The impact of the Whole School Evaluation on School Improvement Plan towards Physical Science learner performance at Sekhukhune, Limpopo South Africa. The case of Malegale Circuit of Education.

By

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MINI- DISSERTATION
Submitted in (partial) fulfilment of the requirements for the degree of
MASTER OF DEVELOPMENT
in the

FACULTY OF MANAGEMENT AND LAW
(Turfloop Graduate School of Leadership)
at the
UNIVERSITY OF LIMPOPO

SUPERVISOR: PROFESSOR K.S. MILONDZO

2018
DECLARATION

I the undersigned declare that:

“THE IMPACT OF THE WHOLE SCHOOL EVALUATION ON SCHOOL IMPROVEMENT PLAN TOWARDS PHYSICAL SCIENCE LEARNER PERFORMANCE AT SEKHUKHUNE, SOUTH AFRICA: THE CASE OF MALEGALE CIRCUIT,” is my own work and that all the sources that I have used or quoted have been duly acknowledged and indicated by means or complete references.

This research report has not been previously submitted in part or in full for any other degree to another university.

Signature………………………………………………………………Date…………………………………………
ACKNOWLEDGEMENTS

This study would not have been a reality had I not depended on God’s grace and the valuable support, guidance, assistance and encouragement of the following people through my endeavour studies made it a success:

1. Prof K.S.Milonzo, my supervisor, for his support, constructive support, encouragement and supervision.

2. Prof O Mtapuri, my co-supervisor for his constructive support.

3. My wife Pebetse and my three sons Thatego, Kopano and Oratile for their patience and understanding.

4. All Grades 10-12 Physical Science teachers in Sekhukhune District, who participated in this study and provided their valuable contribution.
School Improvement Plan is introduced to improve learner performance in South Africa. This plan is integrated within the whole School Evaluation so as to enhance the quality of education in the country. Malegale Circuit of Education in Limpopo Province is central to the investigation. In terms of the Whole School Evaluation (WSE) schools are required to annually develop and implement a School Improvement Plan (SIP). As part of a SIP, a school should plan to monitor and examines at regular intervals, whether its practices and learner achievement are undergoing changes. SIP maps out the actions needed to bring about improvement. It is compiled annually after School Self-Evaluation (SSE).

The focus areas used by school management teams to draw their School Improvement Plan (SIP) are: basic functionality of the school; leadership, management and communication; governance and relationships; quality of teaching and educators development; curriculum provision and resources; learner achievement; school safety, security and discipline; school infrastructure; and parents and community.

It outlines the school’s strategies for improvement and sets clear targets of action. All the schools are obliged to draw their School Improvement Plan (SIP) in the curriculum of every subject. The programme helps in assisting towards improving performance in terms of quality of teaching and learning, educator development, curriculum provision and resources, learner achievement and school infrastructure.

The study provides insight into the research design, qualitative case study which includes Semi-structured interviews, Document review, Field notes and Observation and quantitative in the form of questionnaires research paradigms, purposeful sampling, site selection, the participants, and data analysis. The members of the school management teams should be encouraged to implement School Improvement Plan in an effective and professional manner. The members of the school management team should be encouraged to appoint qualified physical science teachers to enhance the impact of whole school evaluation on school improvement plan. Government officials should be encouraged to monitor and evaluate the implementation of the whole school evaluation and school improvement plan, so as to enhance the teaching of Physical Science.
LIST OF ABBREVIATIONS

DAS Developmental Appraisal System
DoE Department of Education
ELRC Education Labour Relations Council
HoD Head of Department
IQMS Integrated Quality Management System
ISIP International School Improvement Project
LEA Local Education Authorities
NEPA National Education Policy Act
OCED Organization for Co-operation and Development
OFSTED Office for Standards in Education
PM Performance Measurement
RSA Republic of South Africa
SASA South African Schools Act
SBR Schools Based Reviews
SIP School Improvement Plan
SMT School Management Team
SPSS Statistical Package for the Social Science
SSE School Self Evaluation
TIMSS Trends International Mathematics and Science Study
UK United Kingdom
UNESCO United Nation Educational Scientific and Cultural Organisation
WSE Whole School Evaluation

KEYWORDS

School Improvement Plan
Whole School Evaluation
School Management Team
Physical Science
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CHAPTER ONE
INTRODUCTION

1.1. Introduction

School Improvement Plan is introduced to improve learner performance in South Africa. This plan is integrated within the Whole School Evaluation so as to enhance the quality of education in the country. Malegale circuit of Education in Limpopo Province is not excluded from this process. Recent changes in the new democratic South Africa have introduced different policies to improve the quality of education in various subjects.

The researcher intends to investigate the impact of the Whole School Evaluation (WSE) on School Improvement Plan (SIP) towards Physical Science learner performance at Malegale circuit in Limpopo province.

1.2. Background

After the inception of Whole School Evaluation policy in 2001, the department of education has introduced the School Improvement Plan (SIP) to enhance teaching and learning in various subjects. School Improvement Plan is an annual plan that all South African schools are obliged to have which assists in the improvement of curriculum of every subject and development of teaching and learning.

Whole School Evaluation policy (South Africa. DoE, 2001) indicates ways in which good schools should be recognised and under-performing schools supported. School evaluation reports and improvement plans should naturally lead to district, provincial, and national improvement plans that address areas that need improvement within specified time frames Ministry of Education: Guyana 2003:1 cited in Risimati (2007) or Department of Education of Jamaica cited in PattFlett (2004) or South Africa, both have plans (SIP) with the common idea of improving the schools results which will indicate the direction and rate of school improvement or development.
The underperforming (performing under the set standard) fluctuation of Physical Science results within the Sekhukhune district have influenced me to take interest in what it is that the schools are doing to remedy the situation.

The study will use both the related literature review and case study for gaining insight into the perceptions of the impact of WSE on performance of learners in Physical Science. It will particularly evaluate the impact of SIP on learner performance and investigate any existing dependency.

1.3. Problem Statement

The impact of Whole School Evaluation on performance of learners in Physical Science in rural schools will be the point of departure for this research. Risimati and Van Wyk (2007), defines rural schools as schools which are found in farms, villages and semi-urban areas which are remote and infrastructural underdeveloped.

In terms of the Whole School Evaluation (WSE) Policy (South Africa DoE 2001a) & Education Laws Amendment Act No. 31 of 2007, schools are required to annually develop and implement a School Improvement Plan (SIP). As part of a SIP, a school should plan to monitor and examine at regular intervals, whether its practices and learner achievement are changing. SIP maps out the actions needed to bring about improvement. It is compiled annually after School Self-Evaluation (SSE). It outlines the school’s strategies for improvement and sets clear targets for action. All the schools are obliged to draw their School Improvement Plan (SIP) in the curriculum of every subject. The programme helps in assisting towards improving performance in terms of quality of teaching and learning, educator development, curriculum provision and resources, learner achievement and school infrastructure (South Africa. DoE 2001).

This plan seems to be good but implementing it in the teaching of Physical Science in Malegale circuit of Education appeared to be problematic. To support this statement, despite the inception of SIP, the Grade 12 Physical Science learner performance was less than 60% on average from 2010 to 2014 at Malegale circuit of
Education. One school would perform at a particular percentage (low or average) consistently without improvement. Some schools within particular clusters have only one school which has a school laboratory with limited resources. Some schools use cupboards or steel cabinets which are from donors and their resources are not adequate. Most of the educators are not the masters of the subject. There is only one subject advisor who caters for the cluster of 40 schools and other 30 schools from different circuits. This issue raise a particular interest in the researcher to find out if the schools had their own improvement plans especially when there was no improvement in the Physical Science performance. If the problem persists, the consequences are costly for the department, educators, learners and the community as a whole in terms of funds, time and effort.

1.4. Aim

The aim of this study is to investigate the impact of Whole School Evaluation on School Improvement Plan towards Physical Science learner performance at Sekhukhune, Limpopo, South Africa. The case of Malegale circuit of Education.

1.5. Objectives

To determine the current status of the Whole School Evaluation in the teaching of Physical Science.
To identify factors that impact negatively on the implementation of School Improvement Plan in the teaching of Physical Science.
To suggest strategies that would encourage policy makers to provide resources that support the implementation of School Improvement Plan in the teaching of Physical Science.

1.6. Research question

Main question:

To what extent is the Whole School Evaluation impact on School Improvement Plan towards Physical Science learner performance?
Sub-question:

Which factors hamper the implementation of School Improvement Plan in the teaching of Physical Science?
To what extent is the current status of Whole School Evaluation affects the implementation of School Improvement Plan in the teaching of Physical Science?
Which strategies can be used to encourage policy makers to provide resources that support the implementation of School Improvement Plan in the teaching of Physical Science?

1.7. Significance of the study

The researcher’s viewpoint of the study on the impact of Whole School Evaluation on School (WSE) improvement plan (SIP) towards Physical Science learner performance at Malegale circuit will assist in the following:
- The study will assist stakeholders to identify factors that impact negatively on the implementation of SIP in the teaching and learning of Physical Science.
- It will assist stakeholders to determine the current status of the WSE in the teaching and learning of Physical Science.
- The study will also assist policy makers to develop strategies that would support the implementation of SIP in the teaching of Physical Science.

1.8. Format of the study

Chapter 1
Introduction:

This section provides the background to the study, the aim, objectives, problem statement and research questions, significant and the format of the study. It will cover the issues of school performance with respect to School Improvement Plan.
Chapter 2

Literature review:

It gives clear details of what the scholarly literature says it about Whole School Evaluation on performance of science learners and also interrogate it from a global, regional and local perspective.

Chapter 3

Methods:

This chapter will cover the research methodology, design, population, sample, data collection and analysis methods to be used in the study. Qualitative case study which includes semi-structured interviews, document review, field notes and observation will be used for this study.

Chapter 4

Findings:

Data collection, analysis and discussion of results will be presented in this chapter and the use of various strategies (coding) to enhance validity and reliability. The use of NVIVO for analysis will also be covered.

Chapter 5

Conclusion and Recommendations:

This chapter will draw the conclusion and recommendations of this research study.
1.9. Conclusion

This chapter discusses the background of the study and the research problem. The aim, research objectives, research questions and significant of the study will be discussed in this chapter. The format of the chapters is also presented in this chapter. In the next chapter a review of selected relevant literature on the Whole School Evaluation will be discussed in full.
CHAPTER TWO

2.1. INTRODUCTION

In this chapter, a review of literature related to the School Management Team (SMT) role in implementing School Improvement Plan within the Whole School Evaluation in secondary schools will be analysed. The sole purpose of exploring what has already been researched is to locate the current study within the existing knowledge.

This chapter will be organised as follows:

- A brief overview and rational behind the School Improvement Plan within the Whole School Evaluation in South Africa will be given.
- A review of theoretical and conceptual framework regarding the School Improvement Plan within the Whole School Evaluation in schools.
- A critical analysis of previous and relevant research work in other countries will be looked at, which may place the present study in an appropriate context in terms of its research questions stated in chapter one.
- Lastly, the conclusion will be given at the end of this chapter in the form of a summary.

2.2. An overview and rationale behind Whole School Evaluation (WSE) in South Africa

After 1994, in a bid to improve the quality of education in South Africa (SA), the then Minister of education, Professor Kader Asmal, in line with the Tirisano programme, launched the WSE policy as one of the measures which improvement and quality can be assured in South African schools (DoE, 2000).

Before 1994, schools in South Africa were managed differently. Accountability and responsibility were issues that the education system did not mostly used to determine the performance of schools consider imperative in improving the schools.
Examination results were and these outcomes were not used to inform future planning for schools.

The Whole School Evaluation works on both an internal and external cycles. Schools are expected to develop School Improvement Plans and to annually reflect on and update these plans. The revised “Whole School Evaluation Guidelines and Criteria” (South Africa DoE, 2004b) should be used as the assessment instrument for both the internal and external evaluation processes.

The concept “Whole School Evaluation” sounds to be a good policy to improve the quality of education in the new South Africa, but how to implement it becomes a problem to most of the educators. This concept needs clarification, analysis and understanding before implementation.

2.3 The concept “Whole school evaluation”

According to Asmal 2001:3, WSE is “an attempt to initiate a more intensive critical means of improving the effectiveness and productivity of our schools”. The WSE policy is provided for in the National Education Policy (Act 27 of 1996) as a monitoring and evaluation mechanism aimed at appraising the whole school as an entity for better and improved performance.

Flowing from (Act 27 of 1996), the National Education Policy Act (NEPA), the DoE (2000:7) introduced the WSE as a policy that brings to the fore an effective, monitoring and evaluation process that is vital to the improvement of standards of performance in schools. The DoE intended to change the manner in which schools used to run their affairs so that efficiency and effectiveness could characterize the South African education system.

It has, however, been recently discovered that the South African schooling system performs well below its potential (DoE, 2010:1). To support this observation the systemic evaluation report of 2004 speculate that the performance of schools in south Africa is not at the level the DBE would love them to be and that proper implementation of intervention programmes, including WSE, is necessary (DoE, 2005:i). In other words, the system has not been able to change schools to run their
affairs effectively and efficiently. In that regard, it seems the implementation of WSE has not necessarily helped the South African schools to perform better. This study focuses its attention on the effects of WSE in the area of the study.

Along with the failure of other intervention programmes, the DoE (2002) however, views WSE as a solution to underperformance as the model is transparent, collaborative and development-oriented. Moreover, WSE is viewed as a comprehensive evaluation mechanism in that it augments and compliments on other existing programmes such as the Developmental Appraisal System (DAS) and the performance Measurement (PM) system with the sole aim of evaluating all aspects of a school as a system. In this way, it compliments on the component parts of the Integrated Quality Management System (IQMS), the systematic evaluation and the assessment and evaluation of learner attainment at the end of the academic year (DoE, 2002:2).

