.** (John interview, lines 593-595)

In the above extracts (1.9 and 1.10) the pre-service teacher experienced an environment where he perceived learning did not happen because the lessons were too "*disruptive*". In order for learning to occur the perception is that order must be created and maintained.

#### **Extract 1.11**

Mike: ... depending on the school you are in, (you may be) **trying to set up an environment that is going to be conducive to learning...** (Mike interview, lines 149-151).

Similarly, extract 1.11 shows the perception that a certain type of environment needs to be in place before learning can occur. The perception is that this environment should be one of discipline and order.

#### **Extract 1.12**

Lisa: Well, I think the students need to have some sort of respect and some sort of confidence and they need to know your boundaries and (.) you know, and understand that you are the teacher and they are the student, even though you may take a back seat sometimes, you still have that, that **position as teacher**. (Lisa interview lines 268-272)

#### **Extract 1.13**

Lisa: And I think that **if kids have your respect and they know your boundaries, or have respect for you, rather, you can really have a successful teaching environment**. (Lisa interview lines 283-285)

#### **Extract 1.14**

Charlotte: I think that **voice of authority** is important; I think it does have a place. (Charlotte interview, lines 61-62)

#### **Extract 1.15**

Kate: ...and then the children get out of hand and you have to step up to the **power role, just keeping them in check and saying this is actually a classroom situation...** (Kate interview, lines 204-206)

Extract 1.12 to 1.15 discuss the authority and power of the teacher as being important, as being a prerequisite to a successful teaching environment.

The above extracts show that the perception is that the teacher needs to have the authority in a classroom situation in order for learning to occur. There is a contradiction in the division of labour in relation to the teacher's power. On the one hand, the teacher is supposed to focus on learners and encourage pedagogy that is not overtly asymmetrical, yet on the other hand, disciplinary issues force the teacher to adopt an extreme asymmetrical relation towards learners.

OBE, as has been discussed in earlier chapter, focuses on teacher's roles as facilitators of knowledge who guide students rather than disciplinarians who curtail learners' actions and thinking in a bid to manage the lesson. So there is a contradiction between whether the teacher is the authority and is able to focus on teaching and whether the teacher is struggling with authority and has to focus on discipline and control.

One pre-service teacher expressed the issue that being a disciplinarian went against who he was as a person, he found it difficult to achieve and it frustrated him that he perceived he had to take on that role:

**Extract 1.8.**

John: I see that I'll have to do a lot more talking to established teachers, observing the teachers as well I think, to get **that kind of authority, that kind of presence that's needed**, but on the other hand **I want to reach the learners with my own personality.**

(John interview, lines 290-294)

As has been illustrated in previous extracts, the pre-service teachers have the perception that in order to teach and ensure learning they have to be an authority role in the learning environment and they have to have created and be able to maintain some kind of order and discipline. The perception is that this sort of environment has to be created before teaching and learning can really take place. The contradiction in this role lies in whether or not they are able to focus on teaching and learning because the right sort of environment has been created – or is simply there as it is perceived to be in a “good” neighbourhood (as will be discussed in the community contradiction). If the right environment is not there then the teacher needs to be taking on another role in order to create that environment, as opposed to the role of educator focusing on learning, the teacher takes on the role of disciplinarian where the object changes from learning to discipline and creating order; that is, power shifts from more symmetrical to more asymmetrical. It is important to remember that when there is a different object there is a different activity system. Therefore if the object is discipline and creating order there will be a different activity system to if the object is learning.

### 5.2.1.2. Object: Learning vs. Discipline and Creating Order

The contradiction in the object lies in the fact that if the teacher is no longer able to focus on teaching the learning area, due to the fact that they need to enforce discipline and obtain authority in their classroom so as to be able to teach (as was discussed in division of labour), then learning is no longer happening. The pre-service teachers' perception was that when taking on other roles, not simply the role of a teacher and facilitator of knowledge, learning could be halted and the object of the activity system would be different. If there is a different object then there is a different activity system.

As one pre-service teacher expressed:

#### **Extract 1.16**

Kate: ...but a lot of the time it (the disciplinarian approach) makes a lot of the children feel very **insecure and useless, it doesn't bring out the best in the them.** (Kate interview, lines 14-15)

And later on in the interview the same pre-service teacher picked up this idea again:

#### **Extract 1.17**

Kate: If somebody is feeling insecure in your class and scared the whole time... there is **no way they are going to take in anything** you have to say that whole lesson. (Kate interview, lines 120-123)

The perception is that when the teacher is taking on the role of the disciplinarian there is not much learning taking place in the classroom. Kate perceives this to be because the learners feel vulnerable.

One pre-service teacher acknowledged that teachers take on the role of the disciplinarian but perceived this as being a problem in the context of classrooms as learning does not happen as it should, learners are not encouraged to take control of their own learning.

### **Extract 1.18**

John: It's very hard when the learners say you know it's the teacher's job to keep the order when the teacher is trying to instil a sense of self-discipline in the children where they take responsibility for their own actions. **It's very hard to lay down the law when that is exactly opposite of what you're trying to make them do for themselves.** So there's another role of **taking yourself, the teacher, out of the being the big fists and get the learners to take ownership of their own learning because that's not the teachers role.** (John interview, lines 348-355)

As was discussed in division of labour, the pre-service teachers feel that they need to ensure discipline before teaching and learning can happen, they do not happen at the same time. They believe that when the teacher is taking on the role as disciplinarian, learning is no longer happening. The object then is simply creating discipline and order and maintaining control over the classroom. Such a regulative object is obviously not conducive to optimal learning.

#### **5.2.1.3. Community: "Good" Community vs. "Bad" Community**

The pre-service teachers' perceptions as to whether or not they could fulfil the seven roles stipulated in curriculum documents, and particularly deal with discipline within a classroom environment, were closely linked to their perceptions about the community and whether the school was in a good community or in a bad community. The contradiction lies in the "good" community vs. the "bad" community, as will be discussed further. Although there are contradictions in the other nodes that are perceived to be there in all teaching environments (as has been discussed), the perception is that in a "bad" environment these contradictions will be greater.

This secondary contradiction lies between division of labour and the community. The perception is that in a "bad" community learning may not occur as there is too much else to deal with and the teacher's role will be one of disciplinarian, rather than instructor. The community relates to a number of aspects: the school, the parents, the neighbourhood, the learning area department. As one pre-service teacher stated:

### **Extract 1.19**

Mike: ...**social aspects**, um, dealing with **violence**, dealing with issues like **AIDS, drugs**, um, it's kind of a scary world that a lot of students are growing up with, especially in some cities in Cape Town and Johannesburg. **And those are big problems for teachers. It definitely influences the way that your classroom operates.** (Mike interview, lines 234-239)

At a later stage in the interview the same pre-service teacher picked up this idea again:

### **Extract 1.20**

Mike: **Teaching and learning does not just take place in the classroom context.** I think anyone who has any type of contact with a child is going to have the opportunity to provide an experience that has the opportunity to remould the existing frame of knowledge. I think the biggest role is parents, siblings, people who are in contact with the students in the home setting, as well as in the community. I think it also branches out, not only the people the student has had contact with during the day but it also goes all the way up to government, to the people that have designed the legislation and decided the particular objectives about what students should be, what they are learning in the classrooms. They have a role in this as well, ultimately they are defining what type of citizens they want to have. And I guess people who students see on a day to day basis, role models such as people on TV, in the newspapers, **everyone has a role to play.** (Mike interview, lines 396-410)

These pre-service teachers have the perception that discipline issues in some schools in South Africa have meant that teaching is seldom able to take place as the teachers are predominantly taking on the role of disciplinarian as opposed to facilitator of learning. The perception from most of the pre-service teachers was that this was an issue in only some schools, particularly schools in lower socio-economic brackets or previously disadvantaged areas. The situation may be due to deeper issues, for example South Africa's history; however, whatever the cause, the teachers still perceive the issue of discipline in certain communities as potentially threatening to

teaching and learning. The contradiction then lies in whether one is teaching in what is perceived to be a good school or whether one is teaching in what is perceived to be a bad school. If one is teaching in what is perceived to be a bad school the perception is that learning cannot take place as it should, or as it would if one was teaching in what was perceived to be a good school. This perception is illustrated in the following extracts:

### **Extract 1.21**

Interviewer: Do you feel you can achieve this in South Africa's classrooms today?

Lisa: If you are in a **private school**, yes. Or if you are in an **upper middle-class to upper class government school**, ja.

(Lisa interview, lines 167-169)

Another pre-service teacher shared this perception:

### **Extract 1.22**

Kate: Um (.) I don't think I could do it in all classrooms. (Kate interview, line 149)

The pre-service teachers had the perception that these learning vs. discipline issues did not only relate to what was happening inside the classroom, but also to what the learners were dealing with outside of the classroom, and the kind of baggage they were bringing into the classroom. The contradiction lies in the "good" community vs. the "bad" community. The perception is that the outcome (learning) may not be achieved in a "bad" community due to factors found within a "bad" community. There were a number of factors within the community that the pre-service teachers perceived to influence whether or not teaching and learning could take place within the classroom. The following extracts illustrate some of these issues:

### **Extract 1.23**

Lisa: ... the problem with the lower class schools is that, well I haven't taught in a B-school so I don't know, it's just hearsay on my part. Um (.) the problem is first of all **lack of teachers**, the teachers are just not there um, so the kids are often, you are getting nineteen year olds in your class, that kind of thing. Working in the townships, **incredibly**

**unsafe.** I mean I think last week two students were shot, didn't even make headlines. And like, ja, it's just an everyday occurrence, **gang violence**, all of that kind of thing. Discipline is obviously therefore a huge problem because the kids, **the children in those classrooms, their priority is not school...** (Lisa interview, lines 171-180)

Extract 1.23 points to the issue of violence that is perceived to be an issue in certain communities in South Africa. The perception is that a more violent community will result in more discipline issues within the classroom. The teacher will therefore need to take on the disciplinarian role more than the teaching role (as was discussed in the contradiction in Division of Labour).

Another issue related to South Africa's history of apartheid and whether or not the learners were able to look past the racial categorisations and the limitations that their parents had to deal with. The perception is that the learners are disrespectful because they do not trust the system to provide them with a fair chance, as is illustrated through extract 1.24:

#### **Extract 1.24**

John: ...the students are very disrespectful of teachers and quite, not mistrustful with teachers, **but mistrustful of this system as such that for some perceive that they're not going to be able to go beyond their race labels in this generation and because they're parents saw life in a certain way they are limited to their parents views...** (John interview, lines 265-269)

Related to this issue is the issue of teachers feeling as if they will not be accepted by certain communities due to the fact that they are a different "cultural" or "racial" group:

#### **Extract 1.25**

Interviewer: Ok (.) Do you feel you can achieve this in South Africa's classrooms?

Carl: (.) I have no idea.

Interviewer: Ok. (.)

Carl: Yeah. I don't know if there will be the resources (.) It obviously depends on where you are at, there is no such thing as a "South African classroom" just because it is so

diverse, School D is nothing like School E, you know. Yeah, so it would be school dependent.

Interviewer: Why?

Carl: Because, **I mean there are some schools, being white, where if I went into, I don't know, you know, if I'd live to see the end of the day.** You just from what I hear there are some pretty rough schools out there. And also there are **outside factors**, beyond the teacher, that affect learning. So if you are teaching at a place where, you know, 80% of the population has AIDS, then, you know, some of them will be orphans, **you know you try and inspire them, some of them are probably just not going to care, you know, possibly.**

(Carl interview, lines 146-161)

Another pre-service teacher stated:

#### **Extract 1.26**

Lisa: So it's quite difficult for me coming from a **completely different culture** in a way.  
(Lisa interview, lines 200-201)

The perceived lack of acceptance, as illustrated in the above extracts, will impact the teacher's ability to be the role of authority in the classroom.

There is also the perception that it is not only the wider community that impacts the learner's discipline, the home and family life also influences their behaviour and how they view education, whether they see it as important or not and whether they respect their teacher's authority to teach:

#### **Extract 1.27**

Charlotte: ...and you are coming to stand as an authority. I think a lot of the **family, or home situation**, that informs the understanding of that role, or the importance of the teacher's job has a lot to do with it because if there is **no respect I think you struggle a**

**lot with that learning process. Then you spend your time on discipline issues** so I think the family has a huge (impact). (Charlotte interview, lines 470-475)

The perception is also that if the parents or the guardians show a positive attitude and commitment towards school and education then the learning process can be assisted.

#### **Extract 1.28**

Charlotte: One of your saving graces is to have a stable kind of **family structure who places that emphasis on education**, no you don't need to go with the gangs to earn money, which I won't pretend to say I think is right or wrong because I don't understand their circumstances but, to place importance on education and things, helping them, allocating time. And also being there when you need them to help you to help their child, so come to the PTA meetings, if there is a problem to learn as much as they can. **I think that attitude definitely impacts on the learner as to how they value learning and if they think it's important or not.** (Charlotte interview, lines 476-485)

The learner's peers and friends are also perceived to influence discipline issues in the classroom.

#### **Extract 1.29**

Mike: Well I think in situations where you have students who are role models for other students, **either positive role models or negative role models**, depending on them. There is a whole dynamic that you have to be aware of that is happening in the classroom, the way people are acting. Because that can have a very **large impact on how your classroom is going to be operating, and how your learners feel.** (Mike interview, lines 297-303)

One pre-service teacher shared a sad story about the negative value of achievement in education amongst the learners at a school where she did her first teaching practice:

#### **Extract 1.30**

Charlotte: As an example, you had at one of the schools a learner came and up and they had done the best in Science and they were **laughed at by the rest of the school as being such a loser.** Another school, the attitude is so different at that school in terms of

achievement, it was so wonderful, people were so appreciative in terms of that, and just generally there was great emphasis on learning. **So it's the environment of the school.** And it should have been the place of that principal to say there is no way that you will ever do that again, but that situation just passed and my heart broke for that child, it is something to be so proud of. So I think the general **attitude towards achievement in learning, that attitude informs a lot of your feelings and how involved in it you do get.** (Charlotte interview, lines 496-507)

Within this story there is no particular culprit. The learners could have been influenced by their parents, their peers, the teachers, the principal, the economic or social environment, or perhaps all of the above. It is not within the scope of this paper to analyse where this comes from, however, it does create a cycle of negativity towards education and academic achievement, which in turn will impact the motivation of the learners to achieve. The teachers then have to engage with this negativity within the classroom environment and learning is affected.

The community – consisting of the neighbourhood, the family or home environment and the peers that the learner relates to – impacts discipline and behavioural issues in the classroom and can lead to a serious contradiction arising between the community and division of labour as enacted in teachers roles. This community can either assist or hinder discipline issues and whether or not the teacher is able to teach in order for learning to take place (a “good” community), or whether the teacher has to focus on being a disciplinarian and gaining respect and authority (a “bad” community) instead of teaching. The contradiction lies between the community and division of labour. Where a community is “good” (affirming, supportive and involved in the school) the teacher is more likely to not have to adopt a disciplinarian role and can adopt the role of teacher/instructor. Where a community is “bad” (plagued by violence and gangs and where parents are not involved in their children’s learning) the teacher is forced into a more disciplinarian role. This of course has an impact on the object of teaching in these different communities. The perception is that the object of learning cannot be achieved in a “bad” community due to factors found within that community. The perception is that the community one teaches in is closely linked to the role that one has to take as a teacher, and to the other nodes within the activity system. Although the contradictions in the other nodes may be seen in all

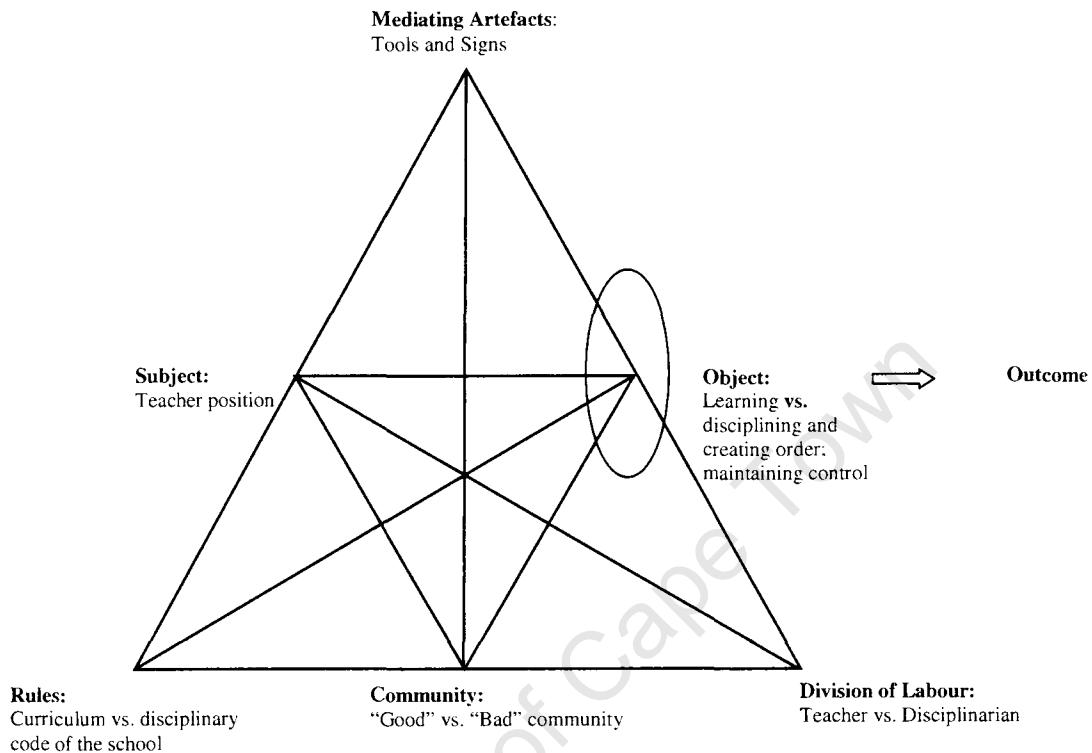
teaching environments, the perception is that in a bad community these contradictions will be greater.

