

**UNIVERSITY OF KWAZULU-NATAL**

**EVALUATING POOR EDUCATIONAL PERFORMANCE: THE VALUE OF USING A  
SYSTEMS THINKING APPROACH WITH SPECIAL REFERENCE TO GRADE 10 – 12  
CLASSES IN SCHOOLS IN THE SAMUNGU WARD**

By

Sipho Lawrence Xulu

Student No: 206524038

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of  
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**Supervisor: Prof. K. Pillay**

**Leadership Centre  
Faculty of Management Studies  
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## DECLARATION

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## ABSTRACT

This study uses a practitioner research approach to focus on poorly performing schools in grades 10–12 in the Samungu Ward, and looks at the value of using a systems thinking approach to address the problems of poor performance, as compared to the traditional, reductionist approach that is usually applied by the schools and the Department of Education in the implementation of its policies.

The research moves from the premise that schools are complex learning organisations and that their problems should be addressed within the context of the systems thinking approach, in which the organisation is seen as a whole with emergent properties, a layered structure, and with processes which enable it to adapt in response to environmental pressures (Checkland, 1999:21).

The research has used some aspects of the Soft Systems Methodology as a tool to process the information collected from the participants, because the Soft Systems Methodology “concentrates on learning from organizational and contextual ambiguity and appreciating socially conditioned problem situations with a view to changing relationships and making improvements.” (Jacobs 2004:140) The study has looked at the problem formulated during the discussion with the stakeholders and has juxtaposed the value of the use of Systems Thinking with that of the traditional approach, either in the intervention programmes or in the formulation of solutions.

The research concludes with recommendations made in terms of the systems thinking approach, having discovered that the traditional approach fell short in yielding the desired outcome during the implementation process of the policies. From a practitioner research perspective, the study has also led to the implementation of some of its recommendations, which seem to be viable and has produced the desired outcome.

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# CHAPTER 1

## 1.1 Introduction

The research is based on the experience that I gained from my every day encounters with schools while working as a Ward Manager who was responsible for thirty-six schools, of which thirteen are secondary schools and twenty-three are primary schools. My job description consists *inter alia* of the following duties as outlined in the Public Administration Measure (PAM) Document in the Employment of Educators Act 76 of 1998 as amended and has been redefined in the Job Description document for Ward Managers (2006:1 – 15):

- “Provide leadership and management to schools to ensure the functionality of the schools in the Ward.
- Develop financial and budgeting capacity, to ensure that treasury policies and procedures are followed.
- Manage the provision of effective quality education in schools.
- Facilitate effective and efficient communication within the Ward and among stakeholders in education.
- Manage the administrative processes within the Ward.
- Manage human resources so as to promote an environment that is conducive to learning, teaching and quality service delivery”.

I also engage in the evaluation of personnel in the Ward.

Given the above, it was natural for me to take on a practitioner research perspective in engaging with the problem area. This perspective and its value to my research will be unpacked in later chapters,

Under the umbrella of the practitioner research perspective, this study looks at the school as a whole through the systems thinking approach and tries to understand the complexity of the school as an organisation. The study also understands that the learners and educators exhibit emergent properties and that the complete knowledge of an individual property is not sufficient to infer the details of the aggregate of properties (Maxfield, 1999:2).

Using the systems thinking approach the study also looks at the school in relation to the influences it has on and receives from the outside environment, over which it has no control.

## **1.2 Practitioner Researcher's Identity**

I would like to start by identifying myself and the work I do in order to indicate the need to conduct practitioner research in my field of operation. I work as a Ward Manager in the Empangeni District and I am stationed in the Eshowe Circuit, managing the Samungu Ward, which is one of the four wards in the Circuit. The Samungu Ward consists of thirty seven Schools with thirteen secondary schools and twenty three primary schools. My work as a manager of this ward entails the following duties and responsibilities:

- Supervise and support the school principals in the general management of their schools.
- Supervise, support and give guidance to schools concerning the management of school finances.
- Supervise, support and give guidance to the school principals and Governing Bodies concerning curriculum delivery in schools.
- Supervise and support the implementation of the Government's policies on the following programmes: School Nutrition, Integrated Quality Management Systems (IQMS), Discipline, Safety and Security systems, etc.
- Supervise, support and give guidance on the management of examinations in schools
- Supervise, support and give guidance on school governance and administration in schools.

I am basically required to visit all the schools under my care and perform the above-named duties, but the reality is that I hardly find time to visit all the schools except to meet the School Principals in cluster groups or to visit those schools where there is a crisis. The reason why I am hampered in visiting all the schools as scheduled is because I sometimes find myself concentrating on one sector of the schools. For example, the secondary schools are the ones that need more of my attention, especially those secondary schools that performed poorly in their grade 12 final examinations in the previous year and obtained less than 60% as required by the Department of Education.

I am also responsible for coordinating the formal examinations of grades 9 to 12, either as controlled common tests or final year examinations for grades 12 and Adult Basic Education level 4. These examinations are conducted in February as supplementary examinations for the previous year and then during March as controlled common tests for grades 11 and 12. The examinations

further continue during May/June as National examinations for the grade 12 of the old 500 Nated syllabus and the new *National Curriculum Statement* grade 11 and 12 as common controlled tests

The monitoring of the Secretary-General's 9 point strategy on curriculum delivery is another mammoth task which requires responses at least twice a term and focuses on secondary schools that underperformed in grade 12 the previous year, as mentioned above.

In terms of monitoring curriculum delivery, I have to spend the whole day in each school in order to check the following aspect of their performance: evidence of written work of learners in classes from grades 10 to 12, evidence of the control of educator's work by Heads of Departments (HODs) and evidence of the functioning of various committees in the school like the School Governing Body (SGB), etc.

The Department of Education has adopted as its policy the categorisation of schools whose learners have obtained less than 60% pass in their final examinations as poor performing schools and it has formulated various policies to assist the schools that are categorized as poor performers. These policies are an attempt by the Department to try and address the problem of poor performance in the target schools. The implementation of these policies becomes a problem because the managers of schools are not yet equipped to deal with forces that shape the consequences of their actions (Senge, 2000:8).

### **1.3 Background of the Research**

The study evaluates poor educational performance in schools with grade 10–12 classes by looking at the traditional educational policies and processes of teaching and learning and juxtaposing them with the use of the systems thinking approach that asserts that there is not a single entity of the organisation that can be said to have been the cause of the organisation's credit or discredit (Senge, 1990:7). The issue of the poor performance of these schools, according to systems thinking, is a complex one which needs a broader understanding of all the formations of the school organisation.

### **1.4 Motivation for the Research**

There are six secondary schools in Samungu Ward that performed below 60%, during the academic year of 2007, and these schools are as follows:

<b>NO</b>	<b>NAME OF SCHOOL</b>	<b>NO OF GRADE 12 LEARNERS</b>	<b>PERCENTAGE PASS</b>
1	Mhlakaza	30	55
2	Umphezeni	20	40
3	Velamuva	67	32
4	Nokhalela	19	31
5	Magemfane	34	26
6	Noqandela	27	42

As ward manager I was concerned about how I could meaningfully intervene in the problem area and bring about a change in these underperforming schools. As this is as much about my own development as it is about the schools', the practitioner research perspective was the guiding approach where the on-going research is about assisting the schools to see what they are not doing right in order to produce the required results.

### **1.5 Problem Statement**

What is the cause of poor performance in grade 10–12 classes in schools in Samungu Ward?

This study looks at the current policies that are used in schools with regard to the provision of quality education. The study also looks at the policies that are used in schools to determine the cause of poor performance in grade 10–12 classes. The study evaluates the schools that are performing poorly and tries to compare the traditional approaches with the systems thinking approach. The study therefore intends to solve the following problems:

- To change the traditional approach the School Management Teams (SMT) use when diagnosing the reason for poor performance in the school.
- To try to assist the SMTs to broaden their minds when trying to formulate a turn-around strategy, e.g. to help them not to focus narrowly on educator and learner discipline only.
- To assist the education authority to establish all-encompassing educational support programmes that will assist the whole development of the school.
- To assist the school to formulate turn-around strategies that are systematic, flexible and in keeping with the new trends of the systems thinking approach.

- To assist in achieving the above through developing my professional competencies through practitioner research.

## **1.6 The Research Questions**

1. What is the value of a practitioner research perspective to my own professional development?
2. What is the feasibility of a systems thinking approach to complex, messy problems in education?

## **1.7 The Value of the Project**

In a sense, as is the case with all action research that is characterised by iterative learning, this study is an on-going one to help these schools change their attitudes and to be receptive to new methods and innovations brought about by the support programmes and new policies (Fox *et al.*, 2007:48 – 57). The research will also assist the Department of Education to reassess its policies and to try to use systems thinking in its future approaches to the same situation. This study is also on-going in terms of my own professional development, and by its very nature I cannot assert that all problems have been solved. Rather, this study has shown the value of practitioner research as a process for all educators, and this, coupled with a systems thinking perspective, provides new insights for potential reform in education.

The study will assist the schools' management teams to critically re-evaluate their processes of teaching and learning. Through the systems thinking approach the study will assist the schools to better understand interdependency and change that is taking place in their schooling process. For example, all the activities that are happening in the school are supposed to have a common impact and this impact is the good performance of the school as a whole (Senge, 2000:8)

When the systems thinking approach is implemented in schools it will allow the management teams to focus on all the activities as a whole e.g. the activities of learning and teaching which involves the actual teaching and learning in the classroom, the assessment processes, the control and evaluation of the quantity and quality of written work, the compilation of assessment reports, and any other activity in the teaching practice. According to systems thinking, these are all interconnected and there are some emergent properties which are sometimes difficult to predict (Waring, 1996:21).

## **1.8 Limitation of the Project**

The problem that is addressed in this study is widespread in the whole District and most probably in the whole country. However, this study is able to focus on only six secondary schools that fall under the Samungu Ward. The issue of poor performance in schools is a very wide subject, and this study focuses only on the principles of the systems thinking approach through a practitioner research perspective in order to try to solve the problem.

The project introduces school managements to the systems thinking approach so that they may begin to understand that all of the components of the school are interconnected, and that they need to function as a whole (Senge, 1996:6) Furthermore, it is hoped that my personal narrative of engaging in practitioner research will motivate other educators to accept its value.

## **1.9 Definition of Terms**

### **Ward**

This refers to schools clustered together for management purposes, e.g. each cluster consists of about thirty-six schools.

### **School Management Team (SMT)**

This refers to the school principal, the deputy and the heads of departments.

### **Scheme of work**

This refers to the learning programmes that indicate the volume of work to be covered in one academic year in order to prepare learners for the final examination.

### **Learning Organisation**

This refers to a situation when a school, like any other organisation, uses its acquired experience to improve its performance, and through planning and the use of new information acquired through workshops and more generally, becomes innovative and implements more relaxed control measures (Pettigrew *et al*, 2003:75).

## **Systems Thinking**

This is an understanding that an organisation such as a school has different components that are interrelated and connected, and in order to understand its performance one must look at the school as a whole (Senge, 1990:7).

## **Soft Systems Methodology**

The Soft Systems Methodology is part of the Systems Thinking approach, which this study has used to collect information. It is also a human activity model in which people interact with one another in order to pursue a common goal. It is suitable to situations where participants need to debate and develop their ideas (Lockett, 2001:523).

## **1.10 Research Design**

### **Research Approaches and Paradigms**

This study is going to use the Systems Thinking approach as espoused by Senge (2000:59 – 78). This approach allows the study to look at the situation holistically and understand the complexity of the matter.

The paradigm is ontological because the study will assert that life is emergent and must therefore be viewed holistically. The research will be qualitative in nature because it will be subjective and based on my previous experiences and encounters with the cases under study and will use the Practitioner Research approach because I will be researching the activities taking place within my organisation.

### **Research Methodology**

This study will use aspects of the Soft Systems Methodology and also use some aspects of the practitioner research approach because the research is based on the activities that are taking place within my organisation.

The Soft Systems Methodology, according to Checkland and Scholes (1999:11), allows for the identification of the problem, the formulation of some relevant and purposeful activity models, the debating of the situation, using the model and the taking of action in the situation to bring about improvement. Practitioner Research is conducted by a person who is employed in a professional capacity but who, as a part of his role, is expected to undertake research (Fox, *et al*, 2007:1)

### **Methods for Data Collection**

The data will be collected through using Soft Systems techniques, where there will be discussions and debates generated from the rich pictures, and from interviews with other people who were not part of the discussion groups. The literature review will also be used as a form of data collection.

### **Data Analysis**

The data collected will be analysed to assess the situation in order to arrive at an appropriate solution.

## **1.11 An Overview of the Following Chapters:**

### **CHAPTER 2**

In this chapter a thorough review of literature with regard to the systems thinking approach will be explored. Systems thinking will be looked in conjunction with the traditional approaches that are used in schools to address the issue of poor performance.

### **CHAPTER 3**

This chapter is going to show the value of the use of the Systems Thinking approach, beginning with the technical application of the systems approach in data collection using aspects of the Soft Systems Methodology (SSM). The study is also going to give the details of the Soft Systems Methodology and indicate how aspects of this approach were used as a tool to collect and analyse the data.

### **CHAPTER 4**

The information collected in chapter 3 will be evaluated and the experiential learning that took place during research will be described and analysed. I am going to design a conceptual framework derived from my line of research and use it to share my experiences.

### **CHAPTER 5**

Recommendations will be made about the activities of the schools and whatever they are doing well will be reinforced. Guidance will be given to schools about what they need to do in order to improve their performance.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

The study looked at the approach and the policies used by the Department of Education in addressing the issue of the poor performance of the target schools. The study compares the use of the Department of Education approaches with the use of systems thinking that emphasises the fact that the school must be looked at as a whole and as a pattern of change, and not as a snapshot (Senge, 1990:6). This means that the school is an organisation with many components, which contribute to its good or its poor performance.

The study looked at the policies and approaches used by the schools, evaluated them, and found that there is nothing wrong with these policies except that when they are implemented, they are implemented as separate entities, a fact which causes them not to be effective.

The desired outcome is obviously the changes that will be seen in these schools once they have been subjected to the various intervention policies of the Department. The study wanted to substantiate that the use of the systems thinking approach to address the performance of the target schools is more relevant to what prevails in the schools nowadays.

#### 2.2 The Fifth Discipline

Senge identifies following five disciplines as being the components of organisational learning and they are not imposed from outside but they are ongoing bodies of study and practice that people adopt as individuals and groups offering many help within organisations to deal with internal problems (Senge 2000:7).