Figure 2.1: Integrated Quality Management System (IQMS)

While Whole School Evaluation is one component of quality management, it is not the only one. The Department of Education and the Education Labour Relations Council (ELRC) introduced the Integrated Quality Management System (IQMS) for
school-based educators in collective agreement 8 of 2003. This system acts as a framework to integrate the existing programmes on quality management in education. It incorporates the following programmes: Developmental Appraisal System (DAS) (introduced by Resolution 4 of 1998), the Performance Measurement System (introduced by Resolution 1 of 2003) and the National Whole School Evaluation Policy.

WSE, in this regard, is viewed as a holistic instrument in that it takes into account all other systems and all components of the school as a system when it engages the Whole School Evaluation exercise. For instance, factors such as the basic functionality of the school; leadership, management and communication; quality of teaching and learning, and educator development; curriculum provision and resources; learner achievement; school safety, security and discipline; school infrastructure and the community are the areas of focus (DoE, 2002:5). These are basic components of a school and if necessary attention is given to them, all schools in SA could meet the objectives for which they have been established. Currently, schools in SA perform below their capacity (DoE, 2010:1). It is, therefore, important that all schools in South Africa understand the WSE policy. The following section will, therefore, look at the levels and processes of WSE as implemented in SA.

2.4. Levels and processes of WSE in South Africa

For the fulfilment of the developmental and supportive role of the WSE, the DoE (2002:11) propagates for the use of nationally agreed criteria and administrative guidelines in the administration of WSE. The following levels and processes are important in the fulfilment of the aims and objectives of WSE.

- School self-evaluation
- External evaluation
- District support following recommendations made on school improvement and development
- Published reports on the performance of individual schools
- Annual reports published by provinces.
The niche of the mentioned processes and levels, argues Asmal (2001:4), is to ensure that School Management Teams and advisors use the same criteria when making judgements about the performance and development of the school so as to introduce corrective measures where such is necessary. If the criteria are known and well understood, it would clear uncertainty and thus enhance the spirit of commonness of purpose. All stakeholders would be aware of their roles and this promotes objectivity so that opportunities for replication are widened.

In the same breath, the DoE (2002:4) makes provisions for ethical and appeals processes. These provisions aim at allaying any potential scepticism and fear about WSE. Moreover, the WSE policy provides for schools to conduct their own evaluation (self-evaluation) using nationally agreed criteria. Subsequently, the provincial officials would conduct an evaluation based on the evaluation report of the school as a starting point. Self-evaluation accords schools an opportunity to make self-introspection and do fair judgement on their own affairs. Considering these factors, surely, WSE could improve the performance and stature of schools in South Africa if implemented properly for contextualization of WSE in SA. It is important for the Physical Science teachers and School Management Team to understand the interdependence of School Improvement Plan and the WSE as model to determine an effective system.

While Whole School Evaluation is one component of quality management, it is not the only one. The Department of Education and the Education Labour Relations Council (ELRC) introduced the Integrated Quality Management System (IQMS) for school-based educators in collective agreement 8 of 2003. This system acts as a framework to integrate the existing programmes on quality management in education. It incorporates the following programmes: Developmental Appraisal System (DAS) (introduced by Resolution 4 of 1998), the Performance Measurement System (introduced by Resolution 1 of 2003) and the National Whole School Evaluation Policy. The introduction of an Integrated Quality Management System was an attempt to solve some of the logjams that arose in response to the Development Appraisal and Performance Measurement systems (Department of Education 2008:164).
The IQMS document sums up the aims of these three systems as follows:

- The purpose of Developmental Appraisal is to appraise individual educators in a transparent manner with a view to determining areas of strength and weakness, and to draw up programmes for individual development.
- The purpose of Performance Measurement is to evaluate individual educators for salary progression, grade progression, affirmation of appointments and rewards and incentives.
- The purpose of Whole School Evaluation is to evaluate the overall effectiveness of a school as well as the quality of teaching and learning.
- The document states that these three programmes should be implemented in an integrated way so as to “…ensure optimal effectiveness and co-ordination of the various programmes”.

The dual purposes of IQMS are (i) to identify the needs of educators, schools and districts for support and development, and (ii) to promote accountability and institutional effectiveness through the evaluation of both individual educators and the whole school (Asmal 2001:1).

It also provides a way of integrating the three systems on teaching and learning (including WSE as mentioned where 50% of the time of the WSE supervisors conducting a school evaluation must be spent observing lessons) and attempts to eliminate unnecessary duplication of assessment in this area.

The IQMS policy and its implementation are explored to lead and manage people. However, it is advisable take note of the following comment. There is often confusion regarding the Staff Improvement Plan, School Improvement Plan and School Development Plan. The simplest way of understanding this is the following:
• The Staff Improvement Plan results from the staff appraisal process and provides detailed information linked to the criteria contained in the IQMS document for the development of the staff.

• The School Improvement Plan is a document that examines all 9 areas in the Whole School Evaluation document in relation to the national criteria provided. This is generally an annual plan. While the School Improvement Plan may make reference to staff development (as this is one of the 9 areas included) it does not include the detail found in the Staff Improvement Plan.

• The School Development Plan is often viewed as a longer term planning document that sets out school development over 3 to 5 years. This is updated annually as the School Improvement Plan and Staff Improvement Plan are reviewed. While the Staff Improvement Plan and the School Improvement Plan are usually developed internally, with little or no community involvement, the School Development Plan is a document developed with the community (Department of Education 2008:171).

The Whole School Evaluation and the educator appraisal and development (Developmental Appraisal) systems are based on evaluation cycles. For the appraisal of individual educators the cycle involves a baseline evaluation in the first term (of the first year) and a summative evaluation in the last term with two developmental and reflection cycles within the terms. Included in both the baseline and summative is a self-evaluation process where educators are encouraged to critically reflect on their own performance, to set their own targets and time-frames for improvement to monitor their progress. The baseline is only conducted for the first evaluation cycle; thereafter each summative assessment becomes the baseline for the following year.

The number of schools to be evaluated is determined at national level against agreed criteria (DoE 2001c:3). The Department of Education informs the provinces of the number and names of schools to be evaluated. The province then informs schools, arranges the dates for the evaluation and decides on the supervisor(s) to be involved. Supervisors then send appropriate forms to the schools for completion and a list of documentation required (DoE 2001c:3).
Risimati 2007, states that WSE includes a cycle of pre-evaluation, self-evaluation detailed evaluation and reviews and post evaluation reporting coding RSA 2000:15. During the pre-evaluation visit an accredited supervisor builds a brief profile of the general level of functionality of the school as evidenced by school records, survey instruments and self-evaluation reports.

The supervisory teams comprise of accredited supervisors balanced across the nine focus areas to be evaluated. These supervisors should have the expertise to evaluate one subject or focus area (RSA 2000:15). The numbers of supervisors per school will normally be between four and six, depending on the size of the school. Depending on the size of the school, reviews are normally conducted over a period of three to four days. Where there is an urgent need to set learning sites on an improvement course, follow-up surveys are conducted within six to nine months of WSE review (RSA 2000:16).

Each supervisory team has a team leader who is responsible for building a brief profile about the general level of functionality of the school and to share with the school procedures that will be followed. The team leader also has overall responsibility for the evaluation process and the conduct of the supervisors (DoE 2001a:15).

Producing a report at the end of a school review is obligatory. An oral report is presented in recorded meetings before the evaluation team leaves the school, while the written report is submitted to the District Office and the school within four weeks of the evaluation (RSA 2000:16).

The District Support Teams must assist schools to improve according to the recommendations of the evaluation report. The District Support Teams also assist school improvement through School Improvement Planning that sets clear targets, priorities, flames and resource allocation (RSA 2000:16). (National Policy on WSE 2001a:10) puts it thus:

A school will be helped by district support services to formulate and implement an improvement plan based on the recommendations in the report and provide the school with support as it seeks to implement the plan.
To support school; one should have necessary information about that school and can be done through evaluation to know its strengths and weaknesses. The concept evaluation is broad and shall be dealt in detail in the next section.

2.5. The concept “school evaluation”

There are different definitions of the concept “school evaluation” as many countries and academics prefer to call it. For instance, Risimati (2007:42) defines it as “the process of making value about the merits or worth of any entity in terms of its purpose, programs available and implemented to meet the purpose and the objectives of the entity, processes that are operational, and the nature of the product attained eventually.” On the other hand, Mathe (2000:5) defines it as the “structured process through which judgments are reached about the quality of provision offered to learners and the benefits those learners gain, be they academic or personal and social development.”

Seaman and Fallenz (1989:148) refer to it as the process of “gathering of information that will assist in the making of decisions which will lead to the improvement of teaching and learning transactions.” It is a process of collecting information and making judgements on the basis of available sources, data or information Quan-Baffour (2000:70). UNESCO (2004:14) regards school evaluation “as an indispensable task of central education authorities and serves three different purposes, namely (a) to comply with administrative demands; (b) to fulfil accountability purposes; and (c) to lead to pedagogical and managerial improvements.”

In the South African context, the DoE (2002:5) defines WSE as a “national policy that replaces the school inspection system undertaken during the apartheid era by using nationally agreed criteria in a transparent, organized, planned and developmental manner so that school could perform and reach the nationally set goals.” This definition puts into focus all aspects that other countries or academics conceive schools evaluation to be. For instance, it includes aspects of support and development alongside accountability based on nationally set objective criteria. This proves how progressive this South African WSE model is.
Furthermore, the DoE (2002:14) explains that WSE bases its evaluation exercise on input factors (learner characteristics, physical resources, professional and support staff and funding); process factors (how the school functions, leadership and management processes, involvement of all schools stakeholders, learner’s responsibility in their education, security and safety factors, language factors, resources management practices, communication systems, guidance and counselling services) and output factors (attainment levels of learners, learner progress, learners attitudes, discipline, learners’ use of school resources, the efficiency levels at which the school uses its resources, and provision of safety and security. Below is the SIP process:

Table 2.1: SIP template

<table>
<thead>
<tr>
<th>Limpopo Department of Education</th>
<th>School Improvement Plan 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Areas of improvement</td>
<td>Challenges</td>
</tr>
<tr>
<td>1. Basic School functionality</td>
<td></td>
</tr>
<tr>
<td>2. Leadership Management and Communication</td>
<td></td>
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<tr>
<td>3. Quality of Teaching and Learning Educator Development</td>
<td></td>
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<tr>
<td>4. Learner Achievement</td>
<td></td>
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<tr>
<td>5. School Safety and Security</td>
<td></td>
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<tr>
<td>6. Moderation</td>
<td></td>
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<tr>
<td>7. Infrastructure, Environment, Surrounding</td>
<td></td>
</tr>
<tr>
<td>8. Reports</td>
<td></td>
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<tr>
<td>9. Discipline and Control</td>
<td></td>
</tr>
<tr>
<td>10. Monitoring</td>
<td></td>
</tr>
</tbody>
</table>

APPROVAL OF SCHOOL IMPROVEMENT PLAN

<table>
<thead>
<tr>
<th>Designation</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circuit Manager</td>
<td></td>
<td>School Stamp</td>
</tr>
</tbody>
</table>

Source: DoE Limpopo 2015
This, then, shows clearly that the South African model of WSE is about the whole school and the reasons for its existence. The above varied definitions by different authors get expression in the South African version of the WSE as it encompasses all the aspects that the different authors make references to.

From the above information it is clear that the Whole School Evaluation consists of principles that look at the school as a whole entity. This is the reason why most of the stakeholders failed to understand how to implement it as a system; hence, the School Improvement Plan was introduced within it to evaluate the effectiveness of all activities within the school.

School Improvement Plan focuses on the attainment and achievement of outcomes in the schools; hence the researcher intends to investigate the impact of the Whole School Evaluation on School Improvement Plan towards Physical Science learner in Malegale circuit of Education.

To reinforce the above process, the researcher will discuss the role of School Improvement Plan within the context of Whole School Evaluation and its implication towards the teaching of physical science.

2.6. Whole School Evaluation and School Improvement Plan

School improvement primarily focuses on improving schools from within the core focus of school improvement remains a focus on improvement processes in addition to achievement outcomes. Central to school improvement is the identification and implementation of improvement strategies. Most school improvement initiatives rest on two key assumptions: (i) schools have the capacity to change themselves, and (ii) school improvement involves cultural change (in terms of school culture) that is best achieved through working in each school. School effectiveness is essentially measured in terms of learner achievement (Department of Education 2008:159).

School effectiveness research is generally criticised for a narrow focus of what constitutes learner achievement (i.e. just academic results) and its tendency to
provide lists of characteristics instead of an in-depth analysis of these factors and related processes that contribute towards their creation, sustainability and impact. According to the DoE 2008 the response to questioning whether or not schooling makes a difference essentially took two forms. The first, school effectiveness, focussed on proving that schooling did make a difference provided that it was the right type of schooling involving the right combination of factors. The second, school improvement, involved a more holistic approach that centred on specific intervention initiatives and processes and focused more on the actual school transformation process. School improvement is also sometimes equated with and also used interchangeably with the term school development. For example Hopkins (1996:33) defines both school improvement and school development as “…a process through which schools adapt external changes to internal purpose”. More privileged and functional schools are able to focus most of their school improvement initiatives at the classroom level.

Therefore output (ends/goals) involve the learners’ attainment of results while input (means) involves researching what school related factors or characteristics contribute towards the attainment of a high quality of learner achievement. It is also acknowledged that not all schools require the same school improvement strategies. The main criticism of school improvement has been its tendency during its initial phases to ignore learner outcomes as a measure of school improvement (Department of Education 2008:158).

This involves focusing on all levels of the system: classroom, school, and department of education in the quest to ensure that quality teaching and learning is provided and supported. In 2001 the National Whole School Evaluation Policy was introduced with supporting guidelines.