#### **5.2.1.4. Rules: South Africa's National Curriculum, OBE vs. The school's disciplinary code**

Depending on whether the teacher is teaching about the learning area in order for the learners to learn more about it or disciplining in order to ensure that the learners are behaving, the rules in the activity system will shift. Teachers who are struggling with authority in the classroom and perceive that learning cannot occur are likely to refer to the disciplinary code of the school and the laws and expectations of society in order to try and remedy the situation and create the desired environment. The rules created by the learning material, the South African Curriculum and Outcomes Based Education will be put on hold while the rules relating to discipline are dealt with. For example, if the South African Curriculum calls for debate and discussion around a certain issue, but the teacher does not feel like there is enough discipline in the class to allow open debate, the Curriculum rules will be put aside until the teacher feels the classroom environment is conducive to learning. The contradiction then lies in whether one follows the OBE rules or the rules of the school, which may often differ from those set out in the OBE documents.

The contradictions that lie within this activity system are illustrated in Figure 13.

**Figure 13: Pattern of Contradictions 1: What is the role of the teacher?**



### 5.2.2. Pattern of Contradictions 2: What should the aim of teaching be?

Another contradiction that was common across the pre-service teachers is what the aim of teaching should be. Again there were a number of perceptions about the aim of teaching, or the object, that came out of the interview.

What was common across the pre-service teachers is the question of whether you are teaching to ensure that the learners pass their exams or whether you are teaching in order for learning to take place. When there is a different object there is a different activity system. Therefore when we see the contradiction in the object there are contradictions in the other nodes too. I will therefore first discuss the contradiction in the object and then go on to discuss how this creates contradictions in the other nodes too.

### 5.2.2.1. Object: learning vs. passing exams

The contradiction in the object lies in whether teaching is about covering the learning area material or whether it is about real learning. Should the outcome be getting through the material provided to the teacher by the Department of Education in order to ensure the learners pass their final exams, or is it simply about learning to acquire knowledge and skills?

#### Extract 2.1

Mike: And I think that a lot of times teachers are **focusing on how am I going to get through the material, how am I going to get through this?** And I think that it is such a terrible way to look at teaching. You have got to look at each lesson as an opportunity to get something across, as an opportunity to (.) for the **students to be able to grow. And you've got to come up with a method to be able to ensure that learning is going to take place in that classroom.** (Mike interview, lines 123-130)

#### Extract 2.2

Charlotte: ... **we don't have the luxury of time to do that** (place every assessment in a real life situation) with everything, sometimes there will just be a basic test to see whether you know what's going to be in the exams, **you have to (prepare the learners) for the exams.** (Charlotte interview, lines 145-148)

In extract 2.1 the pre-service teacher discusses how teaching should simply be about learning and growth, however in extract 2.2 the pre-service teacher discusses how time issues impact what one is able to achieve in the classroom. The reality is the learners have exams they need to pass and the teachers need to prepare the learners for these exams. It is a common perception that time restrictions seriously limit the teaching and learning that can take place in the classroom. If the aim is simply to ensure that the class passes the final exams then the teacher may resort to tricks and not aim to reach a genuine level of understanding and learning with the learners. The difference between knowing and understanding was expressed by the pre-service teachers, as is illustrated in the following extract:

### **Extract 2.3**

Charlotte: So then they will always **hopefully understand why they are doing something as opposed to just maybe knowing how to...** if they know why they are doing something, they often get through the more difficult subjects than those who know what to do but they don't know why. I think if you can try and relate that back to things that they already do understand, your basic principles, then I think that is a good way to help them learn. (Charlotte interview, lines 17-22)

There was also the perception that the learners responded better if the material was not simply being taught for exams. One pre-service teacher expressed the perception that the learners react to the material in different ways depending on the aim of teaching. When the aim is to pass the exams the learners react differently to when the aim is simply about learning.

### **Extract 2.4**

Charlotte: Where they can just talk to each other about why they like this poem, **it's not for exams, they can just enjoy it.** That works really well because when you do something, we are going to do this, they approach it in a whole different way. (.) To create that enjoyment I think. (Charlotte interview, lines 198-202)

The perception is that if the learning has to do with exams the learners are not as positive about learning and do not enjoy it as much as when they are learning simply for learning sake.

#### **5.2.2.2. Rules: outcomes of the teacher vs. outcomes of the South African Curriculum**

The contradiction in the rules lies in whether the teachers follows the South African Curriculum and aims to achieve those outcomes or whether they aim to achieve and teach to their own outcomes. There was a common perception amongst the pre-service teachers that following Outcomes Based Education and the South African Curriculum did not necessarily result in good teaching. Learning was not necessarily dependent on whether or not the curriculum was adhered to.

### Extract 2.5

Kate: The teachers actually know their subjects thoroughly and they will always reach those outcomes no matter what. I just believe that because I have seen it done. **There are teachers who don't, they know the basic curriculum, they don't really care about OBE, they will always get amazing results, just because they are good, that's just the way it is.** (Kate interview, lines 309-313)

### Extract 2.6

Kate: But the whole system in general, I don't know if I'll stick to it religiously. I think (.) I don't know. **I think I'm a competent teacher and I will do well no matter what, no matter what system I choose. I mean I'll reach the outcomes whether it's the way they expect it done or not.** (Kate interview, lines 316-320)

### Extract 2.7

Charlotte: "...how do we measure whether something is working, you know because maybe it works but are you then sending these kids, like I said that is my aim, do you send these kinds of learners out? So (.) but I do think (.) I want to say that I think it's (OBE) a good thing in the hands of a good teacher. But I think that anything is, when I look back at some of the teachers I've been observing, **those good teachers have always been good teachers**, and the good things about OBE have always been inherent in their teaching practices. You know whether that be the space and discussion, getting the kids involved. They will always be good teachers because they have developed that, being focused on the learner. (Charlotte interview, lines 429-439)

A good teacher is perceived to be good with or without the curriculum guidelines and it is perceived that the teacher's outcomes and aims may be better than the curriculum's outcomes and aims. However, the reality is that teaching in South Africa requires learners to pass exams set by the Department of Education. Success in education is directly related to what learners achieve in these exams. This means that teachers will have to teach according to the curriculum's outcomes and aims in order for the teaching to be viewed as a success. The teachers and the

curriculum may have different objectives altogether, which objective is then the priority? The answer to this question will directly relate to what the outcome of teaching should be – should it be learning what the teacher believes should be taught in a particular class, or should it be passing the exams set on the curriculum?

### **Extract 2.8**

Mike: Any time that you are teaching a class, you have outcomes that you want to achieve in that class... Outcomes Education, **the outcomes that you want to achieve have been designed for you by the curriculum, but you also have outcomes as a teacher that you've listed that you want to achieve with that particular class.** (Mike interview, lines 371-379)

This pre-service teacher differentiates between the outcomes a teacher has in a specific class and the outcomes that the curriculum defines for the teacher to achieve in a specific class.

When asked what would be dealt with during lessons some of the pre-service teachers did not mention the Learning Outcomes and Assessment Standards. One went so far as to say the following:

### **Extract 2.9**

Kate: Basically I think it would be from **my own interpretation of what is necessary and what will be the most beneficial for them to know.** So it would come from me in a lot of ways, but I think a few research assignments where they can choose something else of their own interest could be quite a good idea, especially at grade 10, 11 and 12. (Kate interview, lines 103-108)

Is the teacher teaching in order to ensure the learners learn, so they can focus on their own outcomes and aims within a certain learning area, or is the teacher teaching in order to simply ensure that the learner passes the exams set by the department?

### **5.2.2.3. Community: teacher and learner vs. teacher, learners, principal, learning area department, Department of Education etc.**

The contradiction here relates to the question of who is actually involved in the teaching and learning in a specific classroom. The outcomes of teaching and learning will be dependent on who is involved in the process and what their aims are. In other words, if it is solely the teacher involved in the process then it will solely be the teacher who decides on what is being taught, how it is taught and how it will be assessed. However, if there are others involved in the process of teaching and learning in the classroom then the decision will not solely be that of the teacher as to what the outcome should be. There seems to be a contradiction in the pre-service teachers' perceptions as to whether it is only the teacher and the learners or whether there are others involved in the teaching and learning process. If there are others involved this will impact the final outcome of teaching.

Predominantly the pre-service teachers perceived that it was not just themselves, as the teacher, and the learners involved, but that there were others involved in the process of teaching and learning too:

#### **Extract 2.10**

Interviewer: Who else in the school is involved in teaching in your classroom?

Mike: **Everybody, absolutely everybody.** Right up from the principal to the policies that are being developed outside of the school - that has an impact on the classroom. And you know hopefully, depending on the principal, they would be in there as well. Other teachers... Every staff member who's there, you know supporting staff, maintenance staff, they are playing role in the classroom from the standpoint that they are acting as models for the students. (.) And the students themselves ultimately.

(Mike interview, lines 332-342)

However when the same pre-service teacher was asked whether or not he could achieve what he hoped to achieve through teaching in South Africa's classrooms the response proved quite different:

### **Extract 2.11**

Mike: Yeah, yeah, absolutely. (.) Um, again, are you able to take an entire school and turn it into a school that's functioning, um, extremely well, where students are gaining what they should be out of the school? **I don't know that, but you do have control over your individual class.** (Mike interview, lines 219-223)

The pre-service teacher expressed the perception in extract 2.10 that everybody is involved in the teaching and learning in the classroom. This would mean that it is not solely the teacher that decides the outcome and what should be worked on during the class. If there are so many others involved in the teaching and learning within your classroom do you really have "control over your class" and what they are learning? This will be discussed further looking at the pre-service teachers perceptions a little closer.

Another pre-service teacher expressed the following:

### **Extract 2.12**

Charlotte: ...but at the end of the day **when you closed that door to your classroom, and it became your space** and the learners knew if they could trust you as well and brought their (ideas). (Charlotte interview, lines 245-248)

However when asked later on in the interview whether there are others involved in the process of teaching and learning in the classroom the pre-service teacher stated that the following people were: any of the other teachers, the subject head, the principal and the school, the parents or the care givers, the family or home situation, friends and social pressure.

Another pre-service teacher expressed the perception that within certain schools what teachers do in their classrooms is more closely monitored than at other schools:

### Extract 2.13

Lisa: ...and at School A they said “do what you want”, **they basically gave me free reign which was so nice**. They let me kind of experiment with the kids. But at School B, their whole thing is academics. Academics, academics, academics. Because they are the top academic school in the Western Cape and they have got like a reputation to uphold. And the kids go there because of the academics. So sport is very much sort of a second priority to most of the kids. So it is hectic, but, so they expect a certain standard. So I think that if you worked at a school like School B you would definitely be, I’m sure, **sort of nudged in the right direction**.

Interviewer: And who says what the right direction is?

Lisa: The old fogey who has been there for twenty years! (laughs)

(Lisa interview, lines 322 – 334)

There is a perception that different schools allow for different levels of autonomy within the teachers’ role. Some schools get more involved and are more restrictive as to what teachers may or may not do, others allow more freedom. Teachers’ autonomy will be discussed further in division of labour. Within the community that allows for more freedom the teacher will have more space to achieve their own outcomes and aims during class time. If teachers feel it will benefit the learners growth they may spend time away from the curriculum’s outcomes and aims. However, if the community is more restrictive teachers will not be allowed the space to be able to do this. The teaching time will be far more closely monitored and the outcomes will be what others feel the teachers should achieve.

#### **5.2.2.4. Division of Labour: teacher as the mediator and developer of knowledge vs. teacher as the mediator but the Department of Education and the Curriculum as the developer of knowledge**

What are the power relations within this system? The contradiction here lies in whether the teachers have the professional autonomy to develop and teach knowledge or whether they only

have the status to teach but not to develop the knowledge. The perception is that the curriculum, and certain schools, questions the autonomy of teachers and the fact that they are developers of the knowledge they are teaching: this results in teachers further perceiving that they are not professionals within their field.

#### **Extract 2.14**

Kate: **I don't think it's (OBE) necessarily bad**, a lot of the time it is exactly what you are doing, it's just making you aware of it. I think (.) I don't know. **It throws a lot of people into a muddle** (.) I don't know. **I don't know if it's necessarily good**. I suppose it does give a basis on which to judge, it's just a lot more effort... I don't think it works at the moment in a lot of schools.

Interviewer: Why not?

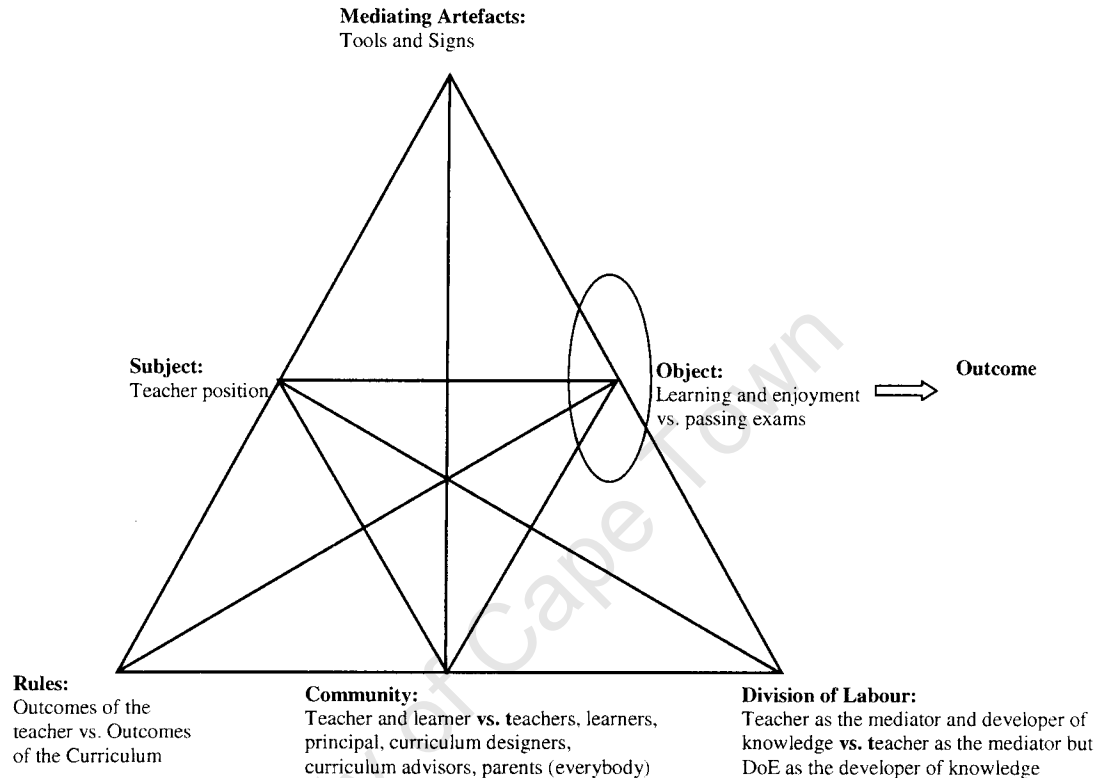
Kate: Because they don't have the time or energy or even understanding of what they are doing to make it work. Even people that do understand it they don't feel they are being paid enough, **they don't feel they are professional enough, or treated as professional enough so why should they act it**, why should they put in the extra effort to do these little things... They are given the outcomes, the curriculum is long winded and not necessarily necessary, you can give a person a page on their subject of things that need to be reached this year and they will know.

(Kate interview, lines 284-307)

This pre-service teacher believes that a teacher will know how to teach a particular learning area and what outcomes should be reached if he/she is provided with a simple guideline, that the curriculum guideline is too much and, for the most part, unnecessary. However, the same pre-service teacher has the perception that the curriculum is simply making explicit what the teacher is already doing, if the teacher and the curriculum both have the same outcomes.

The contradictions that lie within this activity system are illustrated in Figure 14.

Figure 14: Pattern of Contradictions 2: What should the aim of teaching be?