I feel that these disciplines are very relevant to this study because they will allow the schools to view their problems holistically and apply the systems thinking approach to obtain viable and sustainable solutions.

### **Personal Mastery**

Personal Mastery, according to Senge (1990:7) is a cornerstone of a learning organisation, because without individual learning there is no organisational learning, though the former does not guarantee the latter. It is therefore important that in the school these individuals are afforded the opportunity to learn.

Senge states that there are two underlying movements of Personal Mastery in our life; namely, it continually clarifies what is important to us and it also assists us to learn continually how to see current reality more clearly. This discipline tries to create the connectedness between the desired goal of an individual and the desired goal of the organisation.

### **Mental Models**

Mental Models are also characteristic of an individual person. According to Senge (1990:8–9) ‘mental models are deeply ingrained assumptions, generalizations or even pictures or images that influence how we understand the world and how we take action.’ He further says that, in this discipline, people begin to expose their own thinking effectively and make that thinking open to the influence of others.

### **Shared Vision**

For Senge (1990:9) the practice of shared vision involves the skills of unearthing shared pictures of the future that foster genuine commitment and enrollment rather than compliance. Therefore, a person who participates in a purposeful debate about the future of an organisation can come up with an idea that is accepted by everyone and this can ultimately become a cornerstone of the organisation.

### **Team Learning**

Senge (1990:10) says that team learning happens in a dialogue where members of the team suspend their assumptions and enter into genuinely thinking together. This is a situation where the teams of the organisation learn together instead of as individual persons, and this becomes important for the organisation because the learning team influences the whole organisation to learn.

## **Systemic Thinking**

Systems Thinking explores things as wholes and Senge further says that the world is whole and the whole is complex. Systems Thinking is based on the premise that organisations are complex entities, which consist of various components, which are interconnected, and people learn to better understand the interdependency and change (Senge, 1990:32). It is further based on a growing body of theory about the behaviour of feedback and complexity and the tendency of the system that leads to growth or stability over time, and it has tools and techniques, such as system archetypes, learning labs and computer simulations (Senge, 2000:8).

The argument with regard to these disciplines is that they are characteristics of individuals within the organisation that need to be managed in terms of the systems thinking approach, so that they can work in unison for the betterment of the organisation.

The problem with the traditional approach that is practiced by the schools is not the policies and rules, but that the schools are influenced by the kinds of mental models and relationships in the school at every level; from the teacher and the learners in the classrooms to the national governing bodies that oversee the school's functioning (Senge, 2000:19). These mental models, it can be argued, are located not only in the country's apartheid legacy, but in the authoritarian structures of education that can be traced back to the 18<sup>th</sup> century model of industrial education.

According to Pettigrew *et al* (2003:73), learning is always context-bound and has to be understood and described as a social process of sharing understanding between the members of the organisation. According to the traditional approach, the schools' poor performance is sometimes perceived by the man in the street to be due to:

- Absenteeism
- Late arrival at school, or in class after breaks
- Educators not submitting their assessment records on time
- Unruly educators and learners
- Lack of general discipline

The schools that have been selected for this study can, in terms of the systems thinking approach, be made into 'schools that learn' and this can be achieved by making everyone in the school system express their aspirations, build their awareness and develop their capabilities together (Senge

2000:5). The poor performance of these schools cannot be viewed in isolation, but this has to be viewed together with all the other components which influence these schools. For example, the behavioural patterns of the learners, the educators, the members of the School management Team, and the non-teaching staff members must be related and interpreted as a whole before it will really make sense.

Senge (1990:6) employs an analogy with the formation of a rainstorm when he says that ‘a cloud masses, leaves twist upward, and we know that it will rain... All the events are distant in time and space, and yet they are all connected within the same pattern. Each has an influence on the rest, an influence that is usually hidden from view. You can understand the systems of the rainstorm by contemplating the whole, not any individual part of the pattern.’

Each individual school is unique; the teachers, the learners and the management are all different from those in the neighbouring schools. However, one cannot tell the difference at a glance. According to Pettigrew *et al* (2003:73), ‘learning process takes place within the company as well as between the company and external actors.’

The above assertion substantiates the fact that there is a lot of learning that takes place within a school in particular, and that it also happens between schools that share a common social or cultural background. There are also external factors that influence the performance of a school, such as the environment where the school is situated.

One might generalise and say that the schools performed poorly the previous year because they did not have the resources or because they needed more visits from the Department of Education so that they might be watched all the time. But this assumption could be wrong, as is evident if one looks at similar schools in the same neighbourhood that performed very well the previous year without the above assistance.

Schools in general have leverage in their learning process, in that they can benefit from the experiences of their past performances and they can exploit their current competencies in the face of dynamic tendencies, to emphasize one or the other (Achtenhagen *et al*, 2003:78). This argument confirms the fact that schools have a ‘library’ of experiential knowledge to draw on, and can manipulate their present competencies to their advantage.

Various activities take place at different levels and in different sections of each school. For instance, in the classrooms there are educators that are teaching the learners and there are learners that are learning from the educators. The Heads of Departments (HODs) in the school monitor the work of both the learners and the educators, and the management interprets the policies of the Department of Education and sees to their implementation. All of these people, at different operational levels of the school, have their own mental models, and their heterogeneous nature may be detrimental to the smooth functioning and successful performance of the school if not well managed.

The interventions applied by the Department are always like 'quick fix' exercises, e.g. when the school has performed poorly in its grade 12 final examination results, the School Management Team is quickly placed under the scrutiny of the National Department. These schools are then subjected to the programme called the National Strategy for Learner Attainment (NSLA).

The NSLA programme purports to give extra attention to schools that have under-performed in their grade 12 results the previous year. These schools are supplied with extra Learner Teacher Support Material (LTSM). If the schools that have been placed on this programme improve on their grade 12 results the following year, they are immediately withdrawn from the programme. This exercise has a detrimental effect on the general performance of the school, because once the school has been withdrawn from the exercise its performance reverts to its worst level. The statistics of the 2005 grade 12 results indicate that the District had about 96 schools that obtained less than 60% in their performance, and they benefited from the NSLA programme.

The results of 2006 however indicated that the same number of schools obtained less than 60%. The difference was only that these were not the same schools, but they were different schools that had fallen below 60% because they were not being supported in terms of the NSLA policy.

The issue of the poor performance of schools is very complex because it demands that attention be paid not only to the internal learning environment but also to the external environment that includes, among others, learner's parents, their social background, and the whole surrounding environment of the school, and the entire national system of education, (Pettigrew *et al* 2003:78).

In writing about chaos theory Stacy (2003:224) says that chaos performs the important task of amplifying small changes in the environment, thereby causing the instability necessary to shatter an existing behaviour pattern and make way for different one. This is reflected in the fact that

sometimes you find a school performing normally and obtaining a reasonable pass percentage in grade 12. Then the school shifts from its good performance and reverts to a totally hopeless performance level.

If one does not view the whole scenario in terms of systems thinking one will assume that the lack of discipline among learners and educators is the direct cause of poor performance. Systems thinking caution us against jumping to conclusions or assuming the worst or trying to confirm our worldview and mental models each time we encounter a troublesome situation (Senge, 1990:8).

The opposite of the above can take place when a poor performing school suddenly becomes a school, which performs well, without any noticeable intervention programmes or effort, either from the school management or from the Department. Stacy (2003:224) reflects on such occurrences and comes to the conclusion that they result from systemic self-organisation, a process that occurs spontaneously, given certain critical values in the systems' control parameters. The system organises itself to produce a different pattern without any blueprint. This assertion reinforces the argument that each organisation needs to be looked as a whole and an event of an act of ill discipline cannot necessarily be the main cause of poor performance; there may be many factors.

Wheatley (1999:36) speaks of a Quantum Age, which makes prediction and replication impossible. Wheatley's assertion emphasises the fact that it is no longer easy and possible to predict the outcome of a situation in any organisation – a statement that is particularly true of social organisations.

The performance of the target schools cannot be predicted simply, either on the knowledge we have about the school or on its previous performance. The different components of the school have different impacts on the performance of the school. These components need skilful management in terms of the System Thinking approach, so that they can function coherently to the benefit of the whole school.

To take this point further, Wheatley (1999:38) says that instead of the ability to analyse and predict we need to know how to stay acutely aware of what is happening now, and we need to be better and faster learners from what has just happened. This assertion means that the managers of schools need to be equipped with skills to be able to react to every unpredictable situation and to stay alert to

current trends and to learn from them. The issue of poor performance in schools is therefore a complex issue, which needs to be viewed in terms of the systems thinking approach

### **2.3 The Superintendent-General's Turn-Around Strategy**

It is difficult for an individual person like the school principal to come up with a solution that will turn around the performance of the school. The Department of Education has tried to come to the assistance of such school principals by the formulation of the so called 'Superintendent-General's Nine (9) point Turn-around Strategy or Key Performance Areas' that is enumerated below:

1. The provisions of critical resources like learner-teacher support material, subject advisors, etc, that need to be provided by the head office of the Department.
2. The management of the process of teaching and learning, which requires the principals of schools to perform effectively and efficiently.
3. Teacher support needs to be facilitated by departmental heads in schools through meetings and discussions with subject teachers.
4. Learner assessment is also managed by heads of departments and is an ongoing process, e.g. the monitoring of controlled tests and the quality of knowledge imparted to the learners and the strict adherence to the assessment guidelines.
5. Management and governance is another factor that requires intervention at District and Head Office level, to dispatch teams that will visit schools that have performed poorly in their grade 12 results for two consecutive years. These schools are called Special Measure School (SMS) and the Department gives them extra attention in order to assist in the improvement of their results (SG's 9 point strategy 2006: 1-5).
6. Institutional turn-around plans are developed and submitted to the Department by all of the schools that had obtained less than 60% in their grade 12 final year examinations results, in order to see what plans they have to improve their performance. Community Involvement is promoted by informing parents of learners about the progress made in each quarter, so that they may become part of their children's progress.
7. Monitoring is another strategy that becomes the responsibility of the school principal, in order to make sure that the learners are in class and teachers are teaching.
8. Special Measure Schools are those schools that have obtained less than 60% in their grade 12-examination results for two consecutive years, and the policy says the principals of these schools will have to undergo compulsory training in key competences of school management, and if a principal does not improve, his/her redeployment will be considered.

Maxfield (1999:2) speaks of the Complex Adaptive Systems theory. He says that this is an open-ended system of many heterogeneous agents who interact non-linearly over time with each other and their environment, and which are capable of adapting their behaviour based on experience. Schools cannot be viewed as formations of disconnected components e.g. learners, educators, parents, non-teaching staff, etc. All of these components are basically different from one another in nature, but if well-managed they are all capable of adapting their behaviour and acting as a unit to achieve a common goal.

The Complex Adaptive System suggests that through the experience these component or agents have acquired over time they are able to adapt and work together towards achieving the common goal. This means that in the event of a positive change in the pattern of the school's performance, the credit should not be given to any one component but to the whole school, because the positive change is a result of the effort of all of the components of the school.

Taylor (2004:166) says 'It is not sensible to plan or lead organizations as if they are simple and controllable or exempt from the circumstances of change and flux in a globalising world.' The policy of the Department of Education mentioned above, known as the *Superintendent-General's nine point strategy for 2007*, may be viewed as prescriptive to the schools that are categorized as the under 60% schools, however schools should use this policy as one of the tools that they will use as a guiding principle when they implement their own 'Turn-around strategies'

This policy gives guidance to schools on how they should conduct their processes of teaching and learning, for example:

- Schools should organise study periods outside of instructional time (afternoons or weekends).
- Set homework in key subjects from Monday to Thursday of every week and use it for formative purposes.

On learner assessment the prescription is as follows:

- Each school sets monthly controlled tests on subjects like Mathematics, English Language, History, Physical Science, Biology, etc
- There will be quarterly tests set provincially, which will be written under controlled conditions.
- The trial examinations will be set provincially and written in September.

This policy is a good attempt made by the Department of Education to address the issue of the poor performance of grade 10 – 12 learners in the target schools, but the approach of trying to single out activities and address them as separate entities may hamper the achievement of the desired objectives. The Department of Education must understand that it is very difficult to control all of the activities that are happening within the school in the hope of obtaining a predicted outcome.

Taylor (2004:166) also says that the strategic challenge for leadership is to maintain multiple points of stability in an environmental context of change and flux, hence preserving a semblance of stability and direction in a ‘chaotic’ world where that which is ‘unknowable’ is the challenge to contemporary leadership.

The principals of schools in terms of the systems thinking approach need to be equipped with skills to enable them to cope with the challenges that are brought about by the contemporary changes and the confusing modern environment, which is full of unknown influences. The managers of schools are currently faced with a lot of challenges, e.g.:

- The lack of qualified educators, as a result of which the schools have to rely on under-qualified educators who are either diplomates or graduates that initially, did not want anything to do with teaching learners. These new sorts of educators are drawn to schools because of unemployment and because schools could not get suitably qualified educators.
- It is very difficult nowadays to discipline learners, because the use of corporal punishment in schools has been abolished in terms of the South African Schools Act (SASA) 84 of 1996.
- The educators have been granted a lot of rights in terms of the Labour Relations Act 56 of 1995, which protects the right of the educators and allows them to be unionised.
- The parents have been granted a lot of rights in the management of the school through the School Governing Bodies in terms of the SASA 84 of 1996. The SGB can challenge the authority of the principal if they do not agree with what he/she is doing. The SGB and the community at large are not bound by the protocol in terms of the lines of communication. Any member of the community can pick up a phone to lodge a complaint or write a damning letter to the Minister of Education.

The policies that are designed for schools by the Department of Education sometimes look very good and they are mostly well-intentioned. The difficulty, however, lies in the implementation of these policies.

The statement by Taylor (2004:166) that the unknowable is the challenge to contemporary leadership is indeed a fact in most schools. For example, most of the target schools of this study are not new; having operated grades 10–12 classes for many years. Some of these schools have sufficient basic resource materials like books and stationery and even qualified educators, yet their performance is poor.

Lewin and Regine (2000:5) say: ‘CEOs and managers must give up control or rather the illusion of control when they are trying to lead their organisations to some goal. But they do need to create the environment in which creativity can emerge.’ This assertion means that it is very difficult, as a Departmental official, to control what is really happening in schools. It is difficult even for the principal inside the school to control what is actually taking place in the classrooms and to be able to manipulate the outcomes of the policies that are implemented towards the goals set for the school.