The National Whole School Evaluation Policy (2001) was introduced as a component of the National Department of Education’s initiative to improve the quality of education in South African schools through introducing self and external evaluation of schools together with accountability indicators and measures. The overarching aim of this policy is summarised in the following sentence: “the National Policy on Whole-school Evaluation has been designed to ensure that school evaluation is
carried out according to an agreed national model. It sets out the legal basis for school evaluation, its purposes, what is to be evaluated and who can carry out evaluations” (South Africa. DoE, 2001:7).

The National Whole School Evaluation Policy’s principal aims are to:
- Moderate externally, on a sampling basis, the results of self-evaluation carried out by the schools
- Evaluate the effectiveness of a school in terms of the national goals, using national criteria
- Increase the level of accountability within the education system
- Strengthen the support given to schools by district professional support services
- Provide feedback to all stakeholders as a means of achieving continuous school improvement
- Identify all aspects of excellence within the system which will serve as models of good practice and
- Identify the aspects of effective schools and improve the general understanding of what factors create effective schools. (South Africa. DoE, 2001: 10)

Provincial Improvement Plans and District Improvement Plans will be developed to assist schools meet their School Improvement Plans. The dissemination on how the plan is drawn using bottom-up approach is illustrated in the next page.
Figure 2.2: School Improvement Plan dissemination
The self-evaluation is conducted by the school community and forms the basis of the School Improvement Plan. Provincial Improvement Plans and District Improvement Plans will be developed to assist schools meet their School Improvement Plans.

The following are the focus areas of whole school evaluation:

- Basic functionality of the school
- Leadership, management and communication
- Governance and relationships
- Quality of teaching and learning, and educator development
- Curriculum provision and resources
- Learner achievement
- School safety, security and discipline
- School infrastructure
- Parents and community. (South Africa. DoE, 2001:13).

Figure 2.3: The nine areas of whole school evaluation:

![Diagram of nine areas of whole school evaluation]

Areas for evaluation

The Government Gazette (RSA, 2000:14) stipulates the following as key areas used by School Management Teams to draw their school improvement: basic functionality of the school; leadership, management and communication; governance and relationships; quality of teaching and educators development; curriculum provision and resources; learner achievement; school safety, security and discipline; school infrastructure; and parents and community (Rasimati 2007:70).

For stakeholders to apply and implement the nine areas from the gazette (RSA,2000:14) they need to understand them within the context of school as discussed by Rasimati 2007:70 are as follows:

Basic functionality for the school

The DoE (2001c: 8) asserts that this evaluation is designed to judge whether the basic conditions exist in a school to enable it to function effectively and efficiently. Furthermore, the Department of Education (DoE 2001c:8) contends that in this regard the School Management Team has to make judgments and report on the school’s policies and procedures; the level of absence, lateness and truancy and measures to deal with them; learners’ response to the school provision; and the behaviour of learners.

Leadership management and communication

The main objective of this area is to assess the effectiveness of leadership and management of schools at various levels in the management structures (DoE 2001c:9). Supervisors make judgments and report on: the school’s vision and mission statement; leadership at various levels in the staffing structure, for example the principal and School Management Teams (SMT); the extent to which the staff and school community as a whole understand those intentions and carry them out; and the extent to which policies and procedures help the school attain its objectives and improve (DoE 2001c:9). The organisational structure of the school is demonstrated below.
Governance and relationships

The main aim of this area is to assess the effectiveness of governing bodies in giving the school clear strategic direction in line with the South African Schools Act (SASA), National Education Policy Act (NEPA) and other related legislation (DoE 2001c:9). The supervisors have to make judgements and report on the constitution of the governing body; the organisation of the governing body and its committees; the membership of the governing body; the part played by the governing body in the formulation and implementation of the school’s policies; the suitability and effectiveness of the policies; and systems the school governing body has for monitoring and evaluating the quality of education provided by the school (DoE 2001c:9)
Quality of teaching and educator development

According to the Department of Education (DoE 2000c:19) WSE should lead to quality teaching. The DoE (2001c:9) asserts: “The first purpose is to evaluate the overall quality of teaching throughout the school and how well it helps learners to learn and raise their levels of performance and attainment”. Supervisors visit schools to evaluate the overall quality of teaching throughout the school and how well it helps the learners to learn and raise their levels of achievement and attainment. Among other things, they make judgements on: educators’ planning and schemes of work/work programmes; learner performance; educators’ knowledge of the learning area, teaching strategies the educator use, educators’ use of resources, their class management; the methods used by educators when teaching. Furthermore, supervisors judge the quality of in-service professional development and other related initiatives such as school improvement.

The DoE (2001c:9) contends that supervisors also judge the quality of in-service professional development enjoyed by educators as highlighted by reports and the professional growth plans of the Development Appraisal System (DAS) and other related initiatives.

WSE is a cornerstone of quality assurance systems according to the National Policy on Whole School Evaluation (RSA 2000:1). The National Policy on Whole School Evaluation (RSA 2000:19) contends that supervisors should also employ other strategies for evaluating the lesson, discuss with educators how they intend to succeed in the lesson and what will be done as a result of the findings. This indicates that supervisors should scrutinize homework to decide if it is appropriate and whether it is helping learners in their learning.
Curriculum provision and resources

The aim of this area is to evaluate the quality of curriculum and how closely it matches the needs of learners and any national or local requirements. Judgement is made on the range and quality of other activities such as practical’s which enhance the curriculum (DoE 2001c:10).

The DoE (2001c:10) contends that supervisors must make judgements on the effectiveness of the following: the balance between national and local curriculum; the structure of the curriculum, the planning process, how suitable the curriculum is for learners of different ages and abilities, and the provision of extra-mural activities.

Learner achievement

This area aims to assess the knowledge, skills, attitudes and values that learners have acquired. The levels of performance in communication skills, problem solving skills and the ability to work in groups and to make responsible decisions are attended to (DoE 2001c:10).

Supervisors should make judgements on the effectiveness of the following: learners’ achievements by ratings in public examination, learners’ achievements in reading, speaking and writing; learners’ standards in Physical Science and in all other subjects/learning areas/programmes, and the progress made by learners in light of their known prior achievements, especially the most able and those with learning difficulties (DoE 2001c:10). Learning processes and achievement can be shown using the following figure:
Without regular functional and operational planning being undertaken there would be little opportunity for learning because all of a school leadership team’s energy would be consumed by crisis management.

**School safety, security and discipline**

This area aims at evaluating what is known regarding legislation which concern learner’s rights and the effectiveness with which the school implements it. It also ensures that the school is secure and learners are safe (DoE 2001c:11). The school disciplinary procedures are also evaluated.

Supervisors make judgements on the effectiveness of the school procedures for safety, security and discipline; safety regulations in laboratories and workshops, emergency procedures and how well they are known by learners and educators, and the support and care for learners (DoE 2001c:11)
School infrastructure

The DoE (2001c:11) contends that the main aim of school infrastructure is to assess to what extent the school has sufficient staff, resources and accommodation for its purpose. Special attention is paid to the state of the buildings and how well these are organised. Supervisors should take heed of how closely the school monitors the efficiency and effectiveness with which they are used (DoE 2001c:11). Mathe (2000:20) asserts that: “In the Whole School Evaluation policy educators’ use of resources includes books, equipment and time.” These are resources that supervisors use to evaluate at schools. Thus, supervisors assess to what extent the school has sufficient staff, resources and accommodation for its purpose.

The DoE (2001c:19) stipulates that supervisors will make judgements on what resources are introduced at what stage of a lesson, how the resources are used to increase the learners’ knowledge, understanding and skills, how the educator has organised the classroom and to what extent this helps the learners' learning.

Parents and community

This area aims at gauging the extent to which the school encourages parent and community involvement at school and how it makes use of their contributions (DoE 2001c:11). It also does the following: estimate the value of learners' education of the exchange of information between parents and school as well as ascertaining the response of parents; ascertain the response of parents; and evaluate the links between the community and the school (DoE 2001c:12).

Amongst others, supervisors make judgments on the effectiveness of the following: the school’s communication with parents and the way the school responds to complaints and suggestions from parents, the system of reporting the progress of learners to parent, the contributions which parents make to school, the guidance given to parents by school so that parents will understand the work their children are doing; and the school involvement in local community (DoE 2001c:12).

“School Improvement Plan” has been applied in many different contexts by different agencies and in different projects. In some cases through ad hoc application and
lack of management it has lost its significance and simply become another thing that has to be done.

The effectiveness of the School Improvement Plan can only be understood if policy makers and School Management Team can learn how it is implemented in other countries. In the next section the researcher has discussed the way in which the above mentioned education system and School Improvement Plan have been implemented in other countries.

2.7. Evaluation of schools in selected countries

Various countries and academics approach schools evaluation differently and it depends on the basic assumptions and theoretical framework that those involved base their approach. The following is an exposition of evaluation approaches and exercises as conducted in selected countries.

2.7.1. The School Improvement Plan of Guyana

Creese and Earley (1999:40) indicate that every school should have a school Development or Improvement Plan. This plan sets the schools priorities for development during the school year. Furthermore, Creese and Earley (1999:40) contend that this plan will normally indicate precisely who is responsible for each of the items listed and include time-scales details of targets to be achieved and the resources allocated. In this section the researcher discusses the School Improvement Plan with special reference to Guyana.

Guyana is one of the Caribbean Islands. This island aims at improving education in schools. As such, strategies implemented in their schools are of interest to South Africa. This School Improvement Plan consists of seven stages which are discussed below.
Stages of the School Improvement Plan

According to the Ministry of Education (2003:1) the seven stages of the School Improvement Plan (SIP) are indicated as: "Getting started, Review, Consultation, Planning, Implementation, Evaluation as well as Reporting."

Stage 1 – Getting started

Getting started is the first stage in the School Improvement Plan. There is no fixed date for an individual school to start with the process of planning for school improvement. The Ministry of Education, Guyana (2003:1) however, reminds us that the correct times are "... when the staff are likely to be focusing on major events such as examinations and national celebrations." It becomes apparent that schools should start this process when it is convenient to do so.

During the first year of the planning process, the role of the School Improvement Advisory Committee (SIAC) should be clarified (Ministry of Education 2003:1). The SAIC should be composed of the school's SMT, Staff, Student group/council, Regional Education Departments, parents of students attending the school and the wider community (Ministry of Education 2003:1). These members should be elected democratically. A total of seven members are elected.

During this first year there is a need to identify existing policies, practices facilities and resources which influence the school's effectiveness (Ministry of Education 2003:2). This include School Mission Statement, Curriculum offered to Learners, Learning and teaching Approaches, Resources, School Management and Organization, Staff Responsibilities, Staff and student attendance, school community, wider community, and School physical facilities (Ministry of Education 2003:1-2). It is only through establishing the present position at the school that can help us how to plan properly how to achieve improvement (Creese & Earley 1999:52).

There must be a Whole School audit during the first year of planning. Creese and Earley (1999:52) contend:
Effective development and improvement starts with a review or audit of the work of the school that should identify the school's current strengths and weaknesses, and be a basis for selecting the priorities for development. Ouston, Fidler and Earley (1998a: 121) argue that the purpose of audit and accountability is to raise the standards of service; however the process of audit may lead to declining standards of performance through the lack of trust and autonomy of professional staff. Despite this, the Ministry of Education, Guyana (2003:2) maintains that an accurate audit is critical since the findings of the school audit will indicate the direction of, and rate of school improvement or development.

Stage 2 - Review

The second stage of the School Improvement Plan is the review process. According to the Ministry of Education, Guyana (2003:3) the main aim of the review process is to evaluate the effectiveness of existing policies, practices, facilities and the use of the school's resources in achieving the school's objectives. Poster (1999:157) indicates that a review process ensures that policies continue to reflect, and be reflected in practice.

The information gained from the review process will also help the school to identify strengths that can be used to promote and facilitate school development (Ministry of Education 2003:3). This indicates that the review process is done to develop the school. The review process will also indicate those areas of the school which need to be improved and/or strengthened (Ministry of Education 2003:3; Poster 1999:160). The review will also identify what will be needed for schools to improve.

This stage compares the performance of the school with other similar schools. Creese and Earley (1999:53) refer to this as benchmarking. Creese and Earley (1999:53) explain that in this second stage of the improvement cycle, the school's performance is compared with those of the other schools that are of a similar kind or who have many qualities in common. Furthermore, Creese and Earley (1999:54) contend:
Benchmark of data and 'value-added' measures enables schools to understand their impact on pupils' progress, to go beyond league tables and to make comparison between themselves and other schools. In this way benchmarking supports schools in devising strategies for school development.

**Stage 3 - Consultation**

Consultation is the third stage of the School Improvement Plan of Guyana. There must be consultation with all interested parties about the outcome of the school review (Ministry of Education 2003:3). During this stage copy of the review report are made available to all stakeholders before the commencement of the consultation process (Ministry of Education 2003:3). This consultation is aimed at identifying and agreeing on the objective for school improvement. As indicated at stage 1 above, this shows that democracy prevails in the School Improvement Plan.

According to the Ministry of Education, Guyana (2003:3) consultation also aims at establishing priorities from the agreed objectives. This will assist the school to implement urgent issues first, and less urgent ones later. In doing this, target dates for the accomplishment of each of the objectives for school improvement should be set (Ministry of Education 2003:4). The wider community representatives usually do this at the end of November.

**Stage 4 – Planning**

The fourth stage of the School Improvement Plan is planning. During this stage, there is preparation for the draft of the first School Improvement Plan. The Ministry of Education Guyana (2003:4) puts it this way: "Thorough planning is therefore essential for the following SIP which reflects both the needs and resources available to the school." Creese and Earley (1999:57) contend that planning as the fourth stage of the School Development Plan involves a timetable for action that will be responsible for ensuring the action takes place; what success will look like; and what support and resources will be needed. This planning enables the School Improvement Team to identify areas for improvement.
Creese and Earley (1999:56) assert that as well as the areas for improvement identified by the team, there will usually be other issues imposed or suggested by external agencies that need attention.