### 5.2.3. Pattern of Contradictions 3: Can learning occur in classrooms of 30-50 learners?

#### 5.2.3.1. Subject vs. Community: Individual learner vs. Class of learners

A common perception amongst the pre-service teachers is that the process of learning is different for every individual:

##### Extract 3.1

Carl: I think because **nobody learns in the exact same way**. So that is why you have to adjust it slightly to each person. In an ideal world obviously; in the classroom it's different. (Carl interview, lines 12-14)

### Extract 3.2

Mike: The best way to teach somebody is to actually **take a look at the individual themselves and decide from there**. I think that's going to be very, very different depending on who the individual is. (Mike interview, lines 6-8)

### Extract 3.3

Lisa: The best way (.) Well I think it **very much depends on the individual**. (Lisa interview, line 4)

There is also the perception that in order to teach the teacher has to understand what the learner already knows and teach from there, the teacher needs to be able to connect the learning material with previous knowledge or experiences that will differ from individual to individual:

### Extract 3.4

Charlotte: Because if you can take it **from a place of understanding from something that they know and they can relate that to something**, firstly it takes away that fear of a new concept and it's very nice stepping stones, and they can always refer back to that concept that they are familiar with and relate it back. So then they will always hopefully understand why they are doing something as opposed to just maybe knowing how to. (Charlotte interview, lines 17-22)

### Extract 3.5

John: ...**when they hear something they're going to put it in relation to what they already know**, what they've heard before and so if you're listening to a lecturer or something then you're going to be listening to those things you can identify with, and then try to thread in the things that you don't identify with, with that. And then if you can understand it then you're going to learn how you integrate these new things and then you can use them. Hopefully they've become a part of you and then that's when you've learnt something. (John interview, lines 210-217)

### **Extract 3.6**

Mike: I think, one of the biggest things to be able to use in the classroom, and that I really enjoy using, **is the students' own experiences**, so really trying to draw on that... From the students' standpoint, drawing on their experiences gives you a place to start, gives you an understanding of where their knowledge is at. From there you are able to build... Well I think that from a standpoint that if you are trying to develop a level of understanding with the students, and you don't understand where they are coming from or what experience they have in that particular field, or something they can relate it to, you are just guessing, you are just doing guess work, you don't know necessarily where to pitch the lesson. And if you can use their own experiences and their understanding of where their knowledge is you are going to be a lot more successful. (Mike interview, lines 53-81)

### **Extract 3.7**

Mike: ...an individual is going to take, I guess their **preconceived experiences and allow that, and develop those depending on what is put before them**. (Mike interview, lines 185-188)

As a result of these perceptions about the best way to teach and how somebody learns, the pre-service teachers had the perception that the ideal teaching situation would be one where there is only one learner:

### **Extract 3.8**

Carl: The best way? (.) Um, I think, ideally it would be **one-on-one**.

Interviewer: Why?

Carl: Because then you get their more focused attention. (.) And I think it depends on the personality, like I used to teach one on one and there is no way that you can say there is one best way to teach everybody, you've got to adjust it to where they are at and how they respond to you as a teacher.

(Carl interview, lines 4-10)

However, this is not the reality in most classroom situations world-wide, particularly not in South Africa where teachers may be dealing with 50 learners in a class. So the contradiction is between the subject and the community. Can teaching and learning happen in a classroom situation (community) of many learners or does it only happens when there is only one learner?

If these pre-service teachers perceive that the ideal teaching and learning situation is when there is only one learner how do they then deal with teaching and learning when faced with a large class of learners?

### **5.2.3.2. Division of Labour: Learners determine how the teacher should teach**

The following pre-service teacher expressed the perception that the learners determine how the teacher should teach, that it is not up to the teacher to decide how the learners should be taught, the teacher needs to look at the learners and from there teach in a way that those particular learners learn. That is there is a contradiction in division of labour in terms of who has the power over pedagogical practices in the lesson

#### **Extract 3.9**

Carl: Well in a way they determine the role of the teacher, in a way. Because if you have, say fifteen learners who all learn in say a visual way then you can't have a teacher that will just get up and talk to them because that would be irresponsible. **They determine how you act as the teaching figure.** (Carl interview, lines 174-178)

However, one needs to then question what should be done if there are fifteen learners who learn in this way and twenty learners who learn in a different way, and another ten that learn in yet another way? And all of these learners come from different individual backgrounds and have different understandings about the world and the way it works. Can a teacher, teaching a class of 50, really take into account everybody's learning needs for every section that is being taught?

**5.2.3.4. Tools: Board, textbooks, language, different learning and teaching techniques (focus on the individual) vs. Learner's individual experience, language, eye contact, body language, hands on experience (focus on many)**

Then, if one takes a closer look at the pre-service teachers' perceptions about tools that should be used in order to teach one will notice that these tools are often aimed at the individual. All the pre-service teachers discussed the need to connect what is being taught to what the learner has previously experienced. Some of the pre-service teachers discussed tools such as eye-contact, tone of voice and body language. Others discussed tools such as mind-maps or point form summaries, but acknowledged that these did not work for everybody and would depend on the individual's learning style. The contradiction here is between the use of tools that teach many versus the use of tools that teach individuals.

**Extract 3.13**

Carl: For example, I abhor mind maps, I can't learn anything from a mind map. Give me like a point form, which is very boring to other people, and I will learn much better from that. And there are other people who wouldn't be able to learn from point form but they would need mind maps. (Carl interview, lines 130-133)

**Extract 3.14**

Mike: ...ensuring to take a **look at the individual learners before actually trying to decide what the best methodology is.** (Mike interview, lines 12-14)

Which tools should the teacher choose? Does the teacher have enough time to make an educated choice about this? Will all learners in the class be able to learn effectively with one choice?

**5.2.3.5. Object: learning vs. control**

The contradiction regarding the object relates to the fact that if a teacher is settling on an effective teaching method for 30 learners in a class of 50, what happens to the other 20 learners? Even if the numbers are not that big, even if it is only one or two learners that are being left behind by the teaching methods and materials, is this good enough? It would seem that the pre-



### **5.3. Conclusion**

In this chapter three major contradictions in pre-service teachers' perceptions of teaching and learning were uncovered. Chapter 6 goes on to discuss the meaning of these contradictions for future teacher practice.

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## CHAPTER 6

### DISCUSSION AND CONCLUSION

#### 6.1. Discussion

In this dissertation I set out to investigate whether there are contradictions in pre-service teachers' assumptions about teaching and learning in the classroom and if so, what form these contradictions take. Specifically I looked at the question: What are the contradictions in pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms?

Through the semi-structured interviews designed from an Activity Theory base, and the analytical grid that allowed the data to be interrogated using Activity Theory, I found that there were contradictions in pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms. Across the six pre-service teachers three patterns of contradictions were found.

The first pattern of contradictions was "What is the teacher's role?". The South African government has stipulated seven roles that teachers should take on (DoE, 1996). However, as has been discussed, the pre-service teachers perceived this to be too demanding. Harley et al. (2000) also argued that teachers found these seven roles unrealistic for a single teacher, and that teachers thought it a better idea that the seven roles should rather be dealt with by the school as a whole. All of the pre-service teachers in this study spoke about the role of disciplinarian as a problem when teaching in South African classrooms, and so this role was the focus of my analysis within this pattern of contradictions. This emerges as a contradiction at the level of power relations in the classroom. Where OBE suggests more symmetrical relations between teacher and taught, in large classrooms in unsupportive communities we find that asymmetrical power relations will hold.

There is a perception amongst the pre-service teachers that the teacher must maintain authority in order for learning to occur. This goes in line with Hollingsworth (1989) who found that teachers only focused on academic tasks once they felt they were able to manage to the class properly.

Although the pre-service teachers' perceived that a certain level of discipline had to occur before teaching and learning can really take place, they also perceived that disciplining and subject matter learning do not necessarily take place simultaneously. The perception is that discipline takes place before learning about the subject matter, not during that learning. Therefore there are potentially two activity systems taking place here, both with different objects. The one focuses on learning about the subject matter, the other focuses on discipline and maintaining control, ensuring that the class is behaving according to school and community expectations. The perception therefore is that classroom management has to precede learning, but when the teacher has to focus on discipline, learning is not happening as it should. This contradiction suggests that this group of pre-service teachers will be forced to choose between learning as an object of teaching or discipline as an object of teaching in their future careers. This contradiction can be dealt with, however, by teaching pre-service teachers that learning happens within a well managed classroom. That is, that discipline and learning do not need to be in conflict.

The second pattern of contradictions is "What should the aim of learning be?". In this situation there was a contradiction in the object which, as has been discussed, leads to contradictions in the other nodes, because when the object of the system changes the whole system changes (Engeström, 1987; Popova and Daniels, 2004; Hardman, 2005; Russell and Schneiderheinze, 2005). The contradiction in the object lay in whether teaching should be about passing exams or simply about learning something new; that is the contradiction is between curriculum coverage versus deep or meaningful learning. Although the new curriculum in South Africa is a learner centred, outcomes based approach the final exit of school takes the form of Grade 12 external exams. A number of pre-service teachers spoke about learning in order to gain knowledge and skills however, they all perceived the pressure of the exams as being a focus in the classroom. A number of pre-service teachers referred to tricks that can be used to pass, rather than reaching a real level of understanding. If these tricks are relied upon and learners are simply prepared for the exams, real learning does not necessarily happen in the classroom. This is a crucial finding in this thesis and suggests that in their future careers these pre-service teachers will be forced to choose either to focus on curriculum coverage as the object of teaching or on developing learners' understanding. With the current focus on standardised testing in South Africa, it is not a stretch to suggest that teachers will choose the former path. The surfacing of this contradiction in

this thesis alerts us to a potentially significant explanation regarding student performance in schools: teachers are teaching to cover the curriculum, not to develop meaningful learning.

Within this pattern of contradictions there is an interesting perception about the new curriculum. The pre-service teachers perceived that a good teacher was good because of innate qualities. However, there is also the perception that the curriculum, and certain schools, doubt the autonomy of a teacher and the fact that they are developers of the knowledge they are teaching; this results in teachers further perceiving that they are not regarded as professionals within their field. The pre-service teachers perceived that in order to be a good teacher one did not necessarily have to follow the curriculum stipulations.

The third pattern of contradictions is “Can learning occur in classrooms of 30-50 learners?” The pre-service teachers’ perception was that the ideal teaching and learning environment is when there is only one learner involved. However, this is not the reality in South Africa’s classrooms where teachers may be teaching as many as 50 learners in a class. This means that there is a contradiction between the subject (the teacher’s position) and the community (for this activity system, the amount of learners in the classroom). This contradiction is potentially met by training pre-service teachers in how to use tools effectively to teach large groups. Again, this is a core finding of this thesis because it points to how one can potentially change pre-service curricula to deal with solving contradictions so that when pre-service teachers enter classrooms they do not have to face these contradictions.

This study is small and does not attempt to speak for all pre-service teachers. The purpose of the research was to identify contradictions in pre-service teachers’ perceptions about teaching and learning so that this could potentially inform pre-service curricula. The study identified individual pre-service teachers’ contradictions and three patterns of contradictions within this group of pre-service teachers’ perceptions about the process of teaching and learning in South Africa’s classrooms. Findings within this group indicate that these pre-service teachers perceive that due to a number of reasons (relating to amongst other things policy, curriculum, environment and history) they will face challenges in their future teaching in South Africa’s classrooms. Contradictions do not merely fade or go away. They need to be actively dealt with and overcome, which is what will happen when these pre-service teachers enter classrooms. Unfortunately, particularly faced with a contradiction between curriculum coverage and

meaningful learning, the contradiction is all too often resolved by the teacher selecting to cover the curriculum rather than to develop deeper understanding in her students. When they enter into the world of teaching these pre-service teachers will have to change or add something in the system in order for these contradictions to be overcome, and real learning to take place in their classrooms. This may be the addition of a new tool, or an old tool used in a different way, or it may involve a change in the rules and the policies. No activity system is static; it is continuously developing and changing. What is important is to realise that contradictions are there and these are the potential sites for change.

Understanding teachers' voices and perceptions provides an insight into classrooms that nobody else can. Although the teachers involved in this study are pre-service teachers they are about to enter into the world of teaching: many of them are already employed as teachers for the following year. As has already been argued, teachers mainly work alone with their classes, perhaps facing challenges alone. Depending on the school they work in, the department they work for, and the support structures available, they may never really get a chance to voice what they understand is happening in the process of teaching and learning. There is a good chance that these pre-service teachers will struggle with these contradictions, and remain in a state of questioning and uncertainty as they enter into the teaching profession. Activity Theory provides a good way of accessing teachers' perceptions and understanding about what is really going in the process of teaching and learning in South Africa's classrooms.

Contradictions within teachers' perceptions about the process of teaching and learning are the potential sites of change. Contradictions have the potential to lead to change and this change may or may not be in line with the policy changes. It is vital to hear teachers' voices and take teachers' perceptions into consideration in order to really understand what is happening, and what has the potential to happen in South Africa's classrooms.

## **6.2. Further Research**

This dissertation investigated whether there were contradictions within pre-service teachers' perceptions about the process of teaching and learning and what those contradictions are. The focus was small in order to engage with them and their perceptions in depth. The investigation

found that there were contradictions within this group of pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms and this needs to be investigated further. Identification of contradictions within a system is the first step in an expansive learning cycle (Engeström, 1987). Future research could work with these pre-service teachers in order to overcome the contradictions identified in this thesis, providing them with the tools required to teach successfully in South African classrooms. I plan to complete the expansive learning cycle by undertaking an entire change laboratory in a future doctoral thesis.

### **6.3. Conclusion**

This dissertation finds that there are contradictions in pre-service teachers' perceptions about the process of teaching and learning in South Africa's classrooms, and that there are patterns of contradictions amongst the six pre-service teachers that were interviewed. The three patterns of contradictions discussed relate to whether or not real learning is perceived to be taking place in South Africa's classrooms. Pre-service teachers will not necessarily do what is expected of them as they work through these contradictions, moving through the state of questioning and uncertainty. This dissertation argues that it is vital to understand the teacher's perceptions and beliefs in a classroom in order to understand what is happening, why it is happening, and potentially what could happen in South Africa's classrooms. These pre-service teachers will work through these contradictions, which are the potential sites for change. If change happens in their classrooms the change will relate to the contradictions in their perceptions. We need to understand the contradictions within pre-service and in-service teachers' perceptions in order to understand why things are happening as they are in South Africa's classrooms. Teachers will not necessarily do as we expect them to: understanding these contradictions allows us a greater understanding of education in practice.

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## APPENDICES

### Appendix 1: Teacher Interview Schedule

<u>Teacher Interview Schedule</u>	
<u>AT</u> <u>Concepts</u>	<u>Questions</u>
Subject	1. Teaching subject 2. What would you say is the best way to teach somebody? (probe for a learning theory) 3. Giving me examples can you explain how you teach in South Africa?
Tools	4. What do you use in order to be able to teach? 5. How do you use these things? 6. How do these things assist you? 7. Do you prefer certain resources to others? Why?
Object	8. Why do you do these things? or What is the point of teaching? 9. How do you ensure this is happening? 10. How does somebody learn? (probe for a learning theory)
Outcomes	11. What do you hope to achieve by teaching? 12. Do you feel you can achieve this in South Africa's classrooms? Explain.
Division of Labour	13. What is your role in the classroom? 14. What do you do in this role? 15. What are the other roles in the classroom? 16. How do these roles impact you?
Rules	17. What is the best way to teach your particular subject? 18. Is there anything special about your subject that needs to be taken into account in the process of teaching and learning?
Community	19. Who else, besides you and the learners, is involved in the process of teaching and learning? 20. How do they assist/inhibit this process?

## Appendix 2: Participant Consent Form

UNIVERSITY OF CAPE TOWN



School of Education

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### Participant Consent Form for Research Study

**Project:** Pre-service teachers' perceptions about the process of teaching and learning.

**Researcher:** Amy Underwood, University of Cape Town

The purpose of this research is to look at pre-service teachers' perceptions about the process of teaching and learning.

The researcher would like to obtain your consent to participate in this research. There is no risk, injury, discomfort or cost involved with participation in this study. There is no financial reward for participation.

This study will benefit teachers directly by providing information to the researcher (which will be fed back to the universities) regarding pre-service teachers' perceptions about teaching and learning. It is hoped that by learning more about these perceptions we will be able to develop deeper understandings about what pre-service teachers think and how the changes in the education system are impacting this thinking.

All information shared with the researcher will be kept strictly confidential. You will not be identified in any reports on this study. The records will be kept confidential to the extent provided by law. One copy of this document will be kept together with the researcher's records of this study. Codes, but not names will be assigned to each participant for research purposes. Only the researcher will analyse the data provided.

If significant new knowledge is obtained during the course of this research, which may relate to your willingness to continue participation, you will be informed of this knowledge. Also, you may contact Amy Underwood at the telephone number 082 4974378 for answers to further questions about this research or anything you may feel is related to the study.