The traditional approach applied by the Department of Education is to try to salvage the situation in schools of poor performance of these classes by dishing out these activities that need to take place in the schools in order to achieve the objectives or goals set at the Senior Management level. For example, the turn-around strategy for the grade 10– 12 classes known as the ‘SG’s nine point strategy,’ says the following for its input on teaching and learning:

- “Organise study periods outside of instructional time in schools.”
- “Set homework in key subjects from Monday to Thursday of every week”.

These activities are very good, especially when initiated by the educators themselves in terms of the principle of Shared Vision (Senge, 1990: 10) but there is no guarantee that once these activities are communicated to the schools they will be implemented as required, and that once these activities are implemented the desired outcome will be achieved, however, it is imperative that the Department provide sufficient mechanisms for monitoring in order to achieve the desired goal, e.g. the Ward Managers and subject advisors should be vigorous in the monitoring of these policies and should assist educators in schools.

The assertion by Lewin and Regine (2000:5) that says managers need to create an environment from which creativity can emerge is true, because the school principal must be able to manage all of the diverse expertise of his educators, members of the SMT, learners and non-teaching staff. He

must be able to create a climate that allows the innovations from these people to flow and yield to the desired outcome, which is the improvement of the performance of the school.

Taylor (2004:169) agrees with the above statement when he quotes Wilson (1998) by saying ‘how difficult it is to accurately and definitely comprehend complexity because complexity is not easily bounded, nor are human beings naturally encoded to cope with complex phenomena. Yet interpretation of complexity and composition and communication of response is the substance of the art of leadership.’

In this statement Taylor is actually comparing the nature of science with the nature of art. However, this fact that organisations such as schools are complex phenomena has already been alluded to. Human beings are not naturally skilled to cope with complex situations, and the ability of a manager to do that is the substance of the art of leadership.

The systems thinking approach equips the managers of today, like the principals of the target schools, with this art of leadership, so that they can understand how to deal with complex situations. In a school there are learners, educators, and non-teaching staff members, all of whom are involved in the process of teaching and learning. The presence of these people makes the school a complex organization, which should therefore be managed as such.

Taylor (2004:171), when speaking of the unknown future of organisations, says: ‘the construction of organisational futures based on the human capacity to think, learn and conceptualise, is a means towards creating the self organizing system.’

This assertion suggests that the Department of Education at all levels of its operations including that of the school level must endeavour to invest mostly in its human resources. The complex situations that exist in the schools these days will be better managed when the individuals that serve these schools are well equipped with skills that enable them to think, learn and conceptualise new methods in terms of systems thinking in order to create a self-organising system.

Taylor (2004: 171) says that ‘there is connectivity among the individuals in an organisation and that is a synergy which may be facilitated by communication.’ This means that the educators, the learners, the School Management Team members, the non-teaching staff, the School Governing

Body members, etc are all individual people who have independent intellectual capacities but are interconnected - or there is connectivity among them. The duty of the manager is therefore to facilitate communication among these individuals so that there may be synergy in their performance.

Anderson (1999:221) takes this point further and says ‘systems that consist of independent actors whose interactions are governed by a system of recursively applied rules naturally generate stable structure.’ Schools are operated by independent actors, namely teachers and their supervisors, and the information and the rules that guide their performance come from different levels of management. As long as there is constant feedback about the direction in which these teachers should move the school, it will perform normally like all other schools. For example, if a school is perceived as an holistic entity that needs to be capacitated in terms of the new approach, the school may be able to utilize its components positively and succeed without the intervention of a central controller.

The above assertions substantiate the fact that schools are complex organisations and their actions and performances cannot be analysed in simple terms. One particular example observed in this study is that a secondary school that had performed poorly in 2005 lost the services of a grade 12 English Teacher in June, through resignation. The school could not get a substitute teacher until the learners had to write the final examination, and at the end of the year the grade 12 results of the same school improved to 83%. This result does not lend itself to simple linear thinking, and calls for alterantive ways to account for it.

#### **2.4 The Complex Adaptive System**

Maxfield (1999:2) speaks of the four emergent properties as mentioned below and I draw attention to this system in order to substantiate the complex nature of the functioning of the schools.

- “Self-organisation, which is the emergence of new entities or stable aggregate patterns of organisation and behaviour arising from the interactions of agents”.
- “ Evolutionary trajectories, meaning that the future history of a given system from a given point in time cannot be determined by complete knowledge of the present state”.
- “Co-evolution, which takes the basic concept of Darwinian evolution to the next level. Instead of having a stable environment to determine fitness as agents adapt and evolve, a large part of each agent’s perceived environment consists of interactions with other agents who are themselves adapting and evolving”.

- “ Punctuation, which is the tendency of a complex adaptive system to have stable patterns of activity for a long period of time then have a short transition period of very rapid changes in pattern, followed by new stable patterns of activity”

He says that all of these properties are emergent because complete knowledge of the individual agent is not sufficient to infer the details or timing of the aggregate properties.

For example, Maxfield (1999:2) goes on to say that ‘the Evolutionary Trajectories mean that the future history of a given system from a given point in time cannot be determined by complete knowledge of the present state.’ It is indeed very difficult to tell what the future performance will be of a school that has performed poorly this year. This is difficult because there are many factors that may influence the performance of the school and lead it in either the expected or unexpected directions.

The following example depicts the problems experienced in the implementation of the policy:

The Department of Education designed a policy known as the Integrated Quality Management Policy (IQMS) in terms of the Collective Agreement 8 of 2003. This policy is basically a combination of the Development Appraisal, Performance Measurement and Whole School Evaluation programmes. The purpose of these programmes is as indicated below:

- Development Appraisal evaluates the performance of the individual educator in a transparent manner with a view to determining areas of strength and weakness and to drawing up a programme for individual development.
- Performance Measurement evaluates an individual teacher’s salary progression, grade progression, affirmation of appointment and incentives.
- Whole School Evaluation evaluates the overall effectiveness of a school.(Collective Agreement 8 of 2003:22.)

The Department of Education has tried to establish various measures to monitor the implementation of these activities at schools, but there are great uncertainties as to whether these activities are really taking place or not. The reason why it is difficult to monitor the implementation of this policy is that the developmental appraisal of educators is not taking place because the members of the School Management Team, including the principal, all have full teaching loads especially to those secondary schools with less than ten educators.

The staffing of the school is in most schools constrained by the policy on Posts Provision Norm (PPN). I am going to elaborate on this policy later on, but briefly this policy looks after the supply of educators in each school based on a pupil: teacher ratio of about 32:1 in secondary schools at the moment.

Most of the schools selected for this study have fewer than ten teachers each, which means that most of the educators teach more than two subjects in more than four classes. In terms of the Development Appraisal policy, an educator has to go through a series of formalities like belonging to a Development Support Group (DSG), completing a document for self-evaluation, formulating a Personal Growth Plan (PGP), and eventually preparing for his/her classroom observation. These exercises become too cumbersome for an individual educator and he/she ends up not doing anything. There is no one from the SMT to monitor him or her, and therefore the whole exercise becomes futile and fails.

The Performance Measurement policy, which is meant to evaluate the individual educator's performance for salary progression, also suffers through neglect, because it also depends on the other activities. However, the scores that are required by the Department to effect the salary progression are always available when required and it is very difficult to ascertain if they are obtained through the process laid down in the policy or not. The department relies heavily on the honesty and the dedication of the school principal and his/her SMT members.

The Whole School Evaluation is done by officials from the Head Office attached to the Quality Assurance section. This activity has not started in most schools, since its inception in 2003, because the teams that are supposed to conduct these evaluations in schools are too few.

Ireland (1999:63) says: 'Strategic leadership is defined as a person's ability to anticipate, envision, maintain flexibility, think strategically and work with others to initiate changes that will create a viable future for the organisation.' This is the kind of a manager that is envisaged in the systems thinking approach, because once the manager begins to understand that the functioning of the school depends on the relationship of the various components and be able to manage the emergent properties, he or she becomes a strategic leader with all the above-mentioned qualities.

Ireland (1999:64) further says that ‘the global economy has created a new competitive landscape – one in which events change constantly and unpredictably. For the most part these changes are revolutionary changes, they happen swiftly, are constant, even relentless in their frequency, and affect virtually all parts of an organization simultaneously.’

For example, the strike action that engulfed the entire public service in the country for a period of 21 days in 2007 left the schools devastated for the following reasons:

- The strike happened so quickly that no one had anticipated its impact. Most of the scheduled activities of the schools were derailed or became redundant, e.g. all the target schools of this study had planned a winter school programme for the grade 12 classes.
- The controlled common tests set by the Department were cancelled.
- All the schools were closed, and there was an uncertainty about when the schools would resume their normal functioning

The Department of Education designed a programme of action called the ‘recovery plan’ for all the schools. This plan recouped twenty-one days from the winter and spring holidays, and utilised all the remaining Saturdays up to the 29<sup>th</sup> of September 2007. All of the schools, starting from grade 01 class and up to grade 12 had to teach on these days as if they were normal days. This instruction was relayed to schools in terms of Circular 50 of 2007 and it was said that the whole exercise was voluntary.

Though the whole exercise resulted in different reactions from school, the exercise did assist most of the schools. The problem was during the teaching and learning process because absenteeism among the learners was rife and the teachers struggled to teach as if it was a normal teaching time.

The report received from principals about learner absenteeism was that some learners did not want to participate because they felt that they had been abused by the educators who had gone on strike and they (the learners) had to pay the price by forfeiting their holidays and Saturdays.

The problem with the recovery plan was that it was a hasty curriculum reform that was never connected with the aspirations of educators and learners and it was meant to address the situation as it appeared within a short space of time, which is contrary to the systems thinking approach because of its innate tendency that lead to growth or stability over time (Senge 2000:8).

Another programme that has suffered another implementation problem is the National Strategy for Learner Attainment (NSLA). All the schools that have performed below 60% in their grade 12 results are subjected to this programme. Through the NSLA programme, officials from the different levels of the Department visit these schools frequently. When these officials visit schools they have a data collection instrument designed by the Department and they focus, among other things, on the following:

- The enrolment of the school, including the number of educators and their qualifications
- The infrastructural development of the school
- The needs of the school, e.g. the availability of the Learner Teacher Support Material (LTSM)

The learners at the schools will have to write the compulsory controlled test set by the Provincial section of Examinations and Assessment. The purpose of the NSLA policy is to assist the schools that have performed poorly in their previous year's grade 12 results with the support of extra material like study guides and text books. The programme intends to develop the grade 12 educators with extra training on their methods and teaching skills, including the content of their subjects.

The NSLA is a well-structured programme but it encountered some problems during implementation when the required teaching and learning material was not supplied in time. For example, if they finally succeed in supplying those study guides or the previous year's question papers and their memoranda, it is usually towards the end of August or September when the learners are about to write their final examinations. The whole exercise becomes futile and usually has very little effect on the improvement of the performance of these schools.

It is the observation of this study that the Department is acting correctly in judging that the schools that have obtained less than 60% in their grade 12 results need some corrective measures in order to improve their results the following year. However, because the impact of the corrective measure is delayed, or is not realised right away, and the period of one academic year is too short, the NSLA programme is not effectively implemented and the performance of the school oscillates.

This study therefore asserts that one reason why schools' performance oscillates is because of the application of more than one programme at the same time. Whilst the first programme could have a positive effect and assist the school in improving its performance over time, the application of the next programme could reverse the direction of that movement ( Flood 1999:15).

## **2.5 Conclusion**

The above observations, based on a review of the literature, are an attempt to evaluate the poor performance of education in schools and to look at the difference that may be brought about by the systems thinking approach as compared to the currently used traditional approach. The literature reviewed emphasised the fact that the difficulties facing the schools are influenced by the kinds of mental models and relationships in the system at every level, from the teacher and learners to the national, political and governing bodies (Senge 2000:19).

It is therefore obvious that the use of the systems thinking approach shows the potential to bring about the required change and allow the inter-relationship of all the components of the school to learn over time and ultimately work in synergy for the betterment of the school.

## CHAPTER 3

### THE RESEARCH METHODOLOGY

#### 3.1 Introduction

This study has used the Practitioner Research methodology in the data collection and also blended it with some aspects of Soft Systems Methodology. I would like first to draw attention to the Practitioner Research method before discussing the Soft Systems Methodology.

Practitioner Research is conducted by a person who is employed in a professional capacity but who, as a part of their role, is expected to undertake research (Fox, et al, 2007:1). My reason for wanting to undertake this research is because I am concerned by the poor performance of most of the grade 10 – 12 classes in their final year examinations. The poor performance of these schools is detrimental to my professional integrity as a manager because my performance is dependent on the good performance of these schools.

The research is based on the knowledge and experience obtained during the practice and interaction with different situations at work (Dadds, 2006:2). The research is based purely on encounters that I experienced in situations that I am involved in with schools. For example, the system of control of activities of teaching and learning in the classrooms is the worrying factor in most schools that under-perform.

There needs to be a change in the performance of the schools in order to produce good quality result in the grade 12 final examinations and the Department of Education has formulated various policies to effect this change. The problem is that changes that are envisaged from the Government Policies are often not achieved because changes that are of value are not implemented and those without value are implemented (Fox, 2007:43). For example, there is a policy called the Integrated Quality Management System (IQMS) and this policy is meant to facilitate:

- Salary progression of one percent as an incentive to the educator in each year.
- Personal development of an educator in order to increase his/her knowledge about the new changes in the National Curriculum Statement (NCS).

- An evaluation tool to assess the performance of an educator in order to put him/her on the correct level of the Occupation Specific Dispensation (OSD)

The situation with regard to the above policy is that only the salary progression is implemented properly because it benefits an educator financially, and the most valuable changes are not effectively implemented.

### **3.2 Reasons for Choosing Practitioner Research**

The crux of the matter is that the Department of Education has formulated many policies in order to effect change in the system, and these changes can be realised if these policies are implemented effectively. The end result will be an increase in the performance of schools in their grade 10 – 12 final year examinations. The reality of the matter is that these policies have been received with mixed reactions by implementers on the ground, including educators, the School Management Teams (SMT) and even the learners. The educators feel that these policies are overloading them with paperwork and parents feel that they have been deprived of the authority over their children, etc.