According to Creese and Earley (1999:56) the purpose of Development Planning is to identify where the priorities lie so that appropriate resources, whether money, staff or time, can be allocated to them. On the other hand, Creese and Earley (1999:56) argue that: not all of the school's available resources can be improved; there will be areas of the school that will require resourcing in order to maintain present levels of success and these must not be neglected. Thus there must be a balance between maintenance and school development.

During planning the school revises its existing plans in order to highlight the action that is required to achieve the agreed targets Creese and Earley (1999:56). Thus planning is aimed at development of the school. Furthermore, Creese and Earley (1999:56) indicate that: "With all plans the key to success is to translate the priorities identified in the plan into effective action."

Different stakeholders should be involved in planning. For the implementation of the SIP, it is important that both the school and wider communities have ownership of the SIP (Ministry of Education 2003:4). Furthermore, the Ministry of Education, Guyana (2003:4) contends that planning assists in identifying the key changes that will be needed to achieve the agreed objectives including: (a) The school's Management System and Processes (b) Curriculum Development (c) Resource Allocation (d) Staff Development (e) Strengthening of Community Alliance (f) Communications.

There should also be consultation on the first SIP with all stakeholders and preparation for the first SIP. The Ministry of Education, Guyana (2003:5) contends that this is aimed at revising the draft SIP to reflect the school's priorities, objectives and available resources.
Stage 5 – Implementation

Implementation is the fifth stage of the School Development Plan. This stage deals with the implementation of the approved School Development Plan. The Ministry of Education, Guyana (2003:5) reminds us that it is important to ensure that all individuals or group of individuals in the implementation process is accountable for the task(s) assigned to them. Creese and Earley (1999:57) puts it this way: “Of course there is a need to discuss, analyse and agree on targets, which will take time for it to be done thoroughly, but it is to the detriment of making it happen will not be time well spent.” This means that individual staff and SIAC members are responsible for specific tasks at this stage.

According to the Ministry of Education, Guyana (2003:6) the SMT, Heads of Departments and SIAC (School Improvement Advisory Committee) establish class visit schedules for monitoring and recording progress of the School Improvement Plan. A framework and procedure for supporting staff development that is relevant to the SIP will be established (Ministry of Education 2003:6). Creese and Earley (1999:57) argues that this is the most important stage because the school brings about the desired changes and restarts the cycle of improvement.

Everything agreed upon at stage four (planning) is implemented. Creese and Earley (1999:57) explain: "Translating the agreed plans into action will be very much a matter for the staff, though governors can usefully be involved in monitoring progress toward the achievement of goals."

Stage 6 - Evaluation

Evaluation is the sixth stage of the School Improvement Plan. The process of evaluation is essential for enabling the school to identify those objectives of the School Improvement Plan which have been achieved and the reason for their achievement (Ministry of Education 2003:6). Creese and Earley (1999:58) indicate that evaluation is done to form a judgement about the value or worth of an activity.
The School Improvement Plan is evaluated in terms of: "(i) achievement of the educational objectives, (ii) budgetary objectives and (iii) management systems and process used for the implementation of SIP."

At this stage, areas of weakness in the implementation of the School Improvement Plan are identified. According to the Ministry of Education, Guyana (2003:6) these are areas that can or should be included in a list of priorities for school improvement or development.

**Stage 7 - Reporting**

The last stage of the School Improvement Plan is reporting. All the stakeholders in the School Improvement Plan report on the achievements that have resulted from the implementation of the School Improvement Plan to the entire community and education.

**2.7.2. Schools evaluation in Asia**

The purpose of the introduction of WSE in South Africa is similar to the introduction of schools evaluation in the Asian Countries (UNESCO, 2004:1). The countries that the ANTRIEP report focuses on are: Malaysia, Indonesia, Nepal, Bangladesh and Philippines. The report confirms the similarity of the basic principles governing the introduction of WSE policy in South Africa as similar to the one in Asia (UNESCO, 2004:12). For instance, they evaluate governance, teaching and learning, management and leadership, infrastructure, performance of learners on tests and examinations, the effectiveness of teaching based on learner performance, and the general quality of educators and education rendered in education institutions. These countries brought back accountability, monitoring, support, coaching and proper planning through the introduction of their schools evaluation models (UNESCO, 2004:12).

Even though these countries introduced school evaluation as a principle, they are not the same in terms of, amongst other things, political systems, demographic factors, social fibre, education laws and systems, governance, ideologies, socio-
economic factors. This confirms the view that evaluation in any country”…is hugely contextualized and influenced by the constraints of existing ideologies, traditions, practices and relationships between different interest groups” (MC Namara, G, O’tara, J and Angels, B; 2002:501). Thus evaluation has many faces and different people mean different things when they use the word evaluation (Nevo, 1994:7). In this way, a country could emphasize certain aspects of evaluation while overlooking others.

Amidst the fact that the Asian countries differ in many respects, the ANTRIEP reports reveals that the schools evaluation systems in these Asian countries seem not to have yielded the desired results (UNESCO, 2004:13); reasons attributed to this vary from lack of support by educators and the range of systematic challenges that include the following: mixed understanding and thus improper implementation, the determination as to how far can examination and tests results reflect the wider objectives of education and whether schools draw any benefit from programmes such as the Programme for International Mathematics and Science Study (PISA) and the Trends International Mathematics and Science Study (TIMSS) as these programmes inform their evaluation exercises (UNESCO, 2004:13).

2.7.3. Evaluation in the United Kingdom (UK)

Local Education Authorities (LEA’s) have been given the power to manage and run schools by the Department of Education and Employment (DEE) in the UK and are notably responsible for continue support to education institutions in the UK (OFSTED, 2001:6).

Freeman, (2013:3) identifies the following functions and roles of the LEA:

- Leadership
- Articulation of the version of education in the UK
- Plays a partnership role
- Supporting and assisting schools to fulfil this vision
- Provides information
- Regulates quality of education in the country
- Channels funds of the institution to proper use.
These LEA’s were conceived in the UK to develop strategies for school’s improvements (OFSTED, 2001:6). The office for standards in Education (OFSTED) is responsible for inspection and to assist LEA’s with relevant strategies for school improvement (Freeman, 2013:3). Schools retain the responsibility of raising standards. LEA’s and OFSTED conduct inspection and use the inspection reports to assist the schools improve in the areas identified and for which a strategy has been jointly developed (Freeman, 2013:4).

It is clear from the above that LEA’s do not substitute school management authorities but operate from a premise of local management of schools (OFSTED, 2011:21). It plays a pivotal role in supporting and guiding schools through data analysis and trend making for achievement (Freeman, 2013:7). OFSTED (2011:3) concurs by indicating that the LEA’s is to do a strategic plan for implementation and monitoring (OFSTED, 2012).

It therefore, means that LEA’S were created to liaise between the schools and the OFSTED so that the report compiled by OFSTED on the state of the school is acted upon. In this way LEA’s assist the schools in developing an action plan responding to the areas that OFSTED has discovered during its inspection. This benchmarking assists schools to set specific targets of improvement from a variety and a range of improvement targets (OFSTED, 2012:10). The improvement targets include, inter alia, a plan on improvement processes, resources planning, and consultancy on critical school development projects, human resources development plans and a plan on the effective role of school governors (OFSTED, 2011:32).

In this regard, the LEA inspectors are a source of support to the principal and senior management so that the implementation of the action plans can be monitored and support provided where such is needed (OFSTED, 2012). This model allows for on-site mentoring and support in the development and implementation of improvement plans and programmes. It means the LEA’s act as scaffolds to the management teams and the principal in the fulfilment of the action plan on school development and improvement. This is in line with the utilization of district support teams in the implementation of school improvement projects for better and improved performance of schools in the area of the study.
2.7.4. Evaluation model in Jamaica

The areas that are involved in SIP in Jamaica are to (a) determine the resources available, and those needed (b) carry out Future Basing (c) Identify hindering and helping forces – Force Field Analysis (d) develop Implementation Plan and (e) evaluate SIP plan and SIP planning process (PattFlett 2004:29).

2.7.5. Evaluation model in England

In line with the general school inspection approach in the UK, in England, schools inspection is heralded by the coming into being of the Education (school) Act of 1992 which requires schools to be inspected on a regular basis i.e. every six years since 1997. This inspection was carried out under the aegis of OFSTED for state schools in England and Wales (OFSTED, 2012:2).

To ensure that this inspection is carried out efficiently, OFSTED introduced two handbooks, namely, framework for inspection of primary schools (OSTED, 1992; 1993; 1994). The two documents evaluate the following four important main features of the schools: educational standards achieved; the quality of education provided; the effective management of resources and spiritual, moral, social and cultural development of the children at schools (OFSTED, 2011:16).

According to the National Union of teachers (NUT) (2007:5) there are four main areas destined to develop and improve schools in England. These areas are as follows: ensure accountability for quality; standards and use of resources and the effective use of public funds, provision of information to parents, the local community and the National Government; to monitor and assess the performance of schools and to assist in the school improvement by identifying strength and weaknesses and the action needed to improve.

To ensure that schools adhere to this model, OFSTED trains and gives accreditation to teams of inspectors (NUT, 2007:4). These inspectors are required to undergo training whose content and standards are set and monitored by OFSTED. In secondary schools twelve (12) to fifteen (15) inspectors inspect schools and it takes a week for them to complete the inspection (OFSTED, 2012:12).
After inspection has been concluded on a school, the inspecting team led by the lead inspector completes a report on their findings (Fildler et al, 2004:56). This report is based on evidence that the team has gathered following the four focus areas alluded to above. OFSTED (2011:32) confirms that such a report is important as it details the recommendations for school improvement and it forms a base on which future evaluation exercises could be based. To that end, the School Governing Bodies are the ones to whom the responsibility to improve the school rest.

An action plan must be developed that encapsulates details as to how the school would improve on the key performance indicators (OFSTED, 2012:16). Accordingly, the school needs to show commitments by developing the action plan within forty (40) days of receipt of the report. This report shall deal with all the aspects identified and for which recommendations have been made (Early, 1998:2).

OFSTED (2012:7) identifies the following stages that this inspection follows:

- Before inspection
- Preparation stages
- The inspection stage
- The implementation stage
- The after impact stage
- The re-inspection stage.

The before-inspection stage is preceded by a letter written by OFSTED notifying the schools of an impending inspection. It details the conditions under which that school is to be inspected (OFSTED, 2011:5). To this effect, OFSTED gives the school its framework document to inspection.

According to (OFSTED, 2011:5) the second stage involves giving the school the exact date of inspection. All the stakeholders including, inter alia, the teaching staff, Governor and non-teaching staff are informed of such in good time.
Thirdly, Wilcox and Gray (1996:37) view this stage as the actual inspection stage and the inspectors do the following:

- Observe learners in class being taught
- Talk to learners and staff
- Attend assembly
- Engage in any activity the school had planned for that day
- Develop an action plan

The fourth stage focuses on the implementation of the action plan (OFSTED, 2011:31); In this regard, the Governing Body, in consultation with other relevant stakeholders, will be charged with a responsibility to implement the action plan. Eventually, a report on what the Governing Body has done is sent to OFSTED, parents, staff and appropriate authority. The fifth stage deals with the after impact of the action plan. A report in this regard is compiled by the governing structure to all stakeholders before such a report is published. In this way all the structures of the school are free to interact with the report so that it becomes an objective and a transparent process (OFSTED, 2011:32).

Lastly from OFSTED (2011:4), the final stage is re-inspection stage. This stage involves planning for re-inspection by focusing on the attitudes of participants towards inspection, the school previous experiences towards inspection, the state of the school and confidence in the inspection team.

The inspection process is similar in part to the WSE system implemented in South Africa in that it allows a room for consultation before the actual inspection is carried out. The whole process then springs from this first and an initial encounter. In doing this, the WSE policy follows six (6) steps in the implementation of the Whole School Evaluation exercise, namely, self-evaluation, external evaluation, district support, the use of nationality agreed criteria, agreed reports on the performance of an individual school and the writing of published provincial reports on the performance of those schools. (DoE, 2002:4). In this way, WSE is more comprehensive in that it involves a rigorous district support mechanism and in this way its developmental vision is
appropriately positioned to improve these schools. However, its effects in the area of the study has not yet been determined, hence this study.

2.7.6. The international school improvement project (ISIP)

The International School Improvement Project (ISIP) is sponsored by the Organization for Co-operation and Development (OCED) and it gets expression through the implementation of Schools Based Reviews (SBR) which is regarded as an important but not sufficient condition for school improvement (Jose, 2003:56). Jose (2003:56) contends that the SBR needs to holistically diagnose the challenge that the school has so that the nature of the school improvement project can be determined. In this way, the ISIP focuses on the areas that the SBR has exposed as pressure points on which the improvement project can focus its attention. This is synonymous to the South African school’s self-evaluation exercise conducted before the external evaluation (DoE, 2002:5). It means a school needs to do a school-based review of all its systems so that the improvement project could respond to the realities as they obtain in such a school.

The SBR has the following characteristics as mooted by Jose (2003:56)

- Systematic process.
  The SRB follows systematized protocol in which the institution is apprised for the improvement project to be undertaken in line with the SBR outcome.
- Valid information about the schools conditions (infrastructure and surroundings).
  The SBR process appraises all the elements of the school including infrastructure and the surrounding. In appraising these elements, necessary information about the school’s infrastructure and the surrounding is sought. In other words, the condition of the entire school is kept on check.
- School organization and curriculum (teaching, learning and resource).
  The SBR also appraises the school’s organizational structure with an aim of delineating factors that may hamper teaching and learning. This approach, also touches on the availability of necessary resources for effective delivery of curriculum.
Participation (stakeholders’ involvement).
It also evaluates the extent to which stakeholders’ involvement features in the operating and running of the school. This incorporates the role played by all relevant and interested organizations and individuals in the affairs of the school.

School’s ownership of the process.
For the SBR process to succeed and meet its objectives cooperation and buying from all relevant stakeholders in the school community is necessary, so, the SBR evaluates the degree to which the school community participates in the evaluation process.