### Participant Declaration:

**I have read and understood the information given above. I hereby give my consent to participate in this study.**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Consenting Signature

\_\_\_\_\_  
Date

### Appendix 3.1: Teacher Interview Analysis: Charlotte

<u>Teacher Interview Schedule</u>	
<u>Activity Theory</u> <u>Concepts</u>	<u>Charlotte</u>
Subject	<p>English and History</p> <p>Relate to learners own experience</p> <p>Active learning</p> <p>“Because if you can take it from a place of understanding from something that they know and they can relate that to something, firstly it takes away that fear of a new concept and it’s very nice stepping stones, and they can always refer back to that concept that they are familiar with and relate it back. So then they will always hopefully understand why they are doing something as opposed to just maybe knowing how to.”</p> <p>“...if they have to actively employ that because then I think you can see whether they’ve learnt something.”</p> <p>“...I think the more you do that, get them to help you construct that, it does have a lasting impact on them by helping them to learn, play a part of it.”</p> <p>“...because I think that is where the real learning takes place as well, if they can take it outside.”</p> <p>“...Application of the things that you assumed have happened, I think that’s how you, and not necessarily just in the classroom, I think taking things out of the classroom, you know putting real life situations, once they leave school, how would they solve that,</p>

	<p>looking, you know specifically with something like history, you know looking back, what did we learn there, what is different.”</p> <p>“...I think that’s when you learn, when it becomes something real to you and useful to you. Whether it is facts or something, whether that is just for you to put a framework on something that is in your mind to help you understand it. So I think once you can fit the pieces together and you can incorporate it, it will, the picture that you can relate to it.”</p>
Tools	<p>Books – as a source and as a case study (doubt in validity of what is found on the internet)</p> <p>Old and new textbooks</p> <p>“...going back to old old books, it’s very interesting looking at them, old text books. They are very useful when teaching perspectives, you know if you look at the kind of facts or one-sided that our history textbooks were, those are very interesting to use.”</p> <p>But: “I think textbooks can always be used as a tool as long as you recognise that they are perspectives, but I think that there is room for introducing other sources as well. So I don’t think you can do history anymore just with a textbook, I don’t think so. Not if you are trying to create any kind of engagement with history, I don’t think you can just use a textbook. And to get them up and doing things, whether that be debate, making posters, going out and interviewing people, I think that’s important. It makes them engage with things.”</p> <p>Although does use internet finds it time consuming and doubts validity of the information on the net.</p> <p>Film and media</p> <p>“...I like to use things like film and media, teaching to it because I think it makes it relevant and more accessible.”</p>

	<p>Newspapers</p> <p>Guest speakers</p> <p>Overhead projector - interactive</p> <p>Group work</p> <p>“...I started off this year hating group work, and I have seen the merits of it and I’ve seen where it works, but I also believe in doing things by yourself.”</p> <p>Writing work</p> <p>“...but there will always be some concrete written piece that they will hand in to me.”</p> <p>“I’m not a fan of power point.” “...past using it [power point] for media, I don’t find it that useful, because I think too much takes up the power point, makes it redundant and the images get boring.”</p> <p>“...you can add and things [on the overhead projector], which I know you now can do with the smart board, but I don’t have training to do that.”</p>
Object	<p>Develop thinking and informed decision making techniques:</p> <p>“...so I don’t think necessarily the subject, the content is why we teach, I think teaching in a way to get learners to think so that they can be offered information later in life and make decisions that are good...”</p> <p>Pass exams vs. Relevant assessment:</p> <p>“...sometimes there will just be a basic test to see whether you know what’s going to be in the exams, you have to for the exams.”</p> <p>“...we don’t have the luxury of time to do that (place every assessment in a real life situation) with everything, sometimes there will just be a basic test to see whether you know what’s going to be in the exams, you have to (prepare the learners) for the exams.”</p> <p>Knowing vs. Understanding:</p>

“So then they will always hopefully understand why they are doing something as opposed to just maybe knowing how to... if they know why they are doing something, they often get through the more difficult subjects than those who know what to do but they don't know why. I think if you can try and relate that back to things that they already do understand, your basic principles, then I think that is a good way to help them learn.”

Passing exams vs. Enjoyment:

“Where they can just talk to each other about why they like this poem, it's not for exams, they can just enjoy it. That works really well because when you do something, we are going to do this, they approach it in a whole different way. (.) To create that enjoyment I think.”

Develop a sense of empathy

Analytical and critical thinking

Create a passion for literature

Moral enrichment

Social functioning

“...So I think that is why we teach, both the moral enrichment but also so that people can function in society effectively.”

“...I also think that it must have a place, for teaching to help people become good, become caring, look out for other people, not only live for themselves, and also that works together with that ability to make decisions.”

“...clarifying, understanding things, really helping them to develop their thinking, where they learn to couple every statement with a reason (.) That's my job as a teacher in the classroom, is not necessarily to provide that statement, or the reason, but to make sure that they make those links.”

	<p>“...where they start incorporating things into their lives. And also to provide that space when they can do that, to give them the jump start, maybe with resources that they might not have access to.”</p> <p>“...they create the space for discussions...”</p> <p>“...sometimes I think that the work for us in history is to interrupt stories that have been passed on to generations that are not conducive to our society.”</p>
Outcomes	<p>Socialisation</p> <p>Informed citizens who can make a social contribution</p> <p>“...it goes a long way to ensuring a healthy society by raising citizens that are able to make a contribution. Um, and sending another generation out into the world that are able to contribute because they have been informed. And because of that they can make decisions.”</p> <p>“...And I think that empathy also goes a very long way, that I hope to have achieved after they have done history for five years, and I hope that then they will keep commenting, being those people in society who comment when they think things are wrong, coupled with analytical thinking, that makes it a very powerful thing, as opposed to just giving an emotive response. So if they can develop those skills.”</p> <p>Life long learning</p> <p>“...created that appetite for learning and to see the benefits of it, whatever the subject matter is. So I think I hope to achieve that, that they will want to carry on. So to create that passion.”</p> <p>“...and hopefully that will have a ripple effect into their communities, whether it be their families, or one day their own children. I think that does have a positive effect on society.”</p> <p>“...I am so passionate about the power of teaching to create people who can contribute and who are passionate...”</p>
Division of Labour	Teacher

Teacher has many roles, sometimes too demanding:

“When does your role as a teacher stop? And I don’t have an answer for you because I haven’t decided myself. And because I am so passionate about the power of teaching to create people who can contribute and who are passionate, I do think, and that’s one of the main reasons I wanted to become a teacher, and why I do the subjects I do, because I think they create the space for discussions. And something that I also have to be aware of is that my moral values do not come across, you know. So I am not quite sure of all the roles, I am still thinking about that.”

Teacher: role of authority and responsible to create respectful space:

“...I think that voice of authority [the teacher’s voice] is important, I think it does have a place [in the learning process].”

- facilitator of learning process
- role as a counsellor? Ensuring space between teacher and learner? (seven roles of a teacher)

“I’ve been thinking, so many people have been saying that you need to be careful not to make the relationships too personal, which I fully understand. But then you have lectures on the AIDS crisis and how you should be acting as a counsellor, so (.) um (.) You know, even in something like language and literacy, today I was reading about a teacher who saw that her learners’ language was not great so she went into the community and found out that the kids were hungry, so she started a feeding scheme. When does your role as a teacher stop?”

- teacher as a recipient (but still always the ultimate authority)

“Sometimes the teacher is also a recipient, but not in a passive way, also to be in the role to then be able to give feedback on that.”

- Teacher as learner

From learners

“I’ve sometimes learnt a lot from them [the learners].”

From other teachers

“...in my first year of teaching, will be a lot about learning myself, finding out, asking a lot of questions, asking for a lot of help, working a lot and giving, you know having those group discussions with other staff where you do give feedback but also equipping myself with a lot of things. I think it is vital that I accept that role now, I have so much to learn, I’ve only had one year.”

- Changing role

“And then I think that as I progress in a school environment, my role might change as well to helping people who come in, helping the school so that their structure remains suitable and supportive of the learners. So I think my role would be changing.”

Learners

- Recipient
- Listener
- teacher (teach each other, but teacher must still be the ultimate authority)
- researcher

“The role of researcher, them going out and finding things, bringing things back...”

- active participant

“...being an active participant in constructing this knowledge, this learning.”

Predominant roles in the classroom = teacher + learner

“I think in both teaching pracs I was worlds apart, the classrooms were very free spaces, even if the schools were very political, and there was what I would call indoctrination, but at the end of the day

	<p>when you closed that door to your classroom, and it became your space and the learners knew if they could trust you as well...”</p> <p>Teacher - learner</p> <p>“...if I’ve put the necessary structures into place their [the learners’] roles should be able to operate without compromising mine.”</p> <p>“Their roles will have an impact on me if the roles are not clearly defined, clearly defined not that we can’t move between them but just knowing where our roles end.”</p> <p>“...so my role would be enhanced greatly by if they can fulfil some of theirs.”</p> <p>Other teachers – not just in your department</p> <p>“I think all the teachers can have a role in the classroom, not just your subject.”</p> <p>Head of Department</p> <p>“So I think they all do have a role in your classroom, even if they are not present, they do have a role in helping you, what you are going to teach, how you are going to teach.”</p>
<p>Rules</p>	<p>OBE</p> <p>“...it’s putting a lot of the emphasis, a lot of the learners’ involvement in creating that learning process. Um (.) Giving them a lot more room to be involved in creating that with you, that learning. So I think that’s a lot what Outcomes Education is about... I think that’s the important part, in getting to what we are learning, not necessarily what we’ve learnt in terms of content. But what is that process, how do we get to understanding something - we ask questions, we go and look things up, we discuss it in groups, we have</p>

debates, we justify.”

BUT:

“...why all the schools are not adopting OBE. One of the schools [during teaching practice] was so opposed to OBE to the extent that they had posters up in their staff room saying why not. So very interesting, and now as I am grappling with it, obviously it is an obstacle to education because it is the policy that has been introduced by government.”

OBE is not necessary to be a good teacher:

“I want to say that I think it’s a good thing in the hands of a good teacher. But I think that anything is, when I look back at some of the teachers I’ve been observing, those good teachers have always been good teachers, and the good things about OBE have always been inherent in their teaching practices.”

“I think the principles of OBE are wonderful but I think the implementation is (.) I think that is where it’s struggling.”

“...how do we measure whether something is working, you know because maybe it works but are you then sending these kids, like I said that is my aim, do you send these kinds of learners out? So (.) but I do think (.) I want to say that I think it’s (OBE) a good thing in the hands of a good teacher. But I think that anything is, when I look back at some of the teachers I’ve been observing, those good teachers have always been good teachers, and the good things about OBE have always been inherent in their teaching practices. You know whether that be the space and discussion, getting the kids involved. They will always be good teachers because they have developed that, being focused on the learner.”

	<p>“I think that the best way to learn about teaching and things is to do it, and to talk to other people who do, because I think we do get prepared for the ideal classroom...”</p>
Community	<p>Teacher and Learners vs. Teacher, Learners and Others:  “...but at the end of the day when you closed that door to your classroom, and it became your space and the learners knew if they could trust you as well and brought their (ideas).”</p> <p>Good vs. Bad community:  <ul style="list-style-type: none"> <li>- Teachers prepared for the good environment:</li> </ul> “...And sometimes what we say in this course is preparing us for the ideal classroom.”</p> <p>School and staff:  <ul style="list-style-type: none"> <li>- Do they accept OBE?</li> </ul> </p> <p>Staff’s attitude to teaching:  “...We spoke about it a lot, surely everyone started out like us, wanting to teach, but it feels like at some of the schools there is nobody there who wants to teach, and it becomes an absolute habit to go to the staff room and complain. And why not create that same space, with those same people and talk about what worked, you know, and if it didn’t then why not? I think talking and practice these things. I think that is important to become a good teacher is to keep practicing and talk about why it worked and why it didn’t.”</p> <p>School’s attitude to working and achievement:  As an example, you had at one of the schools a learner came and up and they had done the best in Science and they were laughed at by the rest of the school as being such a loser. Another school, the attitude is so different at that school in terms of achievement, it was</p>

so wonderful, people were so appreciative in terms of that, and just generally there was great emphasis on learning. So it's the environment of the school. And it should have been the place of that principal to say there is no way that you will ever do that again, but that situation just passed and my heart broke for that child, it is something to be so proud of. So I think the general attitude towards achievement in learning, that attitude informs a lot of your feelings and how involved in it you do get."

Parents or primary care givers

"Largely because of the attitude that the learner develops to learning, and that attitude being informed by the family... And I think that does have a ripple effect through the learning process..."

"And you are coming to stand as an authority. I think a lot of the family, or home situation, that informs the understanding of that role, or the importance of the teacher's job has a lot to do with it because if there is no respect I think you struggle a lot with that learning process. Then you spend your time on discipline issues so I think the family has a huge [impact]."

"And that also needs to be safe space... One of your saving graces is to have a stable kind of family structure who places that emphasis on education, no you don't need to go with the gangs to earn money, which I won't pretend to say I think is right or wrong because I don't understand their circumstances but, to place importance on education and things, helping them, allocating time."

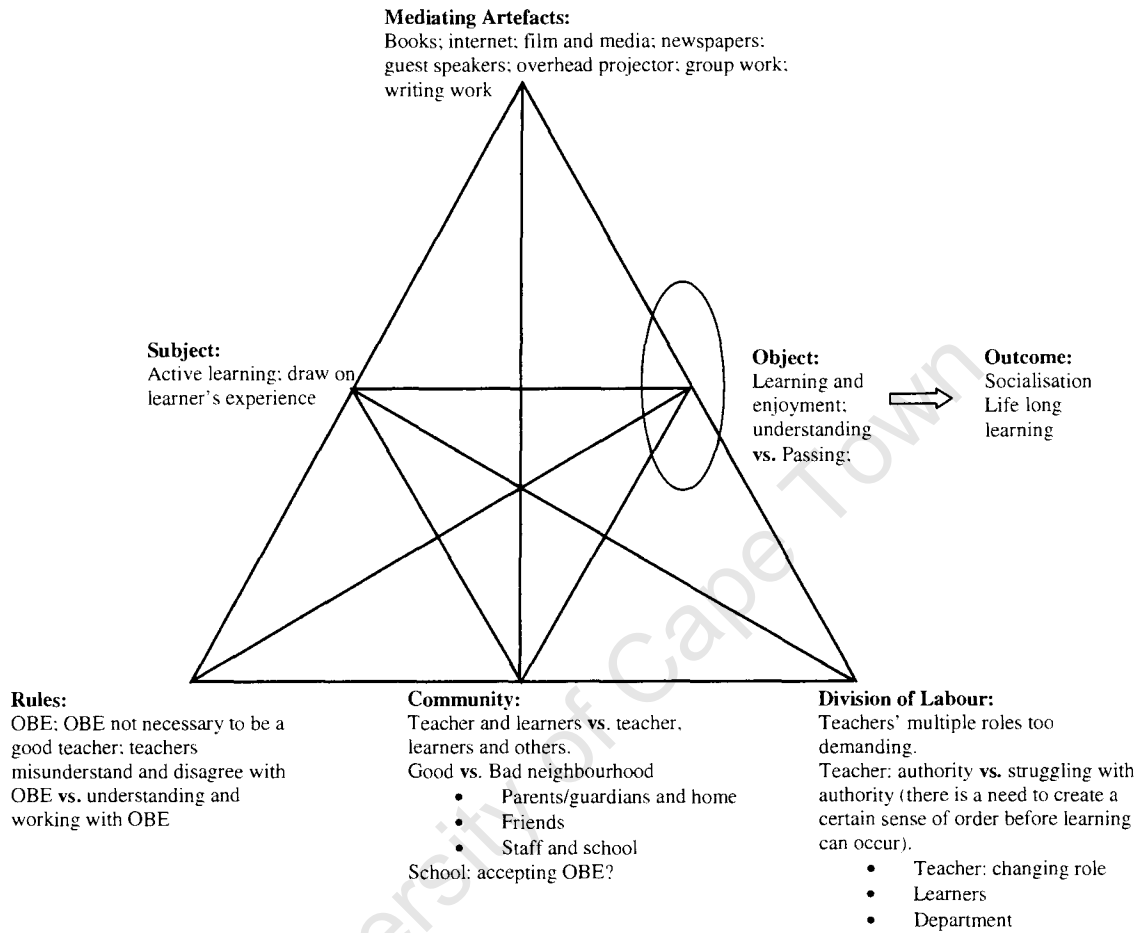
Parents supporting teachers:

"And also being there when you need them to help you to help their child, so come to the PTA meetings, if there is a problem to learn as much as they can. I think that attitude definitely impacts on the learner as to how they value learning and if they think it's important

	<p>or not.”</p> <p>Friends:</p> <p>“I think their friends in the school and outside of the school can play quite an important role in their openness maybe to discussions around learning, so whether they think it is uncool to talk about what they learnt today, or whether they engage in those debates and they are interested.”</p> <p>“So who, not on a conscious level, but who children find as their role models, I think that has an impact on the learner and how they value learning and education.”</p>
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University of Cape Town

## Activity System 1: Charlotte: Pre-service English and History Teacher (Appendix 3.1)



**Appendix 3.2: Teacher Interview Analysis: Kate**

<u>Teacher Interview Schedule</u>	
<u>Activity Theory</u> <u>Concepts</u>	<u>Kate</u>
Subject	<p>Art and Design</p> <p>Active learning:            "...I think it's good if you try and draw the answer out of them, say give them the way to find the answer within themselves, so you are not giving them a direct answer."</p> <p>"Pose them with questions that they really have to think about and deconstruct already made ideas in their head... And then they actually do it themselves and they make the revelation then they have gone beyond and they see the use in the subject as well as the potential in it."</p> <p>"And basically you bring them a certain amount of information and try and draw extra out of them, or include them in as much of the teaching process as you can."</p> <p>"I also feel that it is very good to show them, not necessarily pose too much your views on artists, just expose them to a lot so that they can form their own opinions on the subject, because it is so subjective."</p> <p>Repetition:            "...a lot of the time it is repetition for the younger learners so that it is clearly installed in them."</p> <p>Teacher must be the expert:            "Creativity, and challenge your own intelligence, you shouldn't just</p>

	<p>know the knowledge you are going to give them, you should know further, and then just reduce it, and then try and draw the extra out of them. Not necessarily that they need it, just you should have more.”</p> <p>“...it is very important to be interactive with the children, walk around the class. If they are painting, comment on their work, give them additional information, hopefully with a positive attitude. And then, um, if they are doing a worksheet also keep moving around the class, if they have got any queries help them.”</p> <p>Interviewee: “I think it is also good to activate as many senses as possible with the learning process. Like with art it is obviously essential to show images, and I think it is also nice to watch movies because I think that it really sticks in their heads.”</p> <p>Interviewer: “Why is it important to activate the senses?”</p> <p>Interviewee: “Well, the more senses you activate, the more likely it is they will retain it. Um (.) I’m not sure (laughter).”</p> <p>Comfortable environment:</p> <p>“I think that for somebody to be able to learn they have to come to the subject with a positive attitude, a will to learn, and they have to have the confidence to be able to learn. If somebody is feeling insecure in your class and are scared the whole time that you are going to throw a question at them because you are quite a horrible, mean teacher, there is no way they are going to take in anything you have to say that whole lesson. So (.) I think it is very important that you create a creative atmosphere in which you are able to learn.”</p>
Tools	<p>Creativity</p> <p>Questioning and feedback</p> <p>“Pose them with questions that they really have to think about and</p>

deconstruct already made ideas in their head...”