My intention in choosing practitioner research is therefore two-fold. Firstly, I wanted to find out what the cause of poor performance is in most of the schools in the Ward of Samungu, and also to find ways in which I can influence this trend for the better. The second intention is to improve my professional skill so that I can fulfill my obligation as a manager to process the change, and also to evaluate the outcomes of the change (Fox, et al 2007:44).

As a field manager I have the leverage to influence the implementation of change that has value in education, provided I have the professional skills to implement this. If I do not have the professional skills, I may find myself assisting in the implementation of a change with no value. I will thereby also be party to the resistance to the implementation of change because of the frustrations and negative perceptions that will be generated.

The process of change that is brought to schools through policies to be implemented, comes all at once in a flood and this process needs to be implemented within a short space of time and the results are expected at the end of each year. This becomes a very difficult exercise because the implementers of these policies who are teachers, parents and learners are also captive to their own mental models about change (Senge, 2000:7).

Kemmis (1982), quoted by Fox *et al.* (2007:52), says solutions to problems will not come from distant academic experts but will come from practitioners. The value of Practitioner Research to my research is that it will assist me to understand many of the problems facing the schools in question, and then to work out appropriate solutions with the schools in order to achieve the desired change.

The above-named situations are problems that exist within the Department of Education, and it is my duty as a practitioner to find ways to make the situation better and also to improve my performance. Fox, *et al.* (2007:26) mention the following four forms of professional knowledge with which a practitioner has to engage:

- Propositional knowledge – what theory or research exists that might assist me to interpret the systemic problem?
- Process knowledge – what practice skill do I possess that will enable me to solve the implementation problem in schools?
- Personal Knowledge – what previous experience do I have working with schools with such a problem?
- Value-based knowledge – Is this the right thing to do in this situation?

It is my duty to make the policies of my organisation work. As such I need to ask myself the above questions in order to position myself to find a lasting solution to the problems and in the process develop my professional capacity to deal with these problems

When conducting the research as a practitioner, I also become part of the group and only facilitate the process. This gives me the advantage of being able to explore all the possibilities of finding a solution to the problems within the group or the schools, rather than experimenting with them from a distance (Fox *et al.*, 2007:53). This practice enhances my professional growth, and my exposure to systems thinking. It makes me understand that some of the problems could be solved by applying Senge's five disciplines and also to view each problem not in isolation, but in conjunction with others, e.g. a problem in terms of the systems thinking approach could be viewed within the scope of Senge's 'Iceberg' where it is sometimes an event, pattern, systemic structure or mental model (Senge, 2000:80 -83).

Practitioner Research helps me continually to grow professionally so that among other things, I will be able to deal with the 'hidden side of the organization' (Fox et al 2007:59). This will help me as a practitioner researcher to understand and to know the side of my organisation that cannot be understood by the person outside the organisation; this hidden side is also known as the 'shadow side of the organization' (Fox *et al*, 2007:60).

An example of this situation is that of the funding mechanism of schools that is encapsulated in the South African Schools Act 84 of 1996, whereby the schools are divided into section 20 and 21 schools. Section 20 schools do not receive the financial allocation in cash deposited into their bank accounts, but their money is kept by the Head Office and they only access this through the process of requisitions using money on 'paper' only. On the other side, the section 21 schools receive their financial allocation in cash from the Department and it is deposited directly into their bank accounts.

Section 20 schools are mostly disadvantaged because they do not receive the same service as their counterparts; the process of requisition is a lengthy and laborious exercise and is infested with fraud and corruption whereby goods are grossly overcharged for and the quality is not good, hence service delivery to these schools is hampered, resulting in under-performance.

The study also used some aspects of the Soft Systems Methodology, mostly because I have gained knowledge of this from my studies for the Master of Commerce programme in Leadership and Management. I have been exposed to the technical application of systems thinking, of which the Soft Systems Methodology is one of its components, and is a tool for data collection and analysis.

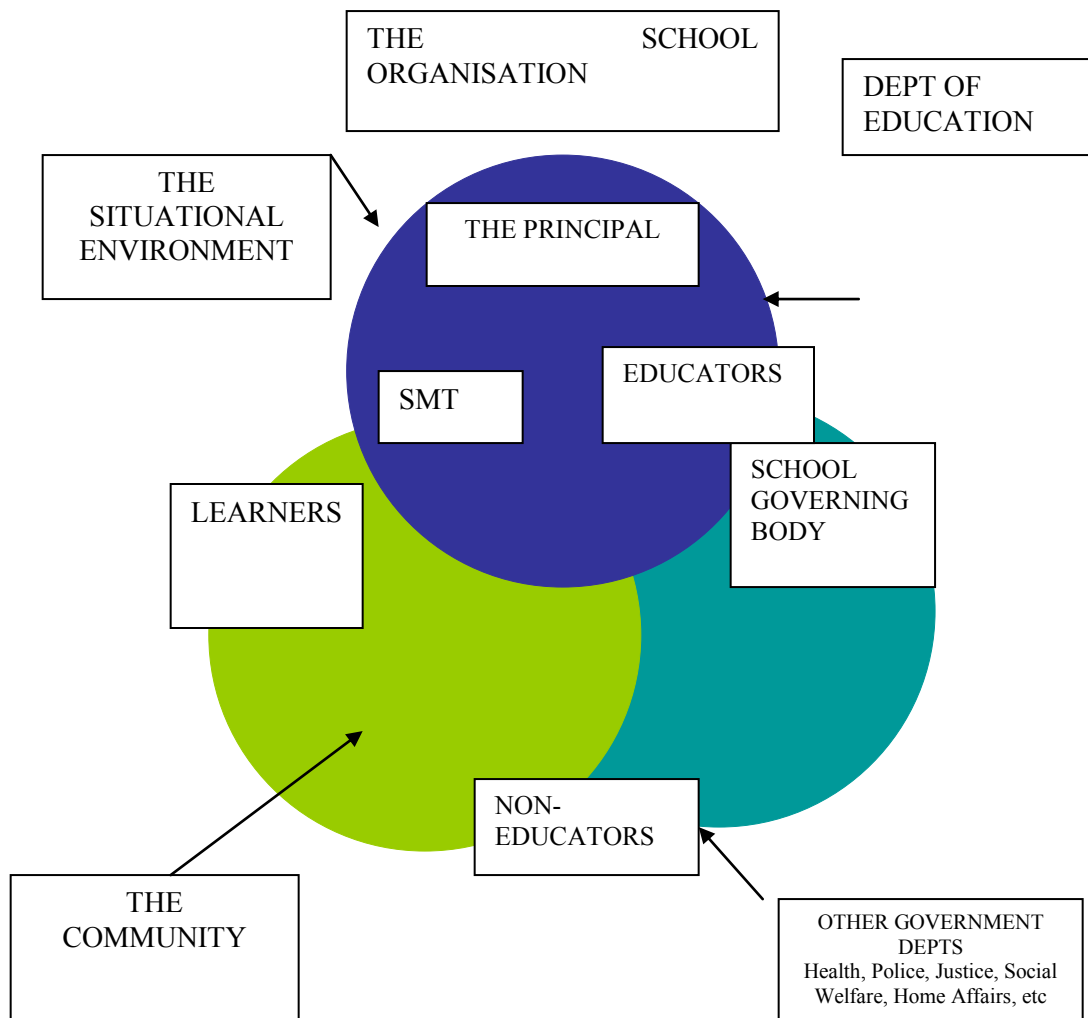
Soft Systems Methodology (SSM) is a Systems Thinking methodology and Systems Thinking explores things as wholes. In terms of understanding the functioning of organisations, Systems Thinking suggests that the components of organisations should not be viewed in isolation but should be regarded as a set of interconnected entities (Senge 1990:8).

The school formation consists of the School Management Team (SMT), the Educators and non-educators, the learners and the School Governing Body, etc and all these components need to function as a unified structure and not as isolated entities. There are other external elements that have direct or indirect influence on the functioning of the school, e.g. the parents, the larger

community, the business community, the traditional leadership, the different Government Departments like police and health service, etc.

In terms of the systems thinking approach the internal and external components of the school depend on one another's relationship and inter-connectedness to function as a structure to prevent any problem that may disturb the normal functioning of the school. The school needs to learn to develop skills to prevent the problem of poor performance in all its classes, including grade 12, rather than having quick-fix solutions for every problem that impairs their functioning systems, Senge (2000:78).

The following diagram illustrates the number of components that form the school organisation and their functioning relationships.



Based on Senge (2000: 19 – 58)

The Soft Systems Methodology was developed by Checkland as a process of enquiry and action for improving unstructured problem situations where the issues of concern are vaguely perceived but not clearly defined, and it is well suited to situations where participants need to debate and develop their ideas. (Luckett *et al.*, 2005: 523)

The issue of poor performance in schools is not easy to understand especially when viewing this from the traditional perspective. The SSM will allow the stakeholders to raise most of their concerns about the poor performance of learners in the grade 12 class and their concerns will be clarified in terms of the systems thinking approach. The Soft Systems methodology uses rich

pictures through which the participants express their perceptions of the problem. These pictures are not artistic in any way but are merely stick figures, which are used to represent how the participants imagine and understand the problem situation (Jackson 2005:191). For example, it has been stated that there are many factors that seem to contribute to the poor performance of learners in the grade 12 class of a school, and in terms of the above observation the following components of the school cannot be singled out as the main cause of the poor performance: learners, educators, the Principal, School Governing Body, etc.

Soft Systems Methodology uses rich pictures, which are drawings that allow various features of the problem situation to be set down pictorially for all to see. Rich pictures can also assist in expressing the inter-relationships in a problem situation (Jackson (2005:191).

The rich pictures are an important mode of expressing each and every stakeholder's idea without subjecting any individual to any form of communication that requires a certain level of education. For example, rich pictures do not need any expertise or art in drawing, but can be done as merely stick figures, and the person can talk over them in his /her own language as long as he/she understands the problem situation and the procedure of the debating process.

Soft Systems Methodology is well suited to qualitative research for the following reasons:

- It helps the researcher to understand people and the social and cultural context within which they argue (Meyer, 1997: 2).
- SSM makes it easier to understand the problem situation through the use of rich pictures.

SSM is well suited to situations where participants need to debate and develop their ideas.

SSM makes the researcher part of the discussions and the debates about the problem situations. Luckett *et al.* (2001: 23)

Checkland (1990:27) describes the Soft Systems Methodology as having seven steps or phases, and this study has followed six of the seven related activities as described by Luckett (2001: 527):

1. Enter the situation considered to be problematic
2. Express the problem situation (through the process of semi-structured interviews and focus groups, and drawing rich pictures)

3. Formulate root definitions of relevant systems of purposeful activity.
4. Build conceptual models of the systems named in the root definitions.
5. Compare the models with real world actions.
6. Take action to improve the problem situation.

### 3.3 Problem Expression

The study was carried out as dictated by the Soft Systems Methodology and followed the sequence of the above mentioned six of the seven steps. The following is the list of the target Secondary Schools offering grades 10–12 classes that have performed below 60% in their grade 12 results for the year 2006 academic year:

NO	NAME OF SCHOOL	NO OF GRADE 12 LEARNERS	PERCENTAGE PASS
1	Mhlakaza	30	55
2	Umphezeni	20	40
3	Velamuva	67	32
4	Nokhalela	19	31
5	Magemfane	34	26
6	Noqandela	27	42

The problem situation is that these schools performed below the standards laid down by the Department of Education by obtaining less than 60% pass in their grade 12 final year results.

The Department has therefore set up a common standard for all schools, i.e., that all of the schools should obtain not less than 60% pass in their grade 12 results and that any school that obtains less than 60% shall be considered as performing poorly.

The participants in the research were carefully selected, as required by the Soft Systems Methodology. According to Checkland (1990:35) Soft Systems Methodology formulates the root definition by using the mnemonic CATWOE. The mnemonic CATWOE is an acronym, which represents the combination of the participating group of people in the discussion, and it assists the group to formulate the root definition that becomes the hypothesis concerning the eventual improvement of the problem situation. This study has adopted the same systems thinking approach because this would allow all of the stakeholders to contribute to expressing what is required in the

transformation of the education system and the policies that will address the poor educational performance of the targeted schools.

The study also based its argument on the fact that systems thinking realises creative potential by allowing all of the stakeholders covered by the mnemonic CATWOE (as clarified below), to share in the analysis of the problem and work together in the formulation of solutions.

- C- stands for the **clients** that would benefit from the transformed operations in the school, e.g. learners, parents and larger community
- A-stands for the **actors** that implement the policies e.g. the School Management Team (SMT) and educators.
- T-stands for **transformation**; the conversion of input and output processes.
- W- stands for the **worldview** that makes this transformation meaningful. For the participants in the discussion this involved their level of knowledge, their mindsets and their general thinking levels.
- O- stands for the **owners** of the transformation e.g. the officials of the Department of Education.
- E- stands for the **external environment** that could influence the transformation e.g. the principals of schools and the members of the School Governing Body (SGB).

The discussion exercise took place at Velamuva High School:

DATE	VENUE	TIME	DURATION	NO OF PARTICIPANTS
15 October 2007	Velamuva High School	12h00	3 hrs	6 - School Governing Body members 5 – Educators 5 – Learners 3 - School Management Team members 5 – Community members 2 – Traditional Leadership members

The following problem issues emerged during brainstorming sessions and the groups were given instructions to express their problems through rich pictures. Jackson (2005:191) says rich pictures are actual drawings that allow the various features of a problem situation, as it is perceived, to be set down pictorially for all to see and there are no rules for drawing these pictures.

### **RICH PICTURE**

See annexure A

#### **School Governing Body**

- When the learners go out during break, they go to the shop outside the school premises and come back very late.
- The shop is situated close to a bar that serves alcohol and learners come back to school having consumed alcohol.
- Learners lack dedication and commitment in their school work.
- The school fence is deliberately damaged to gain entry to the school.
- The security personnel do not control the entering of people to the school and some people come to school to disturb the process.
- Learners miss classes and join outsiders in the card gambling game behind the toilets.
- Some educators do not go to class but they remain in the staffroom.
- Some educators find it difficult to discipline learners and end up not going to class.

#### **The School Management Team (SMT)**

- Some educators are the cause of the problem because they do not want to cooperate with each other.
- Educators fail to discipline learners and they avoid going to class.
- Learners deliberately come late to school.
- There are many learners who come from child-headed families.
- Pension payout happens next to the school and on that day learners do not come to school.
- Some educators are not qualified for the subjects they teach.

