The Influence of Total Quality Management on school improvement in secondary schools in the uThungulu District, Kwazulu-Natal

by

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DECLARATION

I declare that **The influence of Total Quality Management (TQM) on school improvement in secondary schools in the uThungulu District, Kwazulu-Natal** is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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ABSTRACT

TQM has been identified as an approach that can be adopted to improve quality in business as well as in education. The main aim of this approach is to involve everybody in decision-making of the organization, in this case a school, with the purpose of achieving highest commitment from staff and customer satisfaction. TQM can be a way which can bring about changes in the education system. It is a philosophy with continuous improvement which can provide a set of practicable tools and techniques to meet the present and the future desires of any educational system. Therefore, this study sought to investigate the influence of TQM on school improvement in secondary schools in the Uthungulu District, Kwazulu-Natal.

The questionnaires were handed to schools in the Uthungulu District which is made up of 5 circuits, namely, Umhlathuze Circuit, Umfolozi Circuit, Umlalazi Circuit, Mthonjaneni Circuit and Inkandla Circuit. The research concentrated mainly on School Management Teams (SMTs) and Post Level 1 educators (PL1 educators) from senior secondary schools (high schools).

On the whole, respondents in the study area have shown a positive attitude towards understanding the significance of Total Quality Management principles in schools. The findings seem to suggest that everyone has a responsibility of encouraging implementation of TQM in schools. It is important to develop quality management systems, because without them, it is impossible to implement. The quality improvement teams should be empowered to manage themselves and provide programmes that will enable them to be more effective. The proposed model of the study provides information about basic elements and factors which need to be taken into cognisance during the TQM and implementation process. The model identifies the main principles of TQM with continuous improvement at the centre of them all. The main aim of implementing TQM in school should be continuous improvement.

Key words: Management, TQM, quality, school, continuous improvement, TQM principles, implementation, customer-focus, service delivery, commitment, teamwork.

ACRONYMS

TQM **:** Total Quality Management

IQMS **:** Integrated Quality Management Systems

SM   **:** Systems Management

QIP **:** Quality Improvement Programme

CIS **:** Continuous Improvement Strategy

SMTs **:** School Management Teams

PL1 **:** Post Level 1

SPSS **:** Statistical Package for the Social Sciences

QLTC **:** Quality Learning and Teaching Campaign

SGBs : School Governing Bodies

RCLs : Representative Council of Learners

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CHAPTER ONE

ORIENTATION OF THE STUDY

1.1   INTRODUCTION

Total Quality Management (TQM) is a management philosophy developed by Deming based on his experiences in the United States (US) industry before and during the Second World War. The concept of total quality management (TQM) is quite popular in the management circles nowadays. TQM has been adopted by schools, churches, as well as corporations. In the last two decades, TQM has enabled Japanese companies increase their competitive advantage in costs and quality and to eventually gain significant global market share in a number of variety of industries (Murgatroyd & Morgan, 1993). Although TQM was originally intended for the industrial sector, its management principles could be well applied in service sector which include government service like education. A number of researchers in the field of education including Brynes (1992); Bonstingl (1992); Murgatroyd and Morgan (1993); and Field (1994) report that TQM is evoking increasing attention among education personnel, especially in the United Kingdom (UK), Canada and United States of America (USA). The educational authorities were trying to impose quality standards through the development of strict accountability systems, competency-based education and testing, and mandated national curricular content and goals. Therefore, TQM can be a way which can bring up changes in the education system. It is a philosophy with continuous improvement which can provide a set of practicable tools and techniques to meet the present and the future desires of any educational system.

Quality management practices have been investigated extensively, (Schermerhorn, 1996; Easton & Jarell, 1998; Baron & Kreps, 1999; Lee & Palmer, 1999; Gilson, Wagar & Brown, 2002; Prajogo & Brown, 2004; Singh & Smith, 2004). Although a number of practices have been described, similarities among practices can be

distinguished. The practices proposed in a large set of articles include: top management commitment and support, employee training, employee participation, improvement of quality system, continuous support and customer focus. Education is in the process of a major change. Through innovations in technology and teaching methodology, academic institutions are being given an opportunity to work for the benefit of the student. If the TQM techniques are properly applied, they can benefit South Africa. Like in many countries in the world, South African schools are not customer-driven. Schools seem not to practice continuous improvement nor strive for excellence. When educators look at TQM principles, they think that these principles apply only to profit-making organizations. Actually, TQM is seen to be relevant in corporations, service organizations, universities, as well as elementary and secondary schools.

A total quality approach to the running of our schools is necessary. There could be a number of reasons which may encourage the necessity of quality approach. Since schools have to equip learners to function to their fullest capabilities, schools need to be dynamic and flexible. The expectations of students, industry, parents and the public at large make it essential for schools to undergo continual assessment and improvement.

Improvement is based on building knowledge of what works and does not work and then applying it appropriately. The three basic questions are: firstly, what are we to accomplish; secondly, what changes can we make that will lead to improvement; and thirdly, how will we know that a change is an improvement.

Quality will not be achieved by accident or by management dictates; rather, it requires a cultural change that will transform management behaviour and attitude in general. This process of change should be managed by managers who are fully dedicated and committed to the task. There are, of course, different approaches that can produce desired results, but it is noted that the TQM approach has the additional advantage of facilitating practices that promote both quality and sound management.

Therefore, what can we expect from total quality approach? Increased customer satisfaction; improved programmes; improved responsiveness to change in the economic environment; improved student performance; increased teacher motivation; improved co-operation between educators and management; greater parental and community involvement in our schools. Let us be one of the few, to practice Total Quality approach to education in South Africa.

1.2   STATEMENT OF THE PROBLEM

Defining quality in education is a huge challenge. The main purpose of the school's existence is to enable teaching and learning to take place. Some school leaders and managers are required to work in a democratic and participatory ways to build relationships and ensure efficient and effective delivery. School managers are expected to adapt to change. The schools have to respond to the fear of career obsolescence and career inadequacy (Berry, 1997).

Prior to 1994, during the apartheid era, the school principal was the single person responsible for managing the school. With the changes experienced in the post – apartheid South Africa, more delegation of tasks to individuals and leading teams at the present school system has become more significant (Naidu *et al*, 2008). In the past the school leaders did not allow staff members and learners to openly disagree with them. As a result, the members of the school community often did not feel that the school belonged to them, nor did they feel committed to the decisions that the leaders made. Quality management is generally described as a collective, interlinked system of quality management practices that are associated with organization performance.

The teaching profession is highly individualistic as opposed to team-based. Most schools have entrenched cultural practices and beliefs that may create resistance to change.

Schools often claim uniqueness that exempts them from having to change. There is a tendency to place the responsibility for poor performance on individuals as opposed to the system. The teacher was terrible, the students were ill-prepared, and the textbooks were inadequate. But TQM requires that the entire management system be accountable. The need for control measurement and feedback systems for the purpose of standardization is somewhat foreign in the academic environments (Bush & Bell, 2002).

According to Bush and Bell (2002), management work is viewed by some as demanding. The school that is managed well may convey a misleading impression that it is easy work, whereas the school that is not smoothly managed may display an impression of management as a difficult job to do. It is important to point out that management should not be restricted to the School Management Teams only, but to Post Level 1 educators as well because management occurs at all levels, even in the classroom.

The first step in the direction of TQM must be taken by those in the leadership positions. Without the commitment of top management, the total quality philosophy cannot be implemented. The teacher and the school are suppliers of effective learning tools, environments and systems to the students. The school is responsible for providing for the long-term educational welfare of students by teaching them how to learn and communicate in high-quality ways and how to invest in their life-long and life-wide learning processes. Smylie (2010) indicates that the school teachers should establish the contest in which students can achieve their potential through continuous improvement which will result from teachers and students working together. Schools need to change course from promoting learning that might have been appropriate in the past, and promote learning that will be required in the future.

The rational for continuous improvement is linked to the fact that change is no longer a matter of choice for most organizations, but it is an essential element. Organizations need to assess themselves and their surrounding continually and

change accordingly. Most schools find it difficult to adapt effectively to a rapidly changing environment (Smylie, 2010).

The quest for the provision of quality education to learners forms the basis to the transformation in education system in South Africa. Therefore, TQM is one of the popular approaches that schools should adopt in their quest for quality education. The question is, are we practicing a total quality approach in our schools? Are our schools customer-driven? Is there any consultation with stakeholder in defining a mission? What kind of performance can we expect from our school?

1.3   OBJECTIVES OF THE STUDY

The general aim of this study was to investigate the influence of Total Quality Management on school improvement in secondary schools in the UThungulu District in KwaZulu-Natal. The objectives of the study included the following:

(a)   To determine the influence of Total Quality Management (TQM) in secondary schools;

(b)   To find out whether principles associated with the improvement of TQM in the study area do exist;

(c)   To assess the role played by stakeholders in the application of TQM for school improvement in the study area; and

(d)   To examine the influence of the Integrated Quality Management System (IQMS) as a system to improve quality in schools

The issues of educational quality, rather than mass production, need to move in the forefront of educational agenda of policy makers.

1.4 FORMULATION OF HYPOTHESES

The intent of the study was to investigate the influence of Total Quality Management (TQM) on school improvement. Therefore, related to the above-mentioned objectives were few hypotheses which were formulated to match the objectives. It was hypothesized that:

(a) TQM has no influence on secondary school performance;

(b) principles associated with the improvement of TQM in the study area are non-existent;

(c) the role played by stakeholders in the application of TQM for school improvement is minimal; and

(d) the Integrated Quality Management System (IQMS) has an influence as a system to improve quality in schools.

The afore-mentioned hypotheses were logically assessed in this study with a view of providing documentary and empirical evidence about the relationship between TQM and school improvement. It was anticipated that this study will have positive determinants which will underpin education management for future planning and decision-making in the Department of Education.

1.5 SIGNIFICANCE OF THE STUDY

The purpose of the study was to establish whether TQM has an influence on the improvement in school performance. The study contributes to the existing body of knowledge that had been done in the area of quality and quality management.

It was anticipated that the study would be helpful if applied in improving student and educator morale, increasing productivity and delivering higher quality services to both internal and external customers.

Therefore, the researcher found it necessary to undertake a study that recognised the need for total quality in education management.

1.6   DEFINITION OF KEY TERMS

Total Quality Management is regarded as a method by which management and employees can become involved in the continuous improvement of the production of goods or services. It is a combination of quality and management tools aimed at increasing business and reducing losses due to wasteful practices (Munoz, 1999). To obviate any problems that might arise in the meaning of terms and to ensure clarity in concepts in this research, it was necessary to define the following terms:

1.6.1 Management
Managers and supervisors need more knowledge and skills to enable them to perform effectively. Management is defined as a process whereby managers in leading positions utilizes human and other resources as efficiently as possible in order to provide certain products or services within the aim of fulfilling particular needs and achieving the stated goals of business (Kroon, 1998).

Whenever people gather together to reach certain goals, it is important to be well organized. This means that management is a specific type of task which is goal-oriented and is practiced by responsible people. This management takes place within an organization and in the context of this study it is a school.

Essentially, management is about deciding what to do and the getting it done through people (Armstrong, 2008:2). It is a process which exists to get results by

making the best use of the human, financial and material resources available to the organization and to individual managers.

Management in education is an interactive, inter-related process used by educational leaders who manage the learning and teaching (van Deventer & Kruger, 2009). The resources available to educational managers include human resources, which are learners and teachers. The managers should manage efficiently and effectively to satisfy the needs of education and be able to achieve the outcomes of teaching and learning.

1.6.2 Total Quality Management

Various terms are used to describe the quality management concept, such as, Total Quality Management (TQM), Quality Management System (QMS), Systems Management (SM), Quality Improvement Programme (QIP) and Continuous Improvement Strategy (CIS). The term Total Quality Management (TQM) will be used as an important term than others in this research.

Total Quality Management is defined as a management method relying on the co-operation of all members of an organization. It is a management method that centres on quality and on the long-term success of the organization through the satisfaction of customers, as well as the benefit of all its members and society (van der Westhuizen, 2007). TQM has a total approach to quality which involves every element of the entire organization and draws on the abilities of all people at all levels in all activities. TQM is managing for total quality and managing for effectiveness and competitiveness, involving each and every person and activity at all levels of the organization.

TQM, therefore, provides the framework for implementing effective quality and productivity initiatives that can increase the profitability and competitiveness of organizations. In this context, the school is an organization that needs to adhere to the principles of TQM for competitiveness in performance.

Below is a structure of TQM according to these definitions:


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                              ┌─────────┐
                              │   TQM   │
                              └─────────┘
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Success factors:
1. Convincing and consistent leadership by top management.
2. Training and Education of all members of the organization.

All members are all the staff on all levels of the organization.

Comprehensive method of management of an organization

Cooperation of all members of an organization.

Puts quality into center

By satisfying customers, aims to achieve the following objectives.

Quality is achievement of management goals

Goals of Management:
1. Long term business success.
2. Benefits for the organization.
3. Benefits for society.

Source: www.kwaliteg.co.za (2012)

1.6.3 Quality

In everyday life, quality describes the level of or standard of satisfaction with a product or process, for example, quality education, and defines the essential features or characteristics of something. Quality is defined as a predictable degree of uniformity and dependability at a low cost and suited to the market (Deming, 2000). Quality ensures that an organization or product is consistent. Quality is customer-focused. In the study, everyone in the organization, which is a school, is committed to achieve results.

Managers in the workplace are required to produce quality results. According to Bisschoff *et al* (2005), quality is equated with the following phrases:

- meeting the requirements;
- meeting needs;
- achieving standards;
- state of excellence;
- best practice;

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- best performance;
- benchmarking; and
- fulfilling intentions.

The process of quality management includes the activities of quality planning, quality assurance and quality control during every phase of the task performed.

1.6.4 School

The term, school, is defined by the Collins English Dictionary as educational establishment where teaching and learning take place. According to the Oxford Concise dictionary, school is an institution for educating children. This definition of school comes from a philosophical understanding of school of thought as a particular way of thinking. In this research, the term school is used for an educational establishment or an institution for educating children, where learners from Grade 8 to 12 are taught by educators.

1.6.5 Continuous Improvement

The Japanese concept of "kaizen" best gives expression to the notion of continuous improvement (van der Westhuizen, 2007). Kaizen means that everyone in the organization is dedicated to continuous improvement, personally and collectively, at home, at work and in the community, and in every aspect of life. In the school context, everybody needs to constantly look for ways to improve quality. Schools should add value to learning experiences which require regular team discussions and analysis. It is important to realize that no method, no lesson plan, no school structure or arrangement is ever perfect. There is always more room for improvement.

Continual improvement requires that the next effort must be better than the previous one. It is a process cycle of school improvement with the major components of creating the vision, gathering data related to that vision, analysing the data, planning

the work of the school aligned with the vision, implementing the strategies and action steps and gathering data to measure the impact of the intervention.

1.7   REVIEW OF RELATED LITERATURE

It was advisable to acquaint the reader with existing studies relating to the study at hand, and to inform on the state of related methodology. A number of studies were selected for such a discussion. (Schermerhorn, 1996; Easton & Jarell, 1998; Baron & Kreps, 1999; Lee & Palmer, 1999; Gilson, Wagar & Brown, 2002; Prajogo & Brown, 2004; Singh & Smith, 2004).

The review of literature in this study aimed at contributing towards a clearer understanding of the nature and meaning of the problem that has been identified (De Vos *et al*., 2003).   The focus in this study was on the influence of TQM on continuous improvement in schools.

1.8   RESEARCH DESIGN AND METHODOLOGY

Research is the study of materials, sources and data in order to get conclusions. Getting the research design right was the first step towards organized research, which was more likely to be good research. The research design provides the structure of the research and links all of the elements of the research together. Babbie and Mouton (2001) distinguish research design from research methodology. They describe a research design as a plan or blue print of how one intends to conduct research, whereas they describe methodology as the process, tools and procedures to be used. Rubbin and Babbie (2001) clarify in their statement that the term research design has two connotations. Decisions are not only about the whole design to use, but also about sampling, sources and procedures for collecting data, measurement issues and data analysis plans.

Methodology was concerned about ways in which the research was carried out, that is, its structure and process, as well as with the way in which the information was analysed. The research methodology helped the researcher to move towards analysis, assessment and interpretation of data to be able to make reasonable judgements and conclusions about the topic in question. The research methodology allowed for a combination of a variety of techniques which is considered advantageous. Gathering a number of separate impressions was accepted as means of providing a fuller picture of the way respondents experience and perceive the research question. It is the research methodology which determines whether the researcher has been successful or not in an attempt towards finding the truth about the hypotheses stated. This section described the research strategies to be employed towards reaching the recommendations for the study. It focused on how data were collected, manipulated and managed.

1.8.1 Collection of Data and Instrumentation

An appropriate and reliable instrument research for collecting data is an important research mechanism to have and utilize (Rubbin & Babbie, 2001). A personal questionnaire has been used as the main tool for gathering information. A personal questionnaire is the one which is handed to the respondent to complete on his own, but the researcher is available in case problems are experienced (De Vos *et al*., 2003). The researcher limits his own contribution to the completion of the questionnaire to the absolute minimum. A questionnaire is a way of getting information by asking people rather than observing them. The written questionnaire has helped the researcher a great deal because more data has been collected within a very short space of time. The ethical principle of anonymity has helped in avoiding bias. The respondents have responded genuinely.

Data were collected through a questionnaire. Questionnaires were used to obtain information from the high school educators of all levels, that is, Post Level 1 educators, Heads of Departments, Deputy Principals and Principals. A questionnaire is simply a tool made up of questions for collecting and recording

information about a particular issue of interest. Tuchman (1978) explains a questionnaire as a way of getting data about persons by asking them rather than watching them behave or get into activity. The New Dictionary of Social Work cited by De Vos *et al.* (2003:172) explains a questionnaire as a set of questions on a form which is completed by the respondents in respect of a research project. According to De Vos *et al.* (2003:172), a questionnaire usually contains statements on which respondents are requested to react. The basic objective of such a questionnaire is to obtain facts and opinions about a phenomenon from the people who are informed on a particular issue.

1.8.2 Sampling

Black *et al.*, (1998) indicate that a sample is expected to mirror the population from which it comes. The sample should be representative of the population to ensure that one can generalize the findings from the research sample to population as a whole. It is incumbent on the researcher to clearly define the target population. There are no strict rules to follow, and the researcher must rely on logic and judgement. The population is defined in keeping with the objectives of the study.

Sampling methods are classified as either probability or non-probability. In probability samples, each member of the population has a known non-zero probability of being selected. Probability methods include random sampling, systematic sampling, and stratified sampling. In non-probability sampling, members are selected from the population in some non-random manner. Random sampling is a procedure used by researchers in which all samples of a particular size have an equal chance to be chosen for an observation, experiment and etcetera (Woken, 2010; Altman, 1991).

Random sampling is the purest form of probability sampling. Each member of the population has an equal and known chance of being selected. When there are very large populations, it is often difficult or impossible to identify every member of the population, so the pool of available subjects becomes biased. There is no predetermination as to which members are chosen for the sample. This type of

sampling is done in order to minimize scientific biases and offers the greatest likelihood that a sample will indeed be representative of the larger population. The aim here is to make the sample as representative of the population as possible.

A small, but carefully chosen sample can be used to represent the population. A population is a group of individuals, persons, objects, or items from which samples are taken for measurement for example a population of presidents or professors, books or students (Kothari, 2006). The sample reflects the characteristics of the population from which it is drawn. Random sampling provides the greatest probability that the distribution of scores in a sample will closely approximate the distribution of scores in the overall population.

A random sample of 200 respondents was drawn and stratified according to Principals, Deputy Principals, Heads of Departments and Post Level 1 educators. The questionnaires were handed to schools in the Uthungulu District which is made up of five circuits, namely, Umhlathuze Circuit, Umfolozi Circuit, Umlalazi Circuit, Mthonjaneni Circuit and Inkandla Circuit. These circuits combine to form 22 wards. The research will concentrate mainly on School Management Teams **(SMTs)** and educators at post level 1 (PL1 educators) from senior secondary schools (high schools). Respondents remained anonymous and high level of confidentiality had been kept.

1.8.3 Method of Analysis

Data analysis was accomplished by using the Statistical Package for the Social Science (SPSS) program. Data can be defined as a collection of scores obtained when a subject's characteristics and/or performance are assessed. Data analysis was based on the research questions. Descriptive and inferential statistics had been used especially the mode to determine the most frequent responses on the factor under study. **Descriptive statistics** are procedures used to summarize, organize, and make sense of a set of scores or observations (Gay, 1996). It is a term given to the analysis of data that helps to describe, show or summarize data in a meaningful

way. Descriptive statistics do not, however, allow us to make conclusions beyond the data one has analysed or reach conclusions regarding any hypotheses one has made. Descriptive statistics are typically presented graphically, in tabular form (in tables), or as summary statistics (single values).

In contrast, Gay (1996) explains that researchers use procedures that allow them to interpret or infer the meaning of data. These procedures are called **inferential statistics.** These procedures allow researchers to infer or generalize observations made with samples to the larger population from which they were selected. Frequency tables, percentages and means had been used to analyse the data. Responses in the questionnaires were coded, tabulated and processed by the use of a computer. Data presentation needs to be clear and easily understood. The findings, conclusions and recommendations has been made and based on the data analysis and hypotheses formulated.

1.8.4 Pilot Study

It is essential to pre-pilot one's questionnaire to identify any ambiguities in the questions and to identify a range of possible responses for each question. The pre-pilot is not a formal procedure; it is more of an information-gathering exercise. It is a good practice to pilot or pre-test a questionnaire with a small sample of respondents before use. The pilot helped to check the understanding and the ability of the respondents to answer the questions. A pilot study is defined as the process whereby the research design for a prospective survey is tested (De Vos, 2003:211).

Therefore, as a pre-test, a pilot study consisting of few respondents was undertaken. The pilot study had been undertaken to check the respondents' attitude as well as their understanding to the questions posed to them. The respondents were also required to express their opinions in some of the questions.

1.9   STRUCTURE OF THE RESEARCH STUDY

This study was structured in such a way that Chapter One orientates the reader to the core problem behind the study. In this chapter the researcher spelt out the background to the problem that prompted the undertaking of a research of this nature. Chapter One also presents the objectives and the hypotheses of the study, the significance of the study and definition of operational terms.

Closely linked to Chapter One is Chapter Two, which outlined the background upon which this study was based. The theoretical knowledge relating to relationship between Total Quality Management and School Improvement served as basis for understanding the argument presented.

In Chapter Three research methodology and procedures was revealed. In this chapter the researcher stated various methods and techniques that were used in gathering information.

In Chapter Four, data were analysed and presented. The presentation of data was in various forms; being tabular, graphical, diagrammatical and in statement forms. In this chapter data were transformed in interpretable form which led to the research outcomes and conclusions. This chapter was regarded as the core of this investigation in that the empirical analysis and synthesis of data and ideas were put into effect.

In Chapter Five, the interpretation of data was presented with respect to the objectives and hypotheses of the research study.

The general conclusions, summary, recommendations, possible areas for future research and conclusion of the research study were laid down in Chapter Six.

1.10   CONCLUSION

This research endeavoured to give an overview of the whole study. The motivation for the study was given with an aim of contextualizing the research topic and the objectives of the study are also given.

Procedurally, this study provided the statement to the problem and the background to the study. In this chapter the key questions of why the study was undertaken and what the value of the study was perceived to be, was addressed. A study of this nature would contribute to the body of knowledge concerning the management of schools.

CHAPTER TWO

LITERATURE REVIEW

2.1   INTRODUCTION

In Chapter One, a brief contextual background to the study was outlined. In this chapter, the literature review underpinning the study is presented. The introduction of core ideas of Total Quality Management (TQM) began in the mid-1980s by most notably, W. Edward Deming, Joseph Juran and Kaoru Ishikawa (Hackman and Wageman, 1995). TQM has been identified as an approach that can be adopted to improve quality in business as well as in education. The main aim of this approach is to involve everybody in decision-making of the organization, with the purpose of achieving highest commitment from staff and customer satisfaction.   It is an approach that seeks to change the whole philosophy of workers, in this case educators, to embrace beliefs and principles that focus on continuous improvement, not only to satisfy customer needs but exceed customer expectations (Naidu, *et al.*, 2003).

Schools are demanded to perform more effectively and to achieve better outcomes for greater numbers of students. In short, schools are being asked to do more and do better without proportionate increase in resources. However, many organizations that adopted quality management practices have experienced an improvement in performance.   Therefore, it is important for every school to make use of the principles of TQM to improve and strive for excellence. It is the responsibility of every educator in a school to improve performance and participate actively in the implementation process, to meet the needs of learners and to ensure continual improvement of schools.

2.2 THE TQM PHILOSOPHY IN SCHOOLS

Education is regarded as one of the most important and the biggest business in the country. In South Africa this is evident in the apex (top) priorities of the government which were set to enhance government's existing policies and to further improve development in the country which were announced by former President, Thabo Mbeki in the State of the Nation Address on 8 February 2008. Therefore, this enormous business must be managed effectively, both in terms of achieving its outcomes (offering quality education to the country) as well as being managed cost effectively (getting the best quality product at the best price) (van Deventer and Kruger, 2009). In education, teacher quality is the most important factor that makes the difference in management and delivery. School Management Teams (SMTs) seem to lack strategies to implement quality in schools. The roles are not clearly defined amongst the members of the SMT. This would impact negatively on the management of schools.

According to van der Westhuizen (2007), the philosophy of TQM was introduced by Deming. He points out that Deming's effort to promote the restructuring of the Japanese managerial culture led to the identification of Fourteen Points for effective practice, which seem to define the conceptualization of more effective way in which organizations might operate (van der Westhuizen, 2007). The following are the **Deming's Fourteen Points** applied to school:

- create constancy of purpose;
- adopt the new philosophy;
- cease dependence on inspection to achieve quality;
- end the practice of awarding business based on price alone;
- improve constantly and forever the system of production and service;
- institute training;
- institute leadership;
- drive out fear;
- break down barriers between staff groups;
- eliminate slogans, exhortations and targets for the workforce;

- eliminate numerical quotas;
- remove barriers to pride of workmanship;
- institute a vigorous programme of education and self-improvement; and
- take action to accomplish the transformation.

TQM is a philosophy that says that uniform commitment to quality in all areas of an organization promotes an organizational culture that meets consumers' perceptions of quality. This means that the senior management organizes all of its strategy and operations around customer needs and develops a culture with high employee participation. According to Jayakumaran and Manoharan (2011), the teacher and the school are the suppliers of effective learning tools, environments and systems to students, who are the school's primary customers. Literature available points out a growing interest in applying TQM in education and for a wide variety of reasons (Thakar *et al.*, 2006; Temponi, 2005). Some of the reasons include pressures from industries for continuous upgrading of academic standards with changing technology; increasing competition between various private and government academic institutions; a reduction in the pool of funds for research and teaching, implying that only reputable institutions will have a likely chance of gaining access to various funds.

The TQM philosophy is built upon tenets that can be applied to any organization. The focus on quality for the customer has led to the development of a body of theory, tools and applications that has become known as Total Quality Management (TQM) (Murgatroyd and Morgan, 2003). Quality management adopts a number of management principles that can be used to guide the organizations towards improved performance.

2.2.1 Focus on Customer

Van der Westhuizen (2007:309) reveals that in education the word "customer" is not a familiar term, perhaps because the word carries overtones of bartering, buying or selling. A customer can be any person or group that receives products or services from another person or group (Johnson, 1993). The purpose of the school,

however, requires a clear view of who the customer is. It is necessary to identify the customers and suppliers in each situation. Sallis (1996) distinguishes between internal and external customers in a school situation. External customers are people and institutions outside the school that receive, use or are affected by the outputs of the school system. Parents, community at large, colleges, vocational schools, businesses, government and industry can be regarded as external customers. Internal customers are within school stakeholders such as educators and learners (Johnson, 1993; Schwartzman, 1995; Munoz, 1999).

Since organizations depend on their customers, they should understand current and future customer needs; should meet customer requirements and try to exceed the expectations of customers. Schools that regard customers as important should be focusing on service delivery in order to satisfy the needs of their customers. In the classroom, learners are the customers who receive services and educators are suppliers who provide services.

2.2.2 Leadership

Another TQM principle applied to education is that the success of TQM is the responsibility of top management by facilitating practices that promote quality. It is undisputable that every educator should participate in quality transformation. Quality in schools is not just the SMT's responsibility, but it is everyone's responsibility. The educators are also accountable for quality in class and sound classroom management. Total involvement approach to quality is also expected from educators at all levels and in all activities.

The commitment of top management will go a long way in motivating employees to deliver quality services that exceed the expectations of the customers. The role of leadership in quality management forms the backbone of any improvement strategy. Leaders are responsible for providing a unity of purpose, while also establishing the direction of the organization. Top management at the end of it all are responsible for creating the culture for quality and for building relationship of trust by mobilising

educators to achieve quality aims. Murgatroyd and Morgan (1993) identified some characteristics of leadership. They are as follows:

- It is about imagination, enabling and empowering the ordinary worker, not about status.
- The role of the leader is to activate, coach, guide, mentor, educate, assist and support colleagues so that they focus on a shared vision, strategy and set of intended outcomes.
- Leaders with vision realize that it is cost-effective to empower those nearest to a process to manage that process themselves.
- Leaders concentrate on the whole picture and keep it at the forefront of people's thinking.
- They believe that challenge and fun go together.

Leadership should be responsible for creating systems and empowering others so that they can continuously make necessary improvements to meet the expectations of the organization.

Leaders of an organization establish unity of purpose and education of it. They should go for creation and maintenance of such internal environment, in which people can become fully involved in achieving the organization's quality objective. School leaders should focus on establishing the context and creating the environment in which learners can be best achieve their potential through continuous improvement that results from teachers and learners working together.

Quality improvement should start with commitment on the part of school leaders to the quality process. Then the individual educator could apply the quality process in classroom, but would need the support and commitment of the school leaders to introduce a viable quality improvement process. Managers should live by example, and realize that quality cannot and must not be delegated to others.

2.2.3   Continuous Improvement

One of the permanent quality objectives of an organization should be the continuous improvements of its overall performance. Continuous improvement of all operations and activities is at the heart of TQM.   Once it is recognized that customer satisfaction can only be obtained by providing a high quality product, continuous improvement of the quality product is seen as the only way to maintain a high level of customer satisfaction.   Van der Westhuizen (2007) indicates that the term continuous improvement comes from a Japanese word "kaizen" which means that everyone in the organization is dedicated to continuous improvement, personally and collectively.   It is not a one-time effort but a never-ending journey of self-improvement, the improvement of other people and the promotion of achievement. It emphasizes as to how to improve each process of quality.   Continuous improvement is more on the process of quality improvement by the deployment of teams or groups who are rewarded when goals and quality levels are reached. In the school environment everybody needs to constantly look for ways to improve quality.

According to Aksu (2003), continuous improvement requires well-defined targets, criteria and measurements. The management of the school has major role to play in motivating educators, because motivated educators are efficient and can assist in bringing change in the school environment and can be able to influence others to change.   If the school's management principles do not include continuous improvement, the constant pursuit of excellence, knowing how to do the right things the first time, they will not survive. Van der Westhuizen (2007:312) indicates that the schools that use the principle of continuous improvement as their quality index should begin by establishing baseline data from which to measure their annual improvements.   He suggests that these baseline data be established for all the quality indicators the schools intend to use in evaluating continuous improvement. Steyn cited by van der Westhuizen (2007:312) suggests that the following aspects should be included when the baseline data is gathered:

- Learners' tests and examination results;

- Learners' school attendance;

- Staff attendance;

- Parental involvement; and

- Follow-up information on learners.

The school should add value to learning experiences which require regular team discussions and analysis of every significant process and method that affect outcomes and results. According van der Westhuizen (2007), continuous improvement requires a cyclic process and can be visualized by means of the *PDSA cycle* **(Plan-Do-Study-Act)**, which is the heart of what schools do in implementing quality management. The process comprises of four steps (Steyn, 1996):
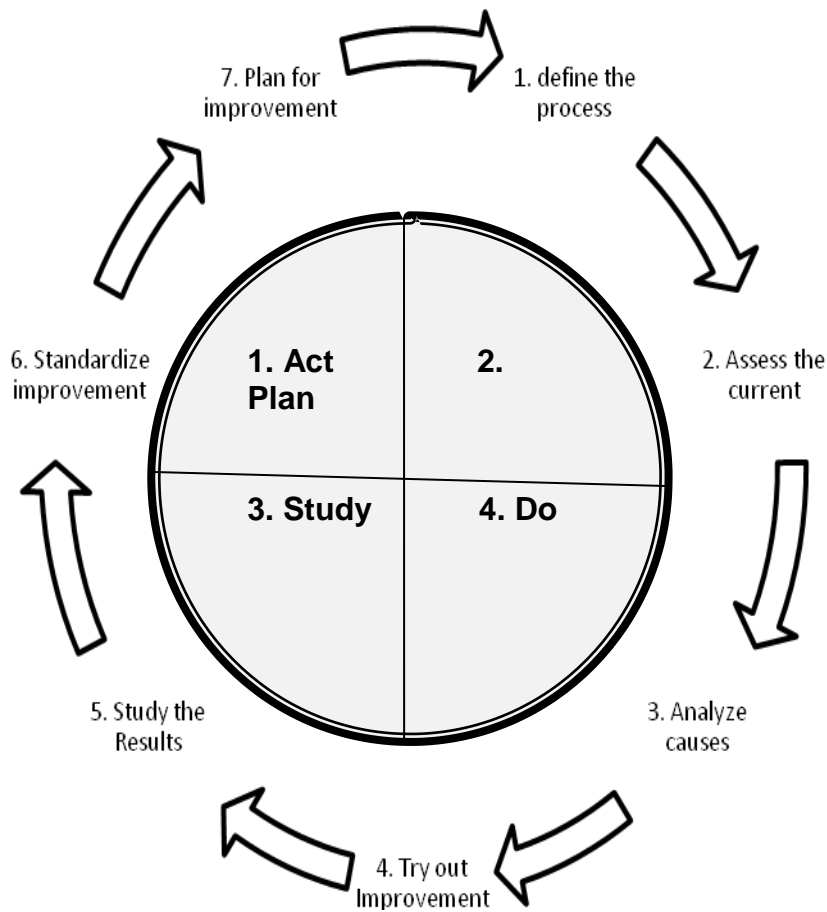
Figure 2.1: The Cycle for Improvement (van der Westhuizen, 2007:313)

According to Hill (2011), the primary steps that comprise the continuous improvement principle in quality management environment include the following:

1. Ensure that continuous improvement is a major objective for every individual in the organization, from the lowest entry level employee all the way through to senior management;

2. Apply basic principles of gradual improvement as well as breakthrough improvement across the organization and ensure that these principles are carried out across all levels of the organization;

3. Use intermittent valuations and assessment against recognized criteria of excellence to detect areas of prospective improvement to ensure that continuous improvement principles are being followed as part of quality management strategies within the organization;

4. Constantly improve the proficiency and effectiveness of all processes, to ensure that there is always room to develop processes as a fluid approach rather than a static approach that may rely on outdated processes within the organization;

5. Rather than reaction based actions for problem solving, prevention based actions should be encouraged that aim to prevent even the smallest of problems;

6. Every employee should be equipped within the organization with relevant education, resources and training;

7. Measures and objectives should be established to guide and track improvement through reporting and monitoring, which aims to provide data on the success and potential areas of improvement; and

8. Improvements should be recognized and acknowledged so that all levels of employees are able to see the results that come from continuous improvement strategies, and be motivated for further improvement over the long term.