“...it is very important to be interactive with the children, walk around the class. If they are painting, comment on their work, give them additional information, hopefully with a positive attitude. And then, um, if they are doing a worksheet also keep moving around the class, if they have got any queries help them.”

“And I think it is good to have a lot of questioning so (.) ja... Just so that they are constantly involved and participating and thinking.”

PowerPoint - images

White board

Handouts and worksheets (not necessary to use board)

“I definitely prefer a more modern resourced classroom. I like the slide projector, PowerPoint, well stocked art room, because it enables you to do so much more with the children. You can push them in one medium, for example just painting their whole school lives, but it not all children will necessarily be good at that so it is good to give them other options like photography, printmaking.”

Assessment Rubrics

“I think by having an assessment rubric at the end of any given task, something like that, just to make sure that if you are looking at their painting and observation skills etc. that you can check that they have done that and that they actually understand what you mean by it. And it would also be good to give them the assessment rubric at the beginning of the lesson so that if they do have any queries or have not understood what they are going to do or what you have taught them you can at least go over it with them.”

	<p>“Basically I think it [the learning material] would be from my own interpretation of what is necessary and what will be the most beneficial for them to know. So it would come from me in a lot of ways, but I think a few research assignments where they can choose something else of their own interest could be quite a good idea, especially at grade 10, 11 and 12.”</p> <p>In resource limited schools teaching will not be as good:  “I don’t think I could do it [achieve her/his aim in teaching] in all classrooms. Um (.) basically because they don’t have the facilities. I could always teach something as long as there are pencils and paper um (.) I couldn’t necessarily teach everything I’d want to teach. And there is also the language barrier. So in like the top private schools where they have art rooms and they have, or not private even, public as well, the schools where the more wealthy children go to, they obviously have art rooms and they are kitted out, I could teach them at any of those. But I think the other schools (.) I don’t know. I might need an interpreter and (.) just the basics at the very least, and maybe a projector in order to do it.”</p>
Object	<p>Pass on knowledge  Broaden their questioning</p> <p>“Not just pass it [knowledge] on but to broaden their questioning, make them yearn for information, to come up with their own points of view and ideologies of the world, in your own subject especially.”</p> <p>Broaden their knowledge  Have a positive experience with the subject</p> <p>Develop their own opinion on the subject</p>

<p>Outcomes</p>	<p>Have a passion for the subject – passion for art</p> <p>Knowledge</p> <p>Power to deconstruct knowledge they are given</p> <p>“And I would hopefully like to give a lot if children a lot knowledge and a lot of, and the power to deconstruct the knowledge they are given and um, just a passion for art.”</p> <p>“...gained a few skills, a bit of knowledge, and not only that but questioned the knowledge that they already have.”</p> <p>To have an understanding of the “visual world” we live in.</p> <p>“Even if they don’t want to be artists, we live in a very visual world so to understand it and have knowledge of it is very beneficial.”</p> <p>Social and moral upliftment</p> <p>“Well it would be nice to um (.) also educate children who not only in the world of art but who come with a good set of values and morals and want to do big things for the greater good with art. Like it’s quite nice, we’re doing environmental education and that sort of thing and looking into using art for awareness campaigns. So choosing something, it might be good to do something that’s personal to the children, some sort of, is it abuse or what is it? Some sort of something that is useful to the world and that could help others.”</p>
<p>Division of Labour</p>	<p>Teacher</p> <ul style="list-style-type: none"> <li>- Authority and control</li> </ul> <p>“...the teacher does have the authority in the classroom...”</p> <p>“I suppose it just depends what kind of authority figure you’d like to be. I’d hope not to be a dictator, be more a diplomatic, fairer approach to power, if that’s possible.”</p> <ul style="list-style-type: none"> <li>- expert</li> </ul>

“Creativity, and challenge your own intelligence, you shouldn’t just know the knowledge you are going to give them, you should know further, and then just reduce it, and then try and draw the extra out of them. Not necessarily that they need it, just you should have more.”

- Teacher as a learner

“...I don’t intend to ever stop learning. I think it is quite a nice area of the careers in the world where it is actually necessary for you to keep absorbing and growing and there will always be new artists and new interpretations to discover and keep on top of.”

- Mediator

“In a sense I’m a mediator between knowledge and the learners, and my ideologies and trying to portray knowledge across without placing too much pressure on them to have my beliefs but still create their own from what is given.”

- Citizen and role model

“So you obviously have to be a good citizen and I don’t think you can have the same lifestyle, it wouldn’t be quite right if you were going out and there were eighteen year olds there. I don’t know... You have to be respectable, it’s not one of those jobs where you can come to work drunk just once (.) obviously.”

- Extra mural duties

“Your role in the school would also be like, probably photographer, design the magazine, I don’t know, sports teacher.”

“I give knowledge to a certain degree, draw knowledge out, control the children but at the same time give them their freedom to express themselves. And hopefully not make any children feel uncomfortable, I’d hope not to be a condescending type of person and speak to them, even though they are younger and the situation does demand their respect, not to be condescending and belittling.”

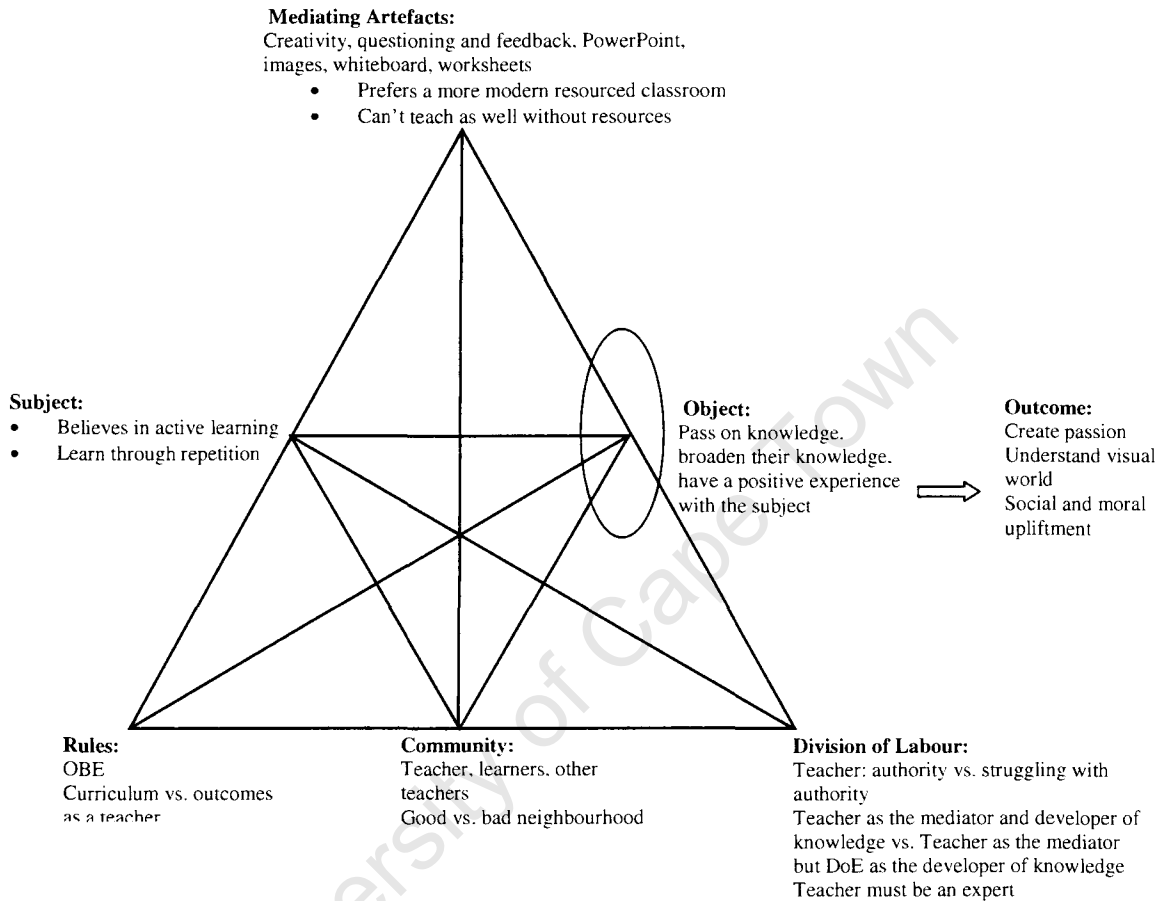
	<p>Learner</p> <ul style="list-style-type: none"> <li>- Learner as teacher</li> </ul> <p>“I think there is also a place where you give the learners a chance to take control. And where they can, perhaps where they are doing presentations or showing their work, or if you give them the power to mark other people’s work, it is just giving them a taste of I suppose the real world where you do have an opinion and your opinion does stand for something, hopefully. And it is good to be able to, I think it also takes confidence to stand up and be able to express your views. To criticise others is one of the hardest things so it’s also something you’ve got to learn as well as give praise when due to others that are potential rivals in the classroom or whatever the case may be.”</p> <p>Other teachers</p> <p>“...also, the other teachers, all the information they are giving them will come into the classroom, will come into the children’s ideas which will be, it’s a good idea to draw into that information for concepts for art and that they can even further it, like if they have done the basics on climate in geography then perhaps they can look at global warming and do a project on it in art. So you could, all the other teachers in the school could potentially draw into the classroom.”</p>
<p>Rules</p>	<p>OBE</p> <p>“Outcomes Based Education is when well, you are striving for certain outcomes at the end of each lesson and they must be reached.”</p> <p>“I don’t think it’s necessarily bad, a lot of the time it is exactly what you are doing, it’s just making you aware of it... It throws a lot of people into a muddle (.) I don’t know. I don’t know if it’s necessarily good. I suppose it does give a basis on which to judge, it’s just a lot more effort... I think for schools in the rural areas where they are really struggling, they have so many other things to overcome, once the textbooks are really good and they have rubrics, and they have</p>

	<p>everything and they don't have to go and source all of this stuff for every lesson as well as everything else that needs doing maybe it will work. I don't think it works at the moment in a lot of schools.”</p> <p>“Because they don't have the time or energy or even understanding of what they are doing to make it work. Even people that do understand it they don't feel they are being paid enough, they don't feel they are professional enough, or treated as professional enough so why should the act it, why should they put in the extra effort to do these little things. I mean some of the time it can be, you can make a system that works for you, that's the thing. You can make simple rubrics, you can make simple lesson plans but for a start I think it might be nice if they are given something to work from for their subject specifically, rubrics that work. They are given the outcomes, the curriculum is long winded and not necessarily necessary, you can give a person a page on their subject of things that need to be reached this year and they will know.”</p> <p>Difference between policy and practice again – implementation of OBE a problem; understanding of OBE a problem.</p> <p>“I think potentially I'd stick to it for my first few years of teaching. I'm not saying I won't use rubrics for marking, I think I will. But the whole system in general, I don't know if I'll stick to it religiously. I think (.) I don't know. I think I'm a competent teacher and I will do well no matter what, no matter what system I choose. I mean I'll reach the outcomes whether it's the way they expect it done or not.”</p> <p>Seems to be some confusion in the mind of the student teacher.</p>
Community	<p>Other teachers in the school</p> <p>Everyone the learner comes into contact with</p> <p>Media – movies, comic books etc.</p>

	<p>Home life</p> <p>“...but it’s good to just always be aware that if so-and-so didn’t do his homework it’s not necessarily that, there could be other hidden factors.”</p> <p>“I think everything can be good, even a bad experience, it just depends on how you take it and how you use it.”</p>
	<p>“It’s [teaching] a lot more tricky than I thought... there is a lot to consider. It’s not just needing to know the information or needing to know how to present it. It’s like a million people’s personalities and problems and the other barriers like language. So it’s a million things to consider, even in the half hour lesson.”</p>

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## Activity System 2: Kate: Pre-service Art and Design Teacher (Appendix 3.2)



### Appendix 3.3: Teacher Interview Analysis: Lisa

<u>Teacher Interview Schedule</u>	
<u>Activity Theory</u>	<u>Lisa</u>
<u>Concepts</u>	
Subject	<p>Teaches History</p> <p>Teacher must be expert:            "...the best way to teach somebody is to make them somehow have confidence in you as the teacher..."</p> <p>Learners must feel comfortable:            "...to almost feel confident enough to be able to say if they don't understand something or if they want you to reiterate or something."</p> <p>Facilitator rather than chalk-and-talk:            "...it is very important to be in there with the kids and not just standing in the front lecturing... To be walking around between them, chatting to them, getting down onto their level, that kind of thing. Rather than just being this sort of intimidating icon in the front of the classroom."</p> <p>Being a good teacher comes naturally:            "I think by being a good teacher... Yes, I would say that it is partly natural, like some people are just naturally good teachers, some people are just like that, they just connect with the kids when they walk in, as soon as they walk in the classroom there's this connection. Others I think you have to work at it but ultimately I think it comes down to your attitude towards the kids."</p> <p>Learning needs to be relevant:            "I think a good teacher is somebody who brings life to a subject, makes it come alive..."</p>

	<p>“I think that it’s better, usually a combination of things so that everybody has a chance to have their way of learning. So say for example, class discussion, notes on the board at some stage, an exercise that might reinforce the concept, something like that. But a mixture of all of them, it also stops the lesson from being boring at the same time.”</p> <p>Interviewee: “And then also, I think your number one role is to teach, is to get them to learn, get them thinking.”</p> <p>Interviewer: “Ok. (.) How do you do that?”</p> <p>Interviewee: “I think, um (.) by simply being there. Partially, I think it’s just being there, one of the ways. Then I think just helping the kids work through whatever, I think just throwing curve balls at them all the time, so that they are thinking, they are constantly alert, never really sure of what’s coming their way. You know, constantly changing your teaching method, constantly changing the way you teach things, the way you say things. Ja. I don’t know, ja.”</p> <p>The best way to teach somebody depends on that individual:  “The best way (.) Well I think it very much depends on the individual.”</p>
Tools	<p>Overhead projector</p> <p>Power point</p> <p>Drama</p> <p>Books</p> <p>Movies</p> <p>Documentaries</p> <p>Media</p> <p>Pictures</p> <p>Stories</p> <p>“...a lot of anecdote, I think. It makes it come to life if you’ve got stories...”</p> <p>“I don’t really have a favourite, I think you have got to alternate them...”</p>

	<p>because if you do then the kids expect it, and you know they get bored of it.”</p> <p>“Well I definitely think they [the resources] bring the subject to life. They give it some colour, they give it a bit more excitement. I think for a lot of people seeing is believing, so if they can see a picture of an atomic bomb they are like ‘wow’.”</p> <p>“Unfortunately in South Africa resources are a problem for most schools. So it’s difficult.”</p> <p>“I think you don’t have to have the resources to be able to do that, if you are a good teacher you don’t need anything besides yourself. But, it definitely does aid you, it helps.”</p>
Object	<p>Sharing knowledge</p> <p>“I think it is to share. Ja, I think it is all about sharing, passing down your knowledge to ensure that younger generations get to where you are or beyond. I think it is about sharing knowledge, ja, the sharing of knowledge.”</p> <p>Provide a happy, safe environment</p> <p>“Also, the school provides an environment where kids that perhaps don’t have a very happy home or whatever, they can come and find a place of solace and comfort perhaps and it is also part of that. I wouldn’t say “mothering” but rather, I don’t know what the word is, but like a place where they can come and be with people of their own age and enjoy themselves, relax before they get into work...”</p> <p>Teach life skills</p> <p>“...I think with every subject comes certain life skills that you are working on daily. I mean, just little things like giving a kid detention for swearing at another kid, it’s just manners. I think school’s just life skills, very much life skills in the classroom environment through the subject.”</p>

	<p>Help people</p> <p>Empathy  “...it brings a personal side to it, it makes it that heart-rendering, you know, feeling sorry for somebody, it brings in those emotions. Which I think is important, it is not like a flat subject, there is a lot of depth to it. And I think that if you can empathise with somebody, not feeling sorry for them, but if you can empathise with them...”</p> <p>Ensure learning  “...I think your number one role is to teach, is to get them to learn, get them thinking.”</p>
<p>Outcomes</p>	<p>Socialisation  Have an opinion  Understanding  Awareness</p> <p>“I hope that the kids are enriched, that they become people with more depth, somebody that can sit at a dinner table and have good conversation, but at the same time really understand what’s going on around them and where they came from. So be enriched as a person and understand humanity and humanity’s wrong-doings and good-doings.”</p> <p>Life skills  Confidence  “...I think just certain skills to be able to go out into the world and be able to just face people and do things and make something great out of your life.”</p>
<p>Division of Labour</p>	<p>Teacher</p> <ul style="list-style-type: none"> <li>- Ensure learning</li> </ul> <p>“...I think your number one role is to teach, is to get them to learn, get them</p>

thinking.”