#### **Educators**

- There are many openings through the fence and learners and outsiders enter and leave the school as they please.
- Learners spend more time outside either drinking water or going to the toilet.

- Learners spend more time in the shop and come late to school after break.

### **Learners**

- The shop and the bar serving alcohol is very close to the school.
- The people who are not learners come to school and disturb learning.
- There are many learners who come from child-headed families.
- Most educators are not employed full time and as a result they leave at any time.

### **Formulation of Root Definitions**

Many ideas were put forward as the causes of the poor performance of grade 12 learners in the schools. The Soft Systems Methodology enabled the participants to achieve great clarity about the choice, and helped to stimulate discussion of the problem situation with a view to highlighting different perceptions of relevant issues ( Jacobs 2004:143).

The statements that were forwarded by the different groups were mostly fears that the groups felt that they contribute to poor performance of the school and some statements were the expression of desires for change that they felt could improve the performance of the school.

According to Senge (2000:18) an effectively operating school is one where people recognise the webs of invisible influence that seek to strengthen them and they feel responsible to everyone connected to them. When the web breaks, the system falls apart.

This assertion is an indication that all the components of the school are directly related to each other and should always remain like that. Any intervention brought about in the school to address the problem of poor performance should be calculated to enforce that interdependency of all its components. There was consensus on the fact that there must be absolute cooperation between all the components of the school in order to facilitate a good performance.

### **Building of Conceptual Models**

The conceptual model is the ideal system that the group formulates in order to address a problematic situation. However before the new system is conceptualised the following five Es for decision criteria must be considered, (Jarvis, 2000: 4)

- **Efficacy**, which means that the participants will have to ask themselves whether the model they are proposing as a system to do the job is going to work or not. In other words the participants will have to debate this point thoroughly before they arrive at consensus.
- **Efficiency**, which means that the participants will have to look at the resources they have to complete the job, whether the new system they are proposing can be implemented efficiently with the resources at their disposal, or will they require more resources and therefore an injection of finance that they may not be able to secure. This question was important in the actual discussion of the policies of the Department, particularly the National Strategy for Learner Attainment.
- **Effectiveness**, which entails asking if the system or idea is relevant to the objectives of the organization? Is it going to yield the desired outcome, and is it aligned with the moral standards of society? For instance, a school cannot raise funds by selling liquor to the community. When the job is done will the participants be proud of the work or it is going to be a haphazard job that will yield the desired result no matter what the circumstances.
- **Ethics** means that the idea or system conceptualised by the stakeholders is adhering to the acceptable morals of the community the school serves and also to the constitution of the country as laid down in the South African Schools Act 84 of 1996.
- **Elegance** means that it must be considered whether the proposed system is beautiful or not. Is it appealing to the people that will implement the system and those that will benefit from the system?

The researcher facilitated the building of the conceptual models of the systems named in the root definitions. According to Lockett *et al.* (2001:526), conceptual models are an account of the activities and the relationship between them necessary to make the system work, and are known as the Human Activity Systems (HAS).

The process of the formulation of these models entailed inter *alia*, the purpose of each model, a defined boundary, and communication and control, including the feedback loop. (Lockett, 2001: 524)

#### **A) THE MODEL**

The following model was agreed upon as the ideal system that will facilitate the good performance of Velamuva Secondary School:

The Principal and his SMT should create a conducive atmosphere in the school where all the functioning components of the school should meet to plan the turn-around strategy of the school and they should prepare reports to present to the staff meeting where these reports will be critiqued.

**Purpose:** Is to facilitate the platform and procedure of the meeting of the internal organs of the school and to assist them to plan their activities.

**Communication:** The personnel of the school will meet in subcommittees of different sections to formulate reports that will be presented to the whole staff meeting.

**Control:** The Principal or his/her delegate will set up the logistics for these committees to meet and will also attend as an ex-Officio member.

**Feedback:** A report will be presented to the whole staff meeting where the report will be critiqued and new inputs and suggestions made.

## **B) THE TIMETABLE**

The SMT should work out the composite time table in order to make sure that it adheres to the Notional time as prescribed by The National Policy.

**Purpose:** The time table adhering to the notional time ensures an equitable distribution of time to all the subjects offered in the school according to their curriculum demands.

**Communication:** A committee will be set up to deal with this task and they will compile a report to present to the staff meeting.

**Control:** The Time table committee is headed by the SMT member reporting directly to the Principal.

## **C) THE SEVENTH HOUR PRINCIPLE**

The Principal should enforce the seventh (7) hour principle whereby all the staff members remain for an hour after the learners have left. This is entrenched in Chapter A of Personnel Administrative Measures (PAM) section 3.2(a) of *the Employment of Educators Act 78 of 1998 as amended*. This will allow enough time for all the internal components of the school and various committees to meet for discussions and for the formulation of new ideas.

**Purpose:** The educators do not get time for doing their administrative work like marking, recording marks for Continuous Assessment (CASS), compiling their mark schedules and meeting in their committees for any other extra-curricular activities.

**Communication:** Each Section Head is responsible for meeting deadlines in his or her section and should facilitate this extra time.

**Control:** The SMT should compile the timetable for various extra-curricular activities to happen at this hour and set out deadlines for submissions.

#### **D) ALL-ENCOMPASSING STAFF MEETINGS**

The Principal should organise an all-encompassing staff meeting where the monitoring and evaluation strategy for all the internal activities will be looked at holistically

**Purpose:** The staff meeting is where the reports of various committees will be presented and evaluated and decisions will be made holistically taking into account the performance of all the components of the school.

**Communication:** All the activities of the school in different sections are reported on and discussed at this meeting.

**Feedback:** Reports are presented and critiqued and innovations are formulated.

**Control:** The activities in the staff meeting are informed by the presentations from various committees and the date of this meeting is in the year plan of the school.

#### **E) ALL-ENCOMPASSING STAKEHOLDER MEETINGS**

The Principal should organise all-encompassing meetings for all the stakeholders to meet on a regular basis to look at internal and external activities in order to monitor and evaluate these activities holistically.

**Purpose:** The functioning of the school depends on the inter-relationship of all the stakeholders

**Communication:** The Principal is the link to all the stakeholders and this meeting allows them to monitor and evaluate their decisions.

**Feedback:** Reports are presented by different stakeholders about their activities and new ideas are generated for implementation.

**Control:** The Chairman of the School Governing Body coordinates this meeting and facilitates its functioning.

## Compare Models with the Current System

MODEL	CURRENT
Principal should arrange regular staff meetings where people make their reports and get feedback.	The staff never meet and there are no reports presented
Composite timetable adhering to Notional time should be compiled and be complete by February of each year.	The composite time table is never complete and does not adhere to notional time
There should be a training of HODs on management and assessment of their sections	The HODs are never trained how to manage their sections in terms of the systems thinking approach
There should be an all-stakeholders meeting to look into the internal and external activities of the school.	The stakeholder meeting is never held except in a crisis situation.

When the discussion group had compared the models with what is currently happening in the school, they decided to formulate the implementation schedules. The implementation schedules were only examples because the details thereof would depend on the stakeholders meeting where the strategic plan for the new system would be formulated. This outcome of the discussion is in line with the principles of the Soft Systems Methodology that says that the SSM process does not get finalised because it embodies learning in terms of human learning and adaptation philosophy (Jarvis, 2009:5)

### Implementation Schedules

**Model 1:** Principal should arrange a regular staff meeting where people would make their reports and get feedback.

ACTIVITY	TIME FRAME	RESPONSIBILITY	MONITORING
The Principal introduces the new system Set the dates for other meetings	July 2008	Principal	SGB Chairman

Section heads and committee leaders submit reports.  The meeting critiques the reports and gives feedback	As per year plan	SMT and committee leaders	Principal and SMT
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**Model 2:** Composite Time Table adhering to Notional Time (all subjects allocated their prescribed periods according to the National Curriculum Statement of 2002.

<b>ACTIVITY</b>	<b>TIME FRAME</b>	<b>RESPONSIBILITY</b>	<b>MONITORING</b>
Compile the timetable according to the NCS procedure	February 2008	Time Table Committee and SMT	Principal
Time Table Committee compiles a report about the progress made on their tasks to present to a staff meeting	As per year plan	Time Table Committee	Principal and SMT

**Model 3:** There should be a training of HODs on management and assessment in terms of the systems thinking approach

ACTIVITY	TIME FRAME	RESPONSIBILITY	MONITORING
Organise the training timetable and the venue for the training of HODs	February 2008	Time Table Committee and SMT	Principal
Time Table Committee compiles a report about the progress made on their tasks to present in a staff meeting	As per year plan	Time Table Committee	Principal and SMT

### 3.4 Feedback from the Research Participants about the Research Process.

When the discussions and the debates were concluded, the participants were given an opportunity to make comments about the whole exercise by way of eliciting feedback responses about the research process itself. Those that made comments had the following to say:

- They enjoyed the exercise of drawing the rich pictures and commended the idea, saying that it was easier than writing down the points they wished to make.
- Everybody felt at ease, and could contribute and participate in the debate and discussions.
- The participants liked the fact that the researcher was also part of the discussion groups, and said that they did not feel any intimidation.
- The participants felt that the time allocated to the workshop was too short, because they felt that there were many issues they needed to discuss and debate regarding the performance of schools and the implementation of Departmental policies.

### **3.5 Conclusion**

According to Jackson (2005:193) Soft Systems Methodology seeks to work with different perceptions of reality and different viewpoints are examined and lead to purposeful action in pursuit of improvement. The discussion that took place about the problem situation at Gala Secondary School with regard to poor performance in grade 12 substantiates the fact that the solution does not lie in a single view of an individual e.g. a Principal or the Ward Manager, but the possible solution will emerge from the active participation of all the stakeholders.

The systems thinking approach also assists the school not to jump to conclusions about their problem situation but to consider all the possibilities. According to Senge (2000:80) what stays visible on the surface concerning the problem situation is what just happened (the 'event') but what is not apparent may be the following:

- Patterns/trends of what has been happening
- Systemic structure of what forces at play are contributing to these patterns
- Mental Models of our thinking that allow this situation to persist

The above characteristics of Senge's 'iceberg' way of looking at the problem is an indication that whilst it is imperative that a quick response is necessary to solve the problem, one has to bear in mind that what is visible to our eyes may not be the only cause of the problem. For example, in these schools the problem of not passing all their grade 12 learners was brought up in the stakeholder's discussion and we learnt that there are a number of reasons that could be contributing factors to the problem situation.

There are patterns or trends of things that had been happening in the school. For example, the school is plagued by faction fighting, and the lack of professionally qualified educators, to mention just two factors that may be the cause of the problem.

## CHAPTER 4

### FINDINGS AND INTERPRETATIONS

#### 4.1 Introduction

The data was collected through using the practitioner research method and the Soft Systems Methodology, because the Soft Systems Methodology can enable managers to address problem situations holistically, identify critical issues, and reach an accommodation of different viewpoints as a basis for improvement (Jacobs, 2004:147–148).

During the collection of data the representatives of the stakeholders generated information through brainstorming and they also generated some rich pictures to express their fears and their desires. Various lessons were learned during the process which are pertinent to finding a solution to poor performance in schools if we use the systems thinking approach, which allows us not to look at problems and goals as isolated events but as components of a larger structure (Senge 2000:78). The systems thinking approach has its tools and techniques, which include simulations, feedback loops, stock-and-flow diagrams etc, and the Soft Systems Methodology is a technique that has been used in this study.

#### 4.2 Data Collected

The following are the data that were collected through Systems Thinking Methodology in the form of problem statements and rich pictures generated when the groups expressed their problems with regard to the poor performance of the learners of the target schools in grade 10-12 classes. For the sake of reader accessibility, I am repeating the pertinent findings given in the previous chapter:

##### 1) School Governing Body

- When the learners go out during break, they go to the shop outside the school premises and come back very late.
- The shop is situated close to a bar that serves alcohol and learners come back to school having consumed alcohol.
- Learners lack dedication and commitment in their school work.
- The school fence has been deliberately damaged to gain entry to the school.
- The security personnel do not control the entry of people to the school and some people come to school to disturb the process.

- Learners miss classes and join outsiders in gambling behind the toilets.
- Some educators do not go to class but they remain in the staffroom.
- Some educators find it difficult to discipline learners and end up not going to class.
- There are sporadic incidences of faction fighting in the area

## **2) The School Management Team (SMT)**

- Some educators are the cause of the problem because they do not want to cooperate with each other.
- Educators are failing to discipline learners and then avoid going to class.
- Learners come late to school.
- There are many learners who come from child-headed families.
- Pension payout happens next to the school and on that day learners do not come to school.
- Some educators are not qualified for the subjects they teach.

## **3) Educators**

- There are many openings through the fence and learners and outsiders enter and leave the school as they please.
- Learners spend more time outside either drinking water or going to the toilet.
- Learners spend more time in the shop and come late to school after break.

## **4) Learners**

- The shop and the alcohol bar is very close to the school.
- The people who are not learners come to school and disturb learning.
- There are many learners who come from child-headed families.
- Most educators are not employed full time and as a result they leave at any time.

## **4.3 Data Analysis**

During the description and analysis of data I have used the following conceptual frameworks in order to share my learning experiences:

- The influence of the different mental models.
- The interdependency of components.
- The issue of quick-fix response to events (the tip of an iceberg phenomenon).
- The learning school and community.

- Leading without control.

### **The Influence of Different Mental Models**

Mental models are the assumptions and attitudes one has about a situation or a phenomenon and the mental models occur tacitly. The mental models limit the ability of the people to change (Senge 2000:66 – 69).

The assertion by teachers in the discussion groups that ‘learners lack dedication and commitment in their school work’ is an indication of the mental model. This is an attitude and an assumption which depicts a quick response to a problematic situation without having given it some thought.

The above statement taught me that sometimes people look to the problem in isolation and then come to conclusions. Senge (2000:67) says that the assumptions and conclusions are not easily tested because the people that subscribe to these believe them to be absolute truths derived from the immediate data they have before them.

That ‘learners lack dedication and commitment in their school work’ is quite a broad statement which needs to be unpacked and once it is unpacked can mean a lot of other things. Mental models can limit the ability of an individual to change and this means that mental models that are not managed according to the systems thinking approach can be detrimental to change and to transformation of the system.

For example, the fact that the SGB has made an assumption and concluded that the reason for poor performance in the school is caused by lack of dedication and commitment of learners to their work, will result in the SGB becoming unwilling to share ideas with other groups but will hold steadfast to their point and there can be no movement forward.