Therefore, continuous improvement should entail the recognition of small incremental gain towards the goal of total quality. Large gains are accomplished by

small, sustainable improvements over a long term. Schools should pursue continuous improvement. Becoming a continuously improving organization is in itself a complex and continuous organizational change process. First steps and good starts matter, for if initiated successfully, continuous improvement should build upon itself as a virtuous circle. Continuous improvement necessitates a long-term approach by managers and the willingness to invest in the present for the benefits that manifest themselves in the future. The implementation of continuous improvement attempts to develop a quality system that is never satisfied; there is always room for improvement.

2.2.4 Employee Involvement

A successful TQM environment requires a committed and well-trained work force that participates fully in the quality improvement activities. Everyone's involvement is important for quality improvement and motivation. People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the benefit of the organization. In order to ensure that the quality strategy is successful, everybody has to be committed to customer satisfaction and continuous quality improvement.

Moreover, Murgatroyd and Morgan (1993) argue that everyone in the organization should be mobilized in order to improve the way in which they perform their jobs and satisfy customers. Hill (2011:6) outlines some ways that the involvement of people assists quality management. These ways include the following:

- **Take ownership and responsibility to resolve obstacles** – each person within the organization takes full ownership of their own roles and responsibilities, ensuring a more effective problem resolution process across the board.
- **Actively seek out ways to make improvements, and improve competencies, knowledge and experience** - each person within the organization should have the chance to be proactive, by finding ways that aids improvement. Each person should also have a chance to improve their

specific skills and experiences to aid the organization in achieving its goals and outcomes.

- **Easily share knowledge and experience in groups** – all people within the organization have a right to share knowledge, skills and experiences in groups. This facilitates a more effective organization through the strengthening of departments and groups within the organization, thereby assisting quality management by ensuring that departments are able to operate smoothly and more effectively.

- **Focus on the formation of value for customers** – each person within the organization has the responsibility of adding value for customers. Each person is required to create value for customer in any way that they are able to do so.

- **Improve the representation of the organization to customers, local community and the general public** – all people within the organization need to improve the representation of the organization to all stakeholders, from customers to local communities and other audiences.

- **Assist people get satisfaction from their work** – people who are finding their work rewarding and satisfying are far more likely to want to be involved in all aspects of improvement, as they have a vested interest. This means that employees should be able to find ways to address any concerns they have with workloads or tasks.

- **Make people passionate and proud to be part of the organization** – people should be proud and excited to be involve in the organization. This will ensures that they have personal interest in quality management.

Some theories on employee involvement place emphasis on the reward system. Such participation is reinforced by reward and recognition systems which emphasizes the achievement of quality objectives. Managers often use rewards to enforce employee behaviour that they want to continue. People receive rewards in one of the two following ways:

- **Extrinsic rewards** are externally administered. They are valued outcomes given to someone by another person, usually a supervisor or higher level manager. The motivational stimulus of extrinsic rewards originates outside the individual.
- **Intrinsic rewards** are self-administered. In contrast to extrinsic rewards, the stimulus of intrinsic rewards is internal and does not depend on the actions of other people. The person feels good because she has a feeling of competency, personal development and self-control over his or her work.

To motivate behaviour, the organization needs to provide an effective reward system. An effective reward system has four elements:
- Rewards need to satisfy the basic needs of all employees.
- Rewards need to be included in the system and comparable to ones offered by a competitive organization in the same area.
- Rewards need to be available to people in the same positions and be distributed fairly and equitably.
- The overall reward system needs to be multifaceted.

Rewards demonstrate to employees that their behaviour is appropriate and should be repeated. If employees do not feel that their work is valued, their motivation will decline. Ongoing education and training of all employees support the drive for quality. Employees are encouraged to take more responsibility, communicate more effectively, act creatively and innovate.

Quality teaching and learning at schools depend on staffing. For a school to be successful and effective, it requires a committed and well-trained work force that participates fully in the quality improvement activities. The educators should be the people who can provide the school with the expertise that is needed to run it successfully and to create a positive culture of teaching and learning. Therefore, continuous empowerment is the key to effective schooling and quality education.

2.2.5 Process and System Approach to Management

A desired result is achieved more effectively when related resources and activities are managed as a process. A process has to do with integrating a set of activities that use resources to transform inputs into outputs. Van der Westhuizen (2007:314) explains a process as the way in which people work to achieve results. Whenever several processes become interconnected using inputs and outputs, a system may result. Identification, understanding and management of interrelated processes as a system should contribute to the organization's effectiveness and efficiency in achieving its objectives. The system should be organized in order to achieve the goal in the most effective way possible, with a clear plan that can be implemented in the organization. It is important to understand the relationship among separate processes of the system and how they interrelate to form a complete system.

The important elements of a process approach for achieving quality management, according to Hill (2011), include the following:

- **Defining the process to achieve the needed results** – a process needs to be defined and described in details with the required results identified.

- **Identifying and quantifying the inputs and outputs of the process** – the inputs include human resource, energy and materials while the outputs would comprise work in progress and finished product or service.

- **Identifying where the process interacts with the various organizational functions** – the elements of a process will interface with various functional areas and these need to be identified as well as being quantified for an effective quality management procedure.

- **Setting key responsibility** – for a process to be effectively planned and implemented, specific responsibility, authority and scope will need to be clearly laid out for each individual with a role of the process.

- **Determining key stakeholders of the process** – internal and external customers, suppliers and other stakeholders who are involved in the process and its delivery should be identified.

Therefore, every organized activity should be seen as a process aiming to deliver products or services which satisfy the customer. An effective and efficient way to tackle process or quality improvement is through teamwork. High performing teams do not just appear, they are developed and nurtured. The development of high performing teams takes the combined efforts of visionary leaders and motivated team members.

To build an effective team, a leader should establish an organizational environment in which individual team members can reflect upon and analyse relationship with other team members. Teams should be composed of people with various backgrounds and types of knowledge, who can share ideas collaboratively and learn from each other to overcome challenges. However, people will not engage in improvement activities without commitment and recognition from the leaders.

The school should focus on improving the quality of the processes that influence the quality of the end product (van der Westhuizen, 2007). In classroom practice, the process of teaching should therefore, be emphasized. At the end the teacher and the learner experience success, happiness and pride in the processes and products of their work.

2.2.6 Factual Approach to Decision-Making

When it comes to decision making, the factual approach plays an important role within quality management (Hill, 2011). He emphasized that the ability to make effective and appropriate decisions is essential to ensure customer satisfaction, employee management and overall increased operations within the organization. Effective decisions should be based on the analysis of data and information. Facts are necessary to manage the organization at all levels. It is important to give correct information to people so that decisions are based upon facts rather than instincts to achieve continuous improvement. Decision-making should be based on data, not on personal or situational thinking. This will assist in making decisions based on circumstances requiring action. Hill (2011) identified some steps that can assist

organizations to implement the best strategies for decision making. They include the following:

- Take measurement and collect data and facts that are applied to the specific objective in order to begin the decision making process;

- Make sure that the data and facts are correct, reliable and accessible to all parties concerned in the decision making process;

- Analyse the data and facts using binding procedures and methods to ensure an effective overview of facts;

- Recognize the importance of applicable statistical techniques used within the decision making process; and

- Implement decisions and take appropriate actions based on the outcomes of valid analysis balanced with knowledge and insight.

As life-long learners, teachers recognize that their profession continues to evolve as they reflect and act on new information. The educators need to know the situation in which they are operating and have some ideas of what it is that needs to be done. Teachers vary in their conception of what data are and how data should be used. Educators should be trained on how to gather data with regards to programme effectiveness and learners' performance and on how to interpret data. Successful use of data for decision-making is not random, but results from a strategic focus on specific issues. Heritage and Chen (2005) propose five steps to effective data use, namely:

1. determine what you want to know;
2. collect or access data;
3. analyse results;
4. set priorities and goals; and
5. develop strategies.

Leadership has a responsibility to guide the process of data investigation that will result in improved results for learners' achievement. All these principles discussed above are interdependent on one another. It is clear that organizations depend on their customers and therefore should understand current and future customer needs,

meet customer requirements and strive to exceed customer expectations. Leaders should establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives. Continual improvement should be a permanent objective of the organization. People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit. A desired result is achieved more efficiently when related resources and activities are managed as a process. Effective decisions are based on the analysis of data and information.

The relationship between essential components of TQM discussed above is illustrated in the figure, below:

Figure 2.2: Relationship between TQM components

2.3   THE MANAGEMENT OF CHANGE

Change is something that is feared universally and people will jump upon any excuse to keep things as they are. Change is neither easy nor fast but it is possible.

Change management is a systematic approach to dealing with change and it involves defining and implementing procedures to deal with the changes and to profit from changing. The employee does not have a responsibility to manage change - the employee's responsibility is no other than to do their best, which is different for every person and depends on a wide variety of factors (health, maturity, stability, experience, personality, motivation, and etcetera). Responsibility for managing change is with management and executives of the organisation - they must manage the change in a way that employees can cope with it. The manager has a responsibility to facilitate and enable change, and all that is implied within that statement, especially to understand the situation from an objective standpoint, and then to help people understand reasons, aims, and ways of responding positively according to employees' own situations and capabilities. Increasingly the manager's role is to interpret, communicate and enable - not to instruct and impose, which nobody really responds to well.

According to Rouse (2010), change management has at least three different aspects which include, adapting to change, controlling change and effecting change. A proactive approach to dealing with change is at the core of all three aspects. The leadership should consider how it will affect the culture of the organization; who will be affected by change; what concerns may be raised; and how to handle all these issues.

Change is the only constant process which exists in organization (Armstrong, 2008). Armstrong (2008: 142) points out that the approach to the management of change will recognize that the key to success lies not only in a transformational leader, but also by understanding that change is implemented by people and that it is their behaviour and support that count.

Change management requires both an individual and an organizational perspective. The important thing in managing any type of organizational change is to understand how to manage with a single individual (Haitt, 2006). Haitt (2006) presents an easy to use **Prosci's model** for individual change called **ADKAR**, an acronym for

Awareness, **D**esire, **K**nowledge, **A**bility and **R**einforcement. In essence, to make a change successful an individual needs:

- awareness of the need for change;
- desire to participate and support the change;
- knowledge on how to change;
- ability to implement required skills and behaviours; and
- reinforcement to sustain the change.

ADKAR describes successful change at the individual level. When an organization undertakes an initiative, that change only happens when employees who have to do their jobs differently can say with confidence, "I have the Awareness, Desire, Knowledge, Ability and Reinforcement to make this happen".

Haitt (2006) outlines the **Prosci's model** for organizational change management process. This process is built on steps that a project team can complete for a particular change or initiative. Below is an outline of a 3 - phase process of change management:

Phase 1 - Preparing for change

The first phase in Prosci's methodology is aimed at **getting ready**. It answers the question: "How much change management is needed for this specific project?" The first phase provides the situational awareness that is critical for effective change management.

Outputs of Phase 1:

- Change characteristics profile
- Organizational attributes profile
- Change management strategy

- Change management team structure
- Sponsor assessment, structure and roles

Phase 2 - Managing change

The second phase of Prosci's process is focused on creating the **plans** that are integrated into the project activities - what people typically think of when they talk about change management. Based on Prosci's research, there are five plans that should be created to help individuals move through the ADKAR Model.

Outputs of Phase 2:

- Communication plan
- Sponsor roadmap
- Training plan
- Coaching plan
- Resistance management plan

Phase 3 - Reinforcing change

Equally critical but most often overlooked, the third phase of Prosci's process helps project teams create specific action plans for ensuring that the change is **sustained**. In this phase, project teams develop measures and mechanisms to see if the change has taken hold, to the see if employees are actually doing their jobs the new way and to celebrate success.
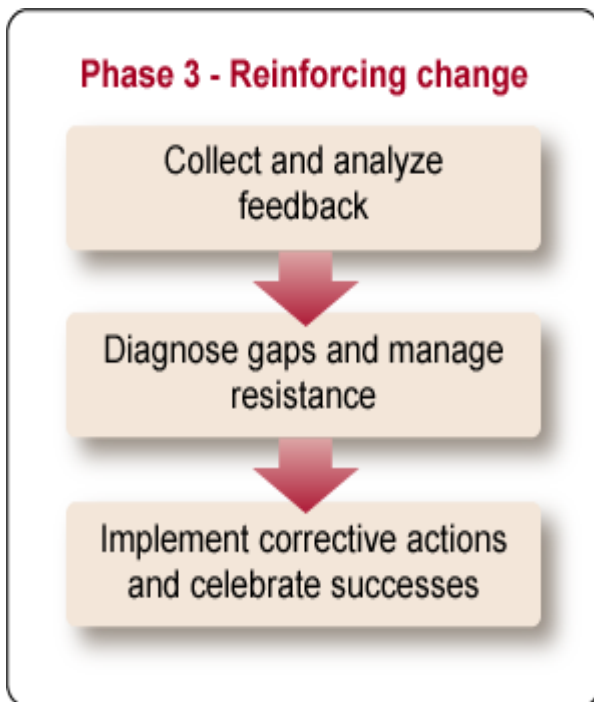
Outputs of Phase 3:

- Reinforcement mechanisms
- Compliance audit reports
- Corrective action plans
- Individual and group recognition approaches
- Success celebrations
- After action review

The linkage between individual change management and organizational change management is the key - and is what sets Prosci's approach apart from other change management methodologies. There are numerous models available that address individual change. There are also numerous models available that give guidance and structure to project activities for change management resources. The difference with Prosci's methodology is that it integrates individual change

management and organizational change management to ensure the achievement of business results.

The image below shows the connection between the change management tools developed in the organizational change management process and the phases of individual change described by the ADKAR model. This picture is the essence of effective change management and is the core of Prosci's change management methodology (Haitt, 2006).
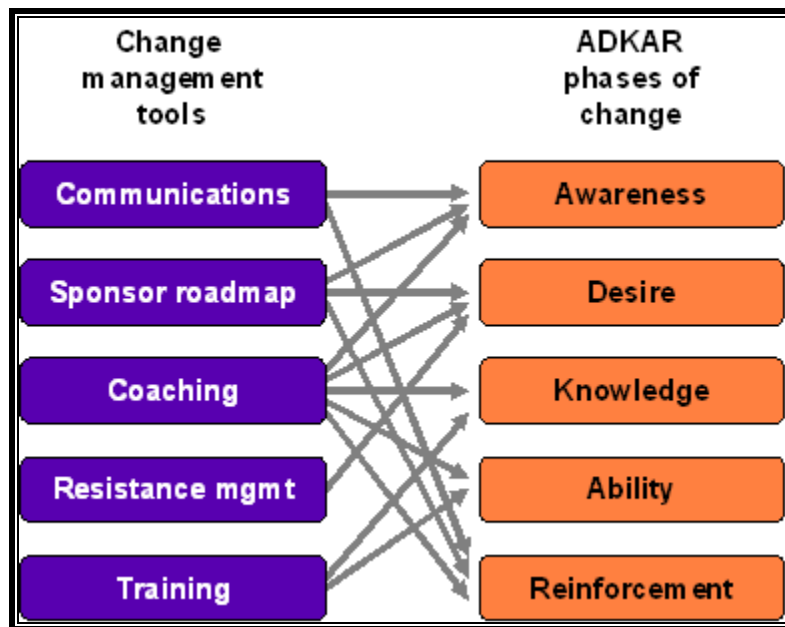
Figure 2.3: Connecting organizational and individual change management (Haitt, 2006)

Too often, leadership makes a mistake of believing that others understand the issues, feel the need to change, and see the new direction as clearly as they do. The management teams should focus on creating a communication plan that clearly articulates the vision of where they want to go and the benefits of doing so.

Managing school change and improvement is one of the most complex tasks of school leadership. As literature reveals (Fullan, 1993; Sparks, 1993), school leaders

need to understand the change process in order to lead and manage change and improvement efforts effectively. Successful school improvement requires establishment of clear vision and mission, knowledge of how well the school is accomplishing that mission, identification of areas for improvement, development of plans to change educational activities and programmes and implementation of those plans or new programmes effectively.

Kotter (2011) explains change management as the utilization of basic structures and tools to control organizational change effort. Van der Westhuizen (2007) sees change as a struggle between what is and what is desired. In the educational context of education management, change implies that school principals are exposed to new controls and regulations. The aim of change has been, and is always improvement. Change is also seen (van der Westhuizen, 2007) as a planned, systematic process that takes time to come to fruition, effected by individuals and is a highly personal issue. Turcotte (2003) views change as a three phase process that involves three different participants: the decision maker, the messenger and the implementer.

- **Decision maker** – must make decisions that generate the change. The individual, or group of individuals, identifies the need for change, researches and analyses the alternatives, and defines the parameters of the change.
- **Messenger** – is a person responsible for completing four important functions. Firstly, this person conveys the information from the decision maker. Secondly, a messenger serves as a buffer between the decision maker and the implementer. Thirdly, a messenger assists the implementer in understanding the desired outcome. Lastly, plays a critical role in motivating the implementer embrace the change.
- **Implementer** – is a person who is responsible for assessing the impact of the change, creates an implementation plan, implements the change, evaluates results, and improves the implementation based on the evaluation of its effectiveness.

Some people are quite comfortable and enthusiastic about change. These people are known in responding to new ideas by asking relevant questions. However, many people react to change negatively. As signs of resistance to change, they immediately begin to list all the possible reasons why the new idea is not going to work, attack the person delivering the message and begin to criticize the initiator of the idea.

Change is a process that needs to be managed (van der Westhuizen, 2007). The school principal is identified as the person who plays a major role in the school activities; and to a greater extent determines the school's success and failures when change is implemented. Therefore, the school principal needs certain skills in order to initiate and manage change successfully. According to van der Westhuizen (2007: 200), change is managed according to certain phases. He mentions planning as one of the key factors in the success of the implementation and acceptance of change. A number of aspects have been identified as guidelines for managing change successfully (van der Westhuizen, 2007), namely:

- Change is a process that occurs over time.

- Change is a multifaceted phenomenon.

- A variety of strategies and methods have to be used to bring about change.

- Change is a gradually process.

- Change has to do mainly with people.

- Change must be structured and pursued through well thought out strategies to prevent oversight or neglect of relevant issues.

- Existing structures in a school have to be altered if it appears that the intended changes will fail unless this is done.

- The implementation of change should rather be flexible than rigid.

Armstrong (2008) indicates that having decided why changes are necessary, what the goals are and how they are to be achieved, the most important task is to gain the commitment of all concerned to the proposed change. A strategy for gaining commitment to change should cover the following phases (Armstrong, 2008:148):

- *Preparation*. In this phase, the people likely to be affected by the proposed change are contacted in order to be made aware.

- *Acceptance*. In the second phase, information is provided on the purpose of the change, how it is proposed to be implemented and what effects it will have on those concerned. The aim is to achieve understanding of what the change means and to obtain positive reaction.

- *Commitment*. During this phase, change is implemented and becomes operational. The change process and people's reaction need to be monitored. There will inevitably be delays, setbacks, unforeseen problems and negative reactions from those faced with the reality of change. A response to these reactions is essential so that valid criticisms can be acted upon or reasons given why the change should proceed as planned.

It is important that leaders of school improvement link to others in the school and connect the school's goals to the broader and deeper mission of providing high quality learning for all students. Bamburg cited by Sledge and Morehead (2006) stated that leading successful change and improvement involves developing and managing six critical components of schooling, namely:

1) A clear, strong and collectively held education vision and mission;

2) A strong, committed professional community within the school;

3) Learning environments that promote high standards for student achievement;

4) Sustained professional development to improve learning;

5) Successful partnerships with parents and other stakeholders; and

6) A systematic planning and implementation process for instituting needed changes.

Effective change management results when potential negative impacts of the change are minimized and the overall desired outcomes are achieved within the schedule for the change. Organizational change occurs through the sustained, collective actions of employees who are responsible for designing, executing and living the change. It is important that the leadership provide training to build new skills and pay greater attention than usual to what the employees are doing. Organizations that are successful manage change on a daily basis. Since management is a process, a sequence of steps or activities should be followed. The diagram below represents the steps that need to be applied to manage change.
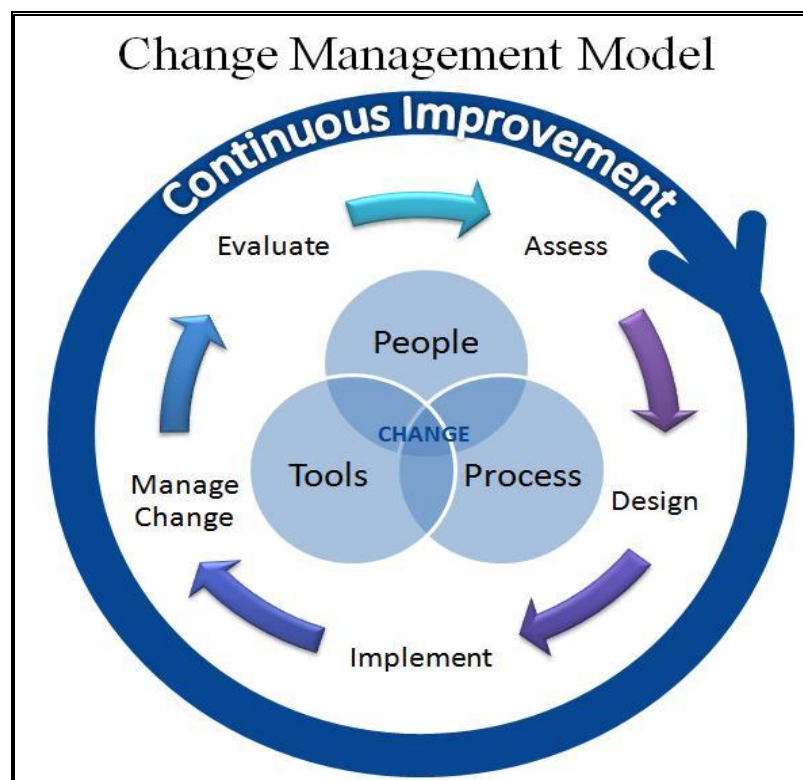
Figure 2.4: Model of Change Management (http://busification.com/change-management: 2012)

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2.4 IMPLEMENTATION OF TQM IN SCHOOLS

A preliminary step in TQM implementation is to assess the organization's current situation. The first decision is to identify where to begin. The implementation starts in the drawing board, where quality policy statement has to be made. The organization needs to understand how customers define quality in both goods and services offered (Turcotte, 2003). Schools are expected to provide learners with teaching and learning services that it is hoped will enable the learners to become useful citizens who will serve their communities.

A number of quality management systems that support TQM are instrumental in setting standards, and can be regarded as a vehicle for achieving them. According to van der Westhuizen (2007), there are processes that form the basis for understanding these quality management systems. These processes include:

- **Quality assurance**: it is about ensuring that the product works reliably in future and service activities being dependable and consistent. In education, it examines the aims, content, resourcing, levels and projected outcomes of programmes and courses.
- **Quality control**: it involves operational techniques and activities such as measuring, examining, testing and comparing these with specified requirements in order to determine whether they conform to the requirements.
- **Quality audit**: it is the means whereby the organization checks that the procedures are really being implemented and documented evidence should be available to prove it.
- **Quality assessment**: it is the judgement of performance against internal or external criteria.

These quality processes are supposed to be found in all quality systems in one way or the other.

In South Africa, an agreement was reached in Education Labour Relations Council **(ELRC)** to integrate the existing programmes, which are aimed at enhancing and

monitoring performance of the education system. These programmes are **Developmental Appraisal, Performance Measurement and Whole School Evaluation**. The preamble of Integrated Quality Management System (IQMS) Collective Agreement Number 8 (2003) states that for the Department of Education **(DoE)** and for all educators the main objective is to ensure quality public education for all and to constantly improve the quality of learning and teaching, and making everyone involved in education accountable to the wider community.

The philosophy underpinning the IQM is based on the fundamental belief that the purposes of the IQMS are fivefold:

- To identify specific needs of educators, schools and district offices for support and development;
- To provide support for continued growth;
- To promote accountability;
- To monitor an institution's overall effectiveness; and
- To evaluate an educator's performance to determine competence.

The implementation of IQMS is guided by the following principles as stated in the Collective Agreement Number 8 (2003), namely:

- The recognition of the crucial role of the delivery of quality public education.
- That all learners have equal access to quality education.
- The need for an Integrated Quality Management System which is understood, credible, valued and used professionally.
- That the system's focus is positive and constructive even where performance needs to improve.
- That the system includes the process of self-evaluation and discussion of individual expectations.
- The need to minimize subjectivity through transparency and open discussion, and quality controls to ensure validity, reliability and relevance.
- That the system promotes individual professional growth of educators, and ongoing support for educators and the school.
- The need for all schools to look for ways to continually improve.

Implementation of TQM ensures that organizations change the way they perform so as to eliminate inefficiency, improve customer satisfaction and achieve best practices (Porter, 1996). Jablonski (1992) offers a five-phase guideline for implementation of TQM, which includes preparation, planning, assessment, implementation and diversification. Each phase is designed to be executed as part of a long term goal of continuous improvement of quality.

- **Preparation:** during the preparation, management decides on how to pursue the TQM programme. They undergo initial training, identify needs for outside assistance, develop vision and goals, commit the necessary resources and communicate the goals throughout the organization.

- **Planning:** in the planning stage, a detailed plan of implementation is drafted, the infrastructure that will support the programme is established, and the resources necessary to begin the plan are earmarked and secured.

- **Assessment:** this stage emphasizes a thorough self-assessment of qualities and characteristics of individuals in the organization.

- **Implementation:** it is during this phase that support personnel are chosen and trained, and managers and employees are trained and making employees aware of what TQM is all about and how it can help the organization.

- **Diversification:** in this stage, managers utilize their TQM experiences and successes to bring the outside organization into the quality process. Diversification include training, rewarding, supporting and partnering with the groups that are embraced by the organization's TQM initiatives.

In 2008, the code which drives Quality Teaching and Learning Campaign (QTLC) was launched by former Minister of Education, Naledi Pandor. This campaign called for individuals and organizations to assume responsibility for improving the quality of education. The education elements of the campaign were to:

- inform citizens about importance of education and their roles, responsibilities and obligations towards education;
- mobilize communities to monitor and support schools, teachers and learners;
- improve the quality of education for all children, especially the poor; and
- demonstrate the improved quality through better learner achievements.

Therefore, implementation of TQM will ensure that the schools change how they perform activities so as to eliminate inefficiency. It will also ensure that every person does his work with quality the first time. The Education For All South Africa Country Report 2009 expresses a deep concern in the performance of the Education and Training system.   It contends that despite immense efforts and many tangible achievements, the system is not yet serving the needs and expectations of the South African society. The Department of Education has launched the Quality Learning and Teaching Campaign (**QLTC**) which strives to bring into reality the delivery of quality teaching and learning. **QLTC** is striving to turn all our schools into centres of excellence. One of the primary focuses of QLTC will be to monitor the delivery of quality learning and teaching in all public schools.
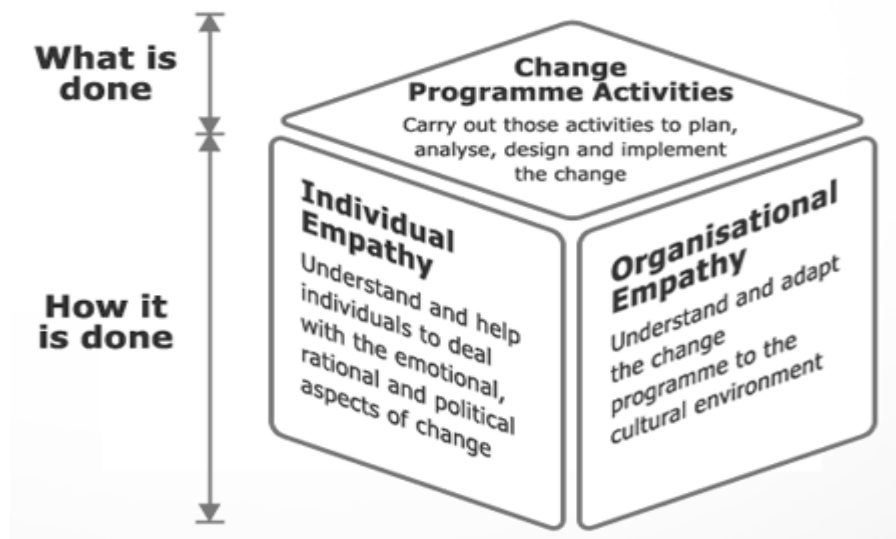
Figure 2.5: Programme of Change Management (http://busification.com/change-management: 2012)

2.5   THE BENEFITS AND LIMITATIONS OF TQM FOR SCHOOLS

Since TQM is a systematic approach designed to enhance performance, it helps with pre-empting and predicting mistakes that lead to inefficiency. TQM can influence the management of schools in a positive way. The main aim of TQM is to enhance efficiency by eliminating problems that arise at work. Basically, TQM relates to customer satisfaction. It therefore, aims at identifying the best quality to match customer satisfaction and expectations, thus doing the best in providing quality service.

TQM aims at improving organizational development. It does not only focus on making changes but also strives to prevent mistakes instead of correcting them. It improves the reputation of the organization since faults and problems are discovered and solved quickly. TQM focuses on the creation of team work, boosts employee morale resulting into motivated employees. The creation of department teams helps to encourage knowledge between departments. The broadening of skills results in improved performance in all departments. Moreover, this encourages flexibility in maintaining competitiveness. The employees become empowered through participation on quality improvement teams. TQM requires change in mindset, attitude and methods for performing the job. If the management does not effectively communicate the team approach, employees may become resistant to change which can lower their morale and resulting into lower performance.

Therefore, the total quality approach to education can have several benefits which include:
- increased customer satisfaction;
- improved programmes;
- improved student performance;
- improved educator motivation;
- improved co-operation between educators and management; and
- greater parental and public involvement in our schools.

Since schools have to equip learners to function to their fullest potential, then schools need to be dynamic in providing quality.

The transformation to quality is not without shortfalls. Many organizations started with the approach of quality but failed to achieve what they have set to achieve because of various reasons which may include:

- lack of management support;
- commitment by one department;
- failure to stay on the course;
- haphazard approach with no meaningful change in the system; and
- failure to provide training for employees and defining the meaning of quality.

However, with total commitment and consistency of purpose, these shortfalls can be overcome. The teaching profession is one of the professions that tend to be highly conservative and change seems to be difficult to implement. Many educators become reluctant to accept new methods of teaching. They may have taught successfully for 30 years using certain methods and they see no need to change.

2.6   CONCLUSION

In this chapter the theoretical framework upon which TQM philosophy founded has been closely looked at. It is evident that quality management is not easy to implement. TQM philosophy has basic quality elements which include continuous improvement, customer satisfaction, leadership, employee involvement, process approach, systems approach and factual approach to decision-making. The core of TQM is the customer care, both internally and externally. This core must be supported by commitment to quality, communication of the quality message and recognition of the need to change. Teamwork is of key importance to the successful implementation of TQM in schools as well as processes and systems.

Implementation of TQM will ensure that the schools change how they perform activities so as to eliminate inefficiency. It will also ensure that every person does his work with quality the first time. It is important to understand that high performance teams do not just appear; they are developed and nurtured. By themselves, leaders with vision cannot guarantee the development of such high performance teams, nor can members who desire to be part of such teams. The

development of high performance teams takes the combined efforts of visionary leaders and motivated team members. The success of quality depends on the commitment of top management and creation of forceful, positive vision for the institution. The schools are supposed to be led and managed by quality SMTs.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1   INTRODUCTION

The purpose of this chapter was to describe the research design and methodology that was used in this study. It also justifies the methodology used in collecting data.

3.2   OBJECTIVES OF THE STUDY

The general aim of this study was to investigate the influence of Total Quality Management on school improvement in secondary schools in the UThungulu District in KwaZulu-Natal. The objectives of the study included the following:

3.2.1 To determine the influence of Total Quality Management (TQM) in secondary schools;

3.2.2 To find out whether principles associated with the improvement of TQM in the study area do exist;

3.2.3 To assess the role played by stakeholders in the application of TQM for school improvement in the study area;

3.2.4 To examine the influence of the Integrated Quality Management System (IQMS) as a system to improve quality in schools; and

3.3 FORMULATION OF HYPOTHESES

Related to the above-mentioned objectives were few hypotheses which have been formulated to match the objectives. It was hypothesized that:

3.3.1 Total Quality Management (TQM) has no influence to secondary school performance improvement;

3.3.2 Principles associated with the improvement of TQM in the study area are non- existent;

3.3.3 The role played by stakeholders in the application of TQM for school improvement is minimal; and

3.3.4 The Integrated Quality Management System (IQMS) as a system to improve quality in schools is less effective.

3.4 RESEARCH DESIGN AND METHODOLOGY

Research is the study of materials, sources and data in order to generate conclusions. Getting the research design right is the first step towards organized research, which is more likely to be good research. The research design provides the structure of the research and links all of the elements of the research together. Babbie and Mouton (2001) distinguish research design from research methodology. They describe a research design as a plan or blue print of how one intends to conduct the research, whereas methodology as the process, tools and procedures to be used. Rubbin and Babbie (2001) clarify in their statement that the term research design has two connotations.   One connotation implies alternative logical arrangement to be chosen. This implies to experimental research design, correlation research design and others in that category. In contrast, the second connotation includes all the decisions one make in planning a study. Decisions are not only

about the whole design to use, but also about sampling, sources and procedures for collecting data, measurement issues and data analysis plans.