School’s improvement and development.
Previous evaluation reports may have suggested areas on which the school should consider in its development endeavours. The SBR, then, checks the extent to which such recommendations are heeded and whether they assist the school towards its optimal development.

These characteristics compare well with the focus areas of the WSE processes in South Africa, according to the (DoE, 2002:7) WSE focuses on the following:

- Basic functionality of the school
- Leadership, management and communication
- Governance and relationships
- Quality of teaching and learning, and educator development
- Curriculum provision and resources
- Learner achievement
- School safety, security and discipline
- School infrastructure
- Parents and community.

According to (Jose, 2003:56) the ISIP has five phases and are identified as follows:

- The preparation stage

In this stage, the schools are informed of the impending evaluation. It outlines the processes to be followed. The school authorities are met in preparation for the initial
phase. In other words, in this phase, the school is engaged for the first time on the expectations of the process. The school is required to conduct self-evaluation of its affairs.

- **The review of the initial phase**

At this level, the ISIP reviews issues that have been identified in the initial stage (self-evaluation stage). This is done to keep track of development from the initial step. Developments and concerns emanating from the initial step are considered at this level.

- **The review of specific phase**

The evaluation process has various phases and such phases focus on specific issues of the school. In this phase, then, the ISIP checks on progress made in those areas following the initial phase, in other words, it interrogates issues that have been discovered and raised in the initial phase by comparing them with what has been discovered in the subsequent steps.

- **The development phase**

What has been discovered in the previous phases get meaning in this phase. The pressure points that have been identified get resolved in this phase. What has been recommended and identified as areas of concern in the preceding phases is built in the system for formalization in the next phase.

- **The institutionalization phase**

All the recommendations and issues of concern to which attention should be given are built in the school system so that the evaluation process becomes the daily life programme of the school. This leads to an initiative to institutionalize the development programme.
The DoE (2002:7) on the other hand identifies the following five processes levels:

- School’s based self-evaluation
- External evaluation by the supervisory unit
- Published written reports about the performance of the school
- Annual reports published by the provinces
- Adequate and regular district support leading to professional development programme.

These phases compare well with the ISIP processes in that they all allow for, among other things, the administration of self-evaluation by the schools before external help can be sought, the involvement of other relevant stakeholders in the affairs of the school, the enhancement of accountability on what the school does to meet the national education objectives and the support that the school receives in its endeavour to improve its performance. In short, the aim of both systems is to assist schools in achieving nationally set goals following educative national criteria.

From the above discussion it is clear that, the roles of the School Management Teams are of cardinal importance. The following selection will then look at the role and function of the members of School Management Team as leaders of secondary schools in the performance of their educative functions and the fulfilment of other supporting programmes such as the WSE.

The effective implementation of the Whole School Evaluation and School Improvement Plan depends on the availability of resources such as: competent staff, physical resources and other related materials. For this to succeed it needs staff who are motivated to implement the above policies. For the members of School Management Team to motivate the staff, they need to understand the concept of motivation.
2.8. What is motivation?

2.8.1. Motivation as a concept

Motivation has many different definitions, but it is important for this study to focus on definitions that are related to the workplace. Outlining the concept of motivation will help the School Management Team to decide what actions to take to encourage staff.

Madikizela (2006:26) define motivation as “the intensity of a person’s desire to begin or continue engaging in the pursuit of a goal”. To support this definition, Masoga (2013:15) define motivation as “psychological forces that determine the direction of a person’s behaviour in an organisation, a person’s level of effort and a person’s level of persistence in the face of the obstacle”.

Senior management need to be aware of factors that can motivate staff to perform better like how motivation is described by Masoga, (2013:23) as the force that energises human beings to behave in a certain manner and persist to do so even in the face of one or more obstacles, with the ultimate aim of achieving organisational objectives.

According to Clarke (2011:23) the process of motivation is brought about by factors that activate behaviour and influence its direction and perseveration (sustain effort).

The term motivation is often used in a normal conversation in a manner that does not reflect its true meaning. In the context of Physical Science teachers, motivation refers to the “factors that energise behaviour” (Msimbini, 2014:33). A motivated Physical Science teacher will put much more effort, time and energy through into an activity than an unmotivated teacher would normally do. Clearly, from an organisational viewpoint, a work-force that is motivated towards behaviour that assists the organisation in reaching its goals is preferable to a work-force that constantly need external encouragement to make them work.

Coetzee and Schrender (2011:289) observes that motivation in the organisational context, refers to people who work hard, take initiative, apply their skills where needed, and put in extra effort to achieve goals. Motivated people voluntarily and
enthusiastically do more than what is required of them. Thus, motivation can be described as intentional and directional (Coetzee and Schrender, 2011:289). A motivated person is always aware of the fact that a specific goal must be achieved, and continuously directs their effort at achieving that goal, even in the face of adversity. From a viewpoint of schools and School Management Teams, motivation may be defined as willingness of Physical Science teachers to achieve organisational goals (Masoga, 2013:38). Freeman (2013:41) add that motivation has more to do with incentives, needs, tensions and other forces within (internal motivation) and outside (external motivation) human beings that energise, channel and sustain human behaviour.

According to Coetzee and Schrender (2011:293) motivators include the following:

- Achievement (for example, successful execution of tasks)
- Recognition for what has been achieved
- The job itself (how interesting, meaningful and challenging it is)
- Progress or growth (learning and developing)

Apart from the above motivators, Roodt, Odendaal and Robbins (2003:155) classify motivation theories under three categories:

- Satisfaction theories which assume that a satisfied worker is a productive worker,
- Incentive theories, others referred to as the ‘carrot and the stick’ approach, which are based on the theory of reinforcement and assume that individuals will work harder given specific reward or encouragement for good performance; and
- Instinct theories which assume that people work best if given a worthwhile job and allowed to get on with it. The reward will be his satisfaction with the work itself.

2.8.2. Theories of motivation

The theories of motivation can also be divided into two basic contrasting approaches, namely: the content theories and the process theories. Content theories are concerned with the needs and their relative strengths and the goals pursued to satisfy these needs. These theories include Maslow’s hierarchy of needs; Alderfer’s
modified need theory; Herberg’s two factor theory; McGregor’s X and Y; and, McClelland’s achievement-motivation theory.

2.8.2.1. Content Theories

Focus on the content of motivation, or the needs that motivate us to take action and achieve goals that satisfy these needs. This study will concentrate on Maslow’s theory of motivation due to its relevancy and the nature of the present study.

Maslow’s theory of motivation

➢ **Maslow’s Hierarchy of Needs**: our behaviour and actions are driven by a ‘hierarchy’ of needs where lower level needs, such as survival, must be satisfied before we are motivated to meet higher level needs, such as ‘feeling connected’ and self-actualisation. Abram Maslow’s theory of motivation emerged from the belief that motivation comes from the desire to satisfy some need.

Through this, Maslow developed his ‘Hierarchy of needs’ as demonstrated in figure 2.6 on the below.

Figure 2.6. Maslow’s Hierarchy of Needs

![Maslow's Hierarchy of Needs](source: Mullins (2011:4))
The Maslow motivation theory is typically represented by 5 steps:

- **Physiological needs** - such as hunger, thirst and sleep
- **Safety needs** - such as security, protection from danger and freedom from pain.
- **Social needs** - sometimes also referred to as love needs such as friendship, giving and receiving love, engaging in social activities and group membership.
- **Esteem needs** - these include both self-respect and the esteem of others. For example, the desire for self-confidence and achievement, and recognition and appreciation.
- **Self-actualization** - This is about the desire to develop and realize your full potential. Self-actualization uses:

**Alderfer's ERG Theory**: uses empirical research to modify Maslow's hierarchy of needs to: Existence, Relatedness and Growth (‘ERG’). Alderfer's needs operate at the same time, rather than in a hierarchy. Where higher level e.g. self-actualisation needs are frustrated, we seek out greater satisfaction of a lower level need e.g. financial security, to compensate.

**Herzberg's Motivators & Hygiene Theory**: two groups of factors affect motivation at work. Intrinsic ‘motivators’ (relate to Maslow’s higher needs) such as achievement and recognition can positively influence motivation, while extrinsic ‘hygiene factors’ (relate to Maslow’s lower needs) such as pay and working conditions can negatively impact motivation if they are not satisfactory. Hygiene factors do not motivate, but can negatively affect motivation if they are absent. Motivators improve motivation but do not eliminate dissatisfaction.

**Steers and Porter’s Theory**: translates Maslow’s needs into ‘workplace needs’ e.g. pay and working conditions at the base of the hierarchy, through to challenge, creativity and career advancement at the top.

**Stum**: translates Maslow’s hierarchy of needs into 5 levels of workforce needs presented in a ‘Performance Pyramid’. Stum also developed the concept a ‘social
contract’ between employer and employee to improve employee commitment and retention.

McClelland’s Theory: we are motivated by three forces Achievement, Power and Affiliation. The intensity of each varies by individual and one will tend to dominate. The following theories explain the manager’s attitudes towards people, which in turn influence how they will try to motivate employees. These theories include:

McGregor’s Theory X & Y: a manager’s style reflects their attitudes to people and about human behaviour / nature. It is either: ‘X’ negative, needing coercion to work, or ‘Y’ positive, that work is a natural state and that people are self-controlling. The theory can also be related to Maslow: ‘X’ indicates where lower order needs are influencing motivation and ‘Y’ reflects motivation by higher order needs.

Ouchi’s Theory Z: builds on McGregor and suggests a Japanese style of motivation (X & Y being viewed as applicable to American organisations) that emphasises trust, a less hierarchical and bureaucratic structure and high levels of worker involvement.

On the other hand, process theories are concerned with how behaviour is initiated, directed and sustained. They put emphasis on the actual process of motivation. The process theories are classified as the Expectancy models based on the research of Vroom, Porter and Lawler, the equity theory; the Reinforcement theory; and the Goal theory. (Roodt et al, 2003:157).

2.8.2.2. Process theories

Process theories are described by Mullins (2011: 435) as those theories that attempt to identify the relationships among dynamic variables which make up motivation and the actions required to influence behaviour and actions. In the description of Khosa (2013), they are process theories because they provide the process by which behaviour is initiated, guided, sustained and terminated.
The following theories have been identified by Mullins (2011: 269-278); Cassidy and Kreitner (2008: 318-319) and Robbins and Coulter (2013: 398-406) as process, namely.

- Expectancy model;
- Equity theory;
- Goal theory;
- Attribution theory;
- Reinforcement theory

❖ Expectancy model

Expectancy theory provides that people are influenced by the expected results of their actions. Smit et al (2007:347) stated that for the individual to perform, he or she should perceive the relationship between the following:

- Reward(s) to receive and Performance expected to be rewarded learners, he or she will be able to produce a number of distinctions in his or her subject and this creates high motivation. If the expectation is low, it does not create motivation.

The implication for this theory of education is to indicate to circuit, districts and provincial departments of education that rewards should be linked to performance of physical science teachers as reflected by learner’s performance. The awards of laptops, printers and cash bonuses could also be extended to educator’s performance as well, to acknowledge teachers performance.

❖ Equity theory

Equity theory is focused on people’s feelings of how they are treated in a school (organisation) in comparison with the treatment received by others. Smit et al (2007: 348) split reward (s) into two parts; namely,

- Inputs, for example effort, experience, qualifications, seniority, status, amongst others.
- Outputs, for example praise, recognition, salary, promotion, bonus pay, among others.
The comparable worker is then brought into the scene. A ‘comparable worker’ in education is the Principal or a Deputy principal or an HOD in another school who is ‘perceived’ to have the same qualifications, experience, among other inputs, and who does the same job. The differences (referred to as equity or inequity) between these workers, if there are any, lead to three conclusions, which either motivate or demotivate; namely,

- One of the two is under-rewarded, or
- Over-rewarded or
- Equitably rewarded.

Adams (in Mullins, 2011: 275-276) and Khosa (2013) identified six consequences of inequity as:
- Reducing work performance;
- Complaining to management
- Resigning or absenting oneself from work
- Change the comparable worker
- Rationalising the comparable worker’s inputs and outputs
- Persuade management to increase the workload of a comparable worker

In the education sector, the issue of payment of salaries is the competence and the responsibilities of the Department of Education, so there is uniformity or there should be uniformity in this regard, at the school level. The issue to consider for management is the scoring of individual teacher’s performance with regard to intergraded quality management system (IQMS). In this case, communication from school, circuit and district should be given to the complainant, to convince them of inequity. Documentation to support inequity is indispensable and should therefore, be available to all stakeholders upon request at all times.

Goal- Setting Theory

Goal- setting theory, according to Khosa (2013), focuses on the intentions that the individual person has in accomplishing a task. Robbins, Locke and Latham (in Khosa, 2013) pointed out that in this theory the sources of motivation are undoubtedly the goals and objectives that the individual person wants to achieve when he or she
accomplishes a task. Locke and Latham (Cassidy & Kreitner, 2008: 320) were able to indicate that for the goals to motivate; goals should be specific, difficult but achievable and allow individuals to participate in the goal-setting process:

- Specifically-refers to the fact that goals should be measurable, specific, clear and challenging. Such kinds of goals encourage individuals to attain more difficult levels of achievement.
- Difficulty-goals should be difficult enough to be challenging, but not impossible to achieve. Easy goals are not challenging, and impossible goals hamper performance.
- Participation - participation in the goal-setting process gives individuals personal ownership. Feedback, which is central to participation, helps individuals to know if they are still on the right track, or whether corrective action is required to reach a goal.