Senge (2000:67) says the task of the discipline of the mental models is bringing tacit assumptions and attitude to the surface so that people can explore and talk about their differences and misunderstandings with minimal defensiveness. The Soft Systems Methodology allows this opportunity for the people to expose their mental models to others so that the issues at hand can be debated until a common solution can be achieved (Jackson, 2005:185).

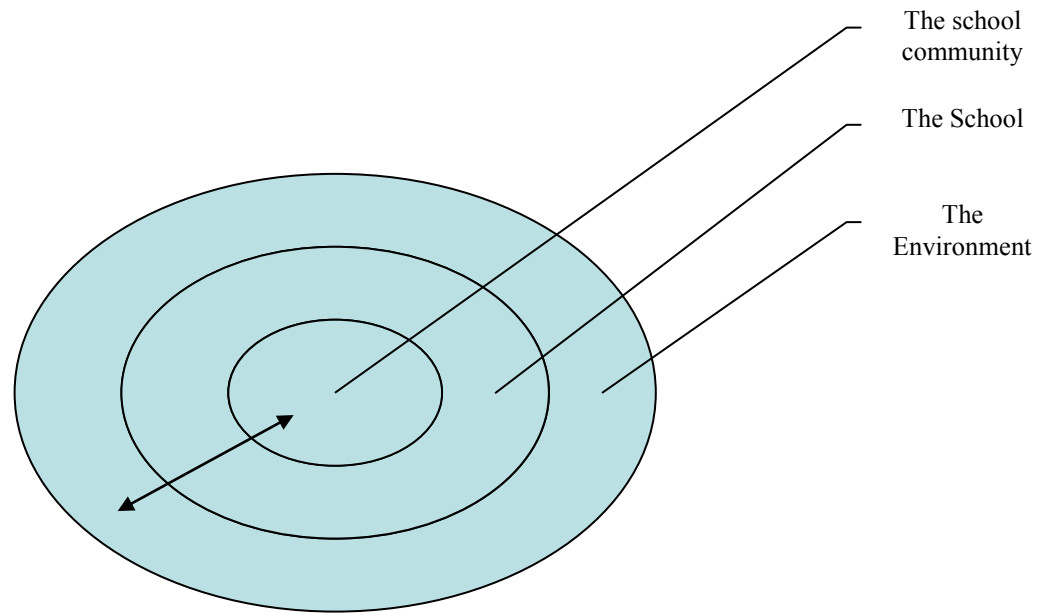
Senge (1990:6-7) says that people begin to expose their own thinking effectively and make that thinking open to the influence of others. The SMT says that some educators are failing to discipline learners and also avoid going to class. This idea can be dangerous to all the members of the school because it can influence their thinking and everybody may focus their attention and effort on the issue raised by the members of the SMT. Once the focus on the cause of the problem is lost, there may be no progress towards the transformation of the school.

### **The Interdependency of Components**

The school is made up of various components which include, the learners, educators, the School Management Team, the non-teaching staff, the School Governing Body, etc. I have learnt that all these components are dependent on one another in terms of their behaviour and feedback patterns. The systems thinking approach provides a different way at looking at a problem and goals, (Senge, 2000:78). The components of the school actually extend to the external components like the larger community, the traditional leadership, the Departmental office and all the other Government Departments like South African Police Service (SAPS), Health, Home Affairs, etc.

Senge (2000:78) says a system is any perceived whole whose elements hang together because they continually affect each other over time. The SGB say ‘the shop which serves the learners during the break is situated close to the bar’. The fears of the SGB are that instead of the learners going to the shop to buy something to eat they go to the bar and drink alcohol

In this situation it is obvious that it would be very difficult to find a solution without involving the owners of the shop and the bar. The following diagram illustrates the relationships that the school has inside its premises and outside the premises. There are no boundaries around these demarcations. The boundaries are all permeable from either side.



The members of the SMT raised the point that the pension payout happens next to the school and on that day the learners do not come to school. This problem involves the community, the Department of Social Development, the traditional leadership, the parents, learners, etc. This is an indication that what takes place outside the school premises is part of the system.

What was learnt in this situation is that life events can be made sense of in a meaningful way only in the knowledge that our actions contribute to patterns of interrelated actions, (Flood, 1999:13). The discussion groups raised the following statements as problems contributing to poor performance in the school:

- There are many learners who come from child-headed families
- Learners miss class and join the outsiders to gamble behind the toilets.

These actions substantiate the above assertion that whatever happens within the school is bound to impact on the larger community and *vice versa*, e.g. the issue of child-headed families is actually a community problem. In terms of the systems thinking approach, such an event needs to be looked at holistically because these actions are inter-related.

The problem of child-headed families contributes to the poor performance of the schools because these learners do not have any adult at home that take care of their needs and even encourage or assist them with school work. In order to try and resolve this issue, the following bodies, just to mention a few, will need to be involved:

- The Department of Social Development will have to assist these learners with social grants so that they are able to buy all what they need for their living.
- The traditional leadership will have to see that these learners are well protected and guided in terms of the living standards of the community.
- The school will have to apply to the Department of Education for a Feeding Scheme Programme in order to assist these learners together with others to get food whilst they are in school.

The issue of learners gambling with the outsiders and missing classes also requires the involvement of many other organisations in the community, including the school. For example, the School Governing Body could liaise with the parents of the learners, or if they do not have the parents, the traditional leadership will have to take part in resolving the issue. The crux of the matter is that the problem needs to be looked into systemically in order to achieve a lasting solution.

### **The Issue of a Quick-Fix Response to Events (Tip of an Iceberg Phenomenon)**

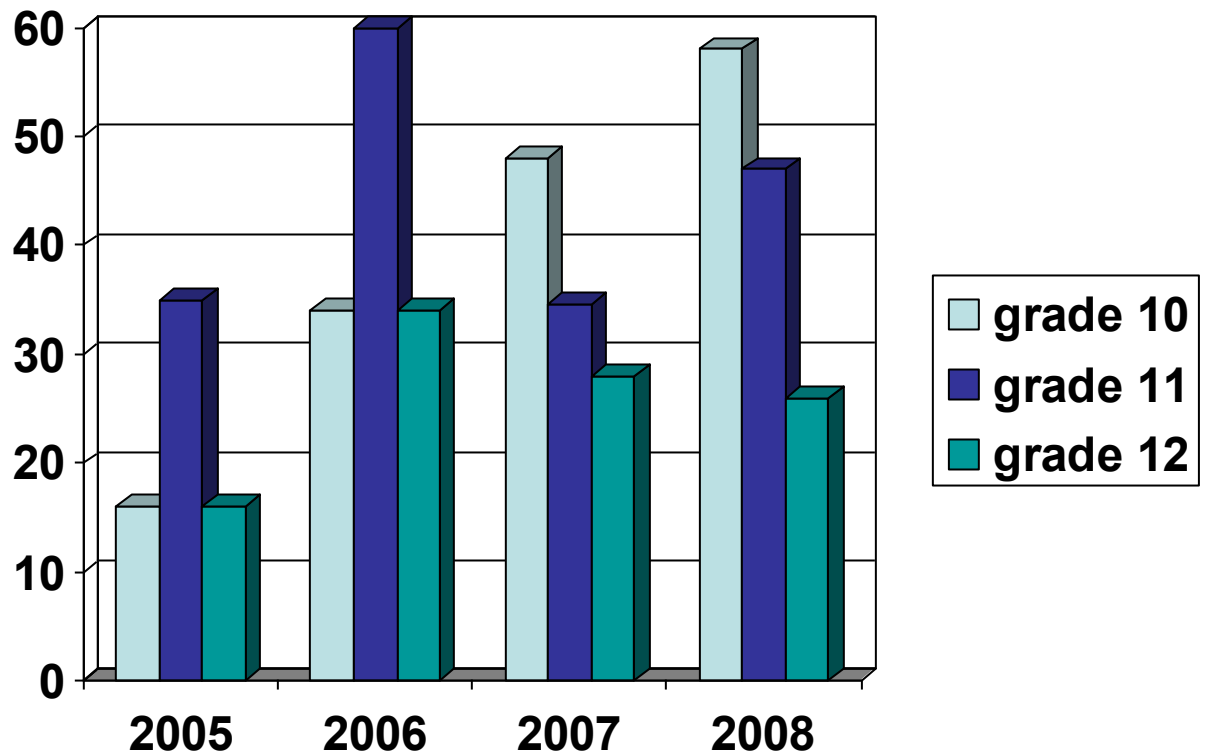
During the process of data collection through the Soft Systems Methodology, I learned that many problems that were raised either as problem statements in the discussions, and also as fears through the images in the rich pictures, can be solved quickly depending on the availability of funds. For example, the issue of a shop outside the school, where learners buy their lunch, being too close to the bar that serves alcohol, could perhaps be solved by opening a tuck shop within the school premises that will serve the learners during lunch and also the gate could be kept locked for the whole duration of the school day.

The above problem solution would have to be coupled with repairing the fence and hiring more security personnel to man the gates. The problem of these quick-fix solutions is the impact that they will have on solving the main problem of poor performance. The lesson is that quick-fix solutions do more harm than good in the long run because people become highly skilled at solving crises instead of looking for ways to prevent them (Senge 2000:78).

The issue of the poor performance of these schools appears as a crisis that the Department of Education and the community is worried about, and everybody wishes that this situation would change and that the schools would begin to perform normally within the set standards of above sixty percentage pass rate. Yet the problem may be deeper than that which meets the eye - hence the tip of an iceberg.

In terms of the systems thinking approach such solutions are necessary, but they are not sufficient to prevent the crisis because from the exercise of data collection I have learned that the problem of poor performance appears as the tip of an iceberg and there are many issues hiding under the surface that need solving before we can achieve good performance in those schools (Senge 2000: 81).

If one takes the example of one of these target schools, for instance Magemfane High School, and try to follow its history since its inception as a high school in 2005, one can read the following pattern:



The above bar graph of the pass rate at Magemfane High School is an indication that all the quick-fix solutions that have been implemented in this school up to 2008 have resulted in no perceivable improvement towards the required standard of performance. This evaluation of the performance of the school is based on the formal annual National results for grade 12 classes and the focus is on those results only.

It is difficult to evaluate the grade 10 and 11 classes because the examinations of those classes are conducted internally by the school and this may or may not have an influence on the performance of learners in grade 12 the following year. The school is year after year being subjected to intense Government Interventions, e.g. every year the school benefits from the following Departmental intervention programmes

- The National Strategy for Learners Attainment (NSLA), whereby the school is assisted with more teaching material and frequent visits from the Departmental Officials, and also encouraged to formulate its own improvement plans.
- The Secretary-General's 9 point Strategic Improvement Plan, which guarantees the supply of critical teaching and learning resources and intensifies control measures in the process of teaching and learning. The school was given an extra post in 2007 for curriculum transformation.
- The District and the Circuit Office has placed the school on its priority list of schools that receive extraordinary attention.

This sequence of events and the performance results teaches us that the effort of attending to what we see before our eyes is not enough, and in fact if we continue addressing the problem in silos we are not going to solve this problem of poor performance until we resort to a systemic approach that provides a different way of looking at the problems and goals (Senge 2000:78-82).

Senge (2000:82) says that behind each pattern of behaviour is a systemic structure which is a set of unrelated factors that interact, even though they may be widely separated in time and place, and even though their relationships may be difficult to recognise. It is very difficult to say exactly what that systemic structure could be if one looks at events as separated issues as we would have to end up speculating.

What emerged from the process of data collection as mentioned above and depicted in the rich picture diagrams is enough to say the quick fix responses are not enough to solve the problem of poor performance. We must adopt an holistic view and accept that the school is a complex organization. The solution will come from the systems thinking principles like Complex Adaptive Systems. ( Maxfield 1999:2)

Senge (2000:83) further says that beneath the surface of the problem there may be our mental models that are biased towards our values, attitudes and beliefs which, in turn, influence the interactions of the system. The utterances by the discussion groups reveal the values, attitudes and beliefs of the stakeholders and they are very diverse in nature. It becomes difficult to speculate on the possibilities and to determine exactly the one factor that may be the cause of poor performance in the school or that which allows it to persist.

What I have learned through the process of the data collection is that the Soft Systems Methodology manages the myths and meanings that are so central to the functioning of organisations because they are the means by which individuals make sense of their situations (Jackson, 2005:189). The systems thinking approach therefore allows these mental models to come to the surface so that they can be debated and interrogated in the search for a lasting solution to the problem.

### **The Learning School and Community**

According to Pettigrew *et al* (2003: 73) learning is always context-bound and has to be understood and described as a social process of sharing understanding between the members of an organisation. The school is also a complex organisation that is made up of many different components and there are various activities that are taking place in the school.

The stakeholders of the school all have different things to say about the school, however they all have common aspirations - they all want the school to perform better , they all want the school to have a viable system and all have the best interests of the school at heart ( Senge 2000:272).

During the process of data collection the stakeholders came up with different views about what causes the poor performance of the schools and also their suggestions for possible solutions. It was eventually agreed that regular meetings all the stakeholders are necessary for the purposes of long-term planning and also for feedback. Senge (2000:273) says that sustainable change in an

organisation is like the biological growth of any living population, it starts small, accelerates, and then gradually slows until adult size is reached.

The value of using the systems thinking approach to effect change in these schools will assist the school to learn, but most of all the community is also going to learn. During the implementation of the systems thinking innovations to change the performance of the school everybody shall have learnt that change starts with small beginnings and therefore a total commitment and patience from all the stakeholders is required.

Flood (1999:15) speaks of a delayed corrective effect. He says that corrective action is taken to close the gap and the impact of change between the current situation and the ultimate goal happens over time. This provided me with the insight that the interventions that are applied by the Department of Education in the target schools to correct the problem of poor performance are mostly very good, but everybody else needs to learn that their impact cannot be sudden because they need time to effect change in the existing situation.

Flood further says that if the corrective actions are piled on top of each other without allowing time, the additional corrective actions will have a delayed impact leading to an oscillation condition. The lesson is that a systemic approach will assist the community to understand that once they have started applying corrective measures to these schools as a turn-around strategy, time and patience is essential.

Senge (2000:273) says all the stakeholders will have to strike the balance between urgency and patience by starting small, accelerating appropriately and reflecting on each new development before moving to the next phase. This perspective means that whilst everybody is eager to see change in the performance of these schools, it is imperative that we follow all the rules of nurturing our innovation for better results.