Methodology is concerned about ways in which research is carried out, that is, its structure and process, as well as with the way in which the information is analysed. The methodology of research helps the researcher to move towards analysis, assessment and interpretation of data to be able to make reasonable judgements and conclusions about the topic in question. The research methodology allows for a combination of a variety of techniques which is considered advantageous. Gathering a number of separate impressions is accepted as means of providing a fuller picture of the way respondents experience and perceive the research question. It is the research methodology which determines whether the researcher has been successful or not in an attempt towards finding the truth about the hypotheses stated. This section describes the research strategies to be employed towards reaching the recommendations for the study. It focuses on how data had been collected, manipulated and managed.

3.5   THE RESEARCH INSTRUMENT

Data were collected through the questionnaire. Questionnaires were administered to obtain information from the high school educators of all levels, that is, Post Level 1 educators, Heads of Departments, Deputy Principals and Principals. A questionnaire is simply a tool made up of questions for collecting and recording information about a particular issue of interest. Tuchman (1978) explains a questionnaire as a way of getting data about persons by asking them rather than watching them behave or get into activity. New Dictionary of social work cited by De Vos *et al* (2003:172) explained a questionnaire as a set of questions on a form which is completed by the respondents in respect of a research project. According to De Vos (2003:172), a questionnaire usually contains statements on which respondents are requested to react. The basic objective of such a questionnaire is to obtain facts

and opinions about a phenomenon from the people who are informed on a particular issue.

An appropriate and reliable instrument for research for collecting data is an important research mechanism to have and utilize. The personal questionnaire will be used as the main tool for gathering information. A personal questionnaire is the one which is handed to the respondent to complete on his own, but the researcher is available in case problems are experienced (De Vos *et al.*, 2003). The researcher limits his own contribution to the completion of the questionnaire to the absolute minimum. A questionnaire is a way of getting information by asking people rather than observing them. The written questionnaire will help the researcher a great deal because more information will be collected within a very short space of time. The anonymity of the respondents will avoid being bias. The respondents will respond genuinely.

3.5.1 Advantages and Disadvantages of the Questionnaire

Questionnaires are a method used to collect standardized data from large numbers of people. A questionnaire is regarded as the main means of collecting quantitative information. Questionnaires are frequently used in quantitative marketing research and social research (www.wikipedia.org.uk, 2012). A questionnaire enables quantitative data to be collected in a standardized way so that the data are internally consistent and coherent for analysis. Researchers usually use questionnaires in order that they can make generalizations. Whatever their form may be, questionnaires are often viewed as quick and easy to do. However, it is important to be clear about the aim of the questionnaire and how responses will help to improve the learning.

Marshal (2005) identified the following **advantages** of a questionnaire. They are as follows:

- Questionnaires may be a "cost effective way" of obtaining data from a large audience; for example, from large numbers of population. Questionnaires need to be properly planned in order to get data of high quality that can be used for analysis.

- Participants may not like to be identified for having taken part in the research; therefore, questionnaires can be an effective tool to gather information from respondents, who do not like to be identified. Participants may be honest when giving answers if they know that they would not be identified. Most respondents who take part in questionnaires would know what information is being asked about them.

- Questionnaires can be designed to target a certain "audience even if they are geographically spread". Depending on the design of the questionnaire, the data collected may either be quantitative or qualitative.

- Questionnaires can be carried out by the researcher or by any number of people with limited affect to its validity and reliability.

- The results of the questionnaires can usually be quickly and easily quantified by either a researcher or through the use of a software package.

- When data has been quantified, it can be used to compare and contrast other research and may be used to measure change.

- Another good thing about questionnaire is that they "reduce bias". The responses are gathered in a standardized way, so questionnaires are more objective, certainly more than interviews.

- Effective questionnaires may be designed in such a way that the questions are short and focused.

As much as the questionnaires have advantages, but there are problems. The following are the **disadvantages** of questionnaires as described by Milne (1999):

- Questionnaires are standardized so it is not possible to explain any points in questions that participants might misinterpret. The respondents may not understand the questions and therefore, give answers that they may not have

given if they had understood the question. This could be partially solved by piloting the questions on a small group of students or at least friends and colleagues.

- Questionnaires, like many evaluation methods, occur after the event; so participants may forget important issues.

- Open-ended questions can generate large amounts of data that can take a long time to process and analyse. One way of limiting this would be to limit the space available for respondents so their responses are concise or to sample.

- Participants may not be willing to answer the questions. They might not wish to reveal the information or might think that they will not benefit from responding perhaps even be penalized by giving their real opinion. Participants should be told why the information is being collected and how the results will be beneficial. They should be asked to respond honestly and told that if their response is negative; this is just as useful as a more positive opinion. If possible, the questionnaire should be anonymous.

- There is a level of researcher imposition, meaning that when developing the questionnaire; the researcher is making his/her own decisions and assumptions as to what is and what is not important. Therefore, they may be missing something that is of importance.

Therefore, to collect quantitative primary data, a researcher must design a questionnaire. The questionnaire must translate the information needed into a set of specific questions.

3.5.2 Questionnaire Construction

Questionnaires usually form an integral part of descriptive and opinion-related surveys (Eiseleni *et al.*, 2005). Questionnaires can either be in the form of a self-administered questionnaire where respondents are requested to complete the questionnaire in his/her time or in the form of a structured interview, where the interviewer (usually the researcher) writes down the answers of the respondent

during a telephone or face-to-face interview. Irrespective of which method is used, the formulation of questions and structure of the questionnaire are critical to the success of the study.

No scientific principles guarantee an optimal or ideal questionnaire. Designing a questionnaire is as much an art as it is a science. In order to gather useful and relevant information, it is essential that careful consideration is given to the design of the questionnaire. Adequate questionnaire construction is critical to the success of a survey. Inappropriate questions, incorrect ordering of questions, incorrect scaling, or bad questionnaire format can make the survey valueless, as it may not accurately reflect the view and opinions of the participants (www.wikipedia.org.uk, 2012).

A questionnaire should be designed with the target respondents in mind, taking into account their educational level and experience. The language used and the context of the questions must all be familiar to the respondents. A well-designed questionnaire requires thought and effort, and needs to be planned and developed in a number of stages.

Below is a diagrammatical representation of different stages for a questionnaire development:

Source: http://www.questionnaireconstruction.gov.uk
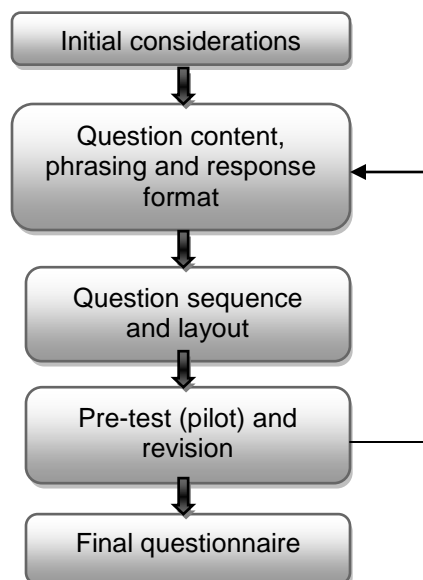
Firstly, it is important to be clear about the type and nature of information one needs to collect and exactly who the target population is. Secondly, the aspect of questionnaire design relates to the questions themselves. Writing questions is a creative process and there is no standard format for a "good" question. The use of standardized questions is also worth considering. Thirdly, questions should be numbered and ordered in a way that is logical to the respondent. Fourthly, it is good practice to pilot or pre-test one's questionnaire with a small sample of respondents before use. Lastly, any amendments highly highlighted by the pilot should be made to the questionnaire before issuing a final version.

The questionnaire will be designed to determine the relationship between TQM and school improvement. The questionnaire was handed to schools in the Uthungulu District which is made up of 5 circuits, namely, Umhlathuze Circuit, Umfolozi Circuit, Umlalazi Circuit, Mthonjaneni Circuit and Inkandla Circuit. These circuits combine to form 22 wards. The research concentrated mainly on School Management Teams **(SMTs)** and educators at post level 1 (PL1 educators) from senior secondary schools (high schools).

School **SMTs** and **PL1 educators** were selected to include those with little experience, moderate experience and considerate experience. Little experience will range from 4 months to 4 years, moderate experience will range from 5 years to 10 years and considerate experience will range from 11 years and above. This will be done to ensure that a clear picture is presented with regard to how quality management is practiced in schools. In order to obtain information needed for the purpose of this survey, the questionnaire was sub-divided into three parts. The first part **(Section A)** consisted of the biographical information of the respondents, namely, circuit, gender, age, rank, qualification and teaching experience. The second part **(Section B)** required the respondents to indicate their degree of understanding and of the TQM principles and practices by using a rating scale utilizing a five-point Likert scale of 1 to 5; where 1 is **Agree (A), 2 is Fully Agree (FA), 3 is Disagree (D), 4 is Fully Disagree (FD) and 5 is Don't Know**. The third

part **(Section C)** required the respondents to express their opinions about TQM practices and principles utilizing a four-response alternatives using, **Yes, No, Not Sure** and **I do not know**.

3.5.3 Validity and Reliability

The two most important and fundamental characteristics of a measuring instrument procedure are validity and reliability. The validity of a questionnaire relies on reliability. If the questionnaire cannot be shown to be reliable, then validity is out of question. Reliability is a characteristic of the instrument itself, but validity comes from the way the instrument is employed.

3.5.3.1 Validity

Validity is concerned with the fact that the questionnaire should measure what it intends to measure. Validity refers to the extent to which the instrument measures what it purports to measure (www.evensenwebs.com/validity.html).   According to Bostwick and Kyte cited by De Vos (2003:166), a valid measuring instrument has been described as doing what it is intended to do, as a measuring what it is supposed to measure, and as yielding scores whose differences reflect the true differences of the variable being measured rather than random or constant error. There are many different types of validity.   For the purpose of the study the researcher only discusses two, namely, content validity and face validity.

Content validity pertains to the degree to which the instrument fully assesses or measures the construct of interest.   According to De Vos (2003: 167), content validity is concerned with the representativeness or sampling adequacy of the content of an instrument.   To determine content validity, two questions need to be asked, firstly, if the instrument really measures the concepts assumed it is; secondly, if the instrument provides an adequate sample items that represent that concept.

Face validity is a component of content validity and is established when an individual reviewing the instrument concludes that it measures the characteristic or trait of instrument. De Vos (2003) indicates that the terms face validity and content validity are often used interchangeably in research literature, although some methodologists argue that they should not be thought of as synonyms. Nevertheless, face validity is a desirable characteristic of a measuring instrument. Without it, one may encounter resistance on the part of respondents, which may in turn adversely affect the results obtained.

On the validity of the instrument, the researcher with the assistance of the supervisor carries out a pilot study to appraise the questionnaire soundness of the items and to estimate time required to answer the items.

3.5.3.2 Reliability

Reliability is defined as an assessment of consistency of an instrument. Reliability is the extent to which a questionnaire, test or any measurement procedure produces the same results on repeated trials. It is the stability or consistency of scores over time. Reliability pertains to scores not respondents. Miller (2000) distinguishes among three aspects of reliability which include equivalence, stability and internal consistency. *Equivalence* refers to amount of agreement between two or more instruments that are administered at nearly the same point in time. *Stability* occurs when the same or similar scores are obtained with repeated testing with the same group of respondents. Internal consistency concerns the extent to which items on the test or instrument are measuring the same thing. Internal consistency can be determined by asking a question or questions in more than one way. The responses can then be compared as before.

The most common method of estimating reliability of questionnaire used is Cronbach's coefficient alpha. Cronbach's coefficient alpha estimates the consistency of items included in the questionnaire. Therefore, the researcher has

used the same method to check reliability. The final version of the questionnaire were administered after the validity and reliability studies were completed

3.6   METHOD OF CODING OR SCORING AND PLANNING FOR DATA ANALYSIS

Coding is the process of converting questionnaire data into meaningful categories to facilitate analysis. Closed questions on a questionnaire can be pre-coded. This means that a number is assigned in advance to each possible answer. Coding will enable a quicker and easier data entry. It is important to choose appropriate and consistent codes for all variables in advance. The researcher needs to think about the coding scheme at the beginning of the study, for example by numbering the response tick boxes for each question. This will allow the researcher to enter data directly from the questionnaire for analysis. The numbers in the boxes will correspond to the variables in the coding sheet, which will be entered in the database.

3.6.1 Method of Data Analysis

Data can be defined as a collection of scores obtained when a subject's characteristics and/or performance are assessed. Data analysis was informed by the research questions. Descriptive and inferential statistics were used especially the mode to determine the most frequent responses on the factor under study. **Descriptive statistics** are procedures used to summarize, organize, and make sense of a set of scores or observations. It is a term given to the analysis of data that helps describe, show or summarize data in a meaningful way. Descriptive statistics do not, however, allow us to make conclusions beyond the data one has analysed or reach conclusions regarding any hypotheses one has made. Descriptive statistics are typically presented graphically, in tabular form (in tables), or as summary statistics (single values). Gay (1996) explains that researchers use procedures that allow them to interpret or infer the meaning of data. These procedures are called **inferential statistics.** These procedures allow researchers to

infer or generalize observations made with samples to the larger population from which they were selected. Frequency tables, percentages and means were used to analyse data. Responses in the questionnaires were coded, tabulated and processed by the use of a computer.

Data analysis was accomplished by using the Statistical Package for the Social Science (SPSS) programme. Two statistical techniques were used in the analysis based on their relevance to the research questions. These are frequency analysis and cross-tabulation analysis. Frequency analysis produces a table of frequency counts and percentages for the value of an individual variable. It was used in this research to provide descriptive information of the data as frequency and distribution of the responses, and to summarize the responses to each question. The frequencies of various variables in this research will be tabulated. The second statistical technique to be used was cross-tabulation. Cross-tabulation allows the researcher to see whether or not there is a relationship between two variables. To say that there is a relationship between two variables means that the distribution of values on one of the variables is in some way linked to the distribution of values on the second variable (Kothari, 2006). The cross-tabulation analysis will help to answer the research questions. Lastly, findings, conclusions and recommendations will be made and based on the data analysis and hypotheses formulated.

3.7   PILOT STUDY

It is essential that one pre-pilot one's questionnaire to identify any ambiguities in the questions and to identify the range of possible responses for each question. The pre-pilot is not a formal procedure, but more of an information-gathering exercise. It is a good practice to pilot or pre-test a questionnaire with a small sample of respondents before use. The pilot helps to check the understanding and the ability of the respondents to answer the questions. A pilot study is defined as the process whereby the research design for a prospective survey is tested (De Vos, 2003:211). It can be regarded as a small-scale trial run of all the aspects planned for the use in

the main inquiry. Pilot study is described as a pre-study of a fuller study. The term *pilot study* is used in two different ways in social science research. It can refer to so-called feasibility studies which are "small scale version(s), or trial run(s), done in preparation for the major study" (Polit *et al.*, 2001: 467).

However, a pilot study can also be the pre-testing or 'trying out' of a particular research instrument (Baker 1994: 182-3). One of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated. These are important reasons for undertaking a pilot study, but there are additional reasons; for example, convincing funding bodies that your research proposal for the main study is worth funding. According to Gilbert (2001), pilot studies are conducted for a range of different reasons which include:

- developing and testing adequacy of research instruments;
- assessing the feasibility of a (full-scale) study/survey;
- designing a research protocol;
- assessing whether the research protocol is realistic and workable;
- establishing whether the sampling frame and technique are effective;
- assessing the likely success of proposed recruitment approaches;
- identifying logistical problems which might occur using proposed methods;
- estimating variability in outcomes to help determining sample size;
- collecting preliminary data;
- determining what resources (finance, staff) are needed for a planned study;
- assessing the proposed data analysis techniques to uncover potential problems;
- developing a research question and research plan;
- training a researcher in as many elements of the research process as possible;
- convincing funding bodies that the research team is competent and knowledgeable;

- convincing funding bodies that the main study is feasible and worth funding; and

- convincing other stakeholders that the main study is worth supporting

Therefore, as a pre-test, a pilot study consisting of few respondents was undertaken. The pilot study was undertaken to check the respondents' attitudes as well as their understanding to the questions posed to them. The respondents were also required to express their opinions in some of the questions. This investigation provides a much-needed basis for future research, more especially, the support structures that should be provided to enable effective management structures for schools.

3.8   SAMPLING

The sample should be representative of the population to ensure that one can generalize the findings from the research sample to the population as a whole. It is incumbent on the researcher to clearly define the target population. There are no strict rules to follow, and the researcher must rely on logic and judgement. The population is defined in keeping with the objectives of the study. Sometimes, the entire population will be sufficiently small, and the researcher can include the entire population in the study. This type of research is called a census study because data is gathered on every member of the population. Usually, the population becomes too large for the researcher to attempt to survey all of its members. A small, but carefully chosen sample can be used to represent the population. A population is a group of individuals, persons, objects, or items from which samples are taken for measurement, for example, a population of presidents or professors, books or students (Kothari, 2006). The sample reflects the characteristics of the population from which it is drawn.

A sample is a subset of your population by which you select participants in your study. A sample is a relatively small subset of people, objects, groups, or events, selected from the population. Sampling is simply stated as selecting a portion of the

population, in one's research area, which will be a representation of the whole population. Sampling is performed so that a population under study can be reduced to a manageable size. A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Altman, 1991). When dealing with people, it can be defined as a set of respondents (people) selected from a larger population for the purpose of a survey.

Sampling methods are classified as either *probability* or *non-probability*. In probability samples, each member of the population has a known non-zero probability of being selected. Probability methods include random sampling, systematic sampling, and stratified sampling. In non-probability sampling, members are selected from the population in some non-random manner. Random sampling is a procedure used by researchers in which all samples of a particular size have an equal chance to be chosen for an observation, experiment, and etcetera (Woken, 2010; Altman, 1991).

Random sampling is the purest form of probability sampling. Each member of the population has an equal and known chance of being selected. When there are very large populations, it is often difficult or impossible to identify every member of the population, so the pool of available subjects becomes biased. There is no predetermination as to which members are chosen for the sample. This type of sampling is done in order to minimize scientific biases and offers the greatest likelihood that a sample will indeed be representative of the larger population. The aim here is to make the sample as representative of the population as possible. Random sampling provides the greatest probability that the distribution of scores in a sample will closely approximate the distribution of scores in the overall population.

Systematic sampling is often used instead of random sampling. It is also called an Nth name selection technique. After the required sample size has been calculated, every Nth record is selected from a list of population members. As long as the list does not contain any hidden order, this sampling method is as good as the random

sampling method. Its only advantage over the random sampling technique is simplicity. Systematic sampling is frequently used to select a specified number of records from a computer file.

Stratified sampling is commonly used probability method that is superior to random sampling because it reduces sampling error. A stratum is a subset of the population that shares at least one common characteristic. The researcher first identified the relevant stratums and their actual representation in the population. Random sampling was then used to select a sufficient number of subjects from each stratum.

3.8.1 Sampling Error

Black *et al.* (1998) indicate that a sample is expected to mirror the population from which it comes. However, there is no guarantee that any sample will be precisely representative of the population. Chances may be that a disproportionate number will be made. Furthermore, Black *et al.* (1998) indicate that sampling error can make a sample unrepresentative of its population. Sampling error may be due to either bias or chance (Black *et al*, 1998). Sampling bias is a tendency to favour the selection of participants that have particular characteristics. Sampling bias is usually the result of a poor sampling plan and can be minimized by the wise choice of sampling procedures. The chance component exists no matter how carefully the selection procedures are implemented and can be minimized by selecting a sufficiently large sample.

In this research a random sample of 22 schools from 22 wards in the Uthungulu District has been drawn and stratified according to Principals, Deputy Principals, Heads of Departments and Post Level 1 educators. Respondents remained anonymous and high level of confidentiality had been kept. The respondents were reassured that information they provide on the questionnaire will be kept confidential. This means that their identities or personal details will not be disclosed to others, except for research purposes and that any data used in the report will not be linked to the respondents.

The research was conducted in the form of a field study. A letter requesting permission to conduct research in the Uthungulu District was forwarded to the District Director. The copies of letter of approval had been made and accompanied the questionnaire to the educators for the attention of principals. After the questionnaires were distributed, they were collected by the researcher from schools.

3.9   CONCLUSION

This chapter outlines the important aspects about research design and methodology to be followed in the undertaking of this research. It indicates that to collect quantitative data, a researcher will design a questionnaire. It indicates the necessary steps for designing a questionnaire, together with issues surrounding the coding and analysis of data. This chapter also makes it clear that effectiveness of all these design decisions will be assessed in a pre-test or piloting the questionnaire and also that sampling should be conducted accordingly. This section describes the research strategies to be employed towards reaching the recommendations for the study. It focuses on how data had been collected, manipulated and managed.

CHAPTER FOUR

ANALYSIS OF DATA

4.1   INTRODUCTION

The purpose of this chapter was to present, discuss and interpret data collected by means of questionnaires administered to educators of Uthungulu District in KwaZulu-Natal; and to reduce the data into intelligible and interpretable form. The researcher's aim is to develop concepts, insights and understanding from patterns in the data (Taylor and Bogdan, 1984). The comments are made on the basis of the apparent patterns and trends the responses reflect. However, most of the data presented is taken as self-explanatory and comprehensive. Data are presented in tables, graphs and word explanations and later, a more detailed interpretation of results is presented.

The participants in this study were from educators of ages between 21 and 61 and above, both males and females. The questionnaires were distributed to 200 educators stratified according to gender, age, and rank, and all questionnaires were returned. The questionnaire required information on the following areas: biographical information, knowledge on Quality Management, and personal opinions on Total Quality Management and School improvement.

4.2   BIOGRAPHICAL INFORMATION

In this section the participants were required to give information on age, gender, educational level, rank, as well as the teaching experience of an educator.

4.2.1 Gender Distribution

Table 4.1: Gender [N=200]

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
GENDER	Males	75	37.5	37.5
	Females	125	62.5	**100.0**
	Total	**200**	**100.0**	

Table 4.1 shows broad results of the collected and analysed data concerning gender. The table indicates that females interviewed were in the majority whereas males were less. Data show an uneven gender split with majority female comprising 62.5% and males 37.5%. This indicates that there are more females than males in schools.
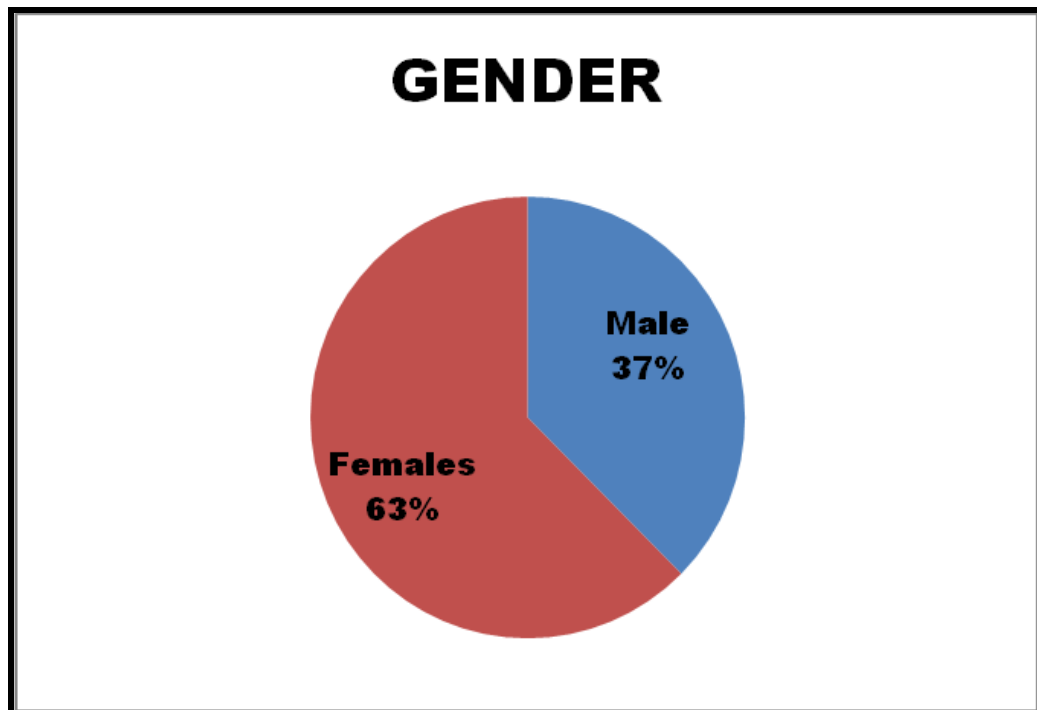
Figure 4.1: Gender

4.2.2   Age Distribution

The second variable is 'age' distribution of 200 participants, which shows that the participants between the ages 31 to 40 form a relatively high percentage, 36.5% (73) followed by ages between 41 -50 with 34% (68). Ages between 51– 60 are the least with 8.5%, (17). This is evident in Table 4.2. This indicates that based on age there is still more educators who could potentially remain in the system for a longer period. These are the educators who are supposed to assist and mentor young and new educators in schools.

Table 4.2: Age distribution [N=200]

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
	21 – 30	42	21.0	21.0
	31 – 40	73	36.5	57.5
AGE	41 – 50	68	34.0	70.5
	51 - 60	17	8.5	**100.0**
	Total	**200**	**100.0**	
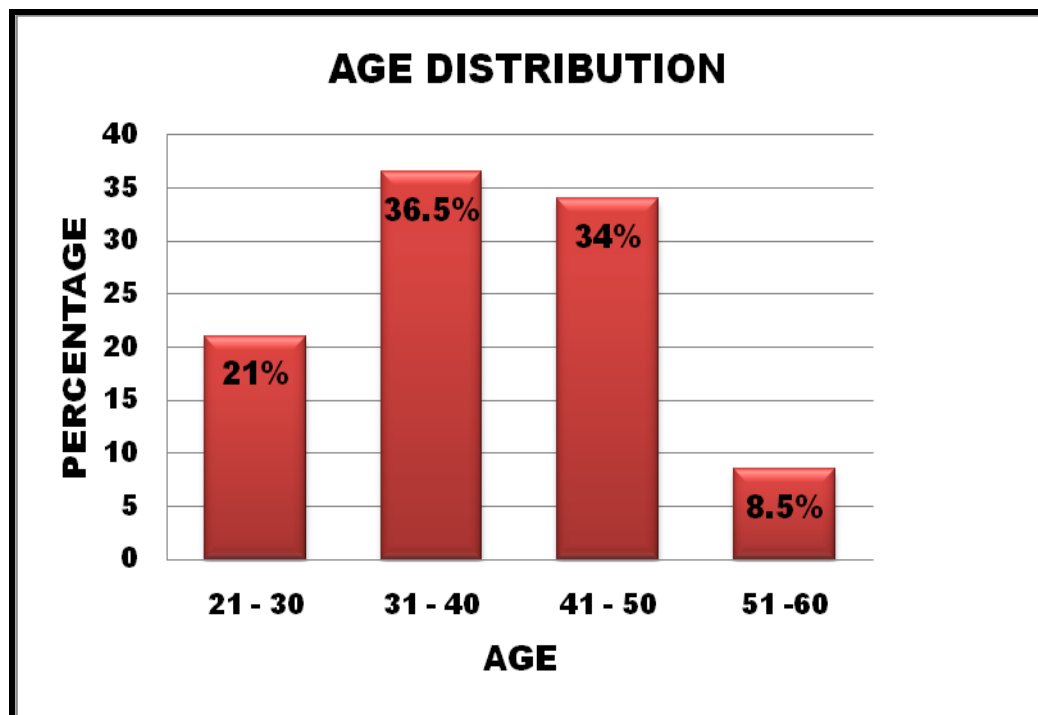
Figure 4.2: Age

4.2.3 Educational Qualifications

Table 4.3: Educational level [N=200]

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
EDUCATIONAL LEVEL	Post-Matric Cert.	8	4.0	4.0
	Post-Matric Dipl.	39	19.5	23.5
	Bachelor's Degree	95	47.5	71.0
	Honour's Degree	46	23.0	94.0
	Master's Degree	4	2.0	96.0
	PGCE	8	4.0	100
	Total	**200**	**100.0**	

Table 4.3 reveals the distribution of the highest level of academic qualifications among the educators. It is evident that most of the participants are comparatively qualified. It is also noted that the participants with Bachelor's degrees are the highest, 47.5% (95) followed by the participants with Honour's degree, 23.0% (46) and the lowest are the participants with Master's degrees, 2.0% (4). This indicates that the highest number of educators are qualified with degrees while only few educators that possess certificates and diplomas.
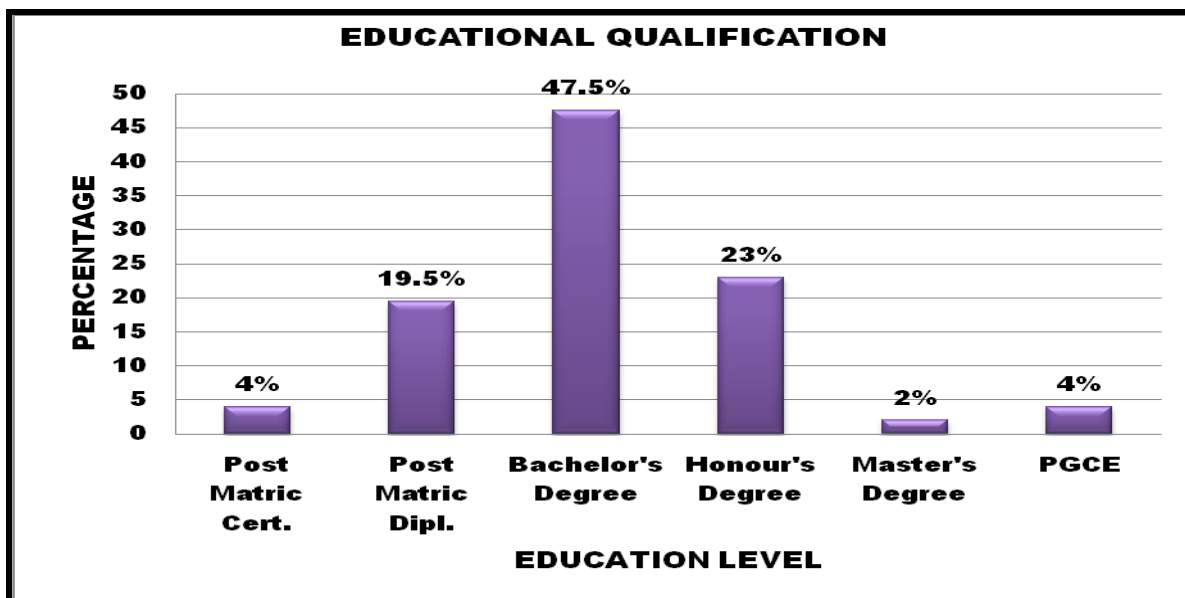
Figure 4.3: Educational Qualification

4.2.4 Rank

Table 4.4: Rank [N=200]

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Rank	Educator PL1	149	74.5	76.9
	H.O.D	25	12.5	89.4
	Dep. Principal	16	7.5	95.0
	Principal	10	5.0	100.0
	Total	**200**	**100.0**	

The questionnaires were distributed among four different levels or ranks of educators, namely, educators PL1, HODs, Deputy Principals and Principals. The table above shows that PL1 educators are a majority, 74.5% (149), followed by HODs, 12.5% (25), Deputy Principals, 7.5% (16) and Principals, 5.0% (10). This is also indicated by figure 4.4. This indicates that most educators are in Post Level 1 and as one increases with level, there is a decrease in number.
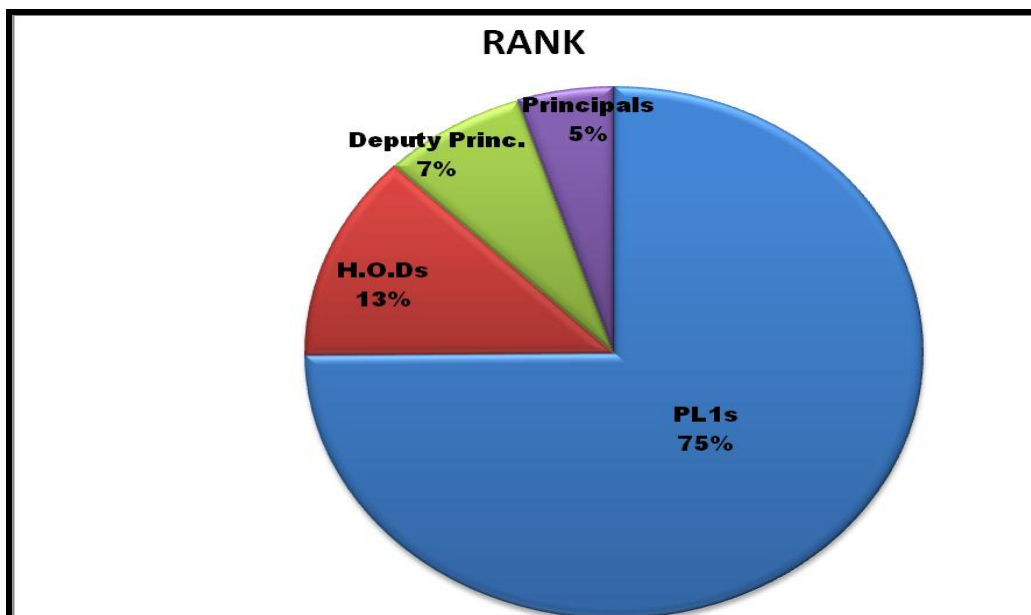
Figure 4.4: Rank

4.2.3 Teaching Experience

Table 4.5: Teaching Experience

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
	0 – 5	50	25.0	25.0
	6 – 10	41	20.5	45.5
	11 – 15	33	16.5	62.0
Teaching Experience	16 – 20	42	21.0	83.0
	21 – 25	19	9.5	92.5
	26 – 30	11	5.5	98.0
	31 and above	4	2.0	100.0
	Total	**200**	**100**	

Table 4.5 reveals that the highest percentage, 25.0% (50) of the participants have the teaching experience from 0 to 5 years, followed by participants, 21.0% (42) with 16 to 20 years. Participants with teaching experience between 6 to 10 years make 20, 5% (41), those between 11 and 15 make 16.5% (33). The table also indicates that those participants with 31 and above teaching experience are the least with 2% (4). More educators are well experienced, that is, from 11 years upwards. This indicates that if there are more experienced educators in schools, quality work is expected since these educators are more knowledgeable about their work.
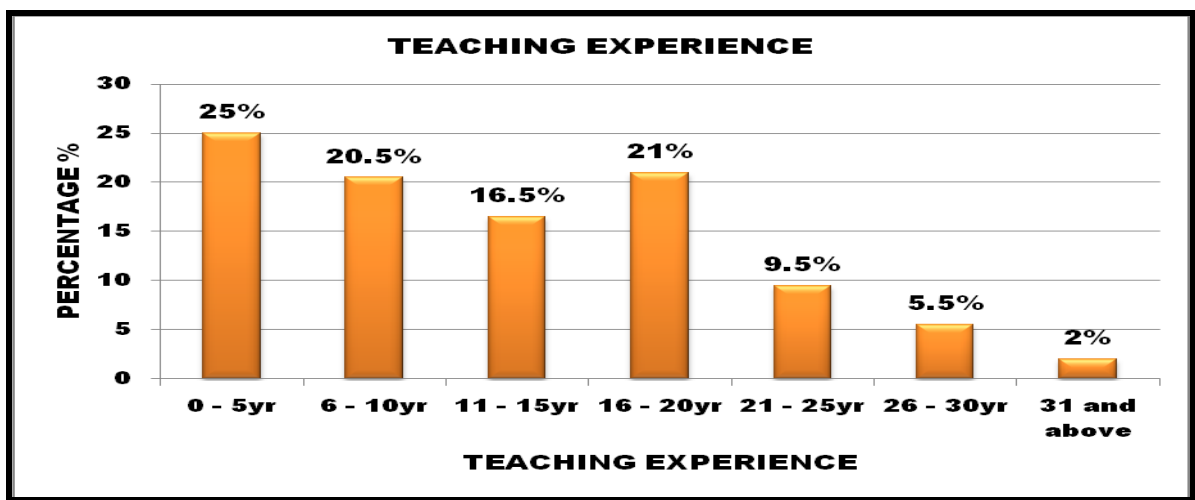
Figure 4.5 Teaching Experience

4.3 DISTRIBUTION OF PARTICIPANTS BASED ON TOTAL QUALITY MANAGEMENT AND SCHOOL IMPROVEMENT

The tables and figures that follow below illustrate the responses by the participants pertaining Total Quality Management and school improvement.