- Role model, authority

“Well, I think the students need to have some sort of respect and some sort of confidence and they need to know your boundaries and (.) you know, and understand that you are the teacher and they are the student, even though you may take a back seat sometimes, you still have that, that position as teacher.”

- Carer

“You should be somebody that the students look up to and respect, but at the same time, feel that you are somebody they can confide in, somebody they can go to if they have a problem, but not on a sort of counsellor or friend level, more as an adult person that can help them if they needed it.”

- Facilitator, guide

“I think a facilitator, just kind of guiding what they are saying, where they are going with it, nudging them in the right direction, I think.”

Learner

- Respect

“...you know, and understand that you are the teacher and they are the student, even though you may take a back seat sometimes, you still have that, that position as teacher.”

- Teacher

“However, I do think that they need to assume the role of teacher sometimes, and teach each other, which is helpful. But obviously not all of the time, you need to assume that role most of the time.”

“I think that if teachers are not in there with the school, they are not supporting sports, whatever it is, cultural activities, whatever, I don’t think

they really are a part of the school. That then, to me, is difficult to get the confidence, or the respect of the kids.”

Older, more experienced teachers:

I think that in my case the people in my department, because I was a student teacher, they felt that they needed to push me in the right direction. However, what I witnessed within the department, it was very much, they were left to their own thing. Although they did follow, obviously, the same curriculum, checking every week where is everyone and whatnot, but they pretty much did their own thing. But with me, I think, ja, there were a number of reasons, but basically I would suggest to do something and they would be like “no, I don’t think that will work with this class” which I found very difficult.

“I think perhaps it depends on the school. You see School A is pretty chilled out, and because History wasn’t such a hectic subject at School A, you know boys like to do Science, Maths and those kind of more practical subjects, and at School A they said “do what you want”, they basically gave me free reign which was so nice. They let me kind of experiment with the kids. But at School B, their whole thing is academics. Academics, academics, academics. Because they are the top academic school in the Western Cape and they have got like a reputation to uphold. And the kids go there because of the academics. So sport is very much sort of a second priority to most of the kids. So it is hectic, but, so they expect a certain standard. So I think that if you worked at a school like School B you would definitely be, I’m sure, sort of nudged in the right direction.”

“Who says what the right direction is?”

“The old fogey who has been there for twenty years!”

Rules

OBE

Curriculum – LOs and Ass

Community	<p>HoD</p> <p>Other department teachers</p> <p>Predominantly Teacher and Learners</p> <p>“...there were a lot of teachers there who were currently in their first year, but I could hear that they were still asking “should I do this, should I do this, how do I do this?”, but pretty much doing their own thing anyway. So I think that also the thing is that once you are in the classroom with your own kids there is not much that anybody can do about it, once you are in there. Besides the fact that they tell you “you should teach this and you should teach that” and sure whatever comes in for definite marks, then that’s a bit of a discussion, but if you want to have a test with your kids every week then nobody is really stopping you.”</p> <p>Culturally relevant:</p> <p>“So it’s quite difficult for me coming from a completely different culture in a way.”</p> <p>Good vs. Bad community:</p> <p>Interviewer: Do you feel you can achieve this in South Africa’s classrooms today?</p> <p>Lisa: If you are in a private school, yes. Or if you are in an upper middle-class to upper class government school, ja.</p> <p>“Um (.) the problem with the lower class schools is that, well I haven’t taught in a B-school so I don’t know, it’s just hearsay on my part. Um (.) the problem is first of all lack of teachers, the teachers are just not there um, so the kids are often, you are getting nineteen year olds in your class, that kind of thing. Working in the townships, incredibly unsafe. I mean I think last week two students were shot, didn’t even make headlines. And like, ja, it’s just an everyday occurrence, gang violence, all of that kind of thing. Discipline is</p>
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	<p>obviously therefore a huge problem because the kids, the children in those classrooms, their priority is not school, their priority is how they are going to get their next meal, where are their parents going to get money from, my father is beating up my mother, you know, somebody's brother has just died in a gang shoot-out, you know. The issues are greater than my personal issues at the moment. And I think that's quite difficult."</p>
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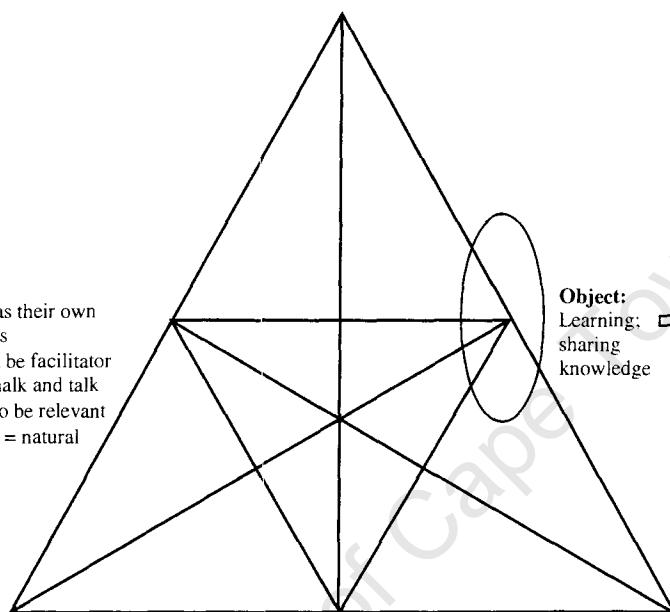
### Activity System 3: Lisa: Pre-service History Teacher (Appendix 3.3)

**Mediating Artefacts:**

- Overhead projector, PowerPoint, drama, books, movies, documentaries, media, pictures, stories, anecdote
- Brings the subject to life
- Good teachers do not need resources but it does help

**Subject:**

- Everybody has their own learning styles
- Teacher must be facilitator rather than chalk and talk
- Work needs to be relevant
- Good teacher = natural



**Object:**  
Learning:  
sharing  
knowledge

**Outcome:**  
Socialisation:  
Awareness and  
understanding

**Rules:**

OBE; LOs and ASs  
Curriculum: roles of teachers vs. demands from other (older) teachers, department and school

**Community:**

Teacher and learner vs. head of subject, more experienced teachers, learners  
Good vs. Bad community

**Division of Labour:**

Teacher is in charge of the learners, requires respect in order to teach.  
Older, more experienced teachers controlling vs. helping younger teachers.  
Teacher must be expert

**Appendix 3.4: Teacher Interview Analysis: Mike**

<u>Teacher Interview Schedule</u>	
<u>Activity Theory</u>	<u>Mike</u>
<u>Concepts</u>	
Subject	<p>Natural Science, Physical Science, Biology, Maths</p> <ul style="list-style-type: none"> <li>- Teaching = individual, should be developed at individual pace</li> <li>- Should be active, learner’s participate and interact with subject matter</li> <li>- Learners help to develop knowledge</li> </ul> <p>“The best way to teach somebody is to actually take a look at the individual themselves and decide from there. I think that’s going to be very, very different depending on who the individual is.”</p> <p>“You might try that particular methodology and if it doesn’t work in that particular class, in that particular context, you may have to re-adjust yourself... hands-on, giving the students the opportunity to interact with the subject matter itself is probably the best method I have seen so far... Instead of just sitting back and having knowledge being given to them, they are actually developing it, they are building on their own understanding of that knowledge that they had before hand, and actually developing it at their own pace. And I think that by doing that it creates a, definitely a stronger foundation, than if knowledge is just being given to them.”</p> <p>Make abstract concepts more concrete:</p> <p>“...it was something that was going from something that was very abstract and theoretical in the classroom context, they were actually working with something. And it was quite effective, all of a sudden the level of understanding increased dramatically, instead of where they were struggling to deal with the abstract concepts.”</p>

	<p>“And also with providing experiences, I mean with hands-on things that they can relate to there is nothing more beneficial to be able to develop understanding than working with something that they already, they know a little bit about, examples that they can take from their own home, or examples that they see on a day-to-day basis. That really helps to develop an understanding.”</p> <p>Draw on learners’ experiences, work with what they know:  “... drawing on their experiences gives you a place to start, gives you an understanding of where their knowledge is at. From there you are able to build.”</p> <p>“... if you are trying to develop a level of understanding with the students, and you don’t understand where they are coming from or what experience they have in that particular field, or something they can relate it to, you are just guessing, you are just doing guess work, you don’t know necessarily where to pitch the lesson. And if you can use their own experiences and their understanding of where their knowledge is you are going to be a lot more successful.”</p> <p>“But they are constantly reformatting or restructuring their knowledge based on their experiences that they have. So I guess as a teacher is your responsibility to present them with as many learning opportunities as is humanly possible to be able to allow them to expand their knowledge.”</p>
Tools	<p>Learner’s own experiences:  “I think, one of the biggest things to be able to use in the classroom, and that I really enjoy using, is the students’ own experiences, so really trying to draw on that. And that comes from just being able to get to know the learners as best as you can and being observant in the classroom, getting to know the students.”</p> <p>Objects and examples that the learners know (everyday objects):</p>

“And also with providing experiences, I mean with hands-on things that they can relate to there is nothing more beneficial to be able to develop understanding than working with something that they already, they know a little bit about, examples that they can take from their own home, or examples that they see on a day-to-day basis. That really helps to develop an understanding... if you can make it concrete, if you can make it something they can see, something they can touch, something they can relate with, it’s just a lot easier. Especially with younger students, I mean students Grade 8, Grade 9 where maybe their level of abstract thinking hasn’t developed that much, just making sure you are driving home the importance to be able to work with concrete objects that they experience on a day-to-day basis.”

Creativity:

“... just creativity in general. When you are faced with situations when you are not necessarily rich in resources, especially from a Science standpoint, you can use a lot of creativity, you don’t need to have expensive equipment, sometimes it helps.”

Visual media

Hands on demonstration

Hands on examples

“...I tend to use a lot of visual resources. Whether it be computer generated or my own pictures, my own photography or pictures that I’ve clipped out of the newspapers, and I don’t know if that’s, I guess partially that could be a relation to the way that I prefer to learn, and the method that I’ve found to be effective for me. But at the same standpoint it also generates a lot of interest in the classroom. If you can pull out visual things it gives them almost a little bit of a break in a classroom context, it provides a lot more interest, and seems to catch the students’ attention a lot more. In the same thing, absolutely the

	<p>same thing goes with hands-on demonstrations, hands-on examples that the students can see. It just makes the classroom so much more interesting, so much more enjoyable for me and so much more enjoyable for the students.”</p> <p>Reflection:</p> <p>“Does it [learning] happen all the time? It doesn’t (laughs). It doesn’t happen all the time, I mean there are lessons that go completely wrong, and in that situation hopefully I’ve learnt something. But (.) I think that’s got to come through in personal reflection, through assessing the students throughout the lesson and after the lesson teachers can be reflective and decide what has worked and what hasn’t. I usually spend some time at the end of every day, not necessarily writing things down, but going over the day and going over what worked, what can I do better (.) how do I know that students were, that I actually succeeded in whatever I was trying to get across. But again, I think that it’s assessment, not only from a test standpoint but being able to evaluate how things have gone through the course of the day, and if you are reflective about that you are able to do that.”</p> <p>Assessment:</p> <p>“And then one thing is constantly assessing, not only the methods you are using, but how are the students responding to the questions that I am asking? Do I have to redesign these questions? I think one of the biggest things is assessment.”</p>
Object	<ul style="list-style-type: none"> <li>- To ensure learning is taking place vs. Getting through the material</li> <li>- Enriching the learners, ensuring growth</li> </ul> <p>“It’s just, on a lesson to lesson basis I think it’s just to ensure that learning is taking place. And I mean, that’s not just learning in the particular subject you are trying to teach, but how you are enriching</p>

these students. I think any time you are going to approach a lesson it's "what am I going to do in this lesson to get these particular goals across" and "how am I going to do so in a way that's going to ensure that learning takes place". And I think that a lot of times teachers are focusing on how am I going to get through the material, how am I going to get through this. And I think that it is such a terrible way to look at teaching. You have got to look at each lesson as an opportunity to get something across, as an opportunity to (.) for the students to be able to grow."

"...an individual is going to take, I guess their preconceived experiences and allow that, and develop those depending on what is put before them. Um (.) I think in some ways you can take a look at the Constructivist approach where learning takes place by having a pool of knowledge and um (.) the teacher, or anyone, can present them with an experience and based on that experience they are going to either expand on that knowledge that they already have or use that pool of knowledge to reject that experience that they have. But they are constantly reformatting or restructuring their knowledge based on their experiences that they have. So I guess as a teacher is your responsibility to present them with as many learning opportunities as is humanly possible to be able to allow them to expand their knowledge."

Creating an enjoyable environment:

"I think I aim at making them [method lessons] enjoyable from the standpoint that students are going to (.) I think one of the best learning environments are environments where the kids are enjoying the lessons that are there, they are engaging in them, especially in science, where they are, that promotes science in itself, students have a good time in a science classroom, they are going to have a better view of science."

	<p>Breaking of stereotypes:</p> <p>“One thing that I always take a look at is gender stereotyping within the classroom. And it is something that you definitely have to be aware of, what gender stereotypes are reinforced within your classroom, either by the teacher or by other students. Be aware of them and ensure that you are working to break down those gender stereotypes, as well as other stereotypes. Roles, there are all sorts of different dynamics with regards to race, with regards to sexuality, socioeconomic class and things along that line that you need to be aware of.”</p>
<p>Outcomes</p>	<ul style="list-style-type: none"> <li>- Scientific literacy</li> <li>- Able to cope better with the world and challenges</li> </ul> <p>“I hope to achieve a sense where students are coming out of the classrooms having a better understanding of science, being a little more scientifically literate than they were when they entered the class. Um (.) I hope that they come up with the skills to be able to approach life in a way that looks at things from a scientific point of view. I hope that students come out better able to cope with the environment that they are dealing with. That they come out actually enjoying the experience that they have. Um (.) for me, I hope that (.) you know, it’s interesting in an education system that in many senses is really struggling and is not, is there a whole lot of hope for the entire system, I don’t know. But I think that the way that I try to look at it is that there is hope in my class, there is hope with the students that I’m dealing with on a day to day basis. (.) And that is something that I hope to maintain. I guess.”</p>
<p>Division of Labour</p>	<p>Teacher</p> <ul style="list-style-type: none"> <li>- Ensure learning is taking place</li> </ul> <p>“... I think your role, biggest role, is to ensure that learning is going to take place in that classroom and whatever role you need to assume to get that done.”</p>

“...you know, in a lot of cases I’ve seen you go in there and you are playing a role not just as a science teacher but also as an English teacher where you are promoting literacy and you are working the students to be able to help them overcome the barriers involved in taking on a subject and learning in a third, fourth, even a fifth language.”

- Discipline (authority)

“...but that role is going to change depending on what you decide to do when you get into that classroom. And maybe even how the learners are going to respond. You know, some days you might be taking the role of somebody who is a planned discipliner in the classroom, other days you might be taking on somebody who um (.) who’s really monitoring what’s going on.”

- Facilitator
- Mentor

“You are going to be, first of all the person who facilitates learning within that context but you are also going to be a mentor, you are also going to be someone who is going to be setting an example, numerous different examples, either a good example or a bad example for the students in that class.”

“Again, as a teacher you are acting as a role model on an ongoing basis so that exists not only in your classroom but in the school context as well.”

- Learner

“You are definitely a learner with regards to other teachers and how they are teaching. I think any good teacher is a good learner continuously, whether you are taking techniques from other teachers or using them adaptively into your classroom context.”