#### **4.3.1 Leading without control**

Wheatley (1999:36) speaks of a Quantum Age, which makes prediction and replication impossible. Wheatley's assertion emphasises the fact that it is no longer easy and possible to predict the outcome of a situation in any organisation – a statement that is particularly true of social organisations.

During the data collection process a lesson was learnt that there are many activities that need to be corrected in order to turn around the performance of the school towards a better performance. However, it has become clear to me that in order to get these activities and actors working towards a common goal, there will have to be a lot of policing and controlling of staff and students in different operating sections of the school and such an input is very difficult to achieve. For example, the following statement was raised by all the groups that participated in the discussion: ‘The shop where the learners buy their lunch is too close to the bar that serves alcohol’. This situation will require somebody to control the learners so that they do not go to the bar when they go to the shop and another person will have to encourage learners to go back to the school when break time is up, etc. But such control, within a complex situation of domestic violence, poverty, child-headed families, etc., is an enormous social and psychological challenge because alcohol becomes a panacea for problems. Again, what is required is a nurturing of a community intelligence that allows for social self-correction.

Lewin and Regine (2000:5) say ‘CEOs and managers must give up control or rather the illusion of control when they are trying to lead their organisations to some goal. But they do need to create the environment in which creativity can emerge.’ This comment substantiates what I have said above, but my understanding of these writers is that they do not mean control must be discarded entirely. Through the systems thinking approach leading the efforts, this type of organisation can be structured in such a way that it easily achieves the desired outcome without control. For example, all these problems from the various discussion groups, and also their sentiments in the rich pictures, require that the operation of the school be looked at differently in terms of systems thinking.

Senge (2000:417) speaks of an authority-centred problem-solving and says it is insidious and sometimes difficult to spot. The main problem of the target schools is that they perform poorly in their grade 12 results and their problem becomes a national political issue because these schools are state organs and as such they need to comply with the government’s set standards within the set time frames. This type of problem-solving method has nothing to do with the process of learning and teaching because the important thing is to produce the results whatever the cost.

Ireland (1999:63) says: ‘Strategic leadership is defined as a person’s ability to anticipate, envision, maintain flexibility, think strategically and work with others to initiate changes that will create a viable future for the organisation.’ This type of leadership that is envisaged in the approach has

been highlighted during the data collection process because it created an environment where people can share the problem.

Leadership without control in the school is a possibility when the environment is created for all the stakeholders to meet and to strategise together to turn around the poor performance of their school towards a better performing school. Senge (2000:72) speaks of the discipline known as ‘the shared vision’ as one of his five disciplines that is able to bring all the stakeholders together with all their disparate aspirations around the things they have in common.

It is also a common knowledge that all the stakeholders know what they want for the school and for the learners. All the problem statements that emerged were based simply on the fact that the school is not producing what they expected it to produce, i.e. for teaching to provide students with the learning needed for them to be future leaders of this country and in the interim to pass to the next level of their studies. The educators want an environment for them to excel in in their teaching of learners according to their professional expectations and in terms of the National Curriculum Statement(NCS) The crux of the matter is that shared vision allows people to build a sense of commitment together, to develop images of the future they want to create together and in accordance with the values that will be important to get them there.(Senge 2000:72).

#### **4.4 The Practitioner Research Self-Observation**

The practitioner research method, together with the technical application of systems thinking, has enabled me to learn more about the problems existing in my organisation and it has also put me in a better position to change how things are done for the betterment of the organisation.

Fox *et al.*(2007:48) speaks of three action research paradigms, namely, action research as a rational social research, participatory action research and emancipatory research, and they say that they all explicitly recognise that research is about power. Action research paradigms are a means by which the practitioner researcher uses the power contained in the research to empower the participants and find the solutions together.

The fieldwork for this research was conducted on 15 October 2007 at Velamuva High School which is one of the schools that performed poorly in grade 12 examination results of 2006. However, there are many activities that have taken place since then, in the same school and in other schools with similar problems. Other schools are Nokhalela, Mhlakaza, Magemfane, Noqandela and Umphezeni.

As a practitioner researcher I have been continuously engaging with the schools mentioned above during the performance of my duties, and one of the main functions in these schools is to assist them with their turn-around strategy, and in so doing I have been exerting my influence to promote the systemic approach in the implementation of all the Government policies.

For example, I continuously collected data from the other five schools mentioned above with which I did not engage in formal research. I gathered information through discussions and interviews with all the stakeholders, namely, educators, learners, members of the School Management Team (SMT), School Principals, School Governing Body members, etc. After the interaction with these schools, I assisted them with the formulation of a new management system in accordance with the systems thinking approach. Two schools, Nokhalela and Noqandela, were particularly responsive in the way the leadership took on board the systemic perspective.

The outcomes of the influence I exerted on the operations of the two schools have been observed in their grade 12 final examination for 2008, which are tabulated below:

<b>NO</b>	<b>NAME OF SCHOOL</b>	<b>NO OF GRADE 12 LEARNERS</b>	<b>PERCENTAGE PASS</b>
1	Mhlakaza	22	34
2	Umphezeni	40	07
3	Velamuva	101	17
4	Nokhalela	42	78
5	Magemfane	34	26
6	Noqandela	27	65

The results indicate that two schools improved their performance in 2008, namely Nokhalela and Noqandela, and raised their performance to above 60%. Although there are many factors that contribute to the performance or non-performance of a school, the improvement in the performance of these schools could indicate that they applied the approach that I gave to them.

It is however ironic that the school where I conducted the research, namely Velamuva High performed very poorly in the grade 12 final examinations for 2008, obtaining only a 17% pass rate. Systems thinking advocates the fact that successful change requires all the systems to function together at the same time and for each to bring a different change to the initiative (Senge 2007:274).

Velamuva High School was experiencing a problem in the academic year of 2008 whereby the Principal was away most of the time because of illness and he ended up opting for early retirement at the end of the year. The school did not have a Deputy Principal and it only relied on a Head of the Department (HOD) that was a full-time mathematics and physical science teacher and he had had very little experience in heading the school. This situation can not be the only reason why the school underperformed, but this to me looks like a major contributing factor, because it means that the conversations that took place earlier as part of my fieldwork had no leader to oversee them.

As a practitioner researcher my main purpose is to solve the problems of schools and also do things differently, because after analysing the data I do not arrive at a general conclusion but I try to understand the problem in a broader context ,because I deal with it in my place of work on a daily basis (Fox *et al.*, 2007: 51).

In order to resolve the problem of poor performance at Velamuva High School, I went to the pool of the displaced educators and found a Principal and a Deputy Principal that were displaced from other high schools and asked for permission from the authorities to transfer them to Velamuva High School.

A displaced educator is one who finds himself or herself being unable to work at his or her school because he/she feels that his/her life is threatened. The Department has a procedure whereby he/she can apply to be seconded elsewhere, but before that an investigation is conducted in terms of the policy on displacement. When the investigation rules in his/her favour, displacement is accordingly granted. This educator will serve in another school as an ordinary educator, irrespective of his/her rank but not losing on his/her salary until such time that he/she is reinstated in another school in a position befitting his/her rank.

The reason why I chose to second these officials to Velamuva High instead of advertising the post and conducting interviews was because I realised that this process was going to take almost another year and the problem of poor performance was going to be worse. At the moment all the systems seems to be going well and I hope for a change in the school's performance for the better.

Fox *et al.*, (2007:93) say that 'there is a link between practitioner research and development that presents an opportunity to develop and strengthen systematic thinking within practice'. This affirms

the fact that as a practitioner researcher and having studied management techniques for the Master of Commerce Degree in Leadership and Management, I have the necessary insight to exert an influence to establish the approach in all the schools I work with, and also simultaneously to improve my professional skill in management and leadership.

The question concerning the feasibility of a approach to complex, messy problems in education is an important one because schools are also complex organisations and systems thinking has the ability to understand interactions and relationships in complex dynamic systems (Senge 2000: 239).

Systems thinking is potentially a more inclusive paradigm that allows the schools to be treated as unique entities and their problems can be addressed taking account of all stakeholders' inputs. This approach is appropriate, but it has its shortcomings. For example, schools are operating within the timeframe of one academic year and the Government wants the results to reflect a turn-around immediately, and for the system to change within this one academic year. The systems thinking approach is not given enough time to effect change in the schools and the results happen to be very slow. This could account for the schools that did not improve their performance immediately.

This research was given another opportunity to provide deeper insight when I was requested to make corrections to most of the aspects of this dissertation. This gave me an opportunity to be able to access more information on the practitioner research methodology.

## CHAPTER 5

### RECOMMENDATIONS AND CONCLUSION

#### 5.1 Introduction

This chapter focuses on the recommendations and the suggestions for further research. This study has been focusing on the value of using a systems thinking approach when trying to solve the problem of poor performance in the target schools.

The differences between systems thinking and the traditional approach have already been highlighted in the previous chapters, and the essence lies in the fact that the schools, which are the target of this study, are complex organisations, which need to be treated in a manner that will address their complexity.

The findings of this study were based on what transpired during the research proceedings and also on the review of the literature relevant to this study, and the practitioner research experiences as an ongoing process. This was pursued using the following conceptual framework:

- Exploring the possible causes of poor performance in schools using a practitioner research approach.
- The value of using the systems thinking approach in schools as a way of finding solutions.

#### 5.2 The Findings

##### 5.2.1 The Possible Causes of Poor Performance in Schools and the Failure to Implement the Turn-Around Strategies.

This study facilitated discussion groups where the different stakeholders brainstormed the possible causes of the poor performance at the target schools. From this emerged the problem statements and they were also illustrated through the rich pictures as fears of the stakeholders. There were various reasons that were proposed as causes of poor performance; however the study learned the following through those deliberations:

- That all the statements suggested in the discussions are likely to be contributing factors to the poor performance of the schools For example, the fact that learners spent most of

their time in the shop and sometimes go to a bar to drink alcohol, is a serious impediment to the process of teaching and learning.

- The fears raised by the stakeholders through the rich pictures are fears that might indeed contribute to the failure rate in the schools.

How are these issues going to be solved so that the schools' performance can be turned around towards better performance? The traditional approach that is still prevalent in these schools is very unlikely to be the tool to turn around the performance of these schools because as Taylor (2004:166) says, 'It is not sensible to plan or lead organizations as if they are simple and controllable or exempt from the circumstances of change and flux in a globalising world.' Schools are social organisations with numerous activities taking place, which makes it impossible to control the situation, especially if these activities are viewed as isolated incidences that have nothing in common with each other.

If one looks at the numerous problems that have been raised by the stakeholders, it becomes difficult to comprehend which of these problems could be tackled first in order to come up with a viable systems model within the budget of the school.

April *et al* (2000:1) also takes this point further and says 'what is killing us is the illusion of control: that things can be predictable, consistent and forever under control.' The numerous problems that have been cited as causing the poor performance in the schools will obviously demand numerous acts and various solutions because the traditional approach is dictated by the immediate production of the solution to an individual problem and then moving forward to another, and always predicting positive results. This situation is pressured by the legislature which measures the performance of each school and expects results within a short space of time (Senge 2000:416).

Another cause for concern is the observation that out of all the problems that have been identified in the schools, it is very difficult to know whether the problem identified is the real problem or whether it is just a symptom. For example, the fact that some educators fail to engage with learners and end up not going to class to teach, may be an event and the real problem may be hidden underneath the surface or it may be just the tip of an iceberg (Senge 2000:80).

In situations like this you may find that there is a pattern, a systemic structure or a mental model under which this occurrence happens and no one is able to detect this using the traditional approach

because everyone is merely concerned about what is happening now and what the quick solution to it might be. For example, the educators may be told about their contractual agreements that if they do not comply they may be disciplined in terms of the *Employment of Educators Act 76 of 1998 as amended* and the educators may return to class and perform their duties, avoiding the conflict with the school authority – but the causes of their absence will not have been addressed..

On the other hand the learners may be told that if they do not cooperate with the educators, they will be disciplined in terms of *the South African Schools Act 84 of 1996 as amended* or they will be sent home to fetch their parents or guardians. The learners will find the lengthy disciplinary procedure cumbersome and the alternative embarrassing to their parents, so they might end up complying. This solution is not going to last and may surface again because the real problem was never addressed.

Taylor (2004:166) says that the strategic challenge for leadership is to maintain multiple points of stability in an environmental context of change and flux, hence preserving a semblance of stability and direction in a ‘chaotic’ world where that which is ‘unknowable’ is the challenge to contemporary leadership.

What was learned from this study is that the traditional approach emphasises too much supervision and forgets to realise that schools are socially complex organisations where many activities take place interdependently. Because of over-supervision there is a lack of commitment and dedication for the implementation of the curriculum. People perform as long as there is supervision. In the situations where there is insufficient supervision, the level of performance is very low and the results are very poor. This situation is prevalent in schools which have less than ten educators because everybody in the school is overloaded, including the HODs or Senior Educators and therefore nobody keeps track of the assessment standards until very late when the damage is done.

### **5.2.2 The Value of Using The Systems Thinking Approach In Schools**

The systems thinking approach provides a different way of looking at a problem and at goals. These are viewed not as isolated events but as components of larger structures (Senge, 2000:78). In addition, the systems thinking approach has its tools and techniques that facilitate the growth of the organisation over time.

The problems that have been presented during the data collection proceedings are many and difficult to solve as separate events, and as a result in this approach of applying systems thinking, the Soft Systems Methodology is used as a tool, firstly, to identify people or the stakeholders that will participate in the discussion. Secondly, the SSM creates an environment where everybody feels free to participate in such discussions and be creative. Thirdly, the root definitions are formed to be the source of discussions and these are followed by the formulation of the conceptual models and, lastly, the implementation programme is developed.

This process of the SSM is to create an environment through which the creativity from the participants will emerge (Lewin and Regine 2000:5). However, SSM is only one research tool among the various tools and techniques that the systems thinking approach uses to deal with complex social organisations like the schools.

The five disciplines by Senge (2000:59 – 78) are: personal mastery, mental models, shared vision, team learning and systems thinking. All these disciplines are important, however the mental models, shared vision and systems thinking featured prominently in this study.