4.3.1 Customer-Focused Mission Statement Available

Table 4.6: Customer-Focused Mission Statement Available

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Customer-Focused Mission Statement	Yes	177	90.3	90.3
	No	1	.5	90.8
	I do not know	18	9.2	100.0
	Total	**196**	**100.0**	

When the participants were asked if the school has a clear, customer-focused mission statement, Table 4.6 reveals that the majority, 90.3% (177) said that it was available in their schools, while only 9.2% (18) of participants had no idea of what it is.
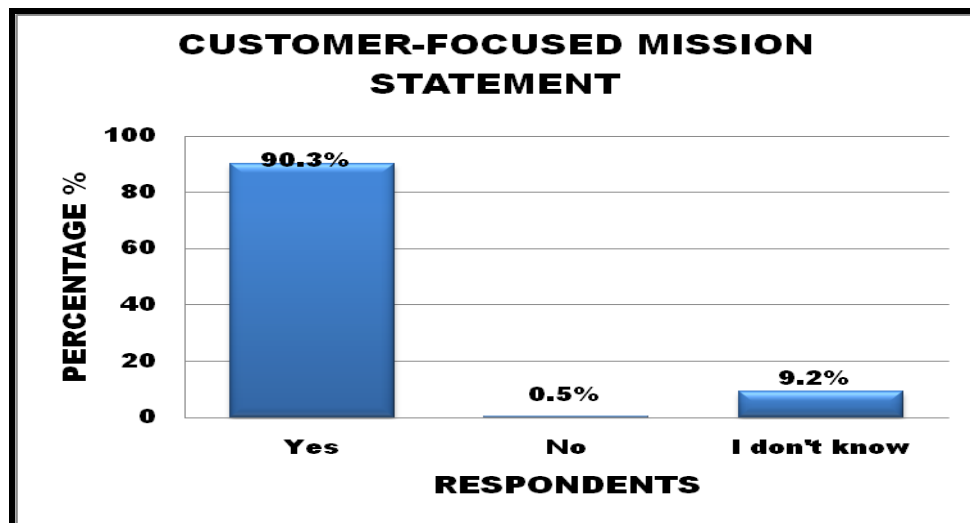
Figure 4.6: Customer-Focused Mission Statement

4.3.2 Knowledge of Vision and Mission Statement

TABLE 4.7: Knowledge of Vision and Mission Statement

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Knowledge of Vision and Mission Statement	Yes	170	87.2	87.2
	No	16	8.2	95.4
	I do not know	9	4.6	100.0
	Total	**195**	**100.0**	

Table 4.7 reveals that the majority, 87.2% (170) of the participants know the vision and mission statements of their schools, while only 8.2% (16) participants did not know the vision and mission statements of their schools.
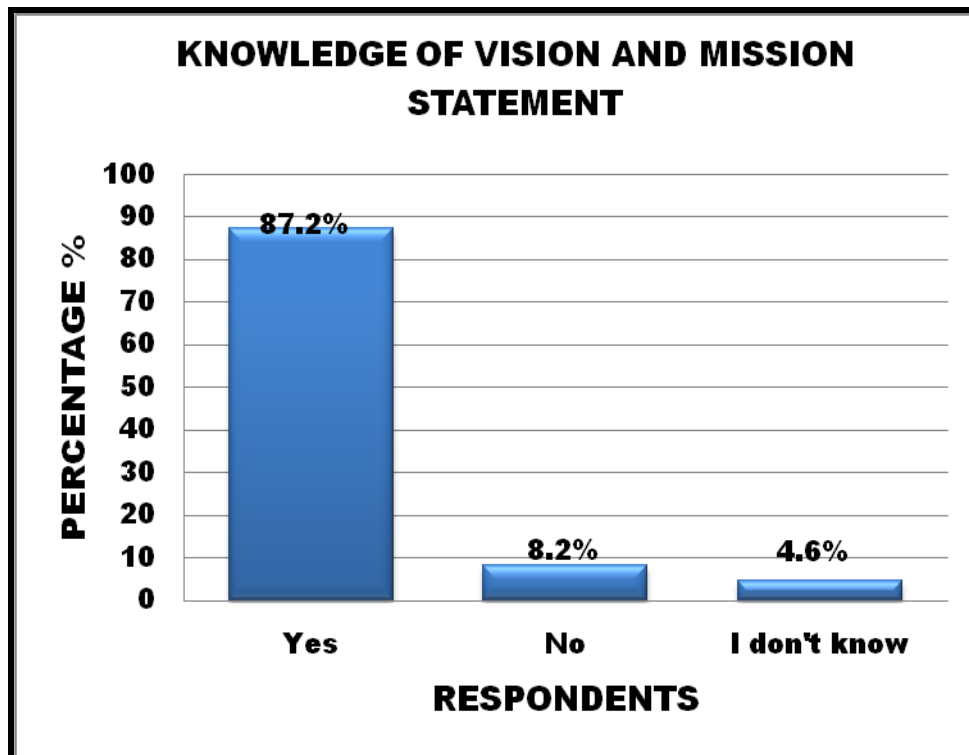
Figure 4.7: Knowledge of Vision and Mission Statement

4.3.3 Knowledge of Quality Management

TABLE 4.8: Knowledge of Quality Management

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Knowledge of Quality Management	Yes	169	87.1	87.1
	No	18	9.3	96.4
	I do not know	7	3.6	100.0
	Total	**194**	**100.0**	

As Table 4.8 and Figure 4.8 indicate, the substantial majority, 87.1% of participants have knowledge of Quality Management. Only the small amount of 9.3% participants did not know what quality management is.
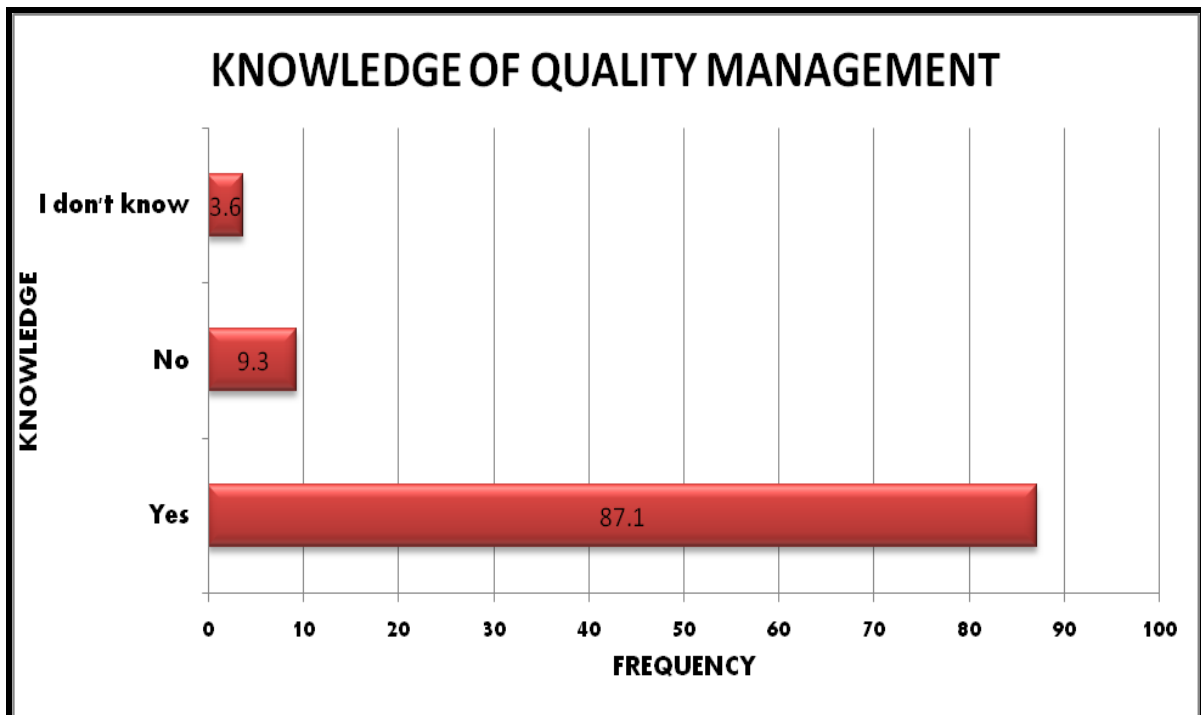
Figure 4.8: Knowledge of Quality Management

4.3.4   Quality Control Taking Place

Table 4.9: Quality Control Taking Place

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
	Yes	171	87.2	87.2
Quality Control Taking Place	No	9	4.6	91.8
	I do not know	16	8.2	100.0
	Total	**196**	**100.0**	

Table 4.9 reveals that when participants were asked if any quality control was taking place in their school, a large majority, 82.2% (171) agreed that quality control was taking place.
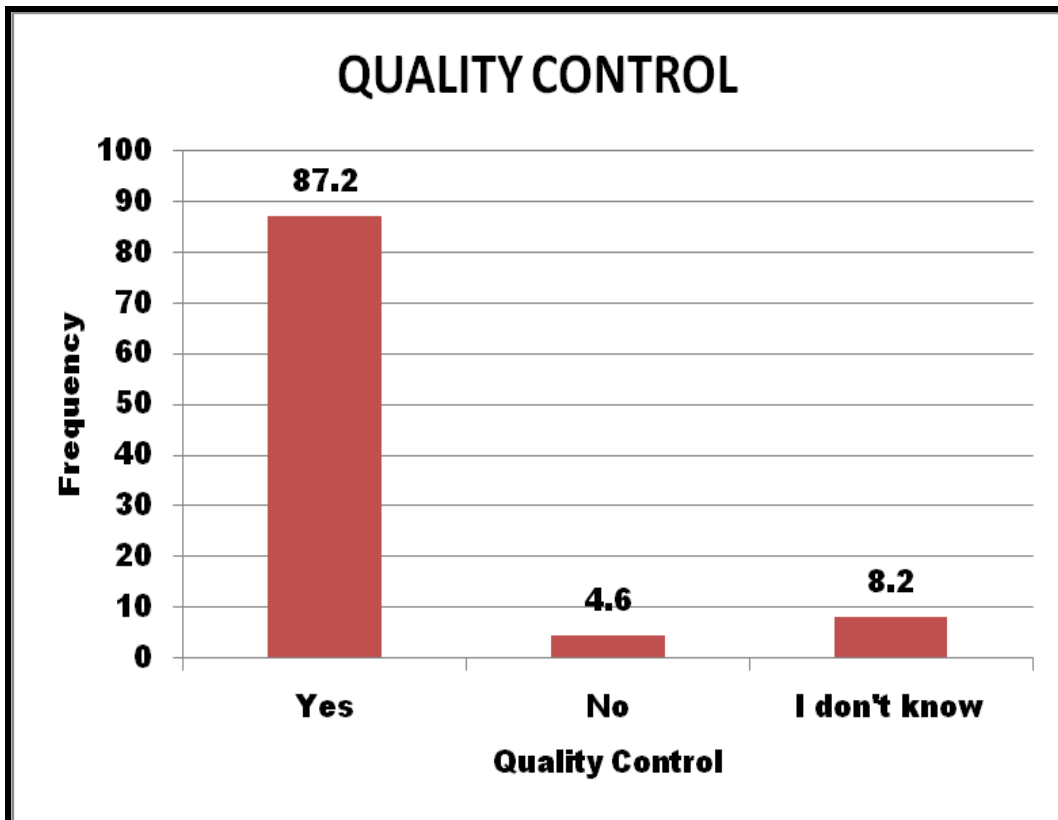
Figure 4.9: Quality Control Taking Place

4.3.5 Duties Explained on Assumption

Table 4.10: Duties Explained on Assumption

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Duties Explained on Assumption	Yes	177	90.8	90.8
	No	18	9.2	100.0
	I do not know	0	0.0	100.0
	Total	**195**	**100.0**	

From Table 4.10 it is clear that a substantial majority, 90.8% (177) of participants were informed about their duties when assuming their duties, while only a few, 9.2% (18) were not informed of their duties.
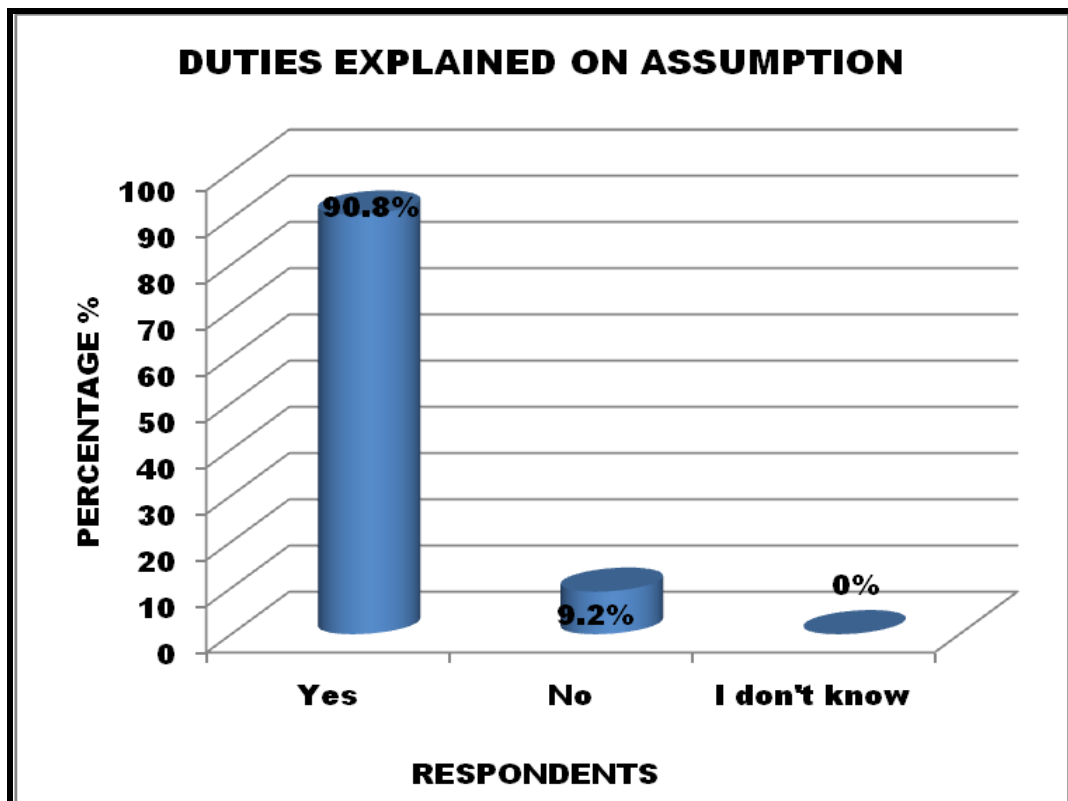
Figure 4.10: Duties Explained on Assumption

4.3.6 Consultation on Quality Service

Table 4.11: Consultation on Quality Service

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
	Agree	144	73.1	73.1
	Fully Agree	33	16.8	89.9
Consultation on	Disagree	11	5.6	95.5
Quality Service	Fully Disagree	6	3.0	98.5
	I do not know	3	1.5	100
	Total	**197**	**100.0**	

The Table 4.11 indicates that when participants were asked if there was any consultation of educators on the quality of service the school is expected to deliver; the majority, 73.1% (144) agreed, supported by participants who fully agreed, 16.8% (33). Those who disagreed form 5.6% (11) and supported by those who fully disagreed, 3.0% (6).
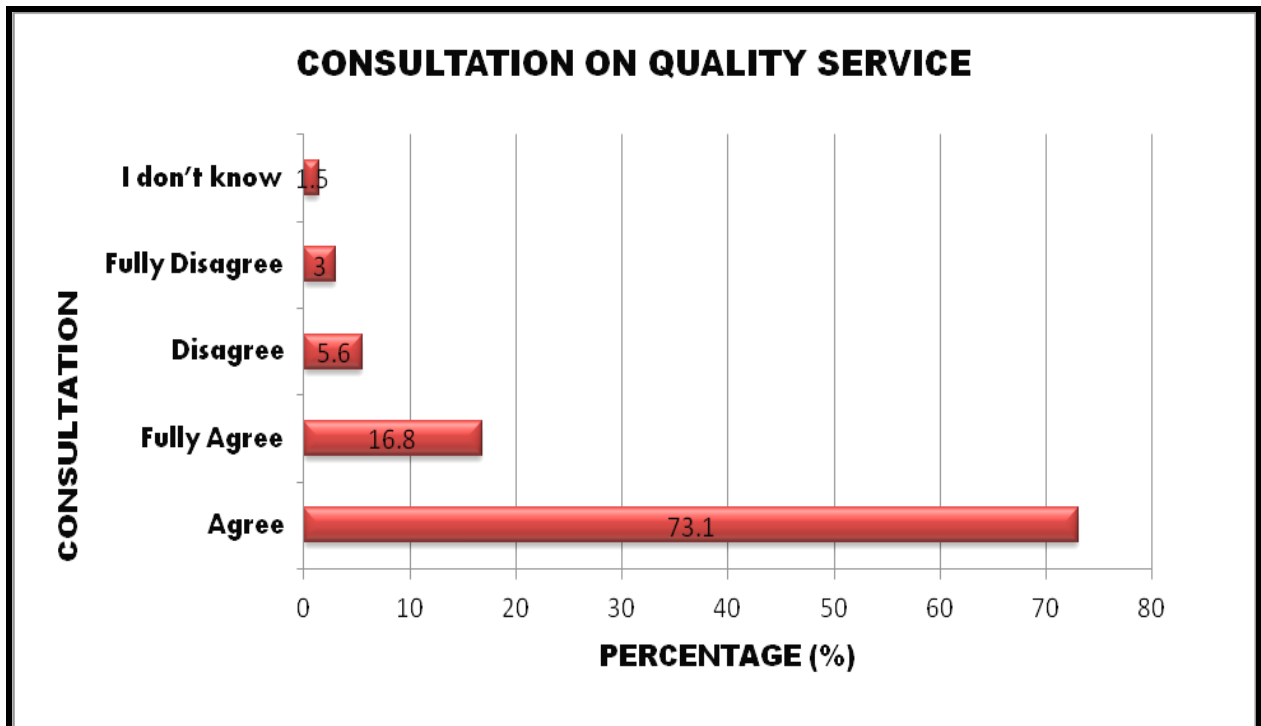
Figure 4.11: Consultation on Quality Service

4.3.7   Planning and Control of Service

Table 4.12: Planning and Control of Service

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Planning and Control of Service	Agree	116	58.9	58.9
	Fully Agree	44	22.3	81.2
	Disagree	21	10.7	91.9
	Fully Disagree	12	6.1	98.0
	I do not know	4	2.0	100
	Total	**197**	**100.0**	

When asked if the educators were involved in planning and control of service, the majority of participants, 58.9% (116) agreed and supported by participants who fully agreed, 22.3%. Few participants, 10.7% disagreed to the statement, supported by 6.1% who fully disagreed.
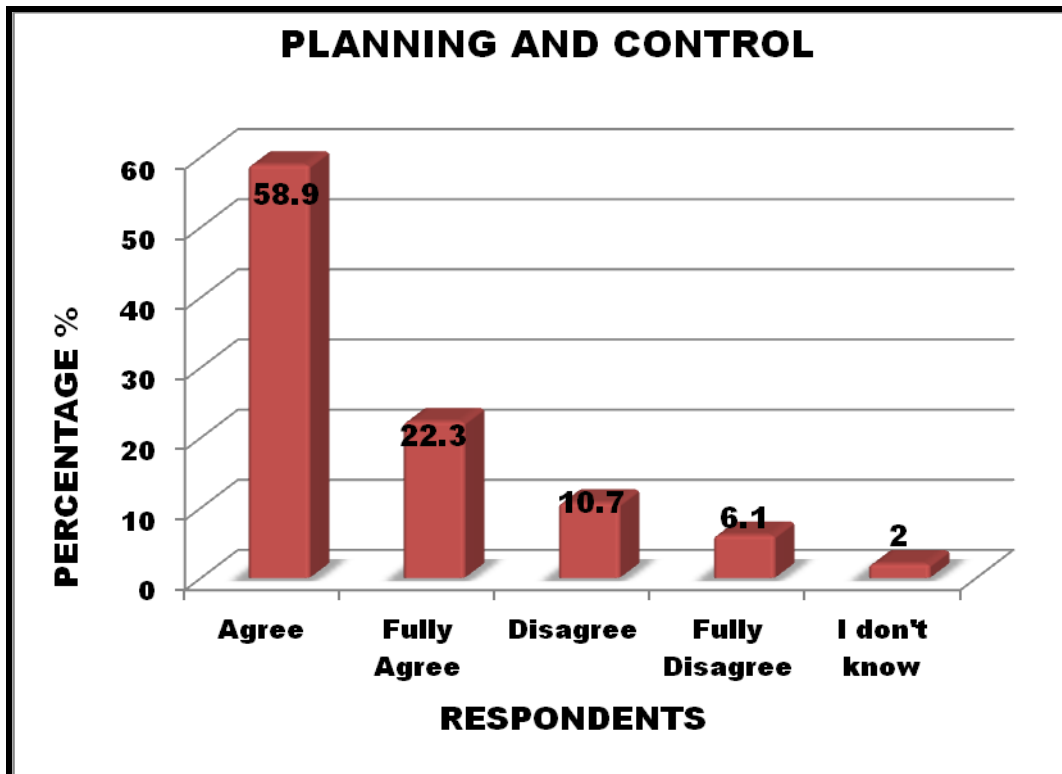
Figure 4.12: Planning and Control of Service

4.3.8 Learners Viewed as Important Customers

Table 4.13: Learners Viewed as Important Customers

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Learners Viewed as Important Customers	Agree	121	60.8	60.8
	Fully Agree	62	31.2	92.0
	Disagree	6	3.0	95.0
	Fully Disagree	4	2.0	97.0
	I do not know	6	3.0	100
	Total	**199**	**100.0**	

Table 4.13 and Figure 4.13 show how learners are viewed. The majority of participants, 60.8% (121) agreed to the statement that learners are viewed as important customers, supported by those who fully agreed also the statement, 31.2% (62), and those who disagreed to the statement make 3.0%(6) supported by those who fully disagreed, 2.0% (4).
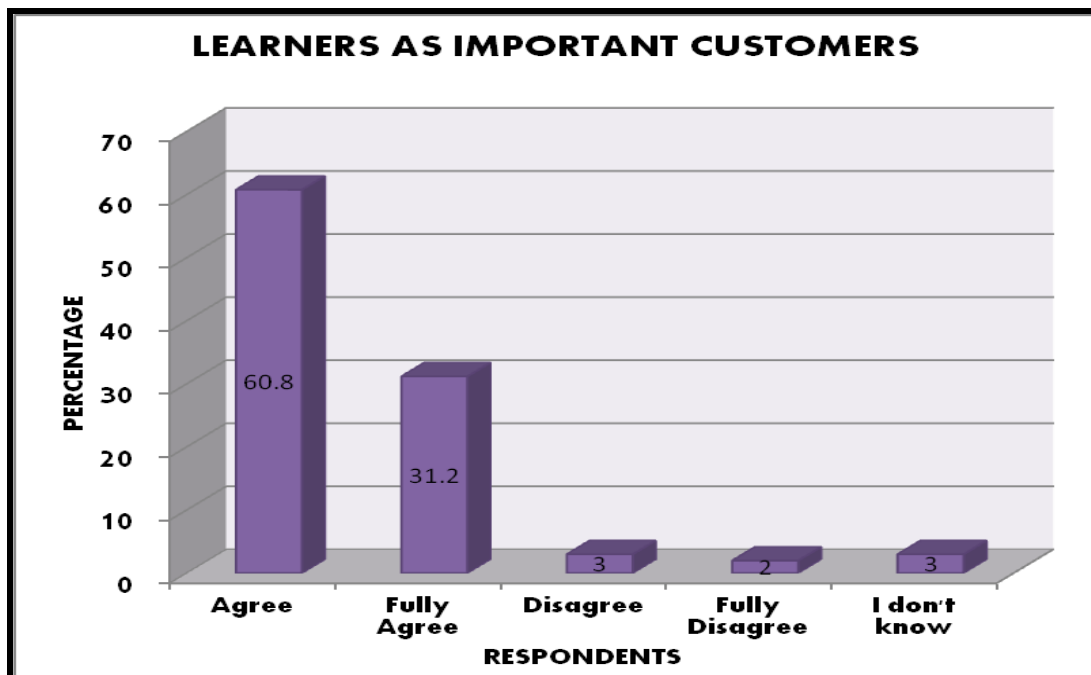
Figure 4.13: Learners Viewed as Important Customers

4.3.9 Interaction for Purpose of Quality Improvement

Table 4.14: Interaction for Purpose of Quality Improvement

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Interaction for Purpose of Quality Improvement	Agree	138	69.3	69.3
	Fully Agree	41	20.6	89.9
	Disagree	11	5.5	95.4
	Fully Disagree	5	2.5	97.9
	I do not know	4	2.1	100
	Total	**199**	**100.0**	

As shown in Table 4.14, the majority of participants, 69.3% (138) agreed to the statement that the purpose of interaction of participants in the school is to improve quality, and were supported by 20.6% (41) who fully agreed. In contrast, those who disagreed form 5.5% (11) and supported by 2.5% (5) who fully disagreed.
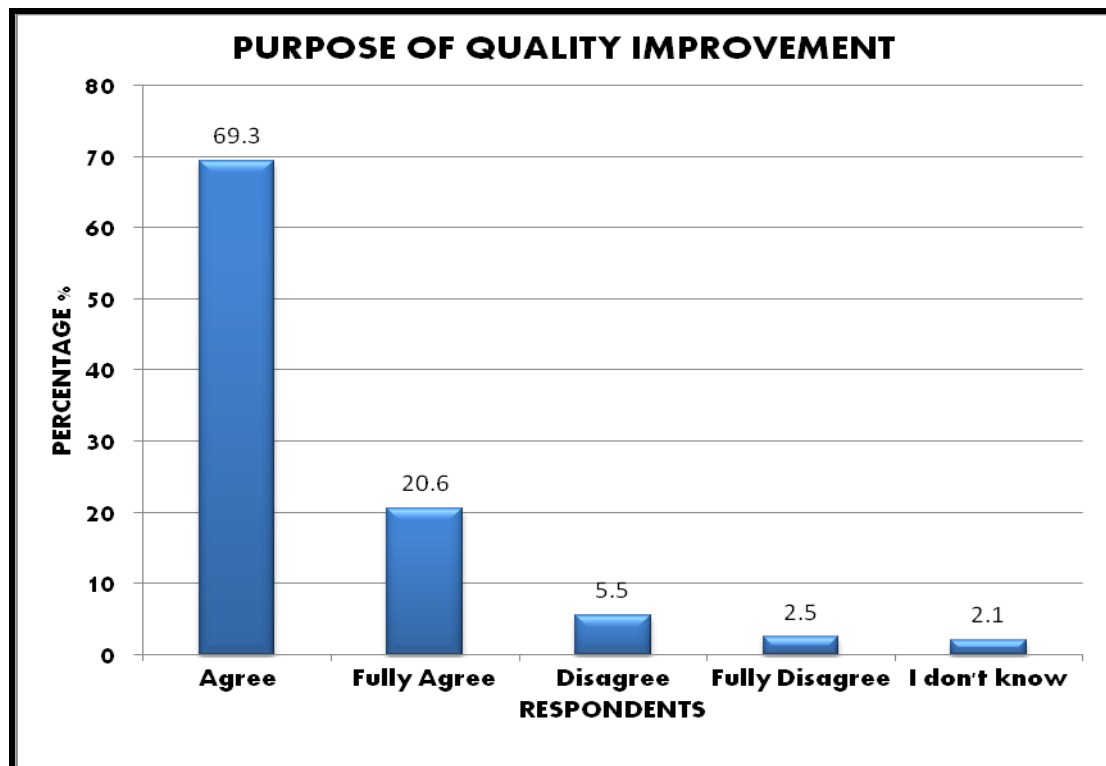
Figure 4.14: Interaction for Purpose of Quality Improvement

4.3.10   Direction Given To Improve Quality

Table 4.15: Direction Given To Improve Quality

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Direction Given To Improve Quality	Agree	144	73.8	73.8
	Fully Disagree	29	14.9	88.7
	Disagree	8	4.1	92.8
	Fully Disagree	7	3.6	96.4
	I do not know	7	3.6	100
	Total	**195**	**100.0**	

Table 4.15 indicates that participants are given direction as far as improving quality is concerned. The substantial majority of 73.8% (144) agreed to the statement, supported by 14.9% (29) participants who fully agreed to the statement.
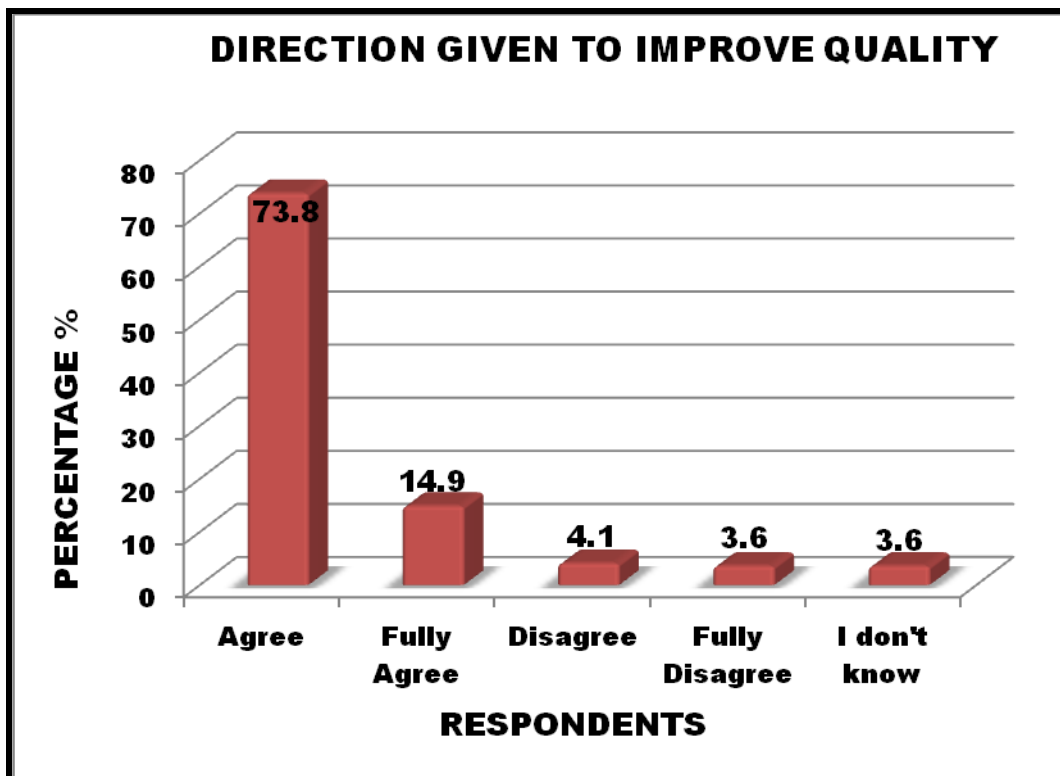
Figure 4.15: Direction Given To Improve Quality

4.3.11 Participation in Decision-Making by All Stakeholders

Table 4.16: Participation in Decision-Making by All Stakeholders

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
	Agree	110	55.8	55.8
Participation in	Fully Agree	24	12.2	68.0
Decision-Making	Disagree	34	17.3	85.3
by All	Fully Disagree	18	9.1	944
Stakeholders	I do not know	11	5.6	100
	Total	**195**	**100.0**	