In applying goal-setting to the work situation, the specific goal to set will not be to tell teachers to “do their best” or “do better the previous year (refer to Cassidy & Kreitner, 2008: 320) in improving Grade results, but to specifically indicate to teachers what target performance is expected. Luthans (2011) strongly warns management to express defined goals in terms of numbers, percentages, and dates. Therefore, a target percentage like 90% is specific. Though 90% pass may appear difficult, it is challenging and achievable. Such goal-setting processes should not be imposed, but all staff members together with school leadership should take part in the goal-setting process to instil a sense of ownership to the process. Feedback from tests, assignments, projects to instil a sense of ownership to the processes. Feedback from tests, assignments, projects and other tasks completed will indicate whether the set 90% target is achievable or a corrective action is required to reach a goal. School-based moderation by senior teachers, heads of departments (HoDs), Deputy Principals, and Principals should indicate whether the school is within reach of what is expected or whether a corrective action is needed to reach 90% agreed upon.
 Attribution theory

Attribution is described by Mulins (2011: 237) as the process of interpreting someone’s perceived behaviour. Luthans (2011) adds to this description that it is the cognitive process by which people draw conclusions about the factors that influence or make sense of one another’s behaviour.

“Two types of attributions have been identified by Heidser (Mullins, 2011: 237), the initiator of the theory, as internal and external attributions.

- Internal or dispositional attributions ascribe to a person’s behaviour to internal factors such as personality traits, ability, motivation, effort or fatigue.
- External or situational attributions ascribe to a person’s behaviour to extant such as equipment, weather, organisational rules and policies, the influence from others, for example superiors, peers, neighbours, among others.

Mullins 2006:238 was able to indicate that both internal and external forces combine addictively to determine the perceived and not actual behaviour. He used locus of control to indicate that:

- Employees with internal locus of control feel that they are personally responsible for the outcomes through their own ability, skill and effort.
- Whereas employees with external locus of control feel that their outcomes are beyond their control, this latter group of employees feel that external forces such as luck, task difficulty, control their outcomes.

While we acknowledge the importance and influence of the situation in which the schools find themselves, school leadership should accept that it is responsible for the creation of the conductive climate for effective teaching and effective learning in the school. Physical Science teachers should also take the responsibility of achieving set outcomes in their subject. This acceptability of responsibility by the schools’ role players have internal locus of control.
Other attributions identified by social psychologist researchers (Luthans, 2011) for the principals to take note of, are the fundamental attribution error and self-serving bias, the following discussion is a clarification of what they mean.

- People with fundamental attribution error tend to ignore powerful situational forces when explaining other’s behaviour. People tend to attribute personal factors such as intelligence, ability, skill, motivation, attitudes, among others even when it is clear that the situation or circumstances caused the person to behave the way they did, or the other way round, i.e. people attributing others. Behaviour to situational or circumstances even where it is very clear that personal factors caused that person to behave the way he or she did.

- People with self-serving bias tend to readily accept credit of success and yet often attribute failure to the situation or circumstances or to someone else. When something goes wrong at the school, for example, when the school fails to reach its set target with Grade 12 results, the principal puts the blame on the poor attitudes of the teachers. It remains so, as far as the principal is personally concerned. This is also true of the teachers; they put the blame on the inability of the principal to lead. If something goes well at the school, the principal makes personal attributions for himself/herself and situational attributions for the teachers. This conflicting attribution biases among principals and staff, happen in primary as well as in secondary schools in Sekhukhune district.

Suggested efforts by Luthans (2011) to reduce these divergent perceptions among principals and staff are, among others,

- Increased interpersonal interaction
- Open communication channels and workshops, and
- Team-building sessions devoted to reducing attribution errors.
Reinforcement Theory

Although Skinner’s (in Khosa, 2013) reinforcement theory is a learning approach, it provides insight into what influences behaviour. Skinner was able to indicate that behaviour can be conditioned by the following:

- Extrinsic rewards such as pay, benefits, praise.
- Intrinsic rewards such as satisfaction.
- Negative reinforcement such as the removal of an adverse consequence.
- Positive reinforcement such as the attainment of a desirable and valued result.
- Punishment (use of negative consequence), and
- Extinction (the withdrawal of a positive desirable consequence valued by the worker.

In order to influence behaviour at work, the school leadership can organise Award Winning Ceremonies to acknowledge those teachers and learners at school level, while the circuit and the District leadership can organise their own Annual Award Ceremonies. Some day-to-day responses or lack of responses encourage or discourage the recurring of such behaviours. Keeping silent on day-today performances is not encouraging higher levels of performance, since teachers, and learners do not know whether they were in line with what is expected of them and, whether that performance should be repeated or not.

If principals, who possess the ability to exert a positive influence over people, and who inspire, motivate emotional support and direct their activities towards achieving the organisational goals (Msimbini, 2014:29), school and education would flourish. Teachers need motivation to perform their day today classroom functions. The School Management Team must ensure that task-oriented functions and emotional-oriented functions are key functions of education to the school. Emotional-oriented function deals with the moods of others in an organisation. Professionals also value support. They want others to think what they are working on is important. Teachers tend to be more focused on their work as their central life interest.
A motivated Physical Science teacher will put much more effort, time and energy through into an activity than an unmotivated teacher would normally do as Maslow's hierarchy of needs indicate. The implication for this theory of education is to indicate to circuit, districts and provincial departments of education that rewards should be linked to performance of individual teachers as reflected by learner's performance. Equity theory emphasise that documentation to support inequity is indispensable and should therefore, be available to all stakeholders upon request at all times. Goal-Setting Theory proves that in applying goal-setting to the work situation, the specific goal to set will not be to tell teachers to “do their best” or “do better the previous year in improving grade results, but to specifically indicate to teachers what target performance is expected. Attribution theory refer to people with self-serving bias and tend to readily accept credit of success and yet often attribute failure to the situation or circumstances or to someone else. If something goes well at the school, the principal makes personal attributions for himself/herself and situational attributions for the teachers. This conflicting attribution biases among principals and staff, happen in primary as well as in secondary schools in Sekhukhune district. Reinforcement theory provides insight into what influences behaviour. Teachers need motivation to perform their day today classroom functions. The School Management Team must ensure that task-oriented functions and emotional-oriented functions are key functions of education to the school. Emotional-oriented function deals with the moods of others in an organisation. Professionals also value support. They want others to think what they are working on is important.

Curriculum support is also of vital for teachers and other stake holders. For schools to be effective, a high level of satisfaction must exist among all the players of the school. School effectiveness will be discussed below.

**School effectiveness**

Kruger et al (2014) attest that the extent to which effective learning is achieved therefore becomes the criterion against which the quality of management is to be judged. The result of school effectiveness research suggests that instructional leadership is an important characteristic of effective school. Effective principals
appear to be characterised by the performance of leadership tasks that are positively connected to student achievements, such as emphasis on basic subjects, the provision of an orderly atmosphere and a learning climate, setting instructional strategies, coordination of programmes, supervising and supporting teachers, orientation towards educational development and innovation, mission orientation and dissemination of the school’s vision.

Effectiveness depends on the attitude of the principal and the attitudes and support of the teachers thus where participative leadership as another factor that increases school effectiveness is emphasised (Madikizela 2006:12). Some indicators of school effectiveness were identified, but there is no doubt that the effectiveness of the school is closely tied to the existence of some key school management characteristics. These include sound teaching and learning, functional school organisation, good personal relations, effective guidance and counselling, a good school ethos and effective leadership, and continuous monitoring and evaluation (UNESCO 2010:14).

From the above information it is clear that on motivation that an effective School Management Team should take the needs of individual Physical Science teachers into consideration. The School Management Team should be encouraged by the principal to develop policies that will accommodate teachers’ diversity, maintain working conditions that motivates teachers to perform well, promote those teachers who deserve promotion.

**2.9. Conclusion**

The WSE and SIP have been widely identified as a key to enhance the teaching of Physical Science in schools. Their sustainability is therefore paramount, if South Africa is to succeed in the teaching of Physical Science in the area of study. Understanding the success factors for the Whole School Evaluation and School Improvement Plan, it is essential such that the School Management Team can effectively plan for the mitigation process and support.
This chapter also discussed the nine areas of SIP applied to South African schools as well as in the other countries. It ended by categorising the different motivation theories such as content and process theories that influence Physical Science educators to implement SIP.

The next chapter discusses the research design and the methodology that were followed when conducting the study. The chapter highlights the methods of collecting data, sampling techniques and how collected data was analysed.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In the previous chapter literature that was relevant to the research was reviewed. Reasons for the Whole School Evaluation (WSE) change, the various assessment policies namely teacher development and self-school evaluation and the latest revision to the improvement plan (SIP) were presented. The literature also showed that the Whole School Evaluation changes can be effectively implemented with proper execution of SIP and its relevancy towards quality of teaching and learning at the macro level.

Chapter three provides insight into the research design and the research method that will be used in gathering and analysing data to answer the research questions in chapter one. Both qualitative, quantitative research paradigms, purposeful sampling, site selection, the participant, the research methodology, data collection, analysis and ethical issues are discussed in detailed in this chapter.

3.2 Research design

In Msimbini (2014:68) states that a research design is a blueprint or a detailed plan on which one intends conducting a research. According to Madikizela (2006), a design is used to structure the research and to show how all of the major parts of the research project (the samples or groups, measure, treatments or programmes and methods of assignment), combine in an attempt to address the research questions.

According to Madikizela (2006:109) qualitative research refers to the “design where data is collected in the form of words and observation as opposed to numbers and analysis based on the statistical analysis. Dumisa (2010:36) argues that it can be applied to the study of past events and when applied to the past it is called the historical research and the events is qualitative research. This method gives the research an in-depth understanding of the first-hand information and phenomenon.
To support the statement, Schumacher (2006:117) confirms that the good sound research design is to provide findings that are deemed to be credible.

The researcher concurs with these definitions and goals of the research design as addressed in the literature above and for this reason selected both the qualitative and the quantitative research designs. These is called mixed research design since School Improvement Plan has just been introduced, educators are only now coming to terms with the adjustments to the WSE it implies this study will be exploratory in nature as it will provide insight into a new phenomenon of School Improvement Plan (SIP) and its implications for teaching and learning in Physical Science. It will also explore the experiences of School Management Teams and Physical Science teachers.

3.3 Quantitative paradigm

The quantitative paradigm concerns with systematic measurement, statistical analysis and methods of experimentation Fox and Bayat (2007:7), which means that in quantitative paradigm there are systems that need to be followed in order to achieve accurate measurement.

Masoga (2013:62) describes the quantitative paradigm as an inquiry that employs operational definitions to generate numerical data to answer the set question of the study. This method is based on argument that both the natural and social sciences strive to have vivid and confirmable theories that explain the phenomena by showing how they were derived from the theoretical assumptions. In this study, inquiry began with hypothetical deductive model of explanation. This hypothetical-deductive model is used to revise and support the provided theories and behavioural phenomena based on the results that hypothesis is testing.

According to Masoga (2013:42), when data is in the form of numbers, they help the researcher to summaries the characteristics of people or to measure their attitudes or opinions. In these methods relationships among variables are determined.
3.4 Quantitative

Masoga (2013:53) claims that quantitative research involves an interpretive and naturalistic approach. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret phenomena in terms of meanings people bring to them.

The quantitative approach is appropriate for investigating the research topic with the view point of the phenomenological, naturalistic and interpretive paradigms that enable the research to seek an understanding of the research focus as a social phenomenon (Schumancher and McMillian, 2000:37). Holiday (2002:4) adds that qualitative research evokes the need to discover as much as about the information they provide. This kind of approach gives the research an in-depth understanding of first-hand information and phenomena. Malatji (2015:5), suggest that qualitative reports are not presented as statistical summations, but rather in a more descriptive style. Due to the nature of study the researcher has applied two above-mentioned paradigm approaches. To achieve the above objective, the researcher has collected data from target population.

3.5 Population

According to Masoga (2013:45) a population comprises the total collection of all the elements or units of analysis (members of a population) about which a researcher aims to reach a distinct conclusion. A population is a group of potential participants to whom the researcher wants to generalise the findings of the study (Madikizela 2006:29), in contrast to a population a universe refers to all possible cases of certain kind. Therefore the population is that portion of the universe that the research has possible access to.

The target population under consideration in this study was Malegale circuit of Education in Sekhukhune district, in Limpopo Province. In a situation where it is not possible to survey the entire population within a reasonable time, the researcher must identify the part of the target population that is accessible and the sample of the study should be taken from the identified target group (Dumisa, 2010:39). The
population of this study consist of one hundred (100) participants which half of the population, that is fifty, completed a structured questionnaire and the other fifty participated in a structured interview to provide supplementary data.

3.6. Sampling

A sample is a subject of a population and should represent the main interest of the study. Sampling involves selecting a relatively small number of elements from a large defined group of elements and expecting that the information gathered from the smaller group will allow judgements to be made about the larger group. (Nyathi 2010:8). To support the above view, Coetzee and Schreuder (2011:31) indicate that the challenges that are encountered when sampling are not feasible to survey the entire population is the fact that sample survey is alternatively valid under the following circumstances:

i. When the researcher’s budget constraints to survey the entire population.
ii. When time constraints prohibit successful survey of the entire population and
iii. When the researcher has collected all data but needs results quickly.

There are different sampling methods that can be used in the research study and they will be discussed below.

3.6.1. Probability sampling

Malatji (2015:39) maintains that probability is a sampling based on the concept of random selection in which each sampling unit in the defined target population has a known, non-zero probability of being selected for the sample. Probability sampling allows the researcher to estimate approximately what they would find if they had considered the total population.
The following techniques of probability are described:

- **Simple random sampling**

  Masoga (2013:51) refers to simple random sampling as a sample drawn from a population in such a way that each element of that population has the same chance of being drawn during the first and each successive draw.

- **Systematic sampling**

  Systematic sampling is the approach every 2nd element in the population is sampled in the range of 1 to 2. The 2nd element is determined by dividing the population by the sample size to obtain a sip pattern applied to the sampling frame (Malatji 2015:40).

- **Stratified sampling**

  Masoga (2013:51) defines stratified sampling as a process by which sampling is divided into subgroups (Strata). After dividing the sampling frame, the researcher draws a random sample randomly with each strata using simple random or systematic random sampling.