#### **5.2.2.1 Mental Models**

Mental models are basically images, assumptions and stories that we carry in our minds of ourselves, other people, institutions and every aspect of the world that shape our behaviour and attitudes (Senge, 2000:67). This manifested itself during discussions; every person has his or her picture about the cause of poor performance in the school

The lesson is that systems thinking, through its technique of data collection, namely, the Soft Systems Methodology, creates an environment which will allow everybody to air his/her views about the problem without fear or prejudice (Jackson 2005:185). For example, whilst some people in the groups saw the late arrival of learners to school and the late return after break, as major contributors to poor performance, others see the failure of some educators to discipline learners as the major cause.

The atmosphere and the environment in which the SSM exercise is conducted, helps to professionally manage the manifestation of these different models and to ensure that they eventually produce relevant root definitions and common conceptual models. For example, the groups came up with refined statements and comprehensive models.

### **5.2.2.2 Shared Vision**

Senge (2000:72) explains shared vision as a set of tools and techniques for bringing all the disparate aspirations into alignment around the things people have in common. This is also a systems thinking tool that enabled the stakeholders to throw all their expectations about solving the plight of their school into one basket, and came up with common ideas for a solution. The solutions that were mapped out in the implementation plan were as a result of this intervention. For example, the stakeholders formulated the models and the implementation schedules around the common vision as detailed in Chapter Three.

In order to attain these results the manager should be very skillful in soliciting the ideas of a wider community through networking and other means of communication. The idea of holding regular stakeholders' meetings that has been conceptualised in this study could provide a chance to achieve the shared vision, but only if the stakeholders' meeting is made as representative as possible, where people with various skills and knowledge are co-opted or invited to attend.

Schools are not the same in nature, though many of them experience the same problem of poor performance. But the solutions formulated for one school do not necessarily apply to another school. This also goes for the intervention strategies. Their impact may not be the same and the time in which results can be expected can differ from school to school. For example, the solution may rest on the cooperation of the stakeholders and the influence they have on other organisations, e.g. like the Department of Social Welfare to solve the issue of child-headed families, etc.

## **5.3 Recommendations**

Recommendations are based on the experiential learning derived from the research process and the knowledge gained through the literature review pertinent to this study, and they will focus on the mandate of this study, which is to evaluate poor performance in the schools targeted by this study and the value of using the systems thinking approach.

The recommendations are based on the principles of the systems thinking approach in its ability to understand interactions and relationships in complex, dynamic systems (Senge 2000:239).

In making these recommendations, I am alert to the fact, through the self-observation required of practitioner researchers, how easy recommendations can become reductionistic and so lose their

systemic intent. My personal discovery is just how challenging a systemic perspective is to deeply ingrained mental models. And if I am susceptible to this, then it is even more challenging for those who have no education in the systems view.

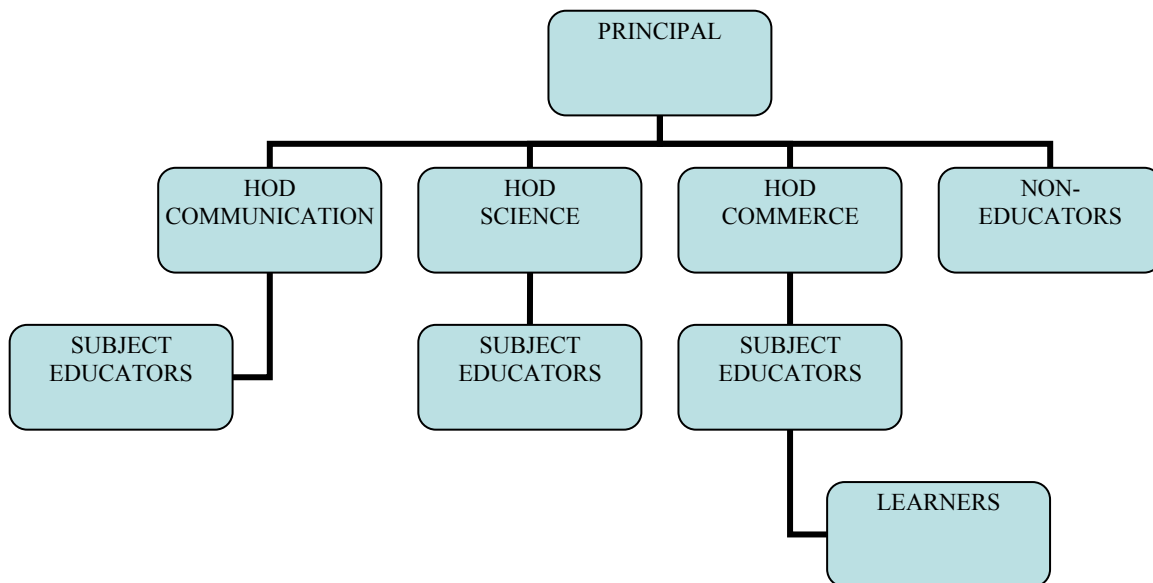
So, the solution to these problem schools places me as an active participant in the change context, and not just as outsider with expertise. I admit that this was part of my traditional thinking, but the systems perspective and practitioner research has made me alert to this mental model. So, it is with this understanding that I recommend that the following activities may assist the schools to turn around their performance:

### **Identifying the Components and the Activities of the School**

The school is made out of different components, namely, educators, learners, and non-educators, there is however, a management structure that is designed to facilitate the communication and to manage all the activities of a school. Each component within this management structure has a significant role to play, e.g. the principal is the head of the school and his/her duties are clearly articulated in the *Employment of Educators Act 76 of 1998 as amended*. The principal is basically the accounting officer of the school and he/she is accountable for all the activities in the school, and he/she represents the school in all other educational activities happening outside the school.

There are other structural components which are linked to the Principal, e.g. the Deputy Principal, the Heads of Departments, and these are components that perform and oversee the processes of teaching and learning in the school and then collate all the necessary data and make reports. The learners are the most important component of the school because all the activities that are taking place in the school are about them. They are the clients of the school and the performance of the school is evaluated in terms of the performance of the learners.

The management of the school should know which components exist in the school and what their activities are, because the participation and the synergy among these components is very important. In other words the management should design a clear school organogram for its functions because a successful change requires a multiple layer of leadership and a clear demarcated line function (Senge 2000:274). The following is an example of a clear demarcated line function represented in the following organogram:



**Design a Human Thinking System**

This system emphasises peoples’ roles, relationships and interactions. This could facilitate open lines of communication between the different parties. There must be an environment that will allow these individuals to meet regularly and to discuss matters of interest. Such an opportunity will promote a shared vision, mental models and team learning as envisaged by the systems thinking approach (Senge 2000:66-79).

During our discussion it emerged that the National Curriculum Statement demands educators be engaged in a lot of paper work where they record the information and keep assessment records ready for submission to the Department. In some schools the bulk of paper work is done by administration clerks and in this situation only two schools of the target schools have clerks, namely, Velamuva and Ndluyesilo.

What I learned from this situation is that most of these schools do not remain open at least for an hour after school as dictated by Schedule C of the Personnel Administrative Measure document of the *Employment of Educators Act 76 of 1998 as amended*. It is therefore recommended that these schools comply with the Act.

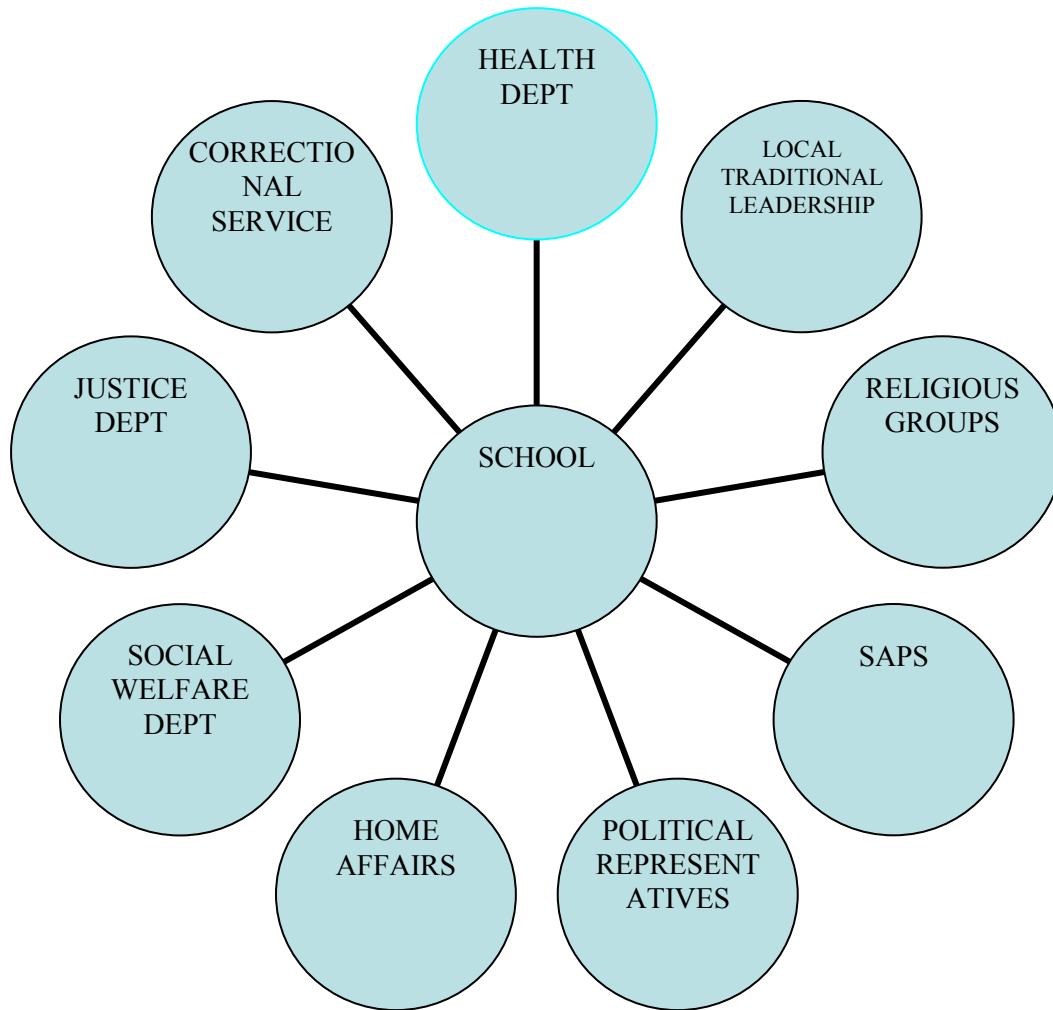
In order for this compliance to be within the confines of the systems thinking approach, a school should organise a meeting of all the components of the school to formulate a strategic plan around this exercise and identify activities that will be done during this extra time and have a manageable timetable like the following example:

<b>OBJECTIVE</b>	<b>ACTIVITY</b>	<b>RESPONSIBILITY</b>	<b>TIME FRAME</b>	<b>MONITORING</b>
To improve on service delivery and meeting the deadlines for submission	All committees meet for discussions and take decisions	a) Subject committees b) Assessment committee c) Sports Committee d) Disciplinary Committee, etc	Monday to Wednesday  Thursday after school is for all the extra-curricular activities  Friday after school can be left open at the discretion of the Principal and SMT	SMT

Over and above, these schools are encouraged to introduce a supervised study for grades 11 and 12 and this should have a well-designed timetable that is sensitive to the needs of the learners and educators.

### **Create a Stakeholder's Forum**

This is the forum that involves all the other organisations outside the school with an interest in education . This forum will be hosted by the school and may involve the following organisations: Departments of Health, Social Development, Home Affairs, South African Police Service, Criminal Justice, etc.



#### **5.4 Suggestions for Further Research**

##### **The Value of Common Testing In Under-Performing Schools**

The Department is conducting common tests for grade 11 and grade 12, beginning at the end of March up to the end of September 2009. The procedure is that the question papers are set by the Provincial Head Office and dispatched to schools through the District Office in the same way as the final examination. Each testing session lasts for about three weeks, and after this the educators involved are provided with memoranda to mark and to submit the marks analysis within two weeks after the completion of the tests.

The following questions remain unanswered:

- Does this exercise not overburden the educators with too much marking?
- Does it not deprive the educators of the opportunity to learn the assessment technique and to prepare learners for the final examinations?
- Is it not time-consuming?
- Is it not a costly exercise?
- Testing is one technique of assessment; does it not deprive a learner of being exposed to other techniques, e.g. assignments, projects, etc?
- What happens to teaching and completing the syllabus during the testing times?

The above questions open up a minefield of education research possibilities within a systemic perspective. My own on-going practitioner research will undoubtedly engage me with these questions, but there is also the necessity for formal research projects.

## **5.5 Conclusion**

The focus of this chapter was to evaluate whether or not there was anything new that was learned in the evaluation of poor performance in the six school that were selected for this study, and most of all to look at the use of the systems thinking approach to address the problem of the schools.

This study has presented the findings that were obtained from the research described in chapter three, and from the literature review that was presented in chapter two. The findings were grouped under two subheadings, namely, *The possible cause of poor performance and failure to implement turn around strategy.* and *The value of using systems thinking approach in schools.*, Finally the study made recommendations and made suggestions for further research.

The use of the systems thinking approach with its tools and techniques has proved that it can assist the schools in performing well because the systems thinking approach provides a different way of handling the problems and achieving the goals of the school ( Senge 2000:78). But this requires a massive change in our mindsets, which finally, must permeate all of our institutions if there are to be any lasting outcomes of value. On a positive note, the latest research in collective intelligence shows that big social changes start with small initiatives.

The systems thinking approach is, however, not designed to give quick-fix solutions to problems but it works over time. It makes schools learn and transforms them during the course of learning

until they perform better. This situation is in conflict with the aspirations of the Department of Education, because they want the results to be attainable within one academic year in order to respond to the political pressures (Senge 2000:416).

As a practitioner researcher I have learned that research and practice are inseparable. By comparison with a traditional researcher, a practitioner researcher can empower the participants in the research and we resolve the problems as equals, whereas the traditional research deal with hypothesis and the participants in the research assume an inferior role (Fox *et al.*, 2007:94).

The practitioner research method is important in a government organisation like a school because it involves action research and as a rational social management intervention it does not only generate knowledge, but it allows participants to solve problems and do things differently (Fox *et al.* 2007:51)

When dealing with the problems of the schools that are under-performing, I continue to collaborate with all the stakeholders and I continue to facilitate discussions, and have been able to make appropriate changes to specific issues and to spread the same influence to other schools. It is my hope that this study will light the way for other educators.

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