When asked if the all stakeholders participate in decision-making, Table 4.16 reveals that a considerable majority, 55.8% (110) agreed to the statement, supported by 12.2% (24) who fully agreed to the statement. Only 17.3% (34) participants did not agree, supported by 9.1% (18) who fully disagreed and only 5.6% (11) who had no idea of what was happening.
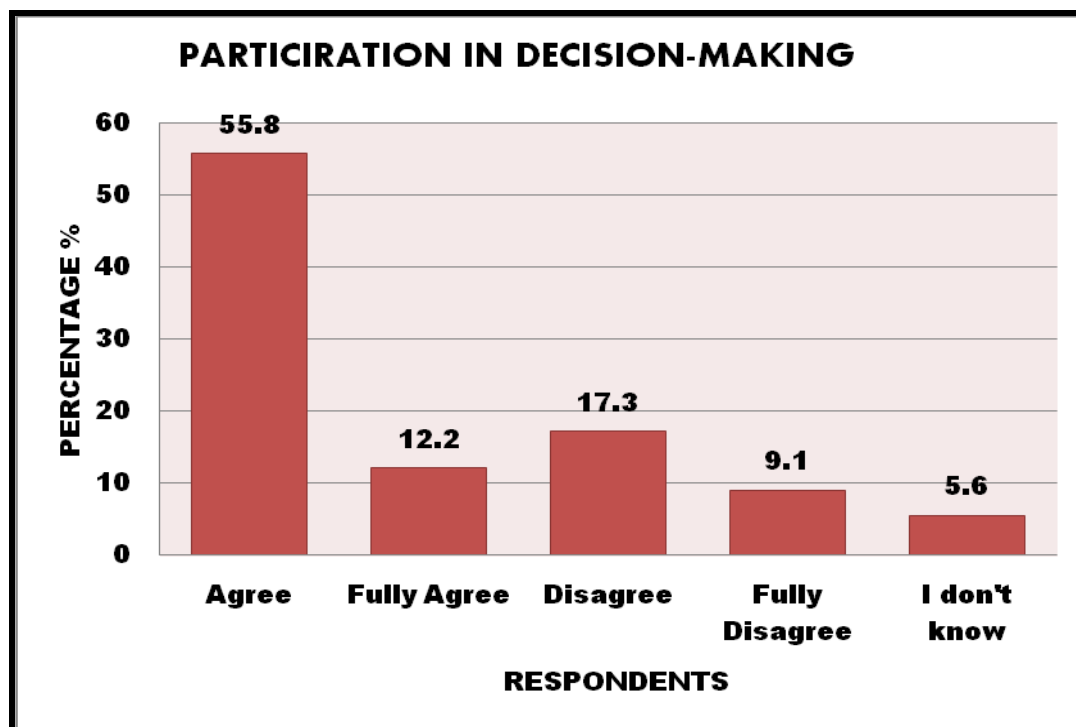
Figure 4.16: Participation in Decision-Making by All Stakeholders

4.3.12 Services Rendered Improved Continuously

Table 4.17: Services Rendered Improved Continuously

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Services Rendered Improved Continuously	Agree	119	59.8	59.8
	Fully Agree	46	23.2	89.9
	Disagree	16	8.0	95.4
	Fully Disagree	8	4.0	97.9
	I do not know	10	5.0	100
	Total	**199**	**100.0**	

Table 4.17 reveals that the majority of participants, 59.8% (119) agreed that the services rendered are improved continuously, supported by 23.2% (46) of participants who fully agreed to the statement. However, there were a few who disagreed, 8.0% (16) and who fully disagreed, 4.0% (8).
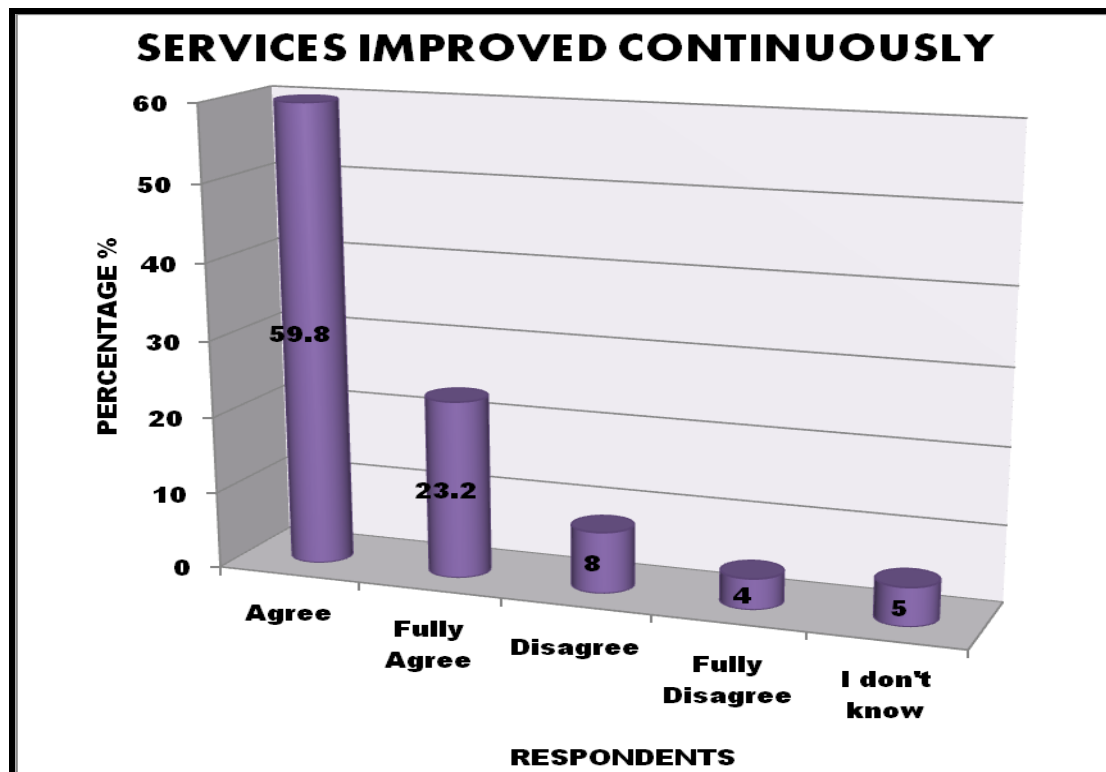
Figure 4.17: Services Rendered Improved Continuously

4.3.13   Evidence of Quality Leadership

Table 4.18: Evidence of Quality Leadership

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Evidence of Quality Leadership	Agree	120	60.9	60.9
	Fully Agree	48	24.4	85.3
	Disagree	11	5.6	90.9
	Fully Disagree	5	2.5	93.4
	I do not know	13	6.6	100
	Total	**197**	**100.0**	

The Table 4.18 reveals that a highest percentage 60.9% (120) of participants agreed that there is evidence of quality leadership in their schools, supported by 24.4% (48) who fully agreed with the statement. But a small minority, 5.6% (11) disagreed with the statement supported by 2.5% (5) who fully disagreed with the statement.

Figure 4.18: Evidence of Quality Leadership

4.3.14 Limited Barriers to Work Efficiently and Co-operatively

Table 4.19: Limited Barriers to Work Efficiently and Co-operatively

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Limited Barriers to Work Efficiently and Co-Operatively	Agree	116	59.8	59.8
	Fully Agree	28	14.4	74.2
	Disagree	13	6.7	80.9
	Fully Disagree	17	8.8	89.7
	I do not know	20	10.3	100
	Total	**194**	**100.0**	

Table 4.19 shows that a majority, 59.8% (116) of participants indicated by agreeing that there were limited barriers to work efficiently and co-operatively, supported by 14.4% (28) who fully agreed with the statement. However, small minority, 6.7% (13) disagreed with the statement supported by 8.8% (17) who fully disagreed with the statement.
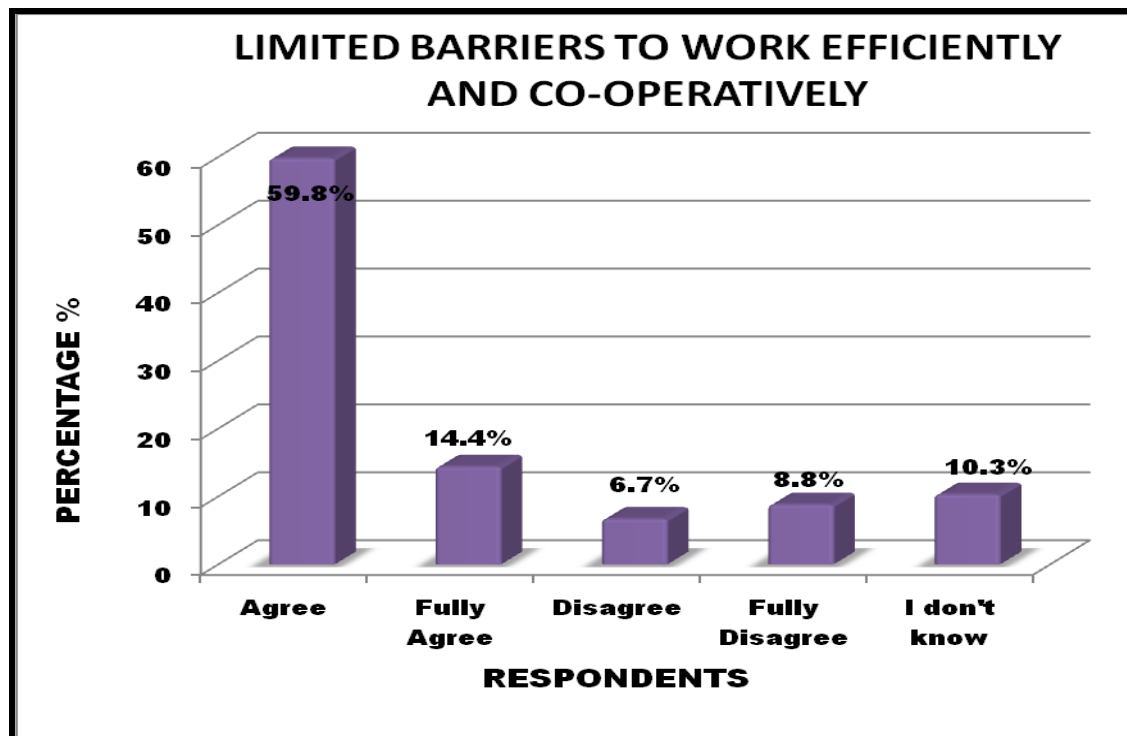
Figure 4.19: Limited Barriers to Work Efficiently and Co-operatively

4.3.15 Empowerment of All Stakeholders for Quality Improvement

Table 4.20: Empowerment of All Stakeholders for Quality Improvement

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Empowerment of All Stakeholders for Quality Improvement	Agree	125	63.5	63.5
	Fully Agree	31	15.7	79.2
	Disagree	14	7.1	86.3
	Fully Disagree	10	5.1	91.4
	I do not know	17	8.6	100
	Total	**197**	**100.0**	

Figure 4.20 reveals that when asked if all stakeholders were empowered to participate in quality improvement, the majority of participants, 63.5% (125) agreed, supported by participants, 15.7% (31) who fully agreed. Those who disagreed form 7.1% (14) supported by 5.1% (10) who fully disagreed and those who did not know accounted to 8.6% (17).
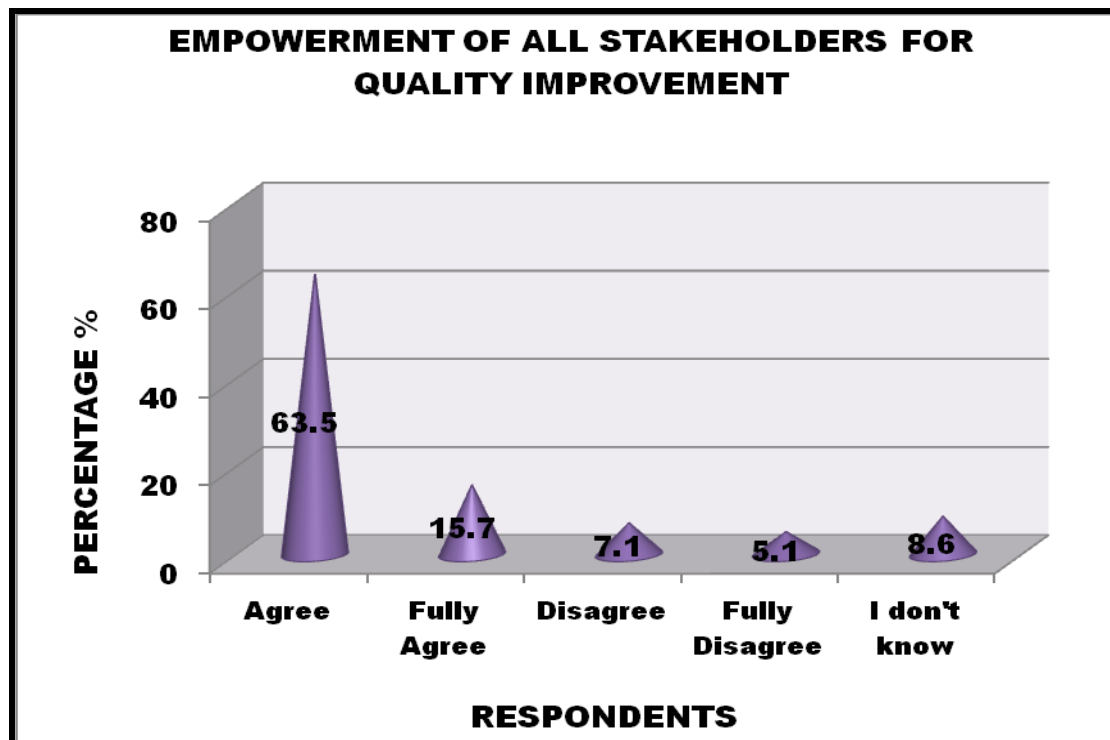
Figure 4.20: Empowerment of All Stakeholders for Quality Improvement

4.3.6 Effective and Constant Communication

Table 4.21: Effective and Constant Communication

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Effective and Constant Communication	Agree	118	59.9	59.9
	Fully Agree	35	17.8	77.7
	Disagree	18	9.1	86.8
	Fully Disagree	12	6.1	92.9
	I do not know	14	7.1	100
	Total	**197**	**100.0**	

As shown in Figure 4.21, a majority, 59.9% (118) of participants agreed that there is effective and constant communication in the schools, supported by 17, 8% (35) who fully agreed. However, a small percentage, 9.1% (18) disagreed to the statement supported by 6.1% (12) who fully disagreed. Only 7.1% (14) did not know what this is all about.
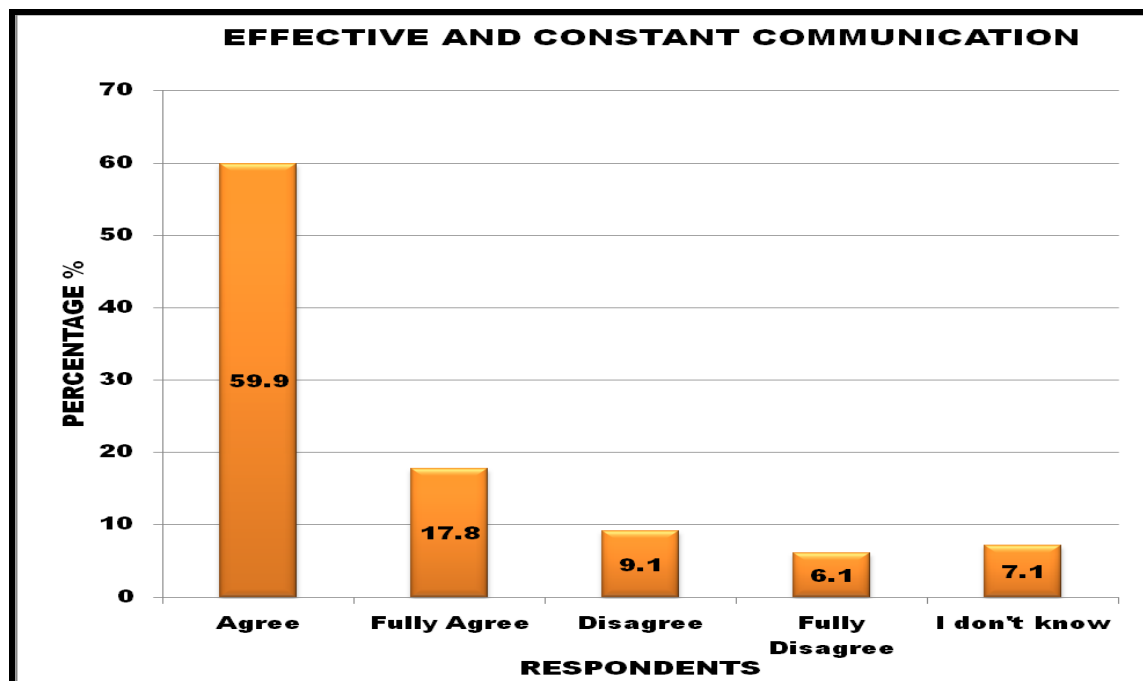
Figure 4:21 Effective and Constant Communication

4.3.17   Positive Attitude for Development of the School

Table 4.22: Positive Attitude for Development of the School

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Positive Attitude for Development of the School	Agree	132	66.7	66.7
	Fully Agree	42	21.2	87.9
	Disagree	9	4.5	92.4
	Fully Disagree	4	2.0	94.4
	I do not know	11	5.6	100
	Total	**198**	**100.0**	

Table 4.22 indicates a high percentage, 66.7% (132) of participants who agreed that they had positive attitude for the development of the school, supported by 21.2% (42) who fully agreed. However, a small percentage 4.5% (9) disagreed to the statement supported by 2.0% (4) who fully disagreed. Only 5.6% (11) did not know what this is all about.
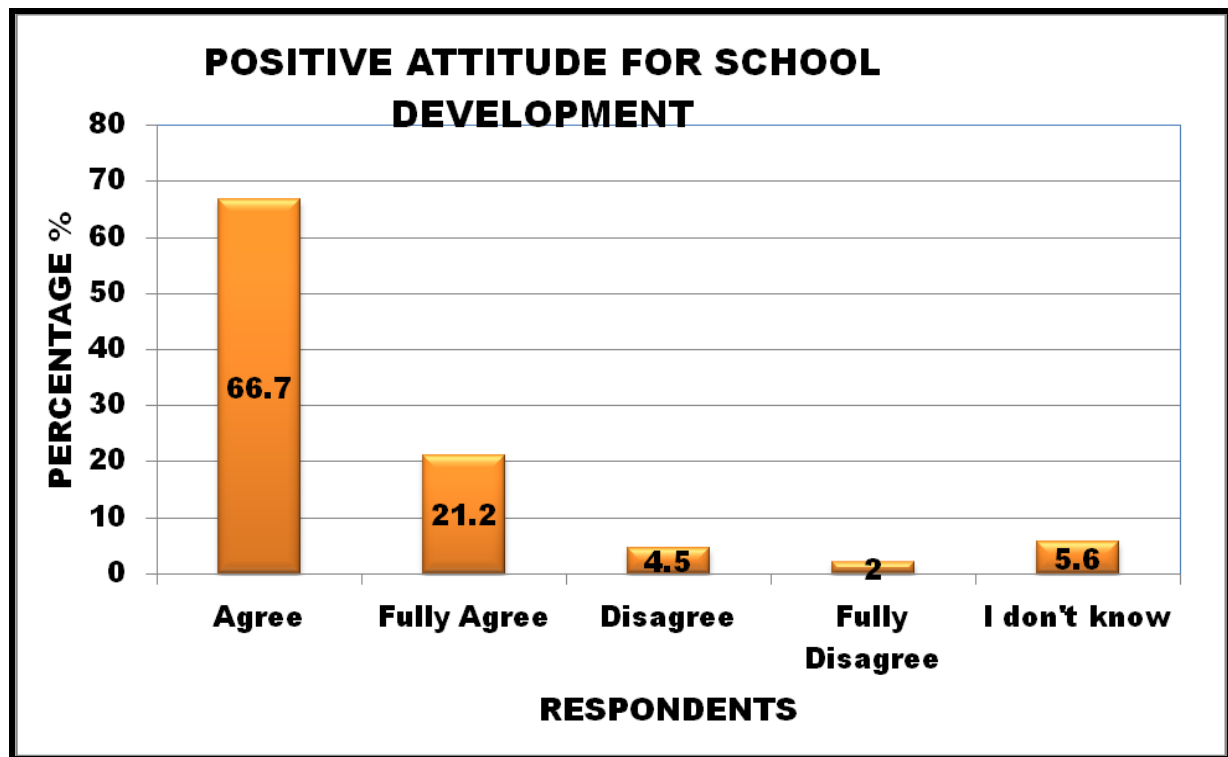
Figure 4:22: Positive Attitude for Development of the School

4.3.18 Teamwork in Bringing Change in School

Table 4.23: Teamwork in Bringing Change in School

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Teamwork in Bringing Change in School	Agree	107	54.0	54.0
	Fully Agree	63	31.8	85.8
	Disagree	14	7.1	92.9
	Fully Disagree	6	3.1	96.0
	I do not know	8	4.0	100
	Total	**198**	**100.0**	

Table 4.23 and Figure 4.23 indicate that a reasonable majority of participants, 54% (107) agreed that educators are prepared to work as a team in bringing about change in their schools, supported by 31.8% (63) who fully agreed. But 7.1% (14) disagreed and 3.1% (6) fully disagreed. Only 4.0% (8) did not know if there was teamwork in their schools.
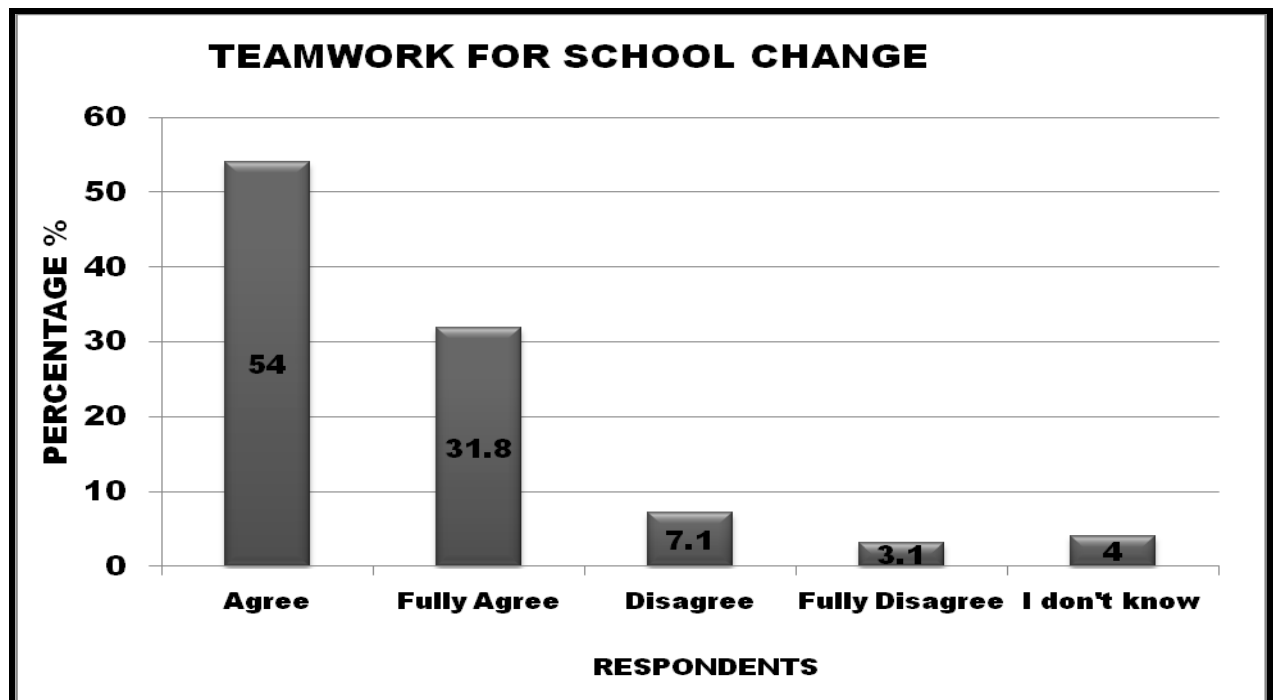
Figure 4.23: Teamwork in Bringing Change in School

4.3.19   Climate of Respect, Co-operation and Trust

Table 4.24: Climate of Respect, Co-operation and Trust

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Climate of Respect, Co-Operation and Trust	Agree	118	59.9	59.9
	Fully Agree	45	22.8	82.7
	Disagree	15	7.6	90.3
	Fully Disagree	8	4.1	94.4
	I do not know	11	5.6	100
	Total	**197**	**100.0**	

Table 4.24 indicates a majority, 59.9% (118) of participants who agreed that there is a climate of respect, co-operation and trust in their schools that motivate all stakeholders, supported by 22.8% (45) who fully agreed. However, a small percentage, 7.6% (15) disagreed to the statement supported by 4.1% (8) who fully disagreed. Only 5.6% (11) did not know what this is all about.
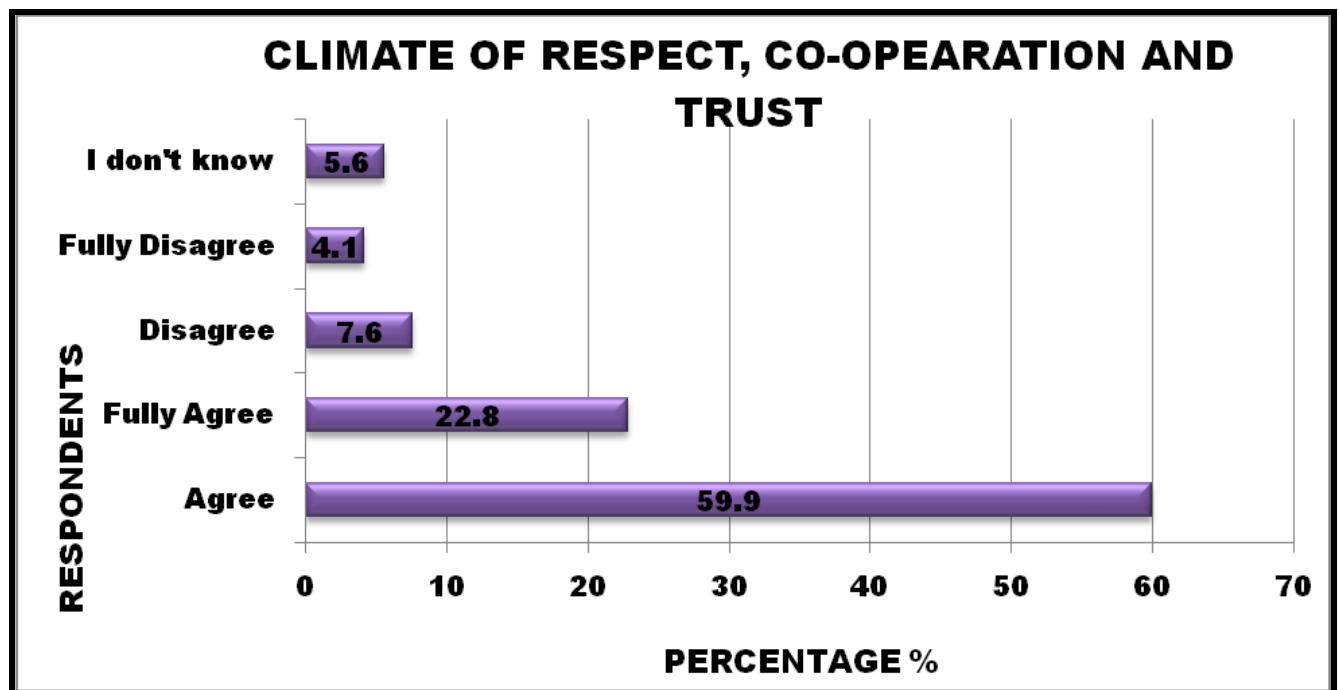

Figure 4.24: Climate of Respect, Co-operation and Trust

4.3.20   School's Physical Conditions Motivate Employees

Table 4.25: School's Physical Conditions Motivate Employees

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
School's Physical Conditions Motivate Employees	Agree	101	51.8	51.8
	Fully Agree	35	18.0	69.8
	Disagree	41	21.0	90.8
	Fully Disagree	8	4.1	94.9
	I do not know	10	5.1	100
	Total	**195**	**100.0**	

Table 4.25 indicates a moderate percentage of 51.8% (101) of participants who agreed that the physical conditions of the school motivate employees to work, supported by 18.0% (35) who fully agreed. But a relative percentage, 21.0% (41) disagreed to the statement supported by 4.1% (8) who fully disagreed. Only 5.1% (10) did not know at all.
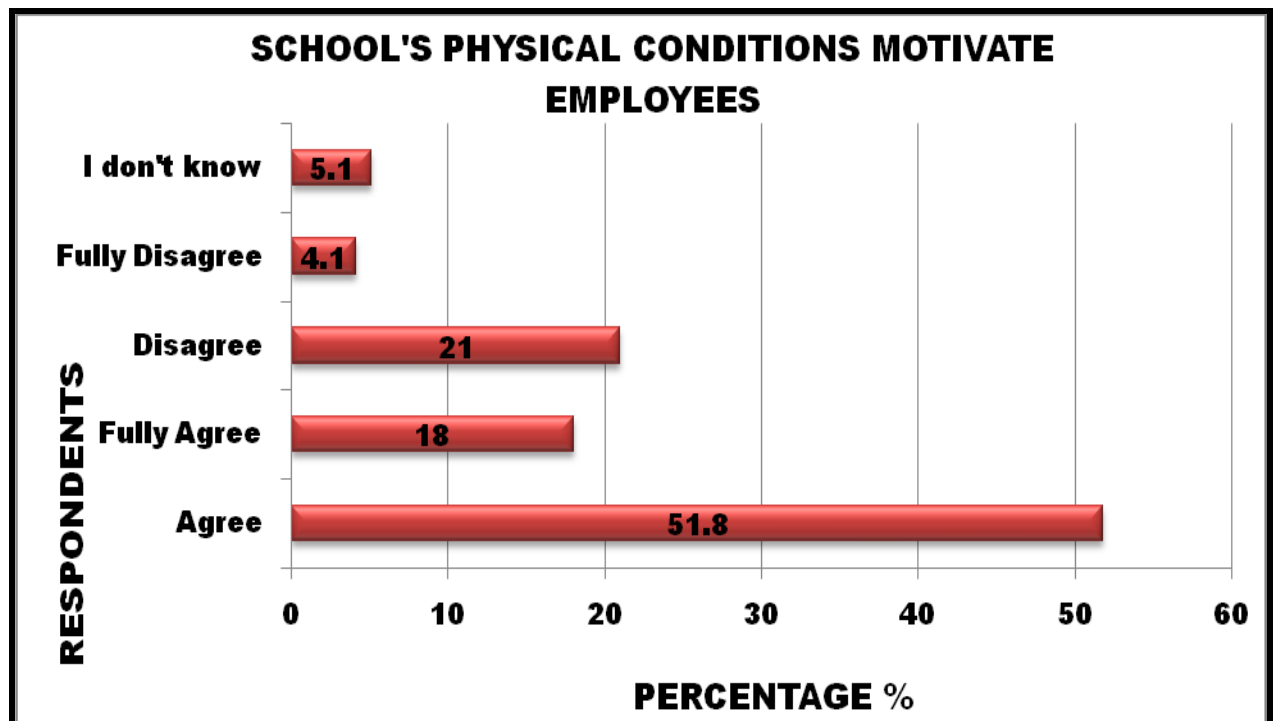
Figure 4.25: School's Physical Conditions Motivate Employees

4.3.21 Recognition of all Stakeholders as Contributors in Decision-Making

Table 4.26: Recognition of all Stakeholders as Contributors in Decision-Making

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Recognition of all Stakeholders as Contributors in Decision-Making	Agree	108	54.8	54.8
	Fully Agree	33	16.7	71.5
	Disagree	25	12.7	84.2
	Fully Disagree	10	5.1	89.3
	I do not know	21	10.7	100
	Total	**197**	**100.0**	

When asked if all stakeholders are recognized as contributors in decision-making in schools, Table 4.26 indicates a reasonable majority, 51.8% (108) of participants who agreed, supported by 16.7% (33) who fully agreed. In contrast, whereas a small percentage, 12.7% (25) disagreed to the statement supported by 5.1% (10) who fully disagreed and 10.7% (21) did not know what is happening.
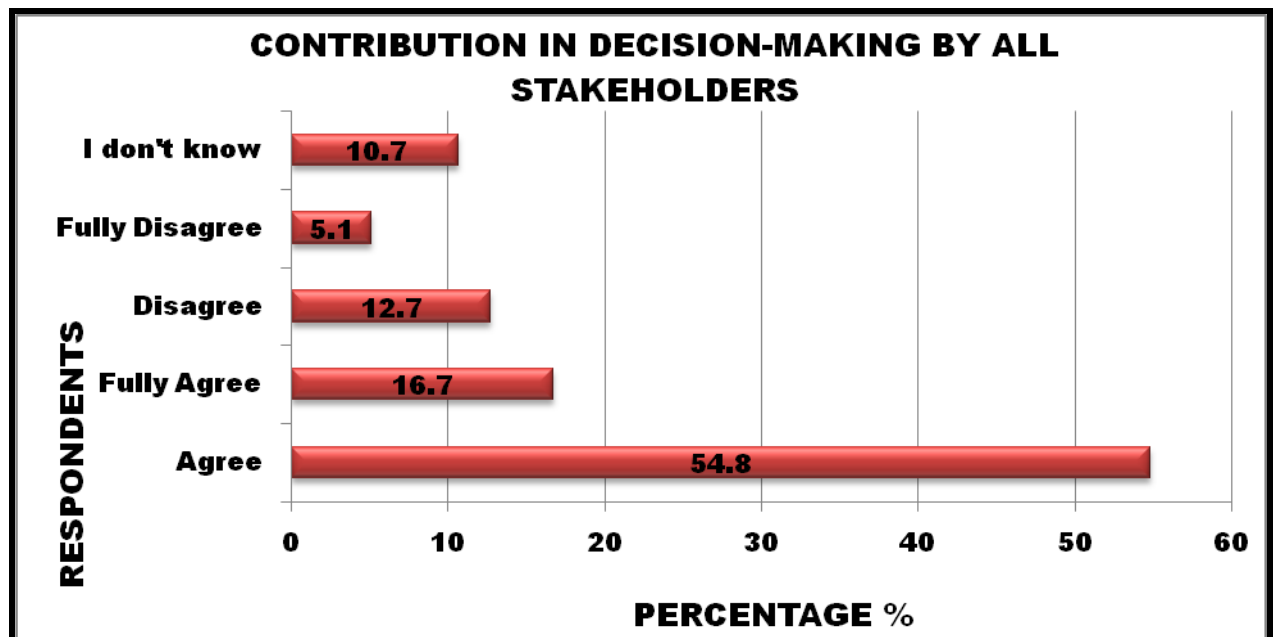
Figure 4.26: Recognition of all Stakeholders as Contributors in Decision-Making