- Mediator between class and community

“You are taking on the role of mediator between students and parents,

	<p>um, ensuring that there's communication going on between the classroom and between the community.”</p> <ul style="list-style-type: none"> <li>- Social responsibility</li> </ul> <p>“With regards to science you would definitely take on the role as somebody who encourages environmental responsibility and things along that line, certain values that you are passing onto students, or offering to students.”</p> <p>Learners</p> <ul style="list-style-type: none"> <li>- As teachers</li> </ul> <p>“...one method that is particularly successful is to have other teachers in the classroom. Situations where students are doing well in particular subjects, they've finished their homework or what have you, they have finished the assigned tasks and they are able to help other individuals. You have other role models within the classroom context and you have to be able to use those.”</p> <ul style="list-style-type: none"> <li>- As role models</li> </ul> <p>“ Well I think in situations where you have students who are role models for other students, either positive role models or negative role models, depending on them. There is a whole dynamic that you have to be aware of that is happening in the classroom, the way people are acting. Because that can have a very large impact on how your classroom is going to be operating, and how your learners feel.”</p>
Rules	<p>OBE</p> <p>Curriculum</p> <p>“I understand that it is not very different from any other forms of education that we've been talking about. I mean it is not really any different. Any time that you are teaching a class, you have outcomes that you want to achieve in that class. Now that is kind of the same as it was a hundred years ago, you had outcomes that you wanted to achieve and you are still doing it. What is different is the curriculum</p>

	<p>and the way that it is set up.”</p> <p>Learning Outcomes</p> <p>Assessment Standards</p> <p>“...they’ve included assessment standards to be able to determine whether or not those outcomes have been achieved...”</p> <p>Personal standards</p> <p>“...the outcomes that you want to achieve have been designed for you by the curriculum, but you also have outcomes as a teacher that you’ve listed that you want to achieve with that particular class.”</p> <p>“...I think it’s fine. I think the perception of OBE and the um, maybe the stereotypes that have to come with it, that it involves this, it involves group work and it involves teaching in this particular type of way. Um (.) I don’t know if they are entirely justified. And I think that it has had a very bad rap with regards to a lot of teachers that I have talked to, outside of the PGCE, within the classroom and school context. I don’t think that it is really any different.”</p>
Community	<p>Predominantly learners and teachers in classroom:</p> <p>“...are you able to take an entire school and turn it into a school that’s functioning, um, extremely well, where students are gaining what they should be out of the school? I don’t know that, but you do have control over your individual class. And I have had classes, large classes, extremely large classes where students are engaging, where they are looking at science in a way that ‘s interactive with them, that they are enjoying and having fun with, and learning something ultimately. It’s very possible... But I think the biggest thing is not to get trapped in a system that unfortunately has a very negative viewpoint overall and to maintain that positivity in your own classroom. ”</p>

But then:

“Everybody [is involved in teaching in your class]. Absolutely everybody. Right up from the principal to the policies that are being developed outside of the school - that has an impact on the classroom. And you know hopefully, depending on the principal, they would be in there as well. Other teachers, I have done a lot of team teaching in the past and it gives students the opportunity to see a different role model, a different type of learning experience. Every staff member who’s there, you know supporting staff, maintenance staff, they are playing role in the classroom from the standpoint that they are acting as models for the students.”

Environment does influence

School’s attitude

“Big classes; lack of resources; situations where maybe the students knowledge isn’t where it should be for that particular level; language, uh, problems with literacy; social aspects, um, dealing with violence, dealing with issues like AIDS, drugs, um, it’s kind of a scary world that a lot of students are growing up with, especially in some cities in Cape Town and Johannesburg. And those are big problems for teachers. It definitely influences the way that your classroom operates. And I think perhaps maybe one of your biggest challenges is um (.) maybe the atmosphere that’s out there with regards to some of the schools where you do have teachers who are very positive and very enthusiastic going out there trying to make a difference and they kind of get sucked into this negativity that’s out there. It’s definitely as detrimental to the education system as any of the other factors that I’ve mentioned.”

“...I think it’s fine. I think the perception of OBE and the um, maybe the stereotypes that have to come with it, that it involves this, it

involves group work and it involves teaching in this particular type of way. Um (.) I don't know if they are entirely justified. And I think that it has had a very bad rap with regards to a lot of teachers that I have talked to, outside of the PGCE, within the classroom and school context. I don't think that it is really any different."

Everybody who is in contact with the learners

Parents/care givers/family

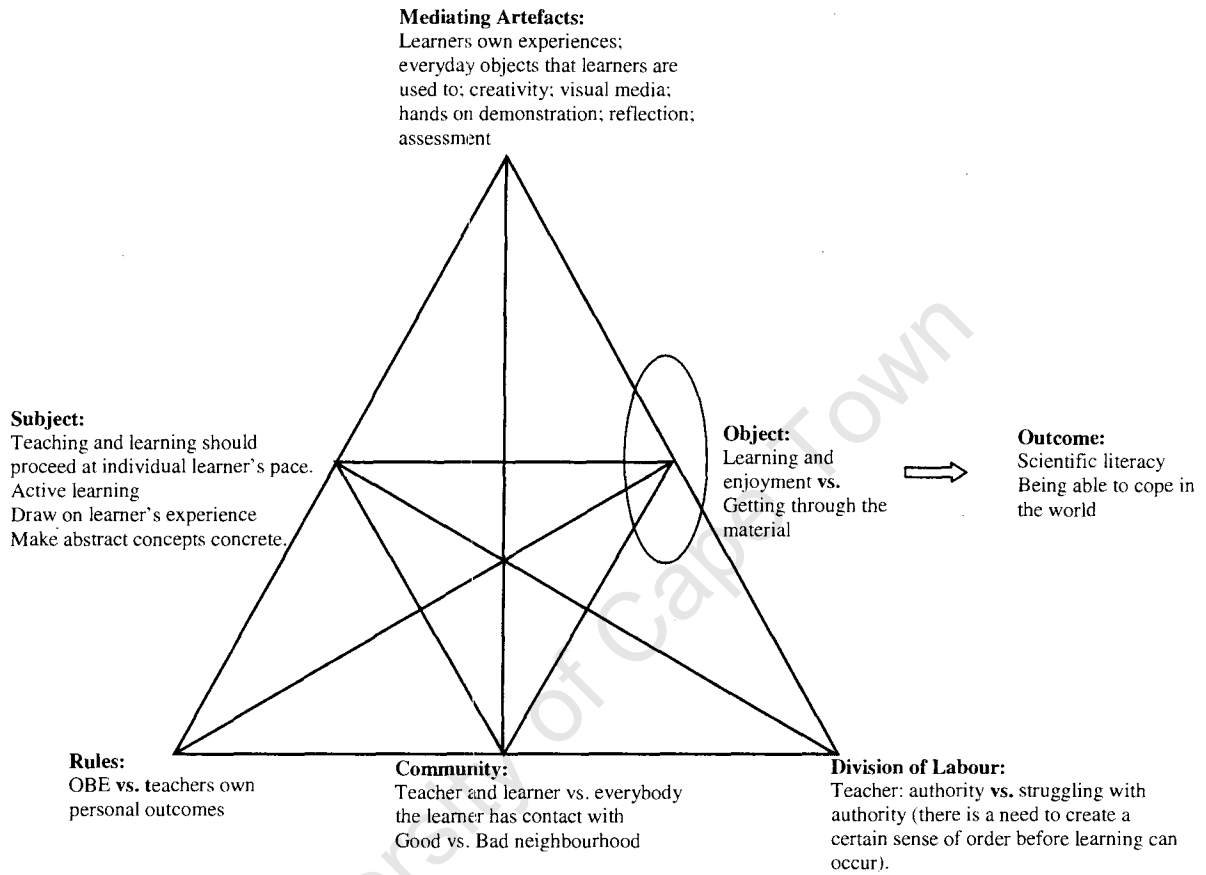
Media

Role models

"Teaching and learning does not just take place in the classroom context. I think anyone who has any type of contact with a child is going to have the opportunity to provide and experience that has the opportunity to remould existing frame of knowledge. I think the biggest role is parents, siblings, people who are in contact with the students in the home setting, as well as in the community. I think it also branches out, not only the people the student has had contact with during the day but it also goes all the way up to government, to the people that have designed the legislation and decided the particular objectives about what students should be, what they are learning in the classrooms. They have a role in this as well, ultimately they are defining what type of citizens they want to have. And I guess people who students see on a day to day basis, role models such as people on TV, in the newspapers, everyone has a role to play."

"I think one of the biggest ways that people can inhibit this process is not realising that they are acting as role models. Um (.) this could be an older sibling who doesn't realise their impact of their actions, or parents that don't see that they are really shaping their kids who are developing. Um (.) anybody who doesn't take that role seriously."

**Activity System 4: Mike: Pre-service Natural Science, Physical Science, Biology and Maths Teacher (Appendix 3.4)**



### Appendix 3.5: Teacher Interview Analysis: Carl

<u>Teacher Interview Schedule</u>	
<u>Activity Theory</u>	<u>Carl</u>
<u>Concepts</u>	
Subject	<p>Teaches History.</p> <p>Learning happens one on one:</p> <p>Carl: The best way? (.) Um, I think, ideally it would be one-on-one.</p> <p>Interviewer: Why?</p> <p>Carl: Because then you get their more focused attention. (.) And I think it depends on the personality, like I used to teach one on one and there is no way that you can say there is one best way to teach everybody, you've got to adjust it to where they are at and how they respond to you as a teacher.</p> <p>"For example, I abhor mind maps, I can't learn anything from a mind map. Give me like a point form, which is very boring to other people, and I will learn much better from that. And there are other people who wouldn't be able to learn from point form but they would need mind maps"</p> <p>One on one vs. many learners:</p> <p>Interviewer: Ok (.) You say that is with individual teaching, so what do you do when you are faced with a class?</p> <p>Carl: (laughs) Wing it! No. Um (.) what do you do? (.) Again, it depends on the size of the class, but obviously after time you get to know the learners, then it does become a bit more individualised. If you've never seen the class before you are just going to have to settle for some sort of middle ground and hope that most of them get it.</p> <p>Nobody learns in exactly the same way:</p>

	<p>“I think everybody learns slightly differently.”</p> <p>“...you have to adjust to it to where they are at and how they respond to you as a teacher.”</p> <p>“...the best way is to see what they do know, and then know where you want them to get, and try like map out a path, to use a metaphor.”</p> <p>“...it depends on the size of the class, but obviously after time you get to know the learners, then it does become a bit more individualised. If you’ve never seen the class before you are just going to have to settle for some sort of middle ground and hope that most of them get it.”</p> <p>Imitation and Intuition:</p> <p>“I think people learn through imitation. (.) Yeah, definitely. So you see even with little kids they imitate other people. So that’s one way. Um, intuition, sometimes things just occur to you intuitively. I am not sure that’s something you can teach though, I think you either have it or you don’t.”</p> <p>Participation:</p> <p>“...but at least they are up there, participating, and everybody participates so that’s kind of valuable I feel.”</p>
Tools	<p>Body language</p> <p>Eye contact</p> <p>Tone of voice</p> <p>Text books – “on lazy days”</p> <p>Drama</p> <p>Interactive whiteboard – “for a visual learning experience”</p> <p>“... there’s a whole lot of things, obviously there’s your body language, your eye contact, tone of your voice, your teaching materials such as textbooks, or drama like I’ve used before, um (.) interactive whiteboards, there is a whole list.”</p>

	<p>“Well, your body language, like sometimes you feel like you may be being too harsh, like I will try and have a more open stance. Eye contact, if I am trying to get them to focus on one situation then I will just look into their eyes. Um, the interactive whiteboard, I generally used so that they can have something that they can focus on while I am talking through a point.”</p> <p>“...on my lazy days I’m quite fond of the text book, just because it can cut down on the work, um, although obviously generally there is some criticism with textbooks, but I do like them, also because the learners know exactly where they are, and I think it’s, they are on the same page with the teacher that way.”</p> <p>Tools not used for the teacher – used for the learner:</p> <p>“Well I would like to think it’s not really for me, it’s more for them. I mean for me to type out notes on the interactive whiteboard it doesn’t help me at all.”</p> <p>“So why use them?”</p> <p>“Because I think that some of the learners need that visual focus to learn.”</p> <p>Imitation</p>
Object	<p>Passing Matric exams – Learning Outcomes and Assessment Standards:</p> <p>“At a very basic level the kids need to pass their Matric exams at the end of the day.”</p> <p>“So what do you work on in the classroom?”</p> <p>“I would generally just go for the learning outcomes and assessment standards.”</p> <p>Getting good marks:</p> <p>“I want them to be getting really good marks.”</p>

	<p>Learning:          “You know, just creating a space where learning can occur, and hopefully inspiring.”</p> <p>Develop critical thinking:          “Just because with critical thinking hopefully comes less ignorance and with less ignorance comes better decisions.”</p> <p>Enjoyment of subject:          “...get somebody to kind of enjoy knowledge and learning”          “And secondly, just really enjoying the subject...”</p>
<p>Outcomes</p>	<p>Socialisation:          “In a way it’s almost socialisation, yeah. So the government obviously has these almost ideal people in mind, and we are meant to teach to that and hopefully help create them... Socialisation is a big part, but that sounds very, just like we are creating these beings.”</p> <p>Growth in society; development:          “I think it is because society is generally better off if they have educated people than un-educated people. Just simply because if you look at, uh (.) even things like heart transplants, it’s almost impossible to do without some kind of education, and not just in doctors, but in other people to create that kind of technology. And I think schooling is the beginning of that.”</p> <p>Ensure contribution to society:          “...creating people who are willing to study further and in that way contribute to society.”          “Just because with critical thinking hopefully comes less ignorance and with less ignorance comes better decisions.”</p>
<p>Division of Labour</p>	<p>Teacher’s role:          Too many roles; too demanding:</p>

	<p>“Well officially there are the seven roles by the government, which I can probably name two.”</p> <p>Teacher should ensure learning is happening:</p> <p>“I think your primary role is to make sure learning is occurring.”</p> <p>“...it will be school dependent and whatever you have negotiated, you may be a sports coach or involved with bringing in new teachers.”</p> <p>Learners impact the role of the teacher:</p> <p>“There’s obviously the role of the learner, so individually, and also as a group, there is also like a group role, group dynamic... Well in a way they (the learners) determine the role of the teacher, in a way. Because if you have, say fifteen learners who all learn in say a visual way then you can’t have a teacher that will just get up and talk to them because that would be irresponsible. They determine how you act as the teaching figure.”</p> <p>Principal:</p> <p>“Obviously the principal and people in charge of discipline...”</p> <p>HoD:</p> <p>“I guess the head of department, they would determine where you should be at what stage.”</p> <p>Learning Area Department and other teachers:</p> <p>“...you can learn so much from them (other teachers)...”</p> <p>“And hopefully your fellow history teachers, hopefully you will be discussing with them, you know.”</p>
Rules	<p>OBE :</p> <p>“That there are goals in mind that learners have to be able to achieve and it is your goal to help them achieve that.”</p> <p>“It (OBE) kind of makes sense to me in a way, you don’t want to go into</p>

	<p>teaching and not know what you are doing, you have to have something to aim for.”</p> <p>Learning Outcomes and Assessment Standards</p> <p>Curriculum</p> <p>Disciplinary Code of the School:  “...because if they (the school) have a disciplinary code you have to enforce it.”</p>
Community	<p>South Africa: Diverse Communities:  “...there is no such thing as a “South African classroom” just because it is so diverse, this school’ is nothing like that school, you know...”</p> <p>Racially significant:  Interviewer: Ok (.) Do you feel you can achieve this in South Africa’s classrooms?  Carl: (.) I have no idea.  Interviewer: Ok. (.)  Carl: Yeah. I don’t know if there will be the resources (.) It obviously depends on where you are at, there is no such thing as a “South African classroom” just because it is so diverse, School D is nothing like School E, you know. Yeah, so it would be school dependent.  Interviewer: Why?  Carl: Because, I mean there are some schools, being white, where if I went into, I don’t know, you know, if I’d live to see the end of the day. You just from what I hear there are some pretty rough schools out there. And also there are outside factors, beyond the teacher, that affect learning. So if you are</p>

teaching at a place where, you know, 80% of the population has AIDS, then, you know, some of them will be orphans, you know you try and inspire them, some of them are probably just not going to care, you know, possibly.

Communities with higher rates of HIV and violence will be more difficult to teach:

“And also there are outside factors, beyond the teacher, that affect learning. So if you are teaching at a place where, you know, 80% of the population has AIDS, then, you know, some of them will be orphans, you know you try and inspire them, some of them are probably just not going to care.”

“I guess, I mean the community in general. Uh (.) If you grow up in a crime-ridden community, or if you are teaching in one, I think (.) I don't think the learners will be able to be as focused on learning as say somewhere else... Just because (.) If you are worried about getting home after school that day without anything happening to you I can't imagine you will be devoting yourself fully to learning.”

Parents:

“...of course parents. If you have a learner who is struggling you can maybe give the parents a call, even somebody who just wants to do better, if you can see that they want to learn but that you are maybe not helping them, you can get the parents involved.”

“...learners who grow up in troubled homes, so if the parents are being really hard on the kids and destroying their self esteem then the kids may not feel that they can contribute in any meaningful way, so they won't even try. And on the other side if you have parents who believe in their kids then you will see a difference at school, they will probably be more willing to contribute and to try.”