- **Cluster sampling**

  Malatji (2015:40) defines cluster sampling by examining how it is conducted when the population of interest is spread out over a large area, wherein it may not be feasible to make up a list of every person living within the area from the list, a sample of study is selected through normal randomization procedures.
3.6.2. Non probability sampling

In probability sampling selection of the sample is not made at random. Madikizela (2005:58) states that in non-probability sampling, each of the elements of analysis in the population has an equal chance of being included in the sample. A few of the sub-types of non-probability sampling are outlined below:

- **Haphazard sampling**

  Gay and Airasian (2000), states that “haphazard samples are cheap and quick.” An example of such is an interview with people on the street.

- **Accidental sampling**

  This is the most convenient type of sampling because members of the population that are readily available for research purposes can become participants.

- **Snowball sampling**

  This method is based on the analogy at which a snowball starts, starts small but becomes larger as it rolls and picks up additional snow. Gay and Airasian (2000:597) at least that snowball sampling refers to when few individuals from the relevant population are approached, and then those individuals act as informants and identify people from the same population for inclusion in the sample.

- **Purposive**

  This sample method is used when the researcher recite on their experience or previous research finding for deliberately obtain the units of analysis in such a manner that sample they obtain may be regarded as being representative of the population Malatji (2015:69).
3.7. Data collection instruments

Data for this study was collected from Malegale circuit in of Education in Sekhukhune District, Limpopo Province. A total sample of hundred (100) people consisting of fifty (50) SMT members and fifty (50) Physical Science teachers were involved in this study. The sample units in this study are teachers. Due to the nature of the study the research employed two important survey methods, namely, questionnaire and interviews.

3.7.1. How will the questionnaire be?

Due to the nature of the study, questionnaires were used to collect data. A questionnaire is a set of questions and scales designed to generate enough primary raw data for accomplishing the information requirements that undertake the research objectives (Hair et al 2000 440,461). To support this definition Nyati (2010:7) attests that, a questionnaire is an important instrument in normative-survey research and it is useful for gathering information from widely scattered sources.

Khosa (2013) argues that," if we want to know how people feel, what they experience and what they remember, what their emotions and motives are like, and the reasons for acting as they do, why not ask them? The questionnaires used in this study were designed in such a way that each major section would corresponding to one of the research questions or objectives in chapter one. This helped the research to get an overview of all problems that are experienced by the respondents. The advantage is that the questionnaires cover the most of the areas that the research wants to learn more about. To achieve these objectives and on the other hand to maintain validity, interviews were also conducted to supplement the information obtained by means of a questionnaire.

3.7.2. Interview

In order to supplement the questionnaire research techniques, the researcher also conducted an interview with Physical Science teachers. The interviews were conducted in order to get an overview and more information about the impact of
Whole School Evaluation on SIP towards the teaching of Physical Science at Malegale Circuit of Education. To support the above statement, Cohen, Manion and Morrison (2000:4) indicate that an in-depth interviewing is a data collection technique relied on extensively by qualitative researchers because it enables the researcher to obtain a larger amount of data quickly and allows immediate follow-up questions that are necessary for clarification. In addition, interviews allow the researcher to check description with facts and therefore ensure more insight into the problem under investigation.

To achieve the above process, the researcher has made immediate follow-up questions for further clarification, which gave more insight into the impact of Whole School Evaluation on SIP towards the teaching of Physical Science.

3.8. Data analysis

Data analysis refers to the process of “unpacking” object, phenomenon entity, process or event that the researcher will be investigating (Saunders, Mark, Lewis, Philip and Thornhill 2003:234). In this regard the objective of the study was to investigate the impact of WSE on SIP towards the teaching of Physical Science.

In order to achieve the above mentioned objective, the study used data collected through the use of questionnaires and interviews. (Data collected through questionnaire were processed and analysed using SPSS so as to maintain the validity and the reliability of the information in this research study. The data that was obtained through semi-structured interviews was coded and analysed by the researchers with the assistance of audio visual material.

Validity and reliability

3.8.1. Validity:

Nyathi (2010:9) indicates that validity is a component of the research design that consists of the strategies used to identify and attempt to rule out alternative explanation, like validity threats. According to Dumisa (2010:53) validity is
established when the measuring instrument actually measures the intended construct. Therefore, in this study and the information validity refers to the accuracy of measurement.

Construct validity measures the degree to which scores reflect the intended outcomes which are intended to be measured using the instruments and produces the same results (Mullins 2011:459). In order to achieve content validity, all components of the intended construct to be measured must be included. According to Dumisa (2010:3) the measuring instruments used in the collection of data must be constructed in such a way that they collect valid data required in order to answer the research questions as closely as possible.

3.8.2. Reliability

According to Masoga (2013:53) reliability is established when a test and retest produces the same results when the same respondents are given the same scores under similar conditions. Furthermore, the outcome of the research should be able to hold if another researcher conducts a similar research. To support the statement, Dumisa (2010:29), referred to reliability as to which extent a research instrument will give the same results on different occasions. This means that for a researcher’s tool to be reliable it should give the same results when testing is done all the time or on all occasions.

In order to achieve the above process, the researcher has illuminated business in interviews and administration of questionnaires. The researcher concentrated on the stated research question and eliminated opposing views by leading the respondents to answers. The respondents were prepared for both the interviews and for the filling of questionnaires. This was done in order to establish credibility of the information collected. The respondents that were targeted were closely managed to ensure that they were not contaminated. The researcher has closely monitored the respondents so as to get data in the area of the study.
3.9. Elimination of Bias

The researcher tried to eliminate biasness by not permitting the personal business of participants to influence how they respond to, and analyse data or information. Careful consideration took place when developing case studies and semi-structured interview questions; so that all respondents would have a crystal clear understanding of the process and in this way all possible business was eliminated. The selection also took the issue of business into consideration by selecting two men and two women who were chosen as respondents.

3.10. Ethical consideration

Ethics is a set of moral principles that are suggested by an individual or group. These principles are widely accepted and offer rules and expectations about the most correct conduct, assistants and students (Masoga 2013:51).

In this study the following ethics are taken into consideration:

3.10.1. Ensure permission is obtained

Permission was requested and granted from the district office to conduct the research at Malegale circuit of Education where the study was conducted.

3.10.2. Ensuring participants have given informed consent

The researcher conducted the research with participants who had agreed to take part in the study.

3.10.3. Ensuring no harm comes to participants

The research avoided emotional harm to the participants during the interviews. This was achieved by applying the necessary professional techniques for conducting interviews.
3.10.4. Ensuring confidentiality and anonymity

The data that is given by the participants was treated with confidentiality and respect that it deserves. The names of the participants are not mentioned in the study, the pseudonyms were used to maintain anonymity.

3.10.5. Ensure professionalism

The ethics of professionalism were adhered to by the researcher throughout the study.

3.11. Conclusion

In this chapter, different research paradigms, approaches, methods and techniques were described and analysed to demonstrate the relevance to the study. The choice of research designs and their applicability to the area of the study were discussed in full. Research instruments validity and reliability were also discussed. The ethical considerations of the study were also outlined in this chapter.

From the foregoing information it is clear that there is no single method that can be reclaimed as for investigating a research problem. All research approaches, methods and techniques are relevant as long as they are used appropriately. In the next chapter data collection analysis and discussion of results will be presented.
CHAPTER FOUR

DATA COLLECTION, ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter deals with the primary investigation and research method used in collecting and analysing data related to the impact of the Whole School Evaluation on School Improvement Plan with regard to Physical Science learner performance at malegale circuit. Challenges that impact negatively on the execution of School Improvement Plan have been presented. Data collection analysis and interpretation have been presented against the factors such as lack of physical resources, managerial skills, parental involvement, discipline, monitoring, evaluation, alternative strategies and other related challenges.

4.2 Data collection.

In this study data have been collected through questionnaires and structured interviews. The research has employed licked scale to rate the responses of the respondents in the study. The rating scales ranged from one to five, namely agree, strongly agree, uncertain, disagree and strongly disagree. Fifty structured questionnaire and were distributed to selected School Management Team (SMT) at Malegale circuit. These respondents were requested to fill the questionnaires at a particular place, at the same time. This was done for monitoring the validity of the questionnaires. The above data was supplemented by the data collection from fifty (50) Physical Science teachers who were interviewed by the researcher. The researcher has received hundred percent responses from the participants.
4.3 Data analysis

4.3.1. Data obtained through empirical research

Data collection through structured questionnaires was analysed by the computer programmer, namely the statistical package for the social science (SPSS). The research received full participation and feedback from the respondents, who were requested to participate in the research. The analysis of data collected is summarised in the table and figures included in the rest of this section below; The table that shows finding (F), percentage (%) and total frequency (Fx) reflect the total number of respondents in the table.

**TABLE 4.1. SCHOOL IMPROVEMENT PLAN AND GENDER**

<table>
<thead>
<tr>
<th>Item</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question.1: What is your gender?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Male</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Total frequency</td>
<td>Fx = 50</td>
<td>100</td>
</tr>
</tbody>
</table>

Question 1 indicates twenty-five (25) male and twenty-five (25) female of the School Management Team. This has been done to adhere to the policy and the regulations related to gender, equity and equality in the new democratic South Africa.
In question 2, forty five (90%) respondents agreed with the statement. Three (6%) of the respondents disagree, while two (4%) of the respondents were recorded as uncertain.

The above findings confirmed that poor implementation of School Improvement Plan impact negatively on the teaching of Physical Science at Malegale circuit of Education. Poor implementation of School Improvement Plan can also affect learner performance in Physical Science as a subject.

### TABLE 4.2. SCHOOL IMPROVEMENT PLAN AND IMPLEMENTATION

<table>
<thead>
<tr>
<th>Item</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question.2: Does poor implementation of School Improvement Plan affect the teaching of Physical Science?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Uncertain</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total frequency</td>
<td>F =50</td>
<td>100</td>
</tr>
</tbody>
</table>
In question 3 forty (80%) respondents agreed with the statement. Nine (18%) respondents disagreed with the statement, while one (2%) of the respondents was recorded as uncertain.

From the above information, it is clear that the effectiveness of the School Improvement Plan within the Whole School Evaluation depends on the physical resources. Lack of relevant physical resources can always impact negatively on the implementation of the School Improvement Plan in the area of study.
In question 4 forty six (92%) of the respondents disagreed with the statement. Two (4%) of the respondents agreed with the statement, while two (4%) of the respondents were recorded as uncertain.

From the above analysis, it is clear that there are no policy guidelines that link the School Improvement Plan with the teaching of Physical Science. Lack of clear policy guidelines can confuse teachers on the implementation of School Improvement Plan towards the teaching of Physical Science.
### TABLE 4.5. SCHOOL IMPROVEMENT PLAN AND RELATED WORKSHOPS

<table>
<thead>
<tr>
<th>Item</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 5: Most of the School Management Team members never attended any workshop related to School Improvement Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Uncertain</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total frequency</td>
<td>Fx = 50</td>
<td>100</td>
</tr>
</tbody>
</table>

In question 5 forty two (84%) respondents agreed with the statement. Six (12%) respondents disagreed with the statement. Only two (4%) of the respondents were recorded uncertain.

The above findings show that most of the members of School Management Team never attended workshops related to the School Improvement Plan. Inadequate workshops on School Improvement Plan can always hamper its implementation and affect the teaching of Physical Science in the area of study.
TABLE 4.6. SCHOOL IMPROVEMENT PLAN AND EDUCATION LEVEL

<table>
<thead>
<tr>
<th>Item</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 6: Does the level of School Management Team’s education level have a positive impact on the implementation of the School Improvement Plan?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>23</td>
<td>46</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Uncertain</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total frequency</td>
<td>Fx =50</td>
<td>100</td>
</tr>
</tbody>
</table>

In question 6 forty five (90%) respondents agreed with the statement. Three (6%) of the respondents disagreed with the statement, while two (4%) were recorded as uncertain.

From the above information it is clear that the level of School Management Team’s education can have a positive impact on the implementation of the School Improvement Plan. Lack of relevant education can always affect both the implementation of School Improvement Plan and the teaching of Physical Science at Malegale circuit of Education.
FIGURE 4.1. SCHOOL IMPROVEMENT PLAN AND MANAGERIAL SKILLS

Question 7: Does lack of managerial skills impact negatively on the execution of School Improvement Plan?

In question 7 thirty five (70%) respondents agreed with the statement. Ten (20%) respondents acted against the statement. Only five respondents were recorded as unsure.

From the above analysis it is evident that lack of managerial skills impact negatively on the execution of the School Improvement Plan. Inadequate managerial skills can affect both the implementation of School Improvement Plan and the teaching of Physical Sciences.
TABLE 4.7. SCHOOL IMPROVEMENT PLAN AND SCIENCE TEACHER QUALIFICATIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 8: Do the qualifications of Physical Science teachers’ hamper the implementation of the School Improvement Plan?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>31</td>
<td>62</td>
</tr>
<tr>
<td>Disagree</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Uncertain</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total frequency</td>
<td>Fx =50</td>
<td>100</td>
</tr>
</tbody>
</table>

In question 8 forty-two (84%) respondents agreed with the statement. Seven (14%) respondents disagreed with the statement, while one (2%) of the respondents was recorded as uncertain.

From the data, it is clear that lack of relevant qualifications amongst Physical Science teachers can hamper the implementation of the School Improvement Plan. Lack of suitable qualifications can impact negatively on both the implementation of the School Improvement Plan and the teaching of Physical Science in the area of study.
Question 9: Does lack of discipline impact negatively on the implementation of the School Improvement Plan in the area of the study?

In question 9 thirty (60%) respondents agreed with the statement. Only 15(30%) or the respondents disagreed with the statement, while five (10%) of the respondents were recorded uncertain.