4.3.22 Stakeholders Educated to Understand Change

Table 4.27: Stakeholders Educated to Understand Change

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Recognition of all Stakeholders as Contributors in Decision-Making	Agree	118	59.9	59.9
	Fully Agree	37	18.8	78.7
	Disagree	15	7.6	86.3
	Fully Disagree	8	4.1	90.4
	I do not know	19	9.6	100
	Total	**197**	**100.0**	

Table 4.27 indicates a moderate majority, 59.9% (118) of participants who agreed that all stakeholders are being educated to understand change in their schools, supported by 18.8% (37) who fully agreed to the statement. Only a small percentage, 7.6% (15) disagreed to the statement supported by 4.1% (8) who fully disagreed and only 9.6% (19) did not know.
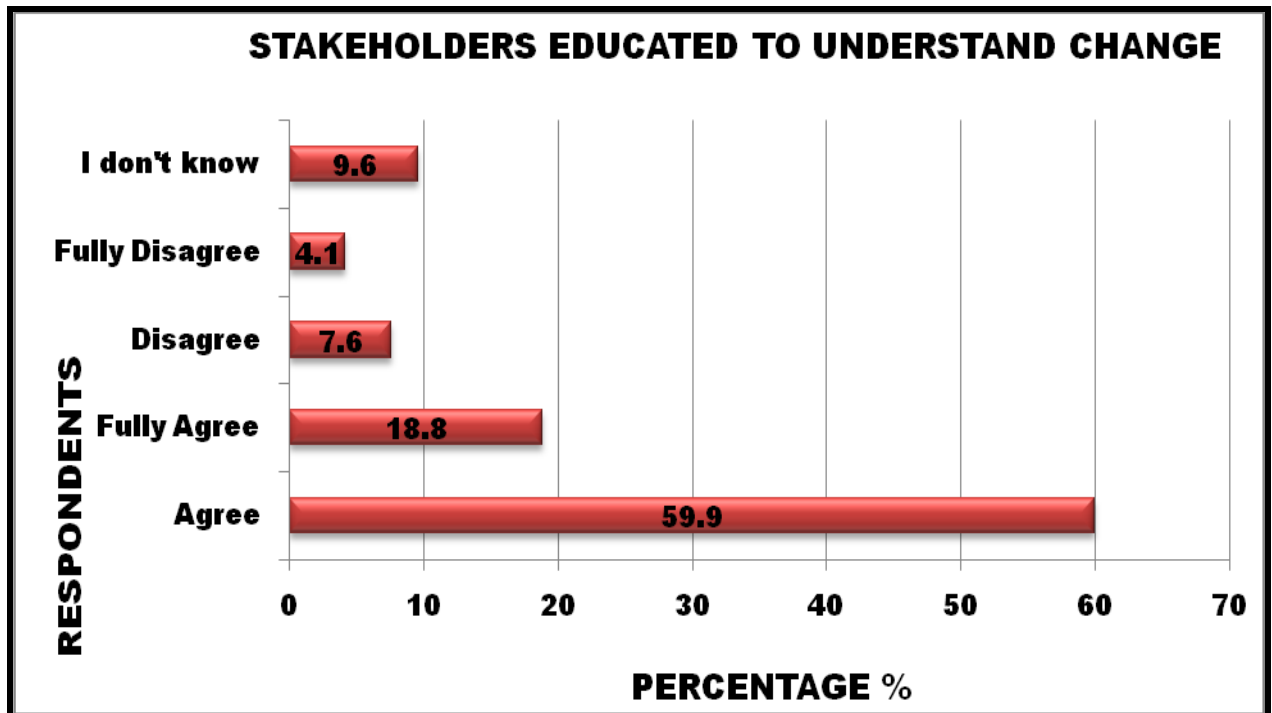
**Figure 4.27: Stakeholders Educated to Understand Change**

4.3.23   Elimination of Fear for Change

Table 4.28: Elimination of Fear for Change

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
	Agree	117	60.0	60.0
	Fully Agree	25	12.8	72.8
Elimination of	Disagree	21	10.8	83.6
Fear for Change	Fully Disagree	5	2.6	86.2
	I do not know	27	13.8	100
	Total	**195**	**100.0**	

Table 4.28 indicates that a reasonable majority of 59.9% (117) of participants agreed that the fear for change is eliminated through participation by all stakeholders, supported by 12.8% (25) who fully agreed to the statement, whereas a small percentage, 10.8% (21) disagreed to the statement supported by 2.6% (5) who fully disagreed and a small percentage of 13.8% (27) did not know.
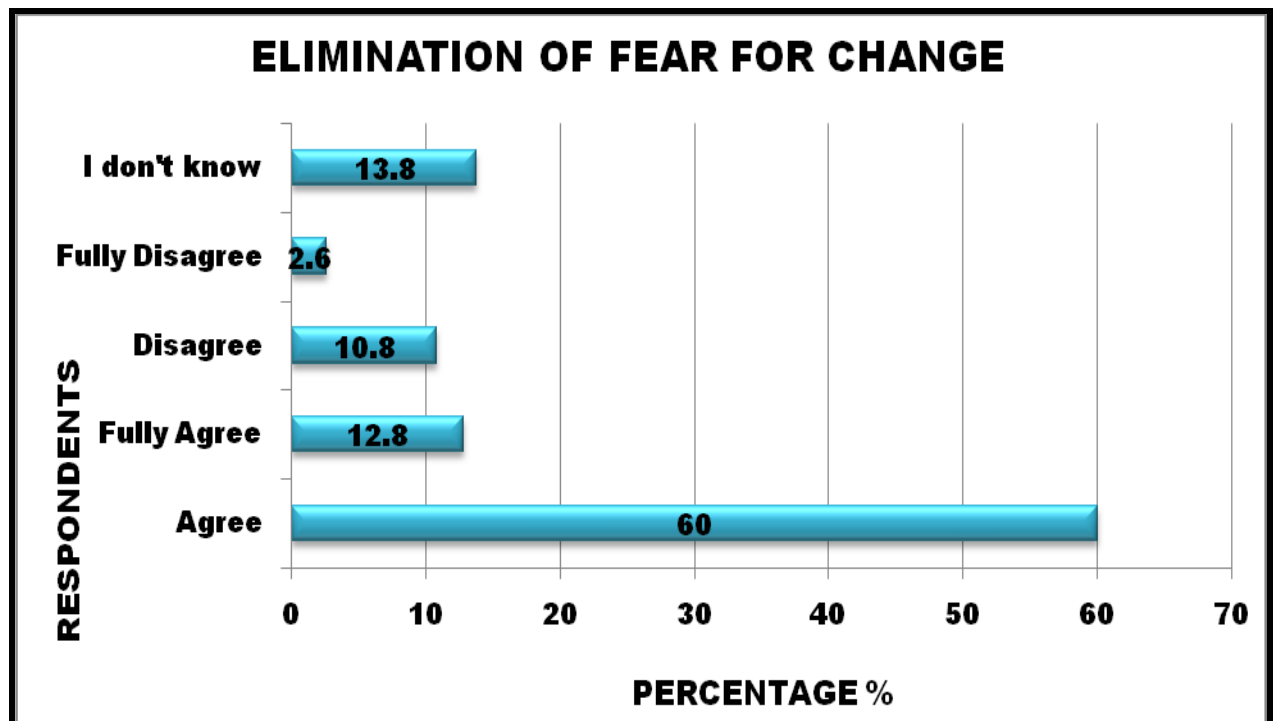
Figure 4.28: Elimination of Fear for Change

4.3.24   Resistance to Change Overcome by Persuasion

Table 4.29: Resistance to Change Overcome by Persuasion

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Resistance to Change Overcome by Persuasion	Agree	120	61.8	61.8
	Fully Agree	22	11.3	73.1
	Disagree	23	11.9	85.0
	Fully Disagree	11	5.7	90.7
	I do not know	18	9.3	100
	Total	**194**	**100.0**	

When asked if resistance to change is overcome by persuasion in their schools, Table 4.29 indicates a significant majority, 61.8% (120) of participants agreed, supported by 11.3% (22) who fully agreed. But a small percentage, 11.9% (23) disagreed to the statement supported by 5.7% (11) of participants who fully disagreed and 10.7% (21) did not know what is happening.
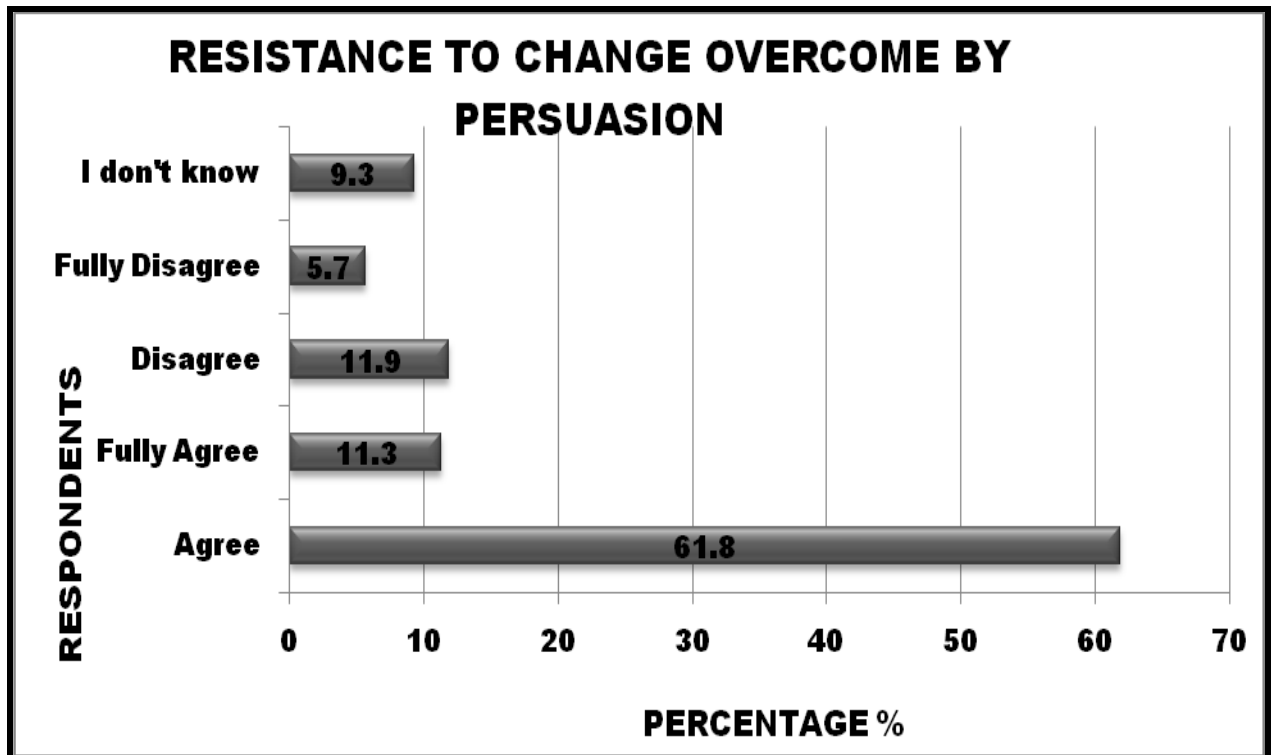

Figure 4.29: Resistance to Change Overcome by Persuasion

4.3.25   Establishment of Good Relationship among Stakeholders

Table 4.30: Establishment of Good Relationship among Stakeholders

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Establishment of Good Relationship among Stakeholders	Agree	128	64.6	64.6
	Fully Agree	41	20.7	85.3
	Disagree	11	5.6	90.9
	Fully Disagree	7	3.5	94.4
	I do not know	11	5.6	100
	Total	198	100.0	

Figure 4.30 reveals that when asked if good relationships are established among all stakeholders, the majority of participants, 64.6% (128) agreed, supported by participants, 20.7% (41) who fully agreed. Those who disagreed form 5.6% (11), supported by 3.5% (7) who fully disagreed and those who did not know formed 5.6% (11).
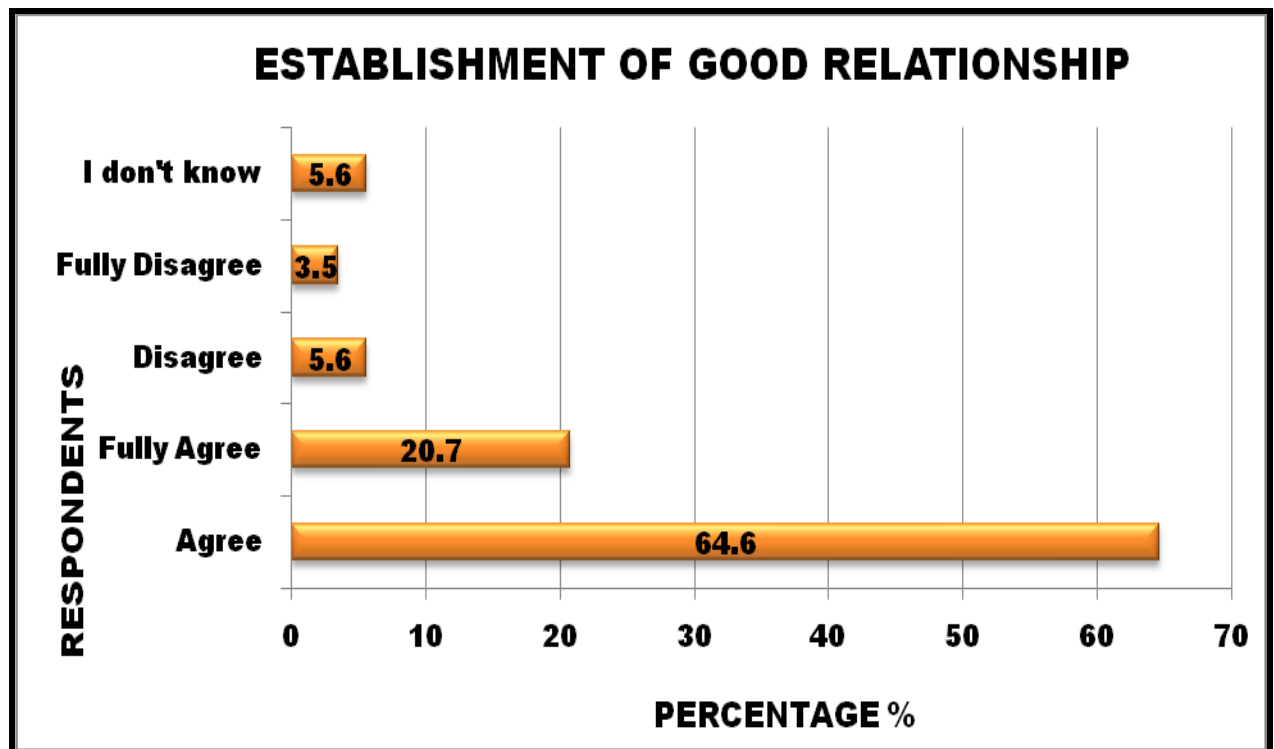
Figure 4.30: Establishment of Good Relationship among Stakeholders

4.3.26   School Results Discussed Openly

Table 4.30: School Results Discussed Openly

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
School Results Discussed Openly	Agree	103	51.8	51.8
	Fully Agree	78	39.2	91.0
	Disagree	11	5.5	96.5
	Fully Disagree	1	0.5	97.0
	I do not know	6	3.0	100
	Total	**198**	**100.0**	

Table 4.31 indicates a considerable majority, 51.8% (103) of participants who agreed that all school results are discussed openly in their schools, supported by a moderate percentage of participants, 39.2% (78) who fully agreed to the statement. However, a small percentage, 5.5% (11) disagreed to the statement supported by 0.5% (1) who fully disagreed and only 3.0% (6) did not know.
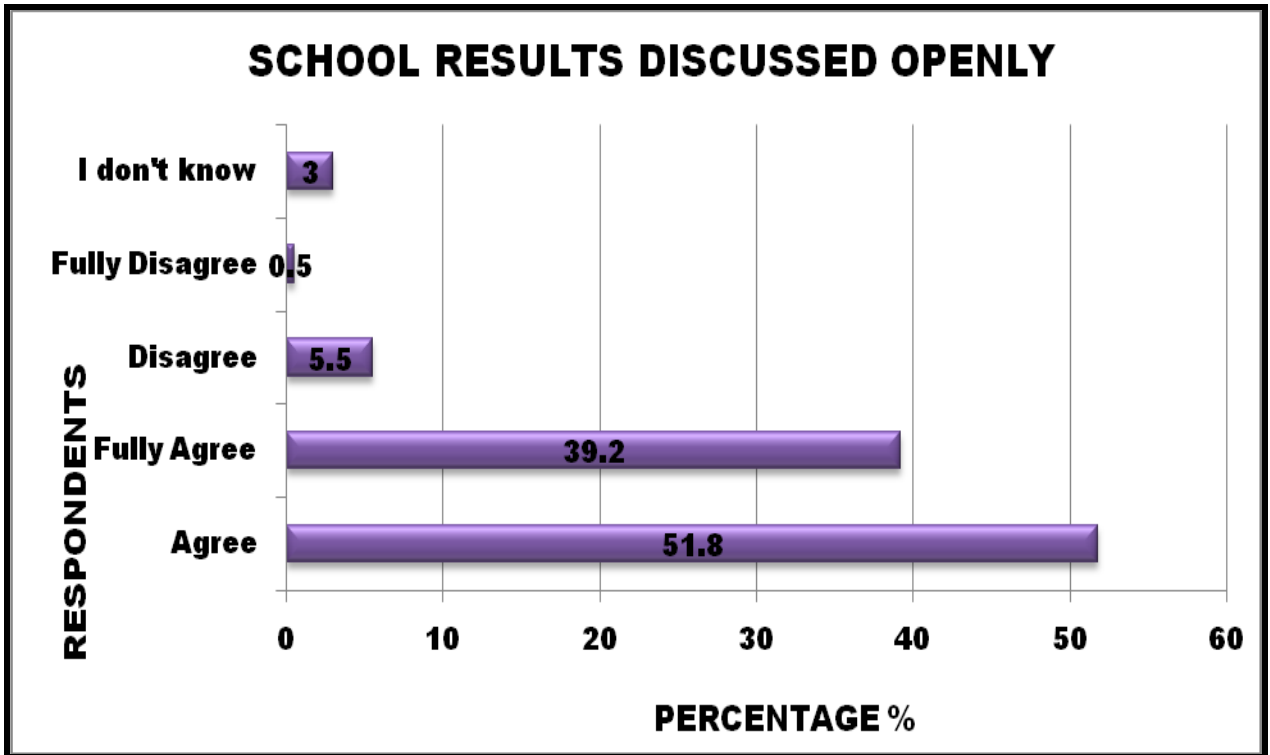

**Figure 4.31: School Results Discussed Openly**

4.4 DISTRIBUTION OF PARTICIPANTS BASED ON THEIR PERSONAL OPINION ABOUT TOTAL QUALITY MANAGEMENT AND SCHOOL IMPROVEMENT

The tables and figures that follow below illustrate the responses by the participants based on their opinions about Total Quality Management and school improvement.

4.4.1 TQM Process Effectively and Constantly Managed

Table 4.32: TQM Process Effectively and Constantly Managed

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
TQM Process Effectively and Constantly Managed	Yes	134	68.3	68.3
	No	20	10.2	78.5
	Not Sure	37	18.9	97.4
	I do not know	5	2.6	100.0
	Total	**196**	**100.0**	

Table 4.32 reveals a significantly large positive response about TQM process being effectively and constantly managed. A significant majority, 68.3% (134) of participants affirms TQM process being effectively and constantly managed in their schools, and only 10.2% (20) of participants who are negating the statement. It shows 18.9% (37) who are not sure and 2.6% (5) who did not know.

Figure 4.32: TQM Process Effectively and Constantly Managed

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4.4.2 Customers' needs be the Focus in Establishing Education Aims

Table 4.33: Customers' needs be the Focus in Establishing Education Aims

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Customers' needs be the Focus in Establishing Education Aims	Yes	174	87.5	87.5
	No	8	4.0	91.5
	Not Sure	13	6.5	98.0
	I do not know	4	2.0	100.0
	Total	**199**	**100.0**	

As shown in Table 4.33, an overwhelming majority of participants, 87.5% (174) responded affirmatively on the notion that customer needs must be the focus in establishing educational aims. Only 4.0% (8) of participants responded negatively to the statement. Those who were not sure and who did not know make 8.5%.
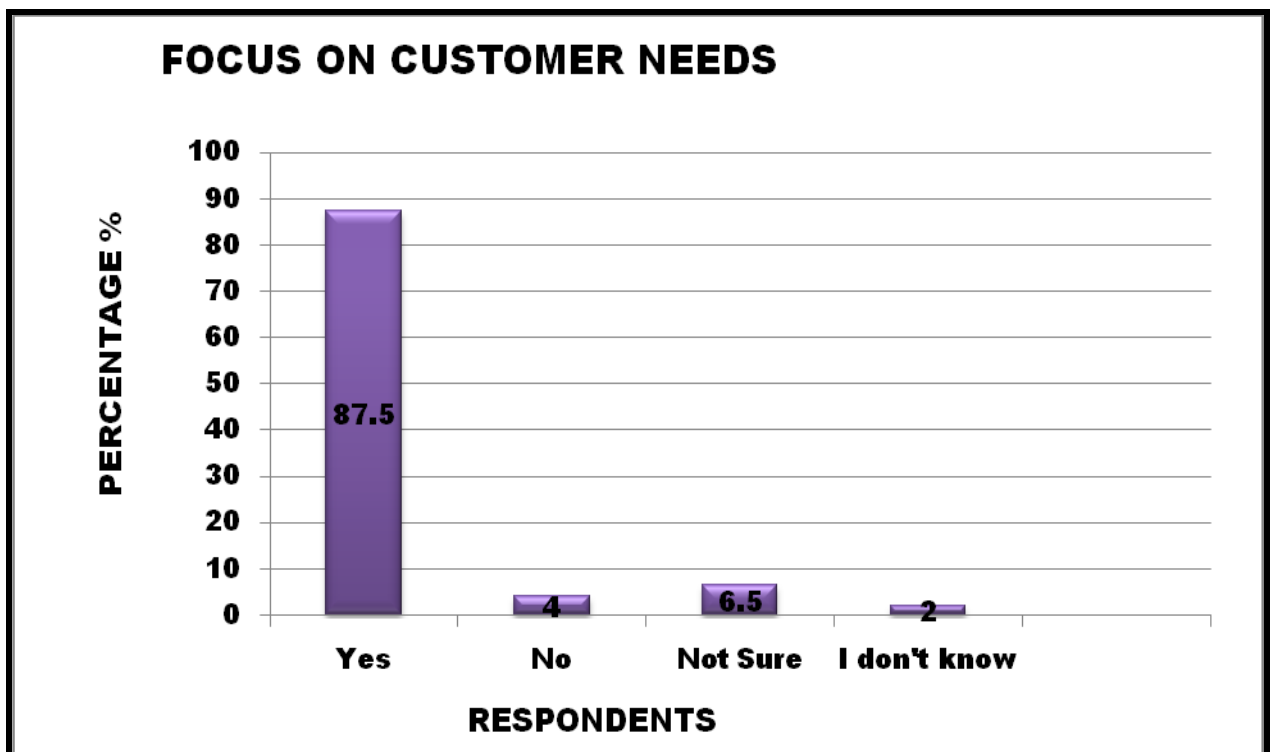
Figure 4.33: Customers' needs be the Focus in Establishing Education Aims

4.4.3 Necessity for Educators to be trained on TQM Principles

Table 4.34: Necessity for Educators to be trained on TQM Principles

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Necessity for Educators to be trained on TQM Principles	Yes	187	94.0	94.0
	No	3	1.5	95.5
	Not Sure	7	3.5	99.0
	I do not know	2	1.0	100.0
	Total	**199**	**100.0**	

Table 4.34 reveals an overwhelming majority of participants, 94.0% (187) responded positively on the notion that it is necessary for educators to be trained on TQM principles, and only 1.5% (3) responded negatively to the statement. Those who were not sure and who did not know make 4.5%.
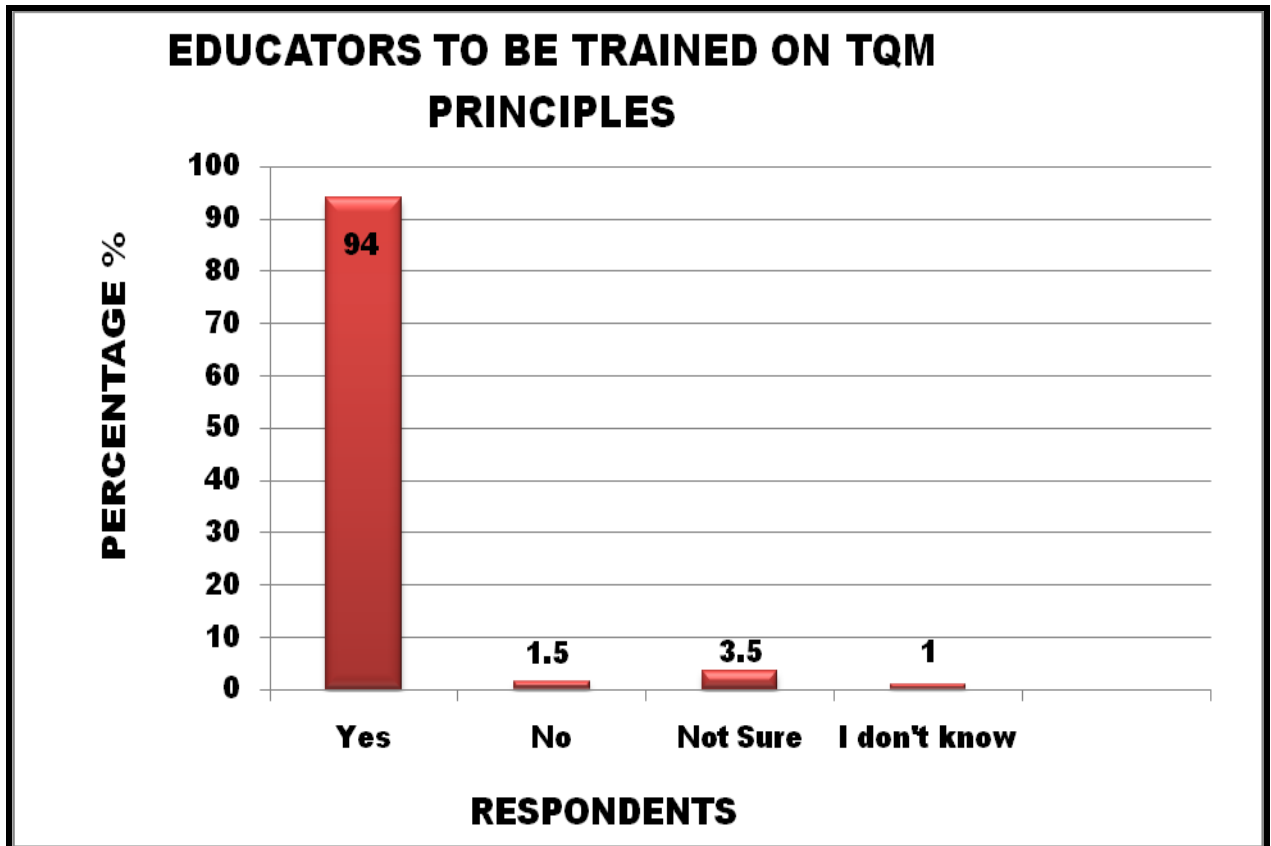
Figure 4.34: Necessity for Educators to be trained on TQM Principles

4.4.4   Departmental Policies Communicated

Table 4.35: Departmental Policies Communicated

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
	Yes	150	75.8	75.8
Departmental	No	20	10.1	55.9
Policies	Not Sure	22	11.1	97.0
Communicated	I do not know	6	3.0	100.0
	Total	198	100.0	

When asked if the Departmental policies are communicated and discussed by all staff members, Figure 4.35 shows that the majority of participants, 75.8% (150) responded affirmatively to the statement, and 10.1% (20) responded negatively. It also indicates that 11.1% (22) of participants were not sure and 3.0% (6) did not know.
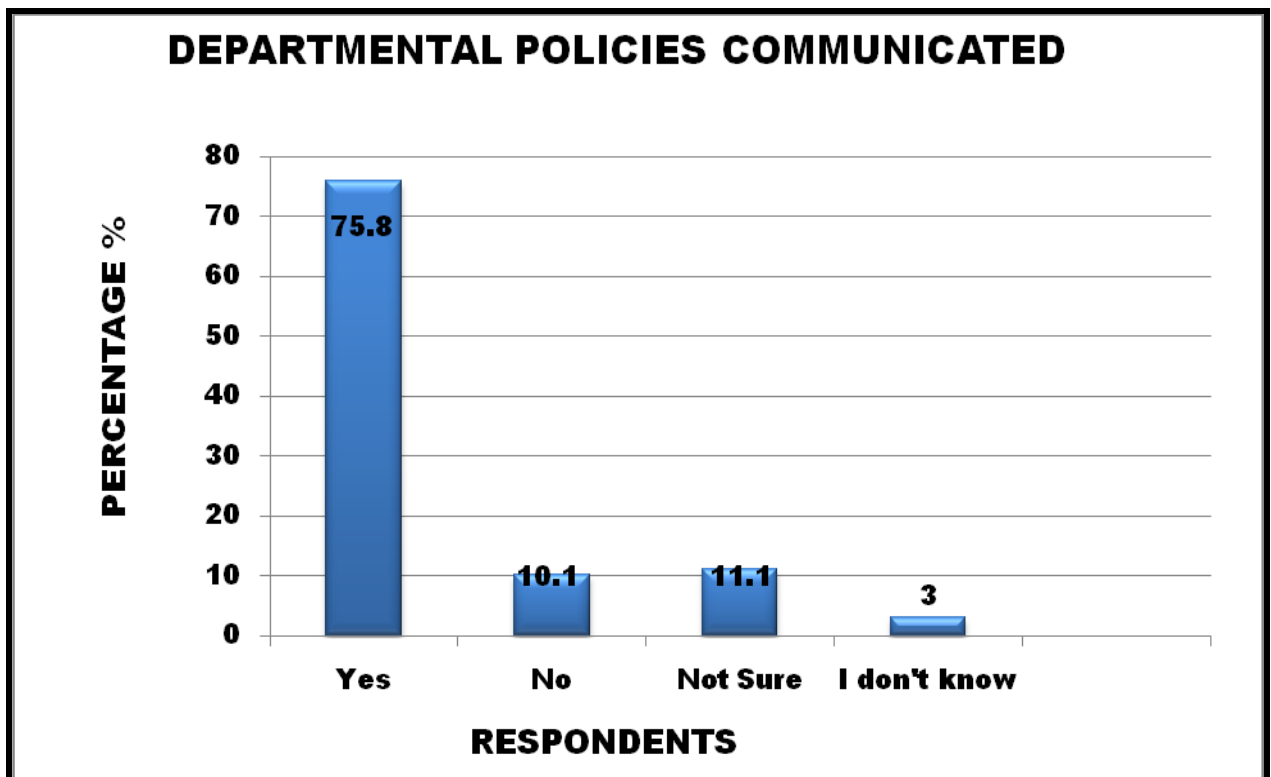
Figure 4.35: Departmental Policies Communicated

4.4.5 Access to Departmental Policies

Table 4.36: Access to Departmental Policies

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
	Yes	150	75.8	75.8
Access to	No	20	10.1	55.9
Departmental	Not Sure	22	11.1	97.0
Policies	I do not know	6	3.0	100.0
	Total	**198**	**100.0**	

Table 4:36 shows that a significant large percentage of participants, 71.6% (141) responded affirmatively on the notion which intended to find out if the educators have access to documents carrying departmental policies. Only 16.2% (32) of participants responded negatively to the statement. It also indicates that 9.6% (19) of participants who were not sure and 2.6% (5) who did not know.
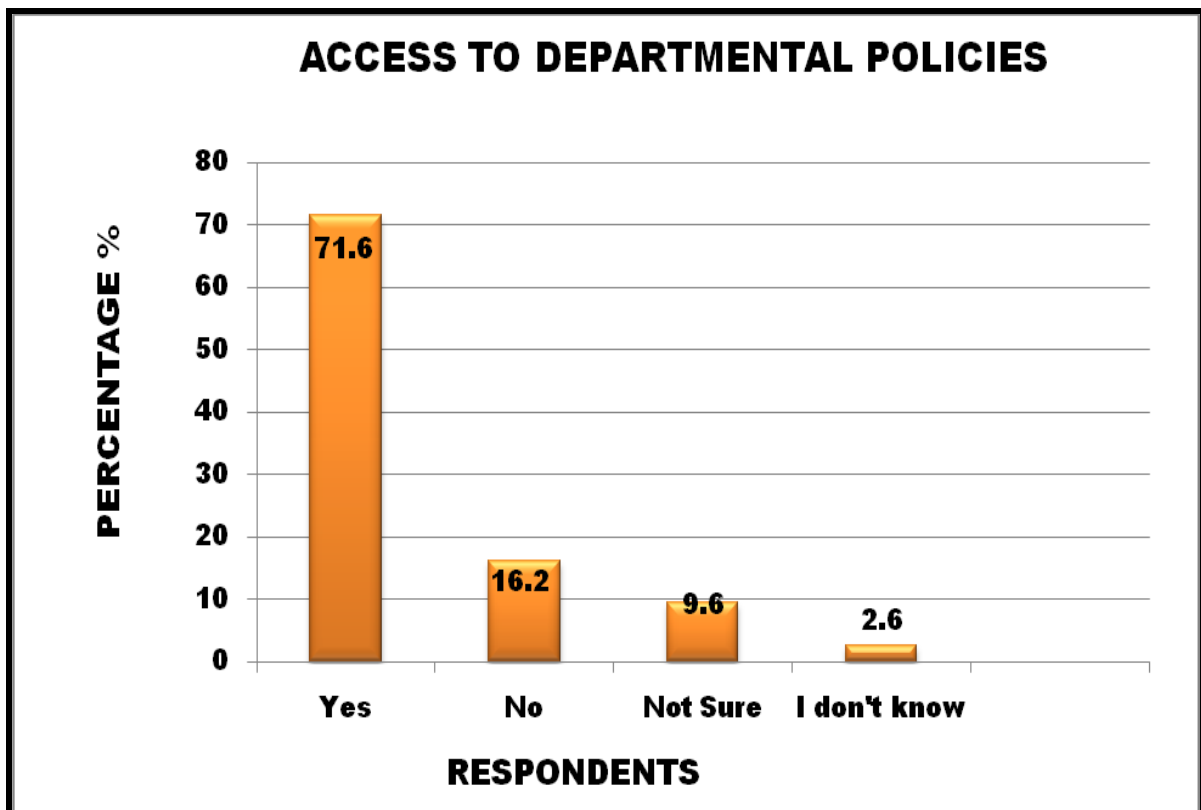
Figure 4.36: Access to Departmental Policies