Principal:

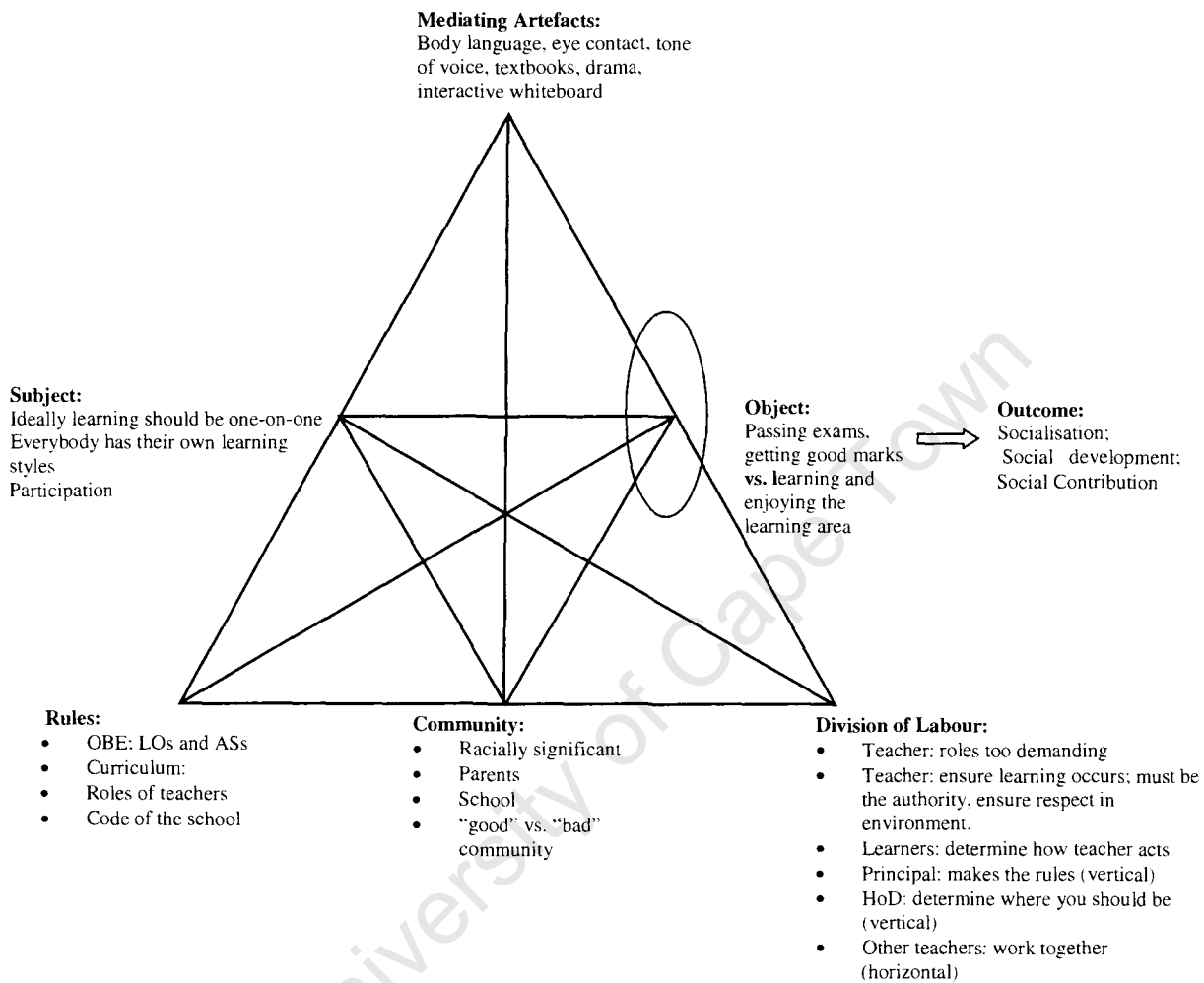
“Obviously the principal, and people in charge of discipline, because if they have a disciplinary code you have to enforce it.”

Head of Department and Other teachers – open or closed department:

“I guess the head of department, they would determine where you should be at what stage... And hopefully your fellow history teachers, hopefully you will be discussing with them, you know.”

University of Cape Town

## Activity System 5: Carl: Pre-service History Teacher (Appendix 3.5)



### Appendix 3.6: Teacher Interview Analysis: John

<u>Teacher Interview Schedule</u>	
<u>Activity Theory</u>	<u>John</u>
<u>Concepts</u>	
Subject	<p>Maths, Life Science and Natural Science</p> <p>Imitation</p> <p>Relating it to own experience</p> <p>Learner doing</p> <p>“The best way to teach them is to demonstrate something and then you { . } get them to do it and then you let them do it on their own. After that if they can’t do it then you have to re-demonstrate.”</p> <p>“...if I show them then the learner can relate it to their own experience and build from there. Then they will have a link to their own experience when they are next confronted with that kind of problem. They might recall what I’ve said, but they will make a meaning out of what they have attached to it. They know they can do it themselves - they’ve actually done it. They’ve seen how it should be done and they’ve done it themselves.”</p> <p>Relating it to their own experience:</p> <p>: ...when they hear something they’re going to put it in relation to what they already know, what they’ve heard before and so if you’re listening to a lecturer or something then you’re going to be listening to those things you can identify with, and then try to thread in the things that you don’t identify with, with that. And then if you can understand it then you’re going to learn how you integrate these new things and then you can use them. Hopefully they’ve become a part of you and then that’s when you’ve learnt something.”</p> <p>Learn through application; relate to their own experience:</p>

	<p>The best way to teach it is to put it in a context where the learner has an idea of what they are trying to do, and now they are learning how to think mathematically in order to get there. So they realise that in order to get to the result, ok I might see the result, I might visually be able to see it</p>
<p>Tools</p>	<p>Worksheets</p> <p>“...and I guess they tried to move their boundaries. But the point is that to get them to do anything after that I had to give them a physical worksheet to work on where the people who could do it would do it and those who couldn’t were then forced to ask me and even if there was loud talking the work still got done.”</p> <p>Language</p> <p>“To cut out everything that I might think as a university trained person. I would be interested in all the things that are related but you need to cut out all that - maybe that might come up when you’re interviewing or you’re through the lesson and you’re talking but I put forward a language which they can relate to.”</p> <p>“...take them into changing those words into maths and then seeing it in that kind of way.”</p> <p>“I would like to be able to do that, to get more examples said in different ways in order to be from common language to more scientific language.”</p> <p>Learner participation</p> <p>“... if the children actually do it then I think they all sort of group that they all know to can do it type of thing, they don’t rely on my word I think.”</p> <p>“But to make it memorable there has to be some physical action done by a member of the class that the others can identify with - it’s not coming from the teacher as such.”</p>

	<p>Questioning and Assessment</p> <p>“They assist me in assessing what they know. If I’m questioning then it also gives me an idea of what they’re interested in. If my questions are not asking for one particular word answer - if it’s something like what do you expect your money to be doing in the bank - there could be a lot of things happening there. And then obviously I will choose a response which is more like what I’m trying to tell them. But at least I have an idea of what they do know about it, and I can use that.”</p>
<p>Object</p>	<p>To progress through school:</p> <p>“So that’s deadly serious and that is my role as a teacher - not to scare them with the seriousness of it but to make something that is really necessary in terms of their future progression through school, give it to them in a way that they can take it.”</p> <p>“So the second teacher doesn’t have to start from the beginning. I think that’s my job - to get them to the next stage.”</p> <p>To get them talking in the language of the subject:</p> <p>“My approach to the lesson would be to take what I have to teach and try to put it in the language that I think they will relate to and then pose questions or start discussions that will bring out the language that I’m trying to aim for. Once they’re talking in the language that I want, then they can see me demonstrate something in that new language and then I pose more examples where they have to apply the new language...”</p> <p>“They have an idea of how to solve that problem; they just need to have the language. They give it in their language and then I try to write it up in a more mathematical way and then they can agree or not and then sharpen their image of what it is that can be done in mathematics and then I can lead them in further possibilities of what this means. That’s what I’m working on - making something explicit</p>

in a certain mathematical language and that builds on parts of their previous knowledge and their common language understanding and making it into a rigorous mathematical. Then they can leave saying yes now they can speak mathematics...”

Learning – being able to do more in the subject; Gaining confidence in the subject:

“I definitely want to achieve that they can handle a more advanced problem than they could the day before. That they’ve added to their arsenal of possibilities of looking at a mathematical problem. That they have more methods or techniques at their disposal and that they can be a little more critical about what they’re trying to do and what it means and ‘is it real?’ and ‘is it rigorous enough?’, ‘can I trust it?’ and things like that. Are they a little more self-assured about what mathematics is and can they do it themselves. There are big ideas that, you know, ‘maths is hard,’ ‘it’s only for certain type of people,’ so people are unwilling to accept now, ‘ok its easy, I know what that is.’ They better actually believe it themselves {laughs} that this is coherent and it can be read by anybody and it can be repeated and it’s not impossible.”

“I guess somebody learns by recognising from what they’ve been told or what’s put in front of them. They recognise things that they relate to and then they see them in the new light so they consolidate things that might have been previously in separate boxes. ...when they hear something they’re going to put it in relation to what they already know, what they’ve heard before and so if you’re listening to a lecturer or something then you’re going to be listening to those things you can identify with, and then try to thread in the things that you don’t identify with, with that. And then if you can understand it then you’re going to learn how you integrate these new things and then you can use them. Hopefully they’ve become a part of you and then that’s when you’ve learnt something.”

“You can see when someone learns something when their behaviour changes. If they’re now learning the words that you’ve taught them, the techniques that you’ve taught them, then are they using them and

	they own them, then they've learnt something."
Outcomes	<p>Reduce Generation Gap and create greater understanding:          "The changes are happening quicker and quicker I feel and the gaps between generations are getting larger and I guess I want to be able to relate what they are experiencing to what I have experienced and have them be able to see a, let's say, more mature view, maybe a bigger picture, maybe something that is outside of their experience becomes they experience because of me and then they will consciously look out for that experience in their own way."</p> <p>Prepare them for the world:          "I'm here as the teacher to tell you what I know and tell you what's kind of expected of you for when you get out there."</p> <p>Ability in Maths:          "Then they can leave saying yes now they can speak mathematics and they can do the examples."          "That they've added to their arsenal of possibilities of looking at a mathematical problem. That they have more methods or techniques at their disposal and that they can be a little more critical about what they're trying to do and what it means and 'is it real?' and 'is it rigorous enough?', 'can I trust it?' and things like that, making them more...are they a little more self-assured about what mathematics is and can they do it themselves. There are big ideas that, you know, 'maths is hard,' 'it's only for certain type of people,' so people are unwilling to accept now, 'ok its easy, I know what that is.' They better actually believe it themselves {laughs} that this is coherent and it can be read by anybody and it can be repeated and it's not impossible."</p>
Division of Labour	<p>Teacher has multiple roles; too demanding:          "I know that the policy talks about certain roles of that of the teacher but I feel you can't adopt all these roles at the same time. First of all</p>

the work load is tremendous and the time is very short and unless you talk to somebody after the lesson about the role of a pastoral role or something that's not directly related to your field, you're crossing a line where, I suppose older teachers would say you've crossed a line, maybe in the curriculum now or the policy saying you know you should be going a bit further than maybe a subject specialist. But I feel that's very hard to do"

Teachers role: must be the authority in the classroom, responsible to keep order (needs to be a certain kind of order in the classroom before learning can happen) vs. struggling with authority and own personality:

- "To come across as the authoritative figure in terms of maths or science..."
- "I see that I'll have to do a lot more talking to established teachers, observing the teachers as well I think, to get that kind of authority, that kind of presence that's needed, but on the other hand I want to reach the learners with my own personality."
- "As I've observed, and I would like to be, (the teacher) is the person who maintains the order such that everyone can speak, that everyone is free to give a view that is not going to be laughed at and that once they have given a view I as a teacher must address it."
- "...though the classes that I taught were pretty disruptive in the way that there wasn't enough time for them to engage in themselves in a way."

Teacher: must be a role model

"So your role is a role model as such. How you present yourself is kind of what they take at face value. But they also read into you over

	<p>time about who they think you are. So whatever you say it's going to come across from where they think your perspective is."</p>
<p>Rules</p>	<p>Outcomes (OBE):</p> <p>"In terms of outcomes and where they are supposed to be by the end of their education and if I must teach something that is required as a building block for something then yes I must do it and that's where my responsibility lies. So that's deadly serious and that is my role as a teacher - not to scare them with the seriousness of it but to make something that is really necessary in terms of their future progression through school, give it to them in a way that they can take it."</p> <p>"...giving them this bigger picture and telling them, giving them the criteria, say the rubric, and from that they know what they are supposed to be doing. So you tell them what you expect and then that is what they will do. If they are given the outcomes there is no way they can fail... But if you are just aiming to get them to learn what you teach them then they have just got to get through a certain outcome and that's it."</p> <p>OBE worked? Teachers overloaded and misunderstand it, focusing on unnecessary assessment:</p> <p>"Has it worked or not? I don't know. I just see that teachers have not adopted that particularly (.) I mean I think it takes a lot of lesson planning before hand, which I think a lot of teachers have not done, certainly they have never seen a lesson plan. Um (.) I've seen a rubric for an expo or something. We've been asked in this course to make lesson plans in that where we are kind of in an OBE way where we design down – today we teach this in order to get this. Which is what teachers have been doing it all along anyway, but now we have to assess it continuously. So I guess I am seeing the conflict that teachers are having in that there is too much assessment, and you are assessing</p>

	<p>rubbish. Their marks, they are always failing.”</p> <p>Not all teachers understand or agree with the new rules:  “‘And it’s just a reality that the university intake is from those to elite white schools and it’s because those teachers have weathered the curriculum changes, where those others have not in a way. Those schools that were previously quite well funded in the old set-up and are now less funded in the new set-up.”</p> <p>“I’m influenced by what is meant by OBE, and if the staff is anti-OBE, by what they think about it and if they think it is good.”</p>
Community	<p>Good vs. Bad Community:</p> <ul style="list-style-type: none"> <li>- Some communities still defined by race; South Africa’s history influences attitude:  “...the students are very disrespectful of teachers and quite, not mistrustful but with teachers, but mistrustful of this system as such that for some perceive that they’re not going to able to go beyond their race labels in this generation and because they’re parents saw life in a certain way they are limited to their parents views...”</li> </ul> <p>“I don’t know how much political influence and that has but students definitely have a sense of where you’re coming from in terms of you’re background. Did you come from a racially prejudice household, how much influence did that have on you.”</p> <p>Parents or Guardians:  “...students are still affected by the images of where their parents thought they should be in society. You know they are not really caring about, if they are put in this particular school then their chances of getting to university are very small, their motivation is not school motivation as such, to take a more academic route, they more want to go on a vocational route. (.) You can see that the whole valley of academics as such has reduced themselves to people who see</p>

themselves as not having that opportunity, they are just not going to get there. And instead of having this access to whatever you were after you still feel that it is who you know. It's not what you know, it's who you know, if somebody is pushing you."

Home life:

"...but that just depends on how much time they have at home, did their parents help them, whether they are given an excellent mark."

Staff and school:

"The staff room (.) being uncomfortable with a certain culture that is different to my own culture, a staffroom that is loud and there is mock, loud jesting and mock fighting, confrontational in a way that is different to my own culture, more direct. I guess if I'm uncomfortable that does affect me during the day in a certain way, I observe it and I am kind of amused, and I learn why the students behave the way they do, these are their role models."

"I'm influenced by what is meant by OBE, and if the staff is anti-OBE, by what they think about it and if they think it is good."

"The environment of the school in terms of school culture timing of assemblies and special things that can interrupt classes; say fire drills or unexpected things affect the teaching. The school culture in terms of playing loud music in the breaks, not having the chance to think or reflect on anything. The school day, you are influenced by the activities around like PE or volleyball in the quad that is just next to the classroom."

Other teachers:

"I am affected by the older teachers; some teachers have been there for

30 years or whatever. They will tell me how to do things in a certain way and it gives me a great insight to their experience with a certain age group which I couldn't have imagined without seeing it through their eyes first. And comparing that to what I am taught on the theory side, I will test that out, putting it through my way, to see whether it works, and most of the time it works quite well, when I have understood what level I must deliver lessons at."

"... say the influence of other teachers, like with previous teachers, "so and so did it this way, this is how we do it, we're not really interested in the intermediate steps that you're showing us, we can jump right to the answer," which is very hard to undo."

Principal and governing body:

"...I'll send you to the principal if you're misbehaving or you will end up having a governing body hearing or something so that those are kind of leverage, power leverage that you don't particularly want to use, but that you kind of fall back on if you can't be imaginative enough."

Learning area department:

"If I am a part of four classes of grade 8 teachers I am relying on the (.) first of all the resources being available that are shared, say a skeleton for science, that are being shared between classes. But I also influenced in my class by who sets the test and when it is delivered and have I covered what I have to cover. So those are the other people in my department influencing what I actually teach."

**Activity System 6: John: Pre-service Maths, Life Science and Natural Science Teacher  
(Appendix 3.6)**