From the above findings, it is evident that lack of discipline can impact negatively on the implementation of the School Improvement Plan. Lack of discipline not only affects the implementation of School Improvement Plan but also the teaching of Physical Science in the area of study.
In question 10 forty-four (88%) of the respondents agreed that monitoring and evaluation have a positive impact on the implementation of the School Improvement Plan. Four (8%) respondents disagreed with the statement. Only two (4%) of the respondents were recorded uncertain.

The above information shows that monitoring and evaluation have a positive impact on the implementation of the School Improvement Plan. From the statement it is clear that if monitoring and evaluation is done effectively it can always enhance the teaching of Physical Science at Malegale circuit of Education.
4.3.2 Data obtained through structured interviews

Data obtained through interviews from the Physical Science teachers at Malegale circuit of Education has been obtained. The data from the responses, has given an insight and clear understanding about the impact of Whole School Evaluation on the execution of School Improvement Plan in the teaching of Physical Science at Malegale circuit of Education. The causes and factors that impact negatively towards achieving the intention of Whole School Evaluation in the teaching of Physical Science were presented. The following factors were detected as the major challenges that impact on the execution of the School Improvement Plan towards the teaching of Physical Science.

❖ Lack of managerial skills

Out of ten interviews, nine of them confirmed that lack of managerial skills had a serious negative impact on the implementation of the School Improvement Plan in the area of study.

❖ Lack of training and development

Out of ten respondents that were interviewed, eight of them revealed that lack of in-service training impact negatively on the implementation of the School Improvement Plan in the teaching of Physical Science.

❖ Lack of clarity on policies

Out of ten interviewees, nine of them claim that lack of clarity on the link between the Whole School Evaluation and the School Improvement Plan impacted negatively in the teaching of Physical Science.

❖ Lack of alternative strategy

Out of ten respondents, seven of them indicated that lack of an alternative strategy by the School Management Team on the implementation of the Whole School
Evaluation impacted negatively on the execution of the School Improvement Plan and the teaching of Physical Science at Malegale circuit of Education.

4.4. CONCLUSION

The chapter has revealed the challenges that affect the impact of Whole School Evaluation on the execution of the School Improvement Plan towards the teaching of Physical Science at Malegale circuit of Education. Some of the factors that negatively affect the impact of Whole School Evaluation on the execution of School Improvement Plan towards the teaching of Physical Science in the area of study were revealed and analysed in this chapter. Factors such as managerial skills; training and development; clarity on policy implementation; alternative strategy; availability of resources; discipline; parental involvement; monitoring and evaluation were identified as issues that negatively impacted on whole School Evaluation with regard to the implementation of the School Improvement Plan at Malegale circuit of Education. From the findings, one can conclude that there is a need for re-evaluation of the Whole School Evaluation policy and practices in the area of study. Furthermore, the researcher has also analysed, interpreted and discussed the data collected. In the forthcoming chapter, an overview of the study, findings, recommendations, limitation of the study and the conclusion will be discussed in full.
CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

This chapter includes an overview of the study, findings, recommendations and a conclusion. A general conclusion and recommendations will also be discussed. The findings and the recommendations will be discussed against objectives stated in chapter one.

5.1. Findings from the study.

The findings from literature review and primary and empirical research have revealed some important ideas and strategies that may be used by stakeholders in the implementation of School Improvement Plan within the Whole School Evaluation at Malegale of circuit of Education.

5.1.1. Findings from literature review.

- The concept of Whole School Evaluation is not static, but dynamic. The concept is defined and interpreted from different perspectives by different authors.
- The concept Whole School Evaluation needs clarification and analysis, so as to be understood by every educational leader at both micro and macro level.
- The Whole School Evaluation involves School Improvement Plan and other related resources.
- The application of the principles of the Whole School Evaluation can also assist Physical Science teachers to use resources effectively so as to enhance the quality of teaching and learning in the classroom (so as to achieve the intended educational goals).
5.1.2. Findings from empirical study

- Ninety percent of the respondents confirmed that the poor implementation of School Improvement Plan impacted negatively on the teaching and learning of Physical Science at Malegale circuit of Education.
- Eighty percent of the respondents agreed that the effectiveness of School Improvement Plan with the Whole School Evaluation depended on the availability of physical resources.
- Ninety two percent of the respondents asserted that there were no clear policy guidelines on how to link the School Improvement Plan with the teaching of Physical Science.
- Eighty four percent of the respondents confirmed that they never attended any training workshop on the School Improvement Plan.
- Ninety percent of the respondents agreed that the level of education of the School Management Team could also have a positive impact on the implementation of the School Improvement Plan in the teaching of Physical Science.
- Seventy percent of the respondents confirmed that lack of managerial skills impacted negatively on the execution of School Improvement Plan in the teaching of Physical Science.
- Eighty four percent of the respondents asserted that lack of qualified Physical Science teachers’ hamper the implementation of the School Improvement Plan in the area of study.
- Sixty of the respondents agreed that lack of discipline impacted negatively on the implementation of the School Improvement Plan in the teaching of Physical Science in the area of study.
- Eighty eight percent of the respondents confirmed that monitoring and evaluation can have a positive impact on the implementation of the School Improvement Plan in the teaching of Physical Science.
5.1.3. Findings from structured interviews

Preamble:
The researcher has conducted an interview amongst the ten Physical Science teachers to get their general impressions on the impact of the Whole School Evaluation on the School Improvement Plan towards the teaching of Physical Science at Malegale circuit of Education. An interview related to managerial skills; training and development; clarity of policies and the resources that could have an impact on the teaching of Physical Science.

The following responses emerged from ten respondents who were interviewed by the researcher:

- Lack of managerial skills
  Most of the participants indicated that they lacked relevant managerial skills. Lack of managerial skills on Whole School Evaluation has a serious negative impact on the implementation of the School Improvement Plan in the area of study.

- Lack of training and development
  Most of the respondent’s confirmed that lack of in-service training impacted negatively on the implementation of the School Improvement Plan in the teaching of Physical Science.

- Lack of clear policies
  Most of the respondents claimed that lack of clarity on the link between the Whole School Evaluation and the School Improvement Plan impact negatively in the teaching of Physical Science at Malegale circuit.

- Lack of alternative strategies
  Lack of alternative strategies by School Management Teams for the implementation of the Whole School Evaluation impacted negatively on the execution of the School Improvement Plan towards the teaching of Physical Science at Malegale circuit of Education.
5.2. Recommendation

On the basis of the findings from the empirical investigations and interviews, the following recommendations are made:

❖ Members of the School Management Teams should be encouraged to implement the School Improvement Plan in an effective and professional manner.

❖ Policy-makers should be encouraged to provide relevant resources that will support the implementation of both the Whole School Evaluation and the School Improvement Plan.

❖ Members of School Management Teams should be encouraged to clarify the link between the Whole School Evaluation and the School Improvement Plan to Physical Science teachers.

❖ Government officials should be encouraged to organize workshops for Physical Science teachers related to the implementation of the whole school evaluation.

❖ School Governing Body members should be encouraged to attend workshops on the implementation of the School Improvement Plan so as to reinforce the teaching of Physical Science in schools Malegale circuit of Education.

❖ Policy-makers should be encouraged to build more physical infrastructure so as to support the implementation of the Whole School Evaluation in the teaching of Physical Science.

❖ Members of the School Management Teams should be encouraged to appoint qualified Physical Science teachers to enhance the impact of Whole School Evaluation on the School Improvement Plan.

❖ The School Management Team members should be encouraged to maintain discipline so as to assist Physical Science teachers to adhere to the principles of Whole School Evaluation and the implementation of the School Improvement Plan in the area of study.

❖ Government officials should be encouraged to monitor and evaluate the implementation of the Whole School Evaluation and School Improvement Plan, so as to enhance the teaching of Physical Science at Malegale circuit of Education.
5.3. Recommendations for further studies

Every research is intended to suggest further research because no research is complete in itself. The following topics are suggested for further research:

- The role of government officials towards the implementation of educational policies.
- The impact of school discipline on the execution of the School Improvement Plan in rural areas.
- The impact of resources on the implementation of whole school evaluation.

5.4. Conclusion

The purpose of the study was to investigate the impact of the Whole School Evaluation on the School Improvement Plan towards Physical Science learner performance in Malegale circuit of Education. Factors that impact on the implementation of Whole School Evaluation and the School Improvement Plan in Malegale circuit of Education were discussed in full in the previous chapters; suggestions for solutions to the problems stated in chapter one have been briefly discussed in this chapter. The study is merely an eye opener for policy-makers, members of School Management Team and other stakeholders involved in the implementation of the Whole School Evaluation and School Improvement Plan within Malegale circuit of Education.

Focus now is to look to the researches’ findings and recommendations for possible ways to improve the execution of the School Improvement Plan and the teaching of Physical Science in the area of study.
Finally, the recommendations of possible ways in which the School Improvement Plan should be implemented at Malegale circuit of Education were presented in this chapter. Both the stakeholders and the Physical Science teachers need to be empowered in order to improve the implementations of the Whole School Evaluation and the School Improvement Plan, not only at Malegale circuit of Education but in Limpopo Province in particular, and South Africa as a whole.
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School improvement Plan-Raha international School in Abu Dhabi, UAE.


### Questionnaires

**Question.1: What is your gender?**
- Female
- Male

**Question.2: Does poor implementation of School Improvement Plan affect the teaching of Physical Science?**
- Agree
- Strongly Agree
- Disagree
- Strongly disagree
- Uncertain

**Question.3: Does the effectiveness of School Improvement Plan depend on physical resources?**
- Agree
- Strongly Agree
- Disagree
- Strongly disagree
- Uncertain

**Question.4: The availability of policy guidelines links the School Improvement Plan and the teaching of Physical Science.**
- Agree
- Strongly Agree
- Disagree
- Strongly disagree
- Uncertain
Question 5: Most of the School Management Team members never attended any workshop related to the School Improvement Plan

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Uncertain</th>
</tr>
</thead>
</table>

Question 6: Does the level of School Management Team’s education level have a positive impact on the implementation of the School Improvement Plan?

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Uncertain</th>
</tr>
</thead>
</table>

Question 7: Does lack of managerial skills impact negatively on the execution of the School Improvement Plan?

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Uncertain</th>
</tr>
</thead>
</table>

Question 8: Do the qualifications of Physical Science teachers’ hamper the implementation of the School Improvement Plan?

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Uncertain</th>
</tr>
</thead>
</table>
Question.9: Does lack of discipline impact negatively on the implementation of the School Improvement Plan in the area of the study?

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Uncertain</th>
</tr>
</thead>
</table>

Question.10: Can monitoring and evaluation have a positive impact on the implementation of school improvement plan?

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Uncertain</th>
</tr>
</thead>
</table>

APPENDIX B

SEMI-STRUCTURED INTERVIEW SCHEDULE

➢ To what extent is the Whole School Evaluation impact on School Improvement Plan towards Physical Science learner performance?
➢ Which factors hamper the implementation of the School Improvement Plan in the teaching of Physical Science?
➢ To what extent is the current status of Whole School Evaluation affects the implementation of School Improvement Plan in the teaching of Physical Science?
➢ Which strategies can be used to encourage policy makers to provide resources that support the implementation of School Improvement Plan in the teaching of Physical Science?
APPENDIX C

INFORMED CONSENT FORM

Title: “The impact of the Whole School Evaluation on School Improvement Plan towards Physical Science learner performance at Sekhukhune, South Africa. The case of Malegale Circuit of Education”.

Researcher: MPHAHLELE THOKGELA MILLINGTON
Institution: University of Limpopo

Background
The study deemed most suitable for gaining insight into the perceptions of the impact of Whole School Evaluation on School Improvement Plan towards performance of learners in Physical Sciences. The study will give us a clear understanding how it had happened by unpacking the current challenges being experienced by the schools. Curriculum managers and different schools as well as educational researchers will benefit from this study.

Confidentiality
I shall protect the identities of my participants by using codes for this study. I will also ensure confidentiality of results and findings. I will also adhere to the ethical policies of the institutions to be taking part.

The right to human dignity places on me the responsibility to treat people with reverence, respect and dignity and be kind, compassionate and sensitive to every human being. The right to equality places on me the responsibility to treat every person equally and fairly, and not discriminate unfairly against anyone on any basis, status or appearance.

The information provided by you will remain confidential. Your name and identity will not be disclosed at any time. Data may be published in journal without your name or identity being disclosed.

Participant’s name (Printed) ........................................................................................................
Date ..................................................
Participant’s signature ........................................................................................................
Researcher’s signature .................................................................................................
Date ..................................................
Dear Sir/Madam

Subject: Permission for conducting research in schools.

I, hereby request for a permission to conduct research in the secondary schools of the circuit. The aim of the research is to investigate the impact of the Whole School Evaluation (WSE) on School Improvement Plan (SIP) towards Physical Science learner performance at Malegale Circuit of Education. The outcomes of this research will help the Malegale Circuit of Education in its endeavour to improve the performance of its schools.

I hope my request will be considered.

Yours sincerely

Mr Mphahlele T.M.
Enq: Thoka RP
Tel: 015 633 2902
Date: 10/11/2015

To: Mphahlele Thokgela Millington
University Of Limpopo (Masters in Development)

From: District Senior Manager
Sekhukhune District

SUBJECT: GRANTED PERMISSION TO CONDUCT RESEARCH

1. The above matter refers.

2. Kindly be informed that your research application to conduct research in the secondary's schools in Malegale Circuit Limpopo Province, focusing on the title is investigate the impact of the Whole School Evaluation (WSE) on School Improvement Plan (SIP) towards physical science learner performance, is approved.

3. Please note you should conduct your research in line with research ethics as prescribed by your institution and international norms and standards for research.

4. The district wishes you well in your research and awaits your findings with great interest.

Nkadimeng T.G
DISTRICT SENIOR MANAGER

DATE 2015.11.10
TO WHOM IT MAY CONCERN

This is to confirm that I have edited the research work of Mphahlele T.M

Your Faithfully

Ben Mphahlele (M.A (English) Natal Uni.)

(Professional Speaker, Educational & Marketing Consultant)