4.4.6 **Policies Provide Good Foundation for Effective Teaching and Learning**

Table 4.37: Policies Provide Good Foundation for Effective Teaching and Learning

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIV E PERCENT
Policies Provide Good Foundation for Effective Teaching and Learning	Yes	163	82.3	82.3
	No	8	4.0	55.9
	Not Sure	18	9.1	97.0
	I do not know	9	4.6	100.0
	Total	198	100.0	

Table 4.37 reveals a significantly large positive response about departmental policies providing a good foundation for effective teaching and learning. A tremendous majority 82.3% (163) of participants affirm that these departmental policies provide a good foundation for teaching and learning, and only 4.0% (8) of participants who are negating the statement. It shows 9.1% (18) who are not sure and 4.6% (9) who did not know.
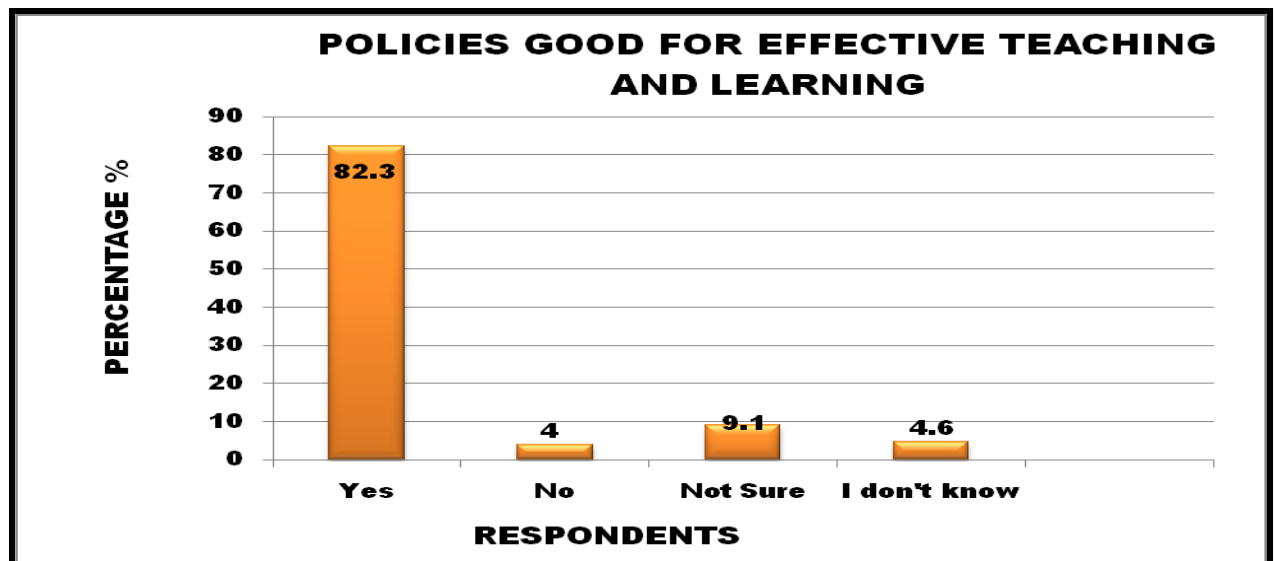
Figure 4.37: Policies Provide Good Foundation for Effective Teaching and Learning

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4.4.7 Commitment to TQM can Improve School Performance

Table 4.38: Commitment to TQM can Improve School Performance

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Commitment to TQM can Improve School Performance	Yes	190	95.5	95.5
	No	1	0.5	96.0
	Not Sure	6	3.0	99.0
	I do not know	2	1.0	100.0
	Total	**199**	**100.0**	

When asked if commitment to TQM can help improve schools' performance, Table 4.38 reveals an overwhelming majority of participants, 95.5% (190) responded positively. Only 0.5% (1) responded negatively to the statement. Those who were not sure and who did not know make 4.0% (8).
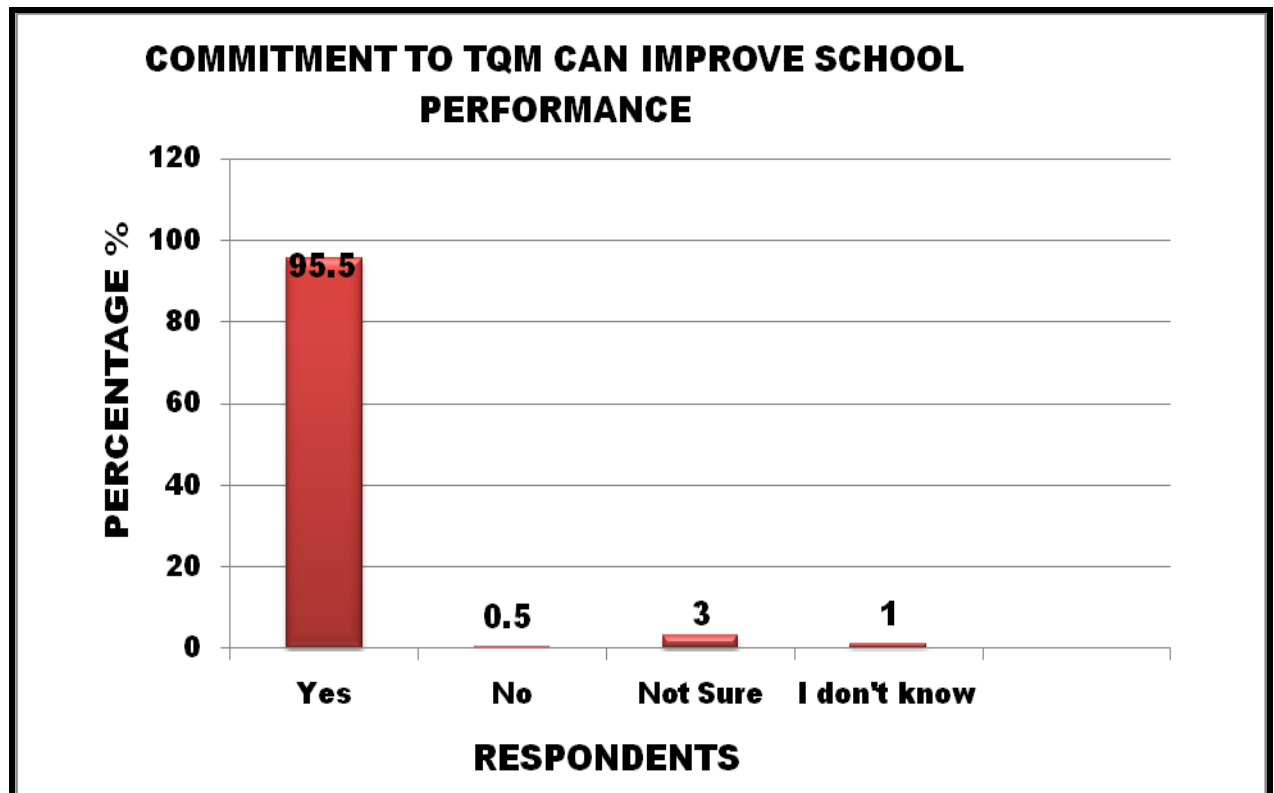
Figure 4.38: Commitment to TQM can Improve School Performance

4.4.8   Staff Suggestions be Valued and Rewarded

Table 4.39: Staff Suggestions be Valued and Rewarded

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Staff Suggestions be Valued and Rewarded	Yes	184	92.5	92.5
	No	2	1.0	93.5
	Not Sure	9	4.5	98.0
	I do not know	4	2.0	100.0
	Total	**199**	**100.0**	

Table 4.39 indicates a remarkable majority, 92.5% (184) of participants affirming that the school leaders at all levels need to communicate that staff suggestions be valued and rewarded, and only 1.0% (2) of participants who are negating the statement. It shows 4.5% (9) who are not sure and 2.0% (2) who did not know.

Figure 4.39: Staff Suggestions be Valued and Rewarded

4.4.9   Re-Training in New Management Methods of Principals and Staff

Table 4.40: Re-Training in New Management Methods of Principals and Staff

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Re-Training in New Management Methods of Principals and Staff	Yes	169	85.4	85.4
	No	9	4.5	89.9
	Not Sure	16	8.1	98.0
	I do not know	4	2.0	100.0
	Total	**198**	**100.0**	

Table 4.40 reveals a tremendous positive response about retraining of principals and staff in new methods of management. A significant majority, 85.4% (1694) of participants responded affirmatively on the idea of retraining principals and educators in new methods of school-based management. But, only 4.5% (9) of participants are negating the statement. It shows 8.1% (16) who are not sure and 2.0% (4) who did not know.

Figure 4.40: Re-Training in New Management Methods of Principals and Staff

4.4.10   IQMS helps in Improving School Performance

Table 4.41: IQMS helps in Improving School Performance

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
IQMS helps in Improving School Performance	Yes	167	84.0	84.0
	No	4	2.0	86.0
	Not Sure	22	11.0	97.0
	I do not know	6	3.0	100.0
	Total	**199**	**100.0**	

When asked if IQMS helps in improving schools' performance, Table 4.41 shows an overwhelming majority of participants, 84.0% (167) who responded positively while only 2.0% (4) responded negatively to the statement. It shows 11.0% (22) who are not sure and 3.0% (6) who did not know.
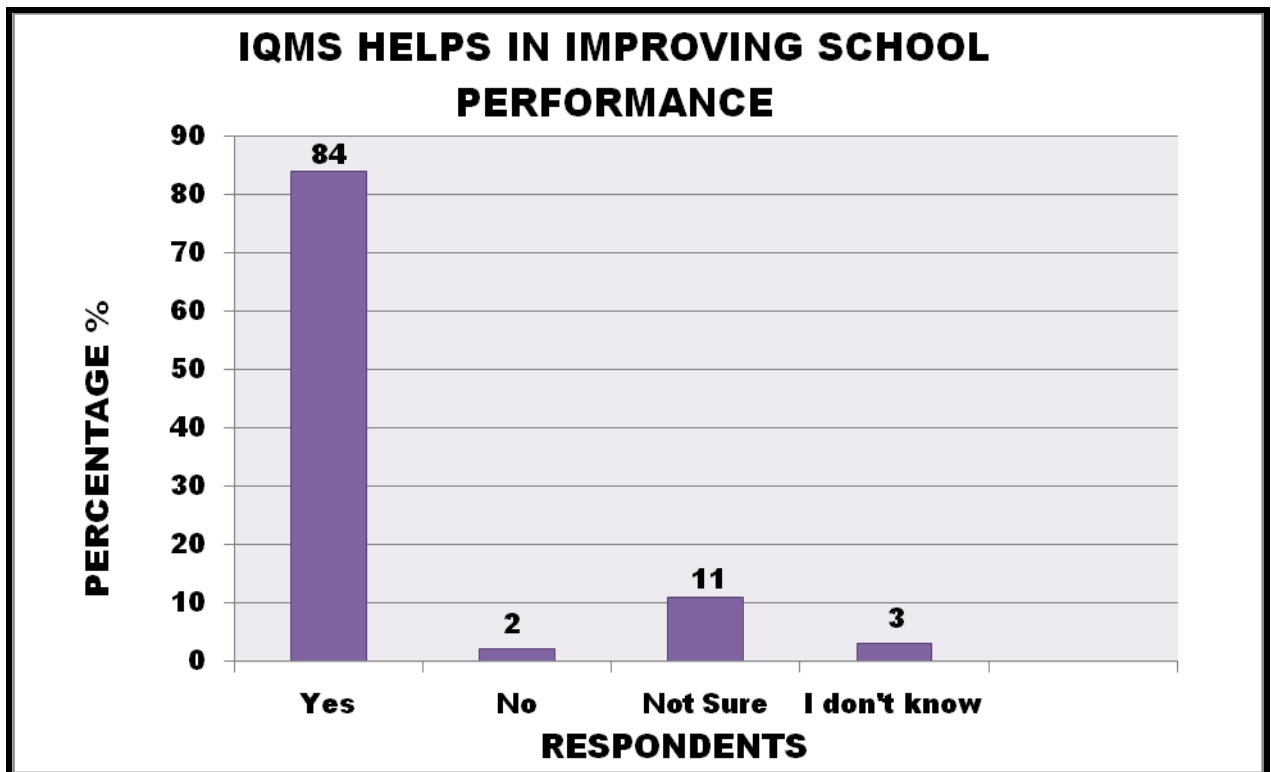
Figure 4.41: IQMS helps in Improving School Performance

4.4.11 Need for Management Methods Change in School

Table 4.42: Need for Management Methods Change in School

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Need for Management Methods Change in School	Yes	112	57.1	57.1
	No	48	24.5	81.6
	Not Sure	30	15.3	96.9
	I do not know	6	3.1	100.0
	Total	196	100.0	

When asked if there was a need for management methods change, Figure 4.42 shows majority of participants, 57.1% (112) who responded positively on the statement. But, a moderate majority, 24.5% (48) responded negatively to the statement. It shows 15.3% (30) who are not sure and 3.1% (6) who did not know.
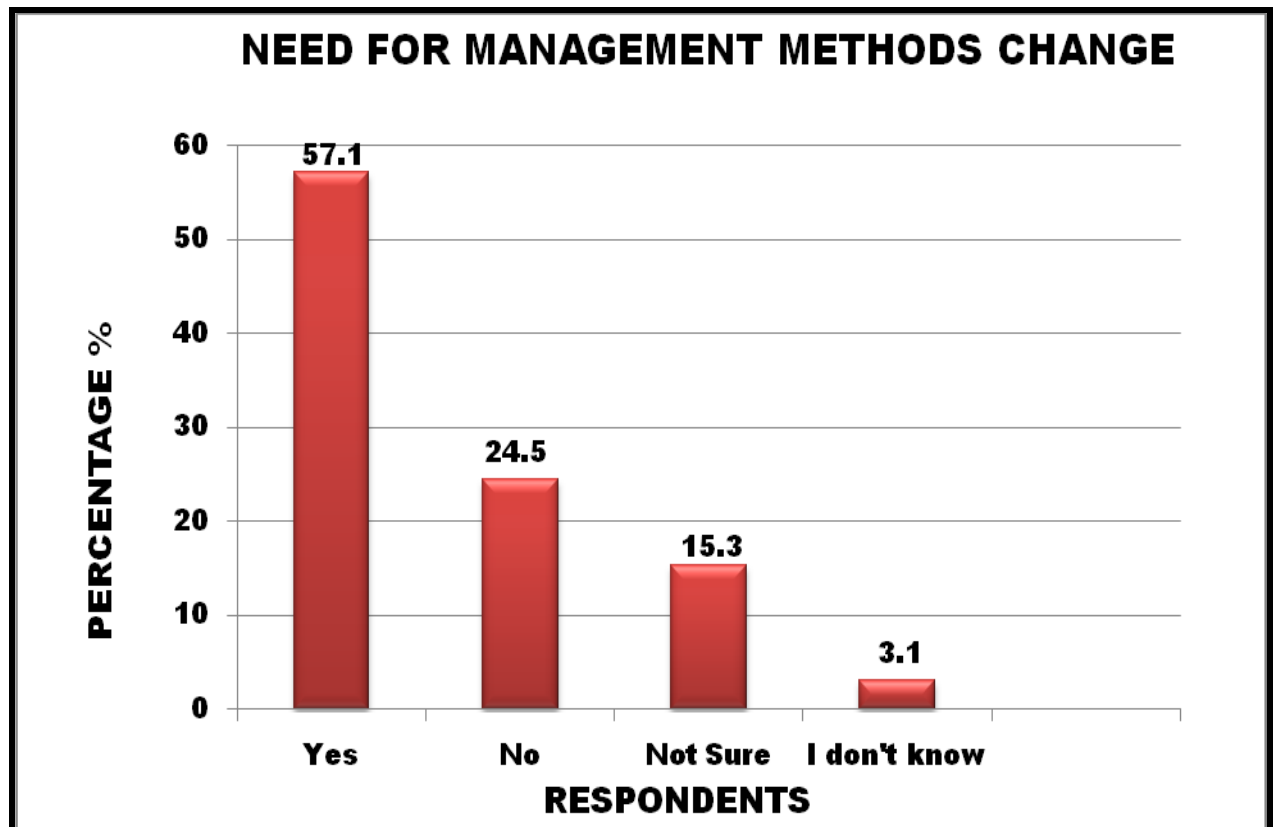
Figure 4.42: Need for Management Methods Change in School

4.4.12   Reasons for Management Methods Change

Table 4.43: Reasons for Management Methods Change

VARIABLE	SUB-VARIABLE	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Reasons for Management Methods Change	Satisfactory	32	24.6	24.6
	Unsatisfactory	98	75.4	100
	Total	**130**	**100.0**	

When asked about the reasons for management methods change, Table 4.43 reveals that from the reasons that were mentioned when grouped together, the significant majority of participants, 75.4% (98) indicated that they were not satisfied (unsatisfactory) with the current management methods in their schools. However, only 24.6% (32) of participants seemed satisfied with the current management methods in their schools.
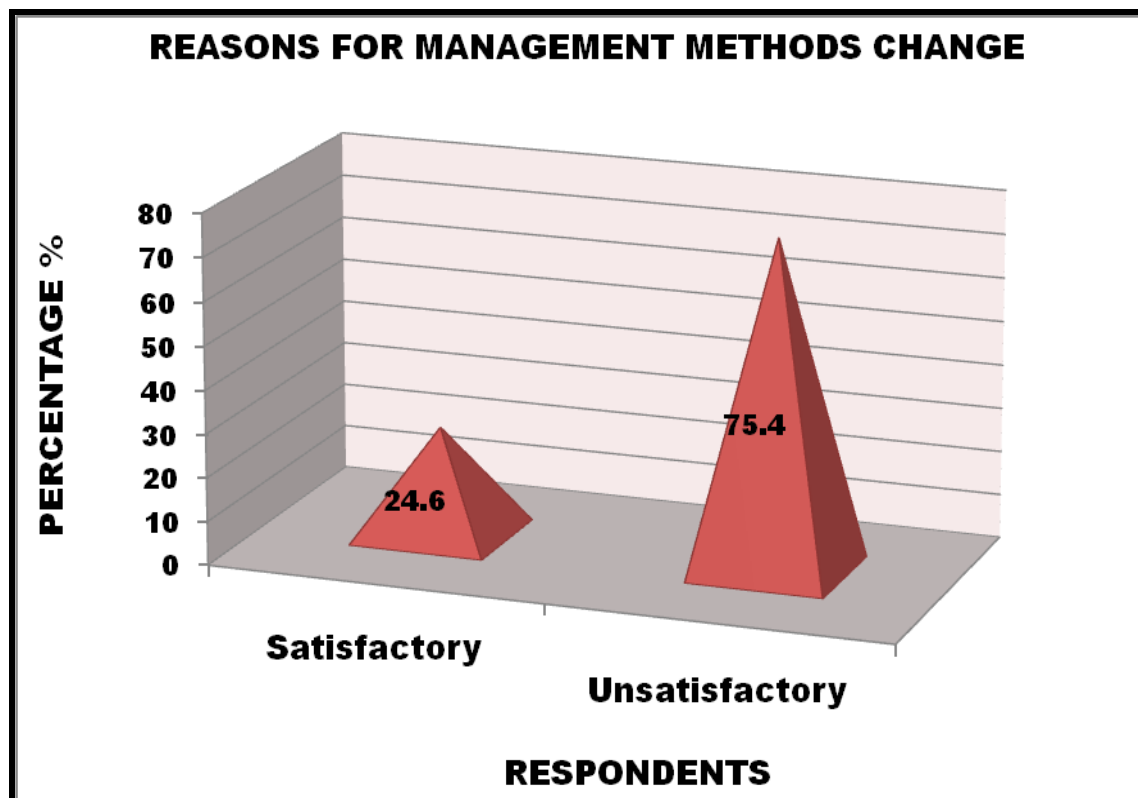
Figure 4.43: Reasons for Management Methods Change

4.5   CONCLUSION

The purpose of this chapter was to present and discuss data collected by means of questionnaires administered to educators from schools within Uthungulu District; and to reduce the data into intelligible and interpretable form. However, most of the data presented were taken as self-explanatory and comprehensive. In the next chapter, the findings will be interpreted according to responses to the key research questions as formulated during the interviews.

CHAPTER FIVE

DISCUSSION OF RESULTS

5.1   INTRODUCTION

The purpose of this chapter was to discuss and interpret data collected by means of questionnaires administered to educators of Uthungulu District in KwaZulu-Natal. The researcher tried to develop concepts, insights and understanding from patterns in the data (Taylor and Bogdan, 1984). The comments were made on the basis of the apparent patterns and trends the responses reflected.

5.2   RESTATEMENT OF OBJECTIVES AND HYPOTHESES

Firstly, research objectives refer to what the researcher wanted to achieve at the end of the research study. The researcher wanted to investigate the influence of Total Quality Management (**TQM**) on School Improvement within the study area, Uthungulu District. Secondly, the research hypothesis refers to the statement of what the researcher deems to be the most probable answer to the research question. In other words, it is a tentative statement of solution, which was subject to verification through actual research.

In this chapter, both the objectives and hypotheses help serve as guidelines to what is to be interpreted, as well as the research questions to be addressed at the end of the study.

It is important that objectives and hypotheses be restated so as to avoid the misinterpretation of data collected. Hereunder are the objectives and hypotheses of the study

Objective 1:   To determine the influence of Total Quality Management **(**TQM) in secondary schools;

Hypothesis 1:   Total Quality Management (TQM) has no influence on secondary school performance;

Objective 2:   To find out whether principles associated with the improvement of TQM in the study area, do exist;

Hypothesis 2:   Principles associated with the improvement of TQM in the study area are non- existent;

Objective 3:   To assess the role played by stakeholders in the application of TQM for school improvement in the study area;

Hypothesis 3:   The role played by stakeholders in the application of TQM for school improvement is minimal; and

Objective 4:   To examine the influence of the Integrated Quality Management System (IQMS) as a system to improve quality in schools.

Hypothesis 4:   The Integrated Quality Management System (IQMS) has an influence as a system to improve quality in schools.

The reason behind the restatement of hypotheses is that the data that has been collected has to affirm or refute each of the above stated hypotheses. Hypotheses together with objectives of the study provide direction for the analysis of data.

5.3   BIOGRAPHICAL DATA OF RESPONDENTS

5.3.1   Gender

It was important to check gender representation in the study. The biographical data indicated that there was uneven distribution of gender, that is, there were more female participants than males. It means the results were biased and depended on

female opinions. This unevenness might be the indication that there are more females in the Uthungulu District where the study was conducted.

5.3.2   Age Distribution

The second variable of 'age' distribution reveals that the majority of the respondents are between the ages 31 to 40 followed by ages between 41 to 50. This implies that the schools system still have the supply of educators for a longer period. This indicates that there is still more educators who will remain in the system for a longer period. These are the educators who are supposed to assist and mentor young and new educators in schools. It also reveals that there are still educators between 21 and 30 years (21.0%) who are entering the education system.

5.3.3   Educational Qualifications

The participants appeared to be most qualified, as the results reveal that most of the educators are graduates and postgraduates. It means that most of them know what is expected of them. They were able to participate meaningfully in the study. On the whole this is also an indication that educators are qualified to do their job. Therefore, they are in the position to see to it that quality education is provided in schools. It is important that quality become the important priority from entry level employee all the way through to management as indicated by Hill (2011). Teacher quality is the most important factor that makes the difference in management and delivery.

5.3.4   Rank

The results showed that there are more PL1 educators, and as one goes up there is a decrease in number, resulting in a pyramid structure of ranking.
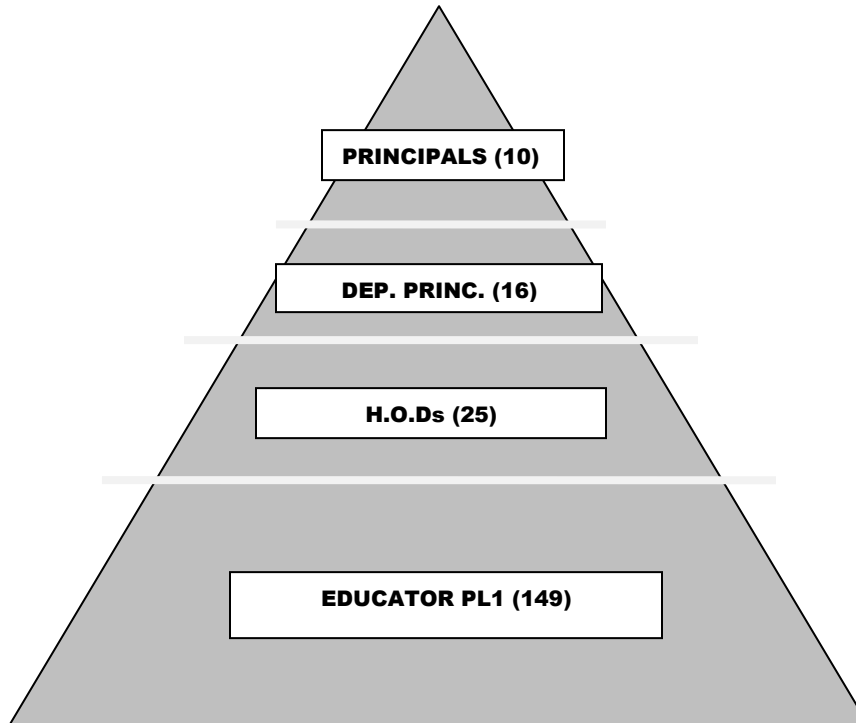
Figure 5.1: Rank Pyramid

5.3.5   Teaching Experience

The results showed that there were more educators with teaching experience from 0 to 5 years. This means that these are new educators who need to be taught more about quality management because they are regarded as inexperienced in the TQM processes. The respondents with teaching experience from 16 to 20 years are expected to have been involved in TQM processes. If you combine categories of teaching experience from 11 to 31 and above, those respondents form a larger percentage, 75%, which should be regarded as experience in TQM programmes.

5.4   DISCUSSION OF RESULTS BASED ON TOTAL QUALITY MANAGEMENT AND SCHOOL IMPROVEMENT

5.4.1   Knowledge of vision and Customer-Focused Mission Statement

From the results it evident that 90.3% of participants indicated that their schools have a clear customer-focused mission statement. It means that if the schools have mission statements, they are supposed to work according those mission statements

to ensure quality is promoted. They should be guided by the mission statement on how to meet customer needs and how to exceed the expectations of customers.

The results also seem to suggest that the majority, 87.2% (170) of the participants know the vision and mission statements of their schools. The question that may arise may seek to check if these are being applied in real situations in schools. The schools should stick to their vision and mission statements for the improvement of their schools in order to maintain quality. Successful school improvement requires establishment of clear vision and mission; knowledge of how well the school is accomplishing that mission; identification of areas for improvement; development of plans to change educational activities; and programmes and implementation of those plans or new programmes effectively.

5.4.2   Knowledge of Quality Management

The results reveal that 87.1% of participants have knowledge of Quality Management, while only the small amount 9.3% who did not know what quality management is. The question arising is 'if the educators have knowledge of quality management, what is it that is stopping them from practising it?' Knowledge of quality management assists in constant pursuit of excellence and how to do things right first time. This will also result in quality teaching and learning in schools.

5.4.3   Quality Control Taking Place

Results revealed that when participants were asked if any quality control was taking place in their school, a large majority, 82.2% (171) agreed that quality control was taking place. Quality control has to do with checking if the work is according to requirements. Quality improvement should start with commitment on the part of school leaders to the quality process. It means that if the top management plays an important role in quality control, then the individual educator could apply the quality process in classroom. This is in agreement with one of the processes that form the basis of quality management mentioned by van der Westhuizen (2007).

5.4.4 Duties Explained on Assumption

It is evident from the results that 90.8% (177) of participants when assuming their duties they were informed about their duties. But only a few, 9.2% (18) were not informed of their duties. From the results, it is clear that most educators are aware of what is expected. The highest percentage of participants agrees that their duties were explained on their day of assumption of their duties. Therefore, everybody is expected to perform to his or her best ability to ensure total quality in schools. But if there is a 9, 2% whose duties were not explained; there is a loophole. If some educators were not informed of their duties, it means quality is compromised. Murgatroyd and Morgan (1993) emphasized that everyone should be mobilized to improve the way they perform their jobs. But it is impossible to perform if one is not informed what to do and what is expected of him/her.

5.4.5 Consultation on Quality Service

Results indicate that when participants were asked if there was any consultation of educators on the quality of service the school is expected to deliver, the majority, 73.1% (144) agreed, supported by participants who fully agreed, 16.8% (33). Those who disagreed form 5.6% (11) and supported by those who fully disagreed, 3.0% (6). The results reveal that the highest percentage of participants agrees that there was consultation on quality service expected to be delivered. This indicates that there is communication taking place and all stakeholders are involved and are aware that quality service is important for quality processes. Customer satisfaction and focus are very important in TQM. Customer needs and how to deliver value should be clearly understood. People should be proud and excited to be involved to ensure interest in quality management. If there is a small percentage of people who are not consulted, there is going to be trouble. Quality teaching and learning at schools depends on educators. For a school to be successful and effective it requires a committed and well-trained work force that participates fully in the quality improvement activities. The educators should be the people who can provide the school with the expertise that is needed to run it successfully and to create a positive culture of teaching and learning.

5.4.6 Planning and Control of Service

When asked if the educators were involved in planning and control of service, the majority of participants, 58.9% (116) agreed and supported by participants who fully agreed, 22.3%. However, few participants, 10.7% disagreed to the statement, supported by 6.1% who fully disagreed. Lack of planning and control result in lack of improvement. Planning and control of service or activities are very important in achieving quality. Hill (2011) indicates that a process needs to be defined and described in detail with the required results identified. There should be setting key responsibility. For a process to be effectively planned and implemented, specific responsibility, authority and scope will need to be clearly laid out for each individual with a role of the process.

5.4.7 Learners Viewed as Important Customers

Results reveal that learners are viewed as important customers. The majority of participants, 60.8 (121) agreed to the statement that learners are viewed as important customers, supported by those who fully agreed also the statement, 31.2% (62). But those who disagreed to the statement make 3.0%(6) supported by those who fully disagreed, 2.0% (4). On the whole, participants in the study area have shown a positive attitude towards understanding their customers. It means that the schools have a clear vision of who their customers are. Therefore, if schools regard learners as customers, they should be focusing on making sure that they satisfy the needs of their customers.

5.4.8 Interaction for Purpose of Quality Improvement

The results reveal that the majority of participants, 69.3% (138) agreed to the statement that the purpose of interaction of participants in the school is to improve quality, and were supported by 20.6% (41) who fully agreed. Those who disagreed accounted to 5.5% (11) and supported by 2.5% (5) who fully disagreed. It means most schools realize that the main objective should be continuous improvement. If people easily share knowledge and experience, this strengthens the departments and assists quality management by ensuring that departments are able to operate

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smoothly and more effectively (Hill, 2011). It is also clear from the results that a reasonable majority of educators are prepared to work as a team in bring about change in their schools. An effective and efficient way to tackle quality management is through teamwork.

5.4.9   Direction Given To Improve Quality

Results indicate that participants are given direction as far as improving quality is concerned. The substantial majority, 73.8% (144) agreed to the statement, supported by 14.9% (29) participants who fully agreed to the statement. This might mean that educators are being motivated to deliver quality services that exceed the expectations of the customers. As indicated by Murgatroyd and Morgan (1993), the leadership should be responsible for providing a unity of purpose, while also establishing the direction of the organization.

5.4.10 Participation in Decision-Making by All Stakeholders

When asked if all stakeholders participate in decision-making, it is evident that 55.8% (110) agreed to the statement, supported by 12.2% (24) who fully agreed to the statement. In contrast, only 17.3% (34) participants who did not agree, supported by 9.1 (18) who fully disagreed and on and only 5.6% (11) who had no idea of what was happening. These results indicate that more needs to be done when it comes to involving stakeholders, that is, educators, parents (**SGBs**), learners (**RCLs**) and community members, in decision-making. It is evident that not all stakeholders participate in decision-making. Maybe the question arising would be, "who the stakeholders are?" Hill (2011) indicates that one of the elements of achieving quality management is determining key stakeholders of the process, that is, identifying internal and external customers, suppliers and other stakeholders who are involved in the process and its delivery.

5.4.11   <u>Services Rendered Improved Continuously</u>

Results reveal that 59.8% (119) agreed that the services rendered are improved continuously, supported by 23.2% (46) of participants who fully agreed to the

statement. There were a few who disagreed, 8.0% (16) and who fully disagreed, 4.0% (8). Continuous improvement should be the permanent quality objective of every school. As already indicated in previous chapters, van der Weshuizen (2007) indicates that the term continuous improvement comes from a Japanese word "kaizen" which means that everyone in the organization is dedicated to continuous improvement, personally and collectively. If the school's management principles do not include continuous improvement, they will not survive. In the school environment everybody needs to constantly look for ways to improve quality.

5.4.12   Evidence of Quality Leadership

From the results, it is evident that a highest percentage 60.9% (120) of participants agreed that there evidence of quality leadership in their schools, supported by 24.4% (48) who fully agreed with the statement. But a small minority, 5.6% (11) disagreed with the statement supported by 2.5% (5) who fully disagreed with the statement. This indicates that there is still shortage as far a quality leadership is concerned. It is evident in literature review that the role of leadership in quality management forms the backbone of any improvement strategy (Barry, 1991). Leadership should be responsible for creating systems and empowering others so that they can continuously make necessary improvements to meet the expectations of the organizations. Quality improvement should start with commitment on the part of school leaders to the quality process. Then the individual educator could apply the quality process in classroom, but would need the support and commitment of the school leaders to introduce a viable quality improvement process.

5.4.13   Limited Barriers to Work Efficiently and Co-Operatively

Results show that 59.8% (116) of participants agreed that there were limited barriers to work efficiently and co-operatively, supported by 14.4% (28) who fully agreed with the statement. Conversely, a small minority, 6.7% (13) disagreed with the statement supported by 8.8% (17) who fully disagreed. But in some cases there are barriers that limit educators to work efficiently and co-operatively. One of **Deming's Fourteen Points** as cited by van der Westhuizen (2007) that should be applied in

school is to break down barriers. In most cases the main barrier in quality management is lack of communication. It is important that people are passionate and proud to be part of the organization. This will ensure that they have personal interest in quality management.

5.4.14 Empowerment of All Stakeholders for Quality Improvement

The results show that 63.5% (125) agreed when asked if all stakeholders were empowered to participate in quality improvement, supported by participants, 15.7% (31) who fully agreed. Those who disagreed accounted to 7.1% (14) supported by 5.1% (10) who fully disagreed and those who did not know were at 8.6% (17). This is in agreement with Hill (2011) where he indicates that every person should be equipped within the organization with relevant education, resources and training. Educators should be trained continuously to deliver quality education. In addition, learners should be taught to be responsible and work appropriately and to take full part in the school as an institution. The principals should be empowered on leadership and management skills.

5.4.15 Effective and Constant Communication

Results indicate that 59.9% (118) of participants agreed that there is effective and constant communication in the schools, supported by 17, 8% (35) who fully agreed. A small percentage, 9.1% (18) disagreed to the statement supported by 6.1% (12) who fully disagreed. However, only 7.1% (14) did not know what this is all about. But communication is not totally effective in all schools, of which this brings some concerns. Too often, leadership makes a mistake of believing that others understand the issues and see the new direction as clearly as they do (Armstrong, 2008).   The management teams should focus on creating constant communication plan that clearly articulates the vision of where they want to go and the benefits of doing so.

5.4.16   Positive Attitude for Development of the School

From the results it is evident that 66.7% (132) of participants agreed that they had positive attitude for the development of the school, supported by 21.2% (42) who

fully agreed. But a small percentage, 4.5% (9) disagreed to the statement supported by 2.0% (4) who fully disagreed. Only 5.6% (11) did not know what this is all about. Quality in schools is not just the SMT's responsibility, but it is everyone's responsibility. Educators are also accountable for quality in class and sound classroom management. Total involvement approach to quality is also expected from educators at all levels and in all activities. Therefore, positive attitude towards quality improvement is a necessity. In the school environment everybody needs to constantly look for ways to improve quality.

5.4.17   Teamwork in Bringing Change in School

From the results it evident that 54% (107) agreed that educators are prepared to work as a team in bringing about change in their schools, supported by 31.8% (63) who fully agreed. But, 7.1% (14) disagreed and 3.1% (6) fully disagreed. Only 4.0% (8) did not know if there was teamwork in their schools. To build an effective team, a leader should establish an organizational environment in which individual team members can reflect upon and analyse relationship with other team members. Teams should be composed of people with various backgrounds and types of knowledge, who can share ideas co-operatively and learn from each other to overcome challenges. Sledge and Morehead (2006) indicates that a strong, committed professional community within a school is needed for successful change. An effective and efficient way to tackle quality improvement is through teamwork. High performing teams do not just appear; they are developed and nurtured.

5.4.18   Climate of Respect, Co-operation and Trust

The results reveal that 59.9% (118) of participants agreed that there is a climate of respect, co-operation and trust in their schools that motivate all stakeholders, supported by 22.8% (45) who fully agreed. In contrast, a small percentage, 7.6% (15) disagreed to the statement supported by 4.1% (8) who fully disagreed. Only 5.6% (11) did not know what this is all about. It is evident that in most schools there are elements of respect, co-operation and trust, but in other schools they are non-existent. It is stated in literature review that leaders are responsible for providing

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unity of purpose, while also establishing the direction of the organization (Armstrong, 2008). Top management at the end of it all are responsible for creating the culture for quality and for building relationship of trust by mobilising educators to achieve quality aims.

5.4.19   School's Physical Conditions Motivate Employees

Results indicate that 51.8% (101) of participants agreed that the physical conditions of the school motivate employees to work, supported by 18.0% (35) who fully agreed. But a relative percentage, 21.0% (41) disagreed to the statement supported by 4.1% (8) who fully disagreed. Only 5.1% (10) did not know at all. It means it depends on the condition of physical conditions. That is why it is important to ensure that the physical conditions create the environment that will motivate educators to work.

5.4.20   Recognition of all Stakeholders as Contributors in Decision-Making

When asked if all stakeholders are recognized as contributors in decision-making in schools, results show that 51.8% (108) of participants agreed, supported by 16.7% (33) who fully agreed. However, a small percentage, 12.7% (25) disagreed to the statement supported by 5.1% (10) who fully disagreed and 10.7% (21) did not know what is happening. It is important that improvement be recognized. It is revealed in literature review that improvements should be recognized and acknowledged so that all levels of participation are able to see the results that come from continuous improvement strategies, and be motivated for further improvement over the long term.

5.4.21   Stakeholders Educated to Understand Change

Table 4.27 indicates a moderate majority, 59.9% (118) of participants who agreed that all stakeholders are being educated to understand change in their schools, supported by 18.8% (37) who fully agreed to the statement. However, a small percentage, 7.6% (15) disagreed to the statement, supported by 4.1% (8) who fully disagreed and only 9.6% (19) did not know.

5.4.22   Elimination of Fear for Change

Results show that 59.9% (117) of participants agreed that the fear for change is eliminated through participation by all stakeholders, supported by 12.8% (25) who fully agreed to the statement. But a small percentage, 10.8% (21) disagreed to the statement supported by 2.6% (5) who fully disagreed and a small percentage of 13.8% (27) did not know. One of Deming's Fourteen Points talks about driving out fear. It is also revealed in literature that leadership must manage the change in a way that employees can cope with it (Armstrong, 2008). The manager has a responsibility to facilitate and enable change, and all that is implied within that statement, especially to understand the situation from an objective standpoint, and then to help people understand reasons, aims, and ways of responding positively according to employees' own situations and capabilities.

5.4.23   Resistance to Change Overcome by Persuasion

When asked if resistance to change is overcome by persuasion in their schools, results show that 61.8% (120) of participants agreed, supported by 11.3% (22) who fully agreed. But a small percentage, 11.9% (23) disagreed to the statement supported by 5.7% (11) who fully disagreed and 10.7% (21) did not know what is happening. Change is something that is feared universally and people will jump upon any excuse to keep things as they are. However, it is indicated in literature review that some people are quite comfortable and enthusiastic about change (Armstrong, 2008). These people are known in responding to new ideas by asking relevant questions. However, many people react to change negatively. As signs of resistance to change, they immediately begin to list all the possible reasons why the new idea is not going to work, attack the person delivering the message and begin to criticize the initiator of the idea.

5.4.24   Establishment of Good Relationship among Stakeholders

Results reveal that when asked if good relationships are established among all stakeholders, 64.6% (128) agreed, supported by participants, 20.7% (41) who fully agreed. Those who disagreed accounted to 5.6% (11) supported by 3.5% (7) who

fully disagreed and those who did not know, formed 5.6% (11). Too often, leadership makes a mistake of believing that others understand the issues, feel the need to change, and see the new direction as clearly as they do.   The management teams should focus on creating a working plan that clearly articulates the vision of where they want to go and the benefits of doing so. They should encourage good relationships among educators, learners, parents, industries as well as the community.

5.4.25   School Results Discussed Openly

From the results it is evident that 51.8% (103) of participants agreed that all school results are discussed openly in their schools, supported by a moderate percentage of participants, 39.2% (78) who fully agreed to the statement. However, a small percentage, 5.5% (11) disagreed to the statement supported by 0.5% (1) who fully disagreed and only 3.0% (6) did not know. The question arising is 'if there are instances where results are not discussed, how are they going to review if improvement is taking place'? As stated in literature review, the school should add value to learning experiences which require regular team discussions and analysis of every significant process and method that affects outcomes and results. According van der Westhuizen (2007), continuous improvement requires a cyclic process and can be visualized by means of the *PDSA cycle* **(Plan-Do-Study-Act)**, which is the heart of what schools do in implementing quality management.

5.5   DISCUSSION OF RESULTS BASED ON THE PERSONAL OPINION ABOUT TOTAL QUALITY MANAGEMENT AND SCHOOL IMPROVEMENT

5.5.1 TQM Process Effectively and Constantly Managed

Results show a positive response about TQM process being effectively and constantly managed. A significant majority, 68.3% (134) of participants affirms TQM process being effectively and constantly managed in their schools, and only 10.2% (20) of participants who are negating the statement. It shows 18.9% (37) who are not

sure and 2.6% (5) who did not know. From the results it is evident that in some schools there is no effective and constant management to ensure quality.

5.5.2 Customers' needs be the Focus in Establishing Education Aims

Results reveal that 87.5% (174) responded affirmatively on the notion that customer needs must be the focus in establishing educational aims, and only 4.0% (8) of participants responded negatively to the statement. Those who were not sure and who did not know make 8.5%. It is evident that the schools should understand current and future needs of their customers and make sure that they meet them. Measures and objectives should be established to guide and track improvement.

5.5.3 Necessity for Educators to be trained on TQM Principles

The results reveal that 94.0% (187) responded positively on the notion that it is necessary for educators to be trained on TQM principles, and only 1.5% (3) responded negatively to the statement. Those who were not sure and who did not know make 4.5%. It is evident that as much as it is revealed from the finding that educators have knowledge of TQM, it is clear from these results that more needs to be done on TQM principles. One of Deming's Fourteen Points to be applied in schools as cited by van der Westhuizen (2007) is a vigorous programme of education and self-improvement.

5.5.4 Departmental Policies Communicated

When asked if the departmental policies are communicated and discussed by all staff members, results show that 75.8% (150) responded affirmatively to the statement, and 10.1% (20) responded negatively. It also indicates that 11.1% (22) of participants were not sure and 3.0% (6) did not know. The mere fact that there are those who disagree and those who are not sure it means there is a problem. The departmental policies need to be communicated to all.

5.5.5 Access to Departmental Policies

The findings show that 71.6% (141) responded affirmatively on the notion which intended to find out if the educators have access to documents carrying departmental policies. Only 16.2% (32) of participants responded negatively to the statement. It also indicates that 9.6% (19) of participants who were not sure and 2.6% (5) who did not know. If the departmental policies are accessible there is no excuse of not knowing the policies of the department.

5.5.6 Policies Provide Good Foundation for Effective Teaching and Learning

The results reveal a positive response about departmental policies providing a good foundation for effective teaching and learning. A large majority, 82.3% (163) of participants affirm that these departmental policies provide a good foundation for teaching and learning, and only 4.0% (8) of participants who are negating the statement. It shows 9.1% (18) who are not sure and 4.6% (9) who did not know. Educators should be conversant with department policies and understand what is expected of them. As indicated in the literature review, as life-long learners, teachers recognize that their profession continues to evolve as they reflect and act on new information (Hill, 2011). The educators need to know the situation in which they are operating and have some ideas of what it is that needs to be done.

5.5.7 Commitment to TQM can Improve School Performance

When asked if commitment to TQM can help improve schools' performance, results show that 95.5% (190) responded positively on the notion that commitment to Total Quality Management can improve performance in schools, and only 0.5% (1) responded negatively to the statement. Those who were not sure and who did not know make 4.0% (8). It is indicated from literature review that teams should be composed of people with various backgrounds and types of knowledge. These people should be able to share ideas co-operatively and learn from each other to overcome challenges. However, people will not engage in improvement activities without commitment and recognition from the leaders. Continual improvement should be a permanent objective of the organization. People at all levels are the

essence of an organization and their full involvement enables their abilities to be used for the organization's benefit. Quality improvement should start with commitment on the part of school leaders to the quality process. Then the individual educator could apply the quality process in classroom, but would need the support and commitment of the school leaders to introduce a viable quality improvement process.

5.5.8   Staff Suggestions be Valued and Rewarded

Findings indicate that 92.5% (184) of participants affirm that the school leaders at all levels need to communicate that staff suggestions be valued and rewarded. Only 1.0% (2) of participants disagree with the statement. It shows 4.5% (9) who are not sure and 2.0% (2) who did not know. It is evident that educators need to be recognized for their contribution in quality management. Improvements should be recognized and acknowledged so that all levels of employees are able to see the results that come from continuous improvement strategies, and be motivated for further improvement over the long term period. As indicated by Hill (2011:6), each person within the organization has the responsibility of adding value for customers. Each person is required to create value for customer in any way that they are able to do so. People who are finding their work rewarding and satisfying are far more likely to want to be involved in all aspects of improvement as they have a vested interest.

5.5.9   Re-Training in New Management Methods of Principals and Staff

Results reveal a positive response about retraining of principals and staff in new methods of management. A significant majority, 85.4% (1694) of participants responded affirmatively on the idea of retraining principals and educators in new methods of school-based management. Only 4.5% (9) of participants are negating the statement. It shows 8.1% (16) who are not sure and 2.0% (4) who did not know. It means that systems of empowerment should be created. As indicated in the literature review, leadership should be responsible for creating systems and empowering others so that they can continuously make necessary improvements to

meet the expectations of the organization (Hill, 2011). Continuous training of educators is necessary for them to be able to provide quality service.

5.5.10 IQMS helps in Improving School Performance

When asked if IQMS helps in improving schools' performance, 84.0% responded positively on the notion that IQMS can help in improving performance in schools. It will be remembered that the implementation of IQMS is guided by the following principles:

- The recognition of the crucial role of the delivery of quality public education;
- That all learners have equal access to quality education;
- The need for an Integrated Quality Management System, which is understood, credible, valued and used professionally;
- That the system's focus is positive and constructive even where performance needs to improve;
- That the system includes the process of self-evaluation and discussion of individual expectations;
- The need to minimize subjectivity through transparency and open discussion, and quality controls to ensure validity, reliability and relevance;
- That the system promotes individual professional growth of educators, and ongoing support for educators and the school; and
- The need for all schools to look for ways to continually improve.

It is evident that the main objective is to ensure quality public education for all and to constantly improve the quality of learning and teaching, and making everyone involved in education accountable to the wider community.

5.5.11 Need for Management Methods Change in School

The literature review indicates that change is something that is feared universally and people will jump upon any excuse to keep things as they are. Although change is not an easy thing to implement, when asked if there was a need for management

methods change, the majority of respondents, 57.1% responded positively on the statement that there was a need for management methods change in schools.

This means that managers need to be prepared to encompass change and thus enhancing their leadership abilities. The time for imposing is long gone. All stakeholders needs to be involved in the matters pertaining to the school and work as a team towards some common goals of improving the school. As indicated in the results, the majority of participants favoured involvement of all stakeholders in the school matters.

5.5.12 Reasons for Management Methods Change

When asked about the reasons for management methods change, results reveal that from the reasons that were mentioned when grouped together, the significant 75.4% (98) indicated that they were not satisfied (unsatisfactory) with the current management methods in their schools. Only 24.6% (32) of participants seemed satisfied with the current management methods in their schools.

The reasons put by participants to support management change include:
- For school progress;
- Giving others opportunities to develop;
- Understanding between old and young educators;
- All stakeholder should be involved;
- Methods should be balanced;
- Continuous improvement needed;
- Ongoing training needed with change;
- Staff/educators to be involved in decision-making;
- Relevance to immediate communities;
- Adapt to current situations;
- avoiding of consistency;
- Educators should be treated equally;
- To minimise lack of co-operation; and

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- Change always needed.

Therefore, looking at the above-mentioned reasons it is clear that change management is something that cannot be ignored but be embraced.

5.6   INTEGRATED COMMENTS ON HYPOTHESES

It was found necessary towards the close of the analysis and interpretation of the study to give some general comments about the hypotheses of the research study. On the whole, participants in the study area have shown a positive attitude towards understanding that schools have customer-focused mission statements and the highest percentage of the respondents know the vision and mission statements of their schools. The responses discussed above reject what the researcher had suggested earlier that Total Quality Management (TQM) has no influence on secondary school performance. The responses given above and the related justification, suggest that **Hypothesis 1** which states: *Total Quality Management (TQM) has no influence on secondary school performance*, is fully rejected.

The results indicated that there is effective and constant communication in the schools and a significant majority agreed having positive attitude for the development of the school. Good communication assists all participants to work towards achieving the goals of the school. It is also clear from the results that a reasonable majority of educators are prepared to work as a team in bringing about change in their schools. It is also evident that a substantial majority agreed that there is a climate of respect, co-operation and trust in their schools which motivate all stakeholders to participate in school development and that services rendered are continuously improved. They also indicate that all stakeholders were empowered to participate in quality improvement. The results indicate that there is quality leadership in most of the schools, that is, a large majority of 60.9% were positive that there evidence of quality leadership in their schools and that there were limited barriers to work efficiently and co-operatively in most schools.

Flowing from the discussion given above, it stands to reason that there are elements of Total Quality Management (TQM) in most schools. It may, therefore, be concluded that **Hypothesis 2** which states: *Principles associated with the improvement of TQM in the study area are non- existent*, is not fully supported and therefore rejected.

The results indicate that there is participation by all stakeholders in decision-making, and that all stakeholders are recognized as contributors in decision-making in schools. It is clear that all stakeholders were empowered to participate in quality improvement, and that all stakeholders are being educated to understand change in their schools. The fear for change is eliminated through participation and resistance to change is overcome by persuasion, and this results in good relationship being established among all stakeholders and the atmosphere becomes conducive for co-operation.

The responses given above and the related justification, suggest that **Hypothesis 3** which states: *The role played by stakeholders in the application of TQM for school improvement is minimal*; is not fully supported and therefore rejected.

The responses given above and the related justification suggest that **Hypothesis 4** which states: *The Integrated Quality Management System (IQMS) as a system to improve quality in schools is less effective*, is not fully supported and therefore rejected.

5.7 CONCLUSION

In the preceding pages of this chapter an attempt has been made to interpret the results of the study on the views of the respondents. From the interpretation of the results, it has become clear that as much as some of the TQM principles appear to be in existence in schools, but there is still more to be done as far as implementation is concerned and for improvement. It is evident that successful school improvement requires establishment of clear vision and mission, knowledge of how well the school

is accomplishing that mission, identification of areas for improvement, development of plans to change educational activities and programmes and implementation of those plans or new programmes effectively.

It is also evident that managers need to be prepared to encompass change and thus enhancing their leadership abilities. The time for imposing is long gone. All stakeholders needs to be involved in the matters pertaining to the school and work as a team towards some common goals of improving the school. If the school's management principles do not include continuous improvement, they will not survive. In the school environment, everybody needs to constantly look for ways to improve quality.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1   INTRODUCTION

The problem that led to the study to be undertaken was that, prior to 1994, during the apartheid era, the school principal was the single person responsible for managing the school. With the changes experienced in the post – apartheid South Africa, more delegation of tasks to individuals and leading teams at the present school system has become more significant (Naidu *et al*, 2008). In the past, the school leaders did not allow staff members and learners to openly disagree with them. As a result, the members of the school community often did not feel that the school belonged to them, nor did they feel committed to the decisions that the leaders made. The quest for the provision of quality education to learners forms the basis to the transformation in education system in South Africa. Therefore, Total Quality Management (TQM) is one of the popular approaches that schools should adopt in their quest for quality education. Quality management is generally described as a collective, interlinked system of quality management practices that are associated with organizational performance.

The main purpose of the school's existence is to enable teaching and learning to take place. Some school leaders and managers are required to work in a democratic and participatory ways to build relationships and ensure efficient and effective delivery. School managers are expected to adapt to change. The schools have to respond to the fear of career obsolescence and career inadequacy (Berry, 1997).

The main theme that has dominated the previous chapters of this research was on the influence of Total Quality Management on school improvement in secondary schools in the UThungulu District in KwaZulu-Natal.

6.2   SUMMARY AND CONCLUSION

The summary and conclusions of the research revolve around the objectives postulated in Chapter One which were as follows:

(a)   To determine the influence of Total Quality Management (TQM) in secondary schools;

(b)   To find out whether principles associated with the improvement of TQM in the study area do exist;

(c)   To assess the role played by stakeholders in the application of TQM for school improvement in the study area; and

(d)   To examine the influence of the Integrated Quality Management System (IQMS) as a system to improve quality in schools.

Therefore, related to the above-mentioned objectives were a number of hypotheses which were postulated to match the objectives. It was therefore hypothesised:

(a)   Total Quality Management (TQM) has no influence on secondary school performance;

(b)   Principles associated with the improvement of TQM in the study area are non-existent;

(c)   The role played by stakeholders in the application of TQM for school improvement is minimal; and

(d)   The Integrated Quality Management System (IQMS) as a system to improve quality in schools is less effective.

The above hypotheses were logically assessed in this study with a view of providing documentary and empirical evidence about the influence of Total Quality Management on school improvement in secondary schools in the UThungulu District in KwaZulu-Natal.

Chapter Two outlined the theoretical background upon which this study was based. The theoretical knowledge relating Total Quality Management principles served as a basis for understanding the research argument presented. The chapter also explores some theoretical subject matters associated with each of the objectives of the study mentioned in Chapter One.

Chapter Three provided methodology and procedures for conducting the study. In this chapter the researcher stated various methods and techniques that were used in gathering information. After the data had been collected through appropriate methods, they were analysed and interpreted in Chapter Four using statistical analysis or quantitative and qualitative techniques.

In Chapter Four, the data were presented and analysed. The presentation of data is in various forms, which are tabular, graphical, diagrammatic, and so on. In Chapter Five, data were transformed in interpretable forms, which led to the research outcomes and conclusions. These chapters, (Chapter Five and Six) are regarded as the core of this research investigation in that the empirical analysis and synthesis of data and ideas are put into effect. It is at this point in the analysis of information that inferences are made about findings of the study. Importantly, the objectives of the study are fully assessed at this point.

The last chapter, Chapter Six: entitled, summary, conclusions and recommendations, gives the summary of the findings and make recommendations pertaining to Total Quality Management and improvement in schools and the need for further research in the study. The study also contains a comprehensive bibliography of the literature, the books, journals and websites consulted during the theoretical research of the study.

On the whole, respondents in the study area have shown a positive attitude towards understanding the significance of Total Quality Management principles in schools. As it was stated the purpose of the school, however, requires a clear view of who the

customer is. It is necessary to identify the customers and suppliers in each situation. Schools that regard customers as important should be focusing on service delivery in order to satisfy the needs of their customers. In the classroom, learners are the customers who receive services and educators are suppliers who provide services.

Leadership should be responsible for creating systems and empowering others so that they can continuously make necessary improvements to meet the expectations of the organization.

A successful TQM environment requires a committed and well-trained work force that participates fully in the quality improvement activities. Everyone's involvement is important for quality improvement and motivation. People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the benefit of the organization.

Successful school improvement requires establishment of clear vision and mission; knowledge of how well the school is accomplishing that mission; identification of areas for improvement; development of plans to change educational activities; and programmes and implementation of those plans or new programmes effectively. The study revealed that the majority of schools have vision and mission statements. It means the schools have an idea what is expected of them. The schools realize the importance of quality.

As much as the results indicate that there is participation by all stakeholders in decision-making, and that all stakeholders are recognized as contributors in decision-making in schools, there is a challenge in other schools. It is also clear that all stakeholders were empowered to participate in quality improvement, and that all stakeholders are being educated to understand change in their schools. If this is the case, it means most schools have knowledge about importance of quality in education. Perhaps the problem lies with implementation and monitoring of quality processes in the education system.

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6.3   RECOMMENDATIONS

6.3.1   A Proposed Model for Total Quality Management (TQM)

Figure 6.1 is a model that shows interaction between the elements of TQM in order to achieve a continuous improvement in schools. This model can provide stepping stones required to reach the desired end.
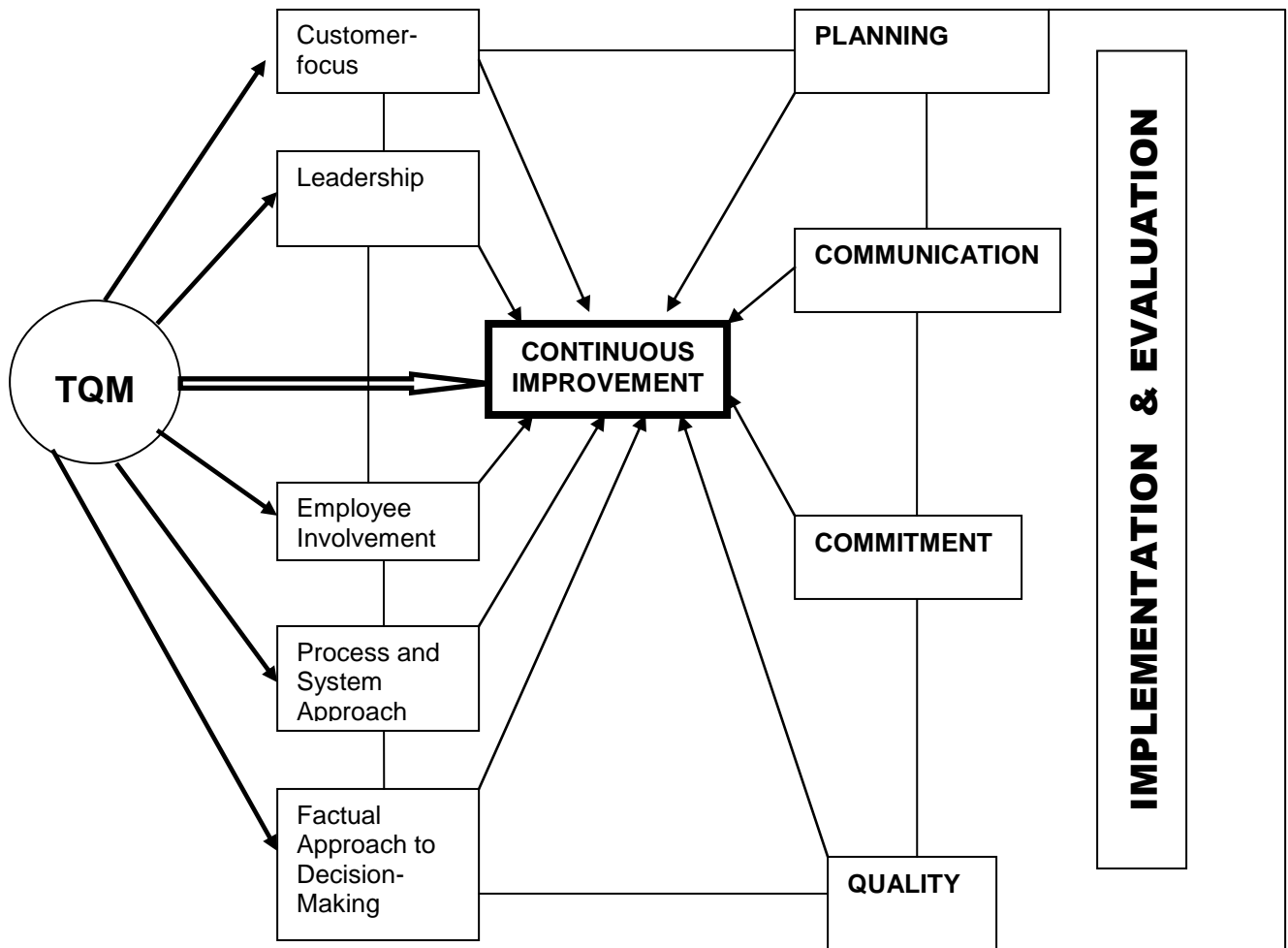

Figure 6.1: The Proposed TQM Model for the study

The proposed model provides information about basic elements and factors which need to be taken into cognisance during the TQM and implementation process. The

model starts with the identification of the main principles of TQM with continuous improvement at the centre of them all.

TQM is a philosophy that says that uniform commitment to quality in all areas of an organization promotes an organizational culture that meets consumers' perceptions of quality. This means that the senior management organizes all of its strategy and operations around customer needs and develops a culture with high employee participation. The school leaders need to develop programmes that introduce the educators to the basic elements of TQM of which this could bring about significant changes to the quality of schools. In a TQM environment, quality information has to be readily available for effective decision-making and should be part of the organization's visible management system.

As much as it seems that most schools have knowledge of Total Quality Management, t it needs to be taught continuously. Schools are supposed to adopt the new philosophy and understand more about the principle that requires them to give attention to external and internal customers. Re-thinking of the school's mission and priorities, with everyone in agreement on them should be done. Existing methods, materials, and environments may be replaced by new teaching and learning strategies where success of every student is the goal. Individual differences among students are addressed.

There should be constant improvement for every activity in the organization. The focus of improvement efforts in education, under Deming's approach, is on teaching and learning processes. Training for educators is needed in three areas. First, there must be training in the new teaching and learning processes that are developed; second, training must be provided in the use of new assessment strategies; lastly, there must be training in the principles of the new management system. For schools, this means providing continuous professional development activities for all school administrators, teachers, and support staff. It means schools need to be empowered continuously to take ownership for the work they do.

Schools should continually demonstrate commitment to quality. A basic assumption of TQM is that people want to do their best. The focus of improvement efforts then must be on the processes and on the outcomes, not on trying to blame individuals for failures. It is management's job to enable people to do their best by constantly improving the schooling system in which they work. Fear creates an insurmountable barrier to improvement of any system. In schools, faculty and staff are often afraid to point out problems, because they fear they may be blamed. School leaders at all levels need to communicate that staff suggestions are valued and rewarded.

Collaboration should be encouraged rather than competition. Deming's ninth principle is somewhat related to the first principle: Create constancy of purpose for improvement of product and service. In the classroom, this principle applies to interdisciplinary instruction, team teaching, writing across the curriculum, and transfer of learning. Collaboration needs to exist among members of the learning organization so that total quality can be maximized. In schools, total quality means promoting learning for all. It is the essence of initiating and maintaining a professional learning community (DuFour & Eaker, 1998; DuFour, DuFour, & Eaker, 2008).

There should be a concerted effort to continually try to improve communications. Most people want to do a good job. Effective communication and the elimination of "de-motivators" such as lack of involvement, poor information, the annual or merit rating, and supervisors who do not care are critical. It is important to communicate the message. Too often, leaders make the mistake of believing that other people understand the issues and see the new direction as they do. Communication of information provides others the right information and at the right time. The management teams should focus on creating a communication plan that clearly articulates the vision of where they want to go and the benefits of doing so.

The literature review revealed that leadership should be responsible for creating systems and empowering others so that they can continuously make necessary

improvements to meet the expectations of the organization. The principal and staff must be retrained in new methods of school based management, including group dynamics, consensus building, and collaborative styles of decision making. All stakeholders on the school's team must realize that improvements in student achievement will create higher levels of responsibility, not less responsibility.

There should be an establishment of school systems that support quality efforts. All stakeholders must have a clear plan of action to carry out the quality mission. The quality mission must be internalized by all members of the school organization (school governing bodies, administrators, teachers, support staff, students, parents, community). Change is a process that needs to be managed (van der Westhuizen, 2007). The school principal is identified as the person who plays a major role in the school activities; and to a greater extent determines the school's success and failures when change is implemented. Therefore, the school principal needs certain skills in order to initiate and manage change successfully.

The physical environment, where teaching and learning takes place, plays an important role in quality education. The quality of school buildings may be related to other issues like working conditions of educators and learners. The physical environment must be conducive for educators to ensure their effectiveness and efficiency.

In schools within Uthungulu District, the findings have shown that educators have knowledge about some of TQM principles, but more needs to be done. The Department of Basic Education needs to design some strategies to ensure that these principles are implemented to ensure continuous improvement in all school in Uthungulu District. This can even lead to high performance by schools. It is without doubt that TQM has great influence on any organization's performance. It can have great influence in our schools if well implemented.

It does not end with having knowledge about all these things pertaining TQM, the critical stage is implementation and evaluation. The responsibility lies with the Department of Basic Education officials to see to it that TQM principles are implemented and making sure that time and again the process is evaluated to find out if it works.

6.3.2 Limitations of the Study and Avenues of Further Research

This study was not without limitations. Therefore, the following limitations are outlined for directing future studies since more research is still needed:

- The sample of this study was drawn from the educators of Uthungulu District only in the province of KwaZulu-Natal. Therefore, it is not representative of the entire population in the province and the country at large. So it means, further studies need to be conducted in other districts in KwaZulu-Natal as well as other provinces in South Africa.

- The study was done in public schools only. Therefore, it is important that further research focusing on private schools be also conducted.

- The sample of the study was drawn from the Senior Phase and Further Education and Training **(FET)** Phase educators only. Therefore, there is a need for study to be conducted in all phases, that is, Foundation and Intermediate phases.

- The sample of the study consisted of 200 educators only from Uthungulu District. More research, with bigger sample, preferably a country wide should be conducted so that results can be generalized nationally with confidence.

- Only one instrument was used in this study, which is the questionnaire. Further research should consider using the combination of data collection instruments.

- It is possible that the educators were biased in giving their answers for fear of victimization.

6.4   CONCLUSION

The concepts formulated by TQM founder, W. Edwards Deming, have been suggested as a basis for achieving excellence in schools. It is based on the assumption that people want to do their best and that it is management's job to enable them to do so by constantly improving the *system* in which they work. It requires teamwork, training, and extensive collection and analysis of data. It is an opportunity to conceptualize a systematic change for school districts.

The theoretical framework upon which the availability of recreation facilities for youth has been closely looked at was consulted. What has emerged is that most authors emphasise that quality management practices have experienced an improvement in performance.   Therefore, it is important for every school to make use of the principles of TQM to improve and strive for excellence. It is the responsibility for every educator in a school to improve performance and participate actively in the implementation process, to meet the needs of learners and to ensure continual improvement of schools.

Data were collected by means of questionnaires that were administered educator in the Uthungulu District to establish if they had enough knowledge about Total Quality Management and how it influenced improvement in schools. The method that was used appeared to be effective because the respondents were willing to participate in the study and were willing to give information on the questions that were asked. The respondents remained anonymous and high level of confidentiality was kept. The researcher tried to develop concepts, insights and understanding from patterns in the data. The comments were made on the basis of the apparent patterns and trends the responses reflect. However, most of the data presented were taken as self-explanatory and comprehensive.

The researcher made an attempt to expose, analyse and interpret the data collected during the research process. In the analysis of data it has been noticed that there is a positive attitude towards understanding the significance of Total Quality Management principles in schools. As it was stated the purpose of the school, however, requires a clear view of who the customer is. It is necessary to identify the customers and suppliers in each situation. Schools that regard customers as important should be focusing on service delivery in order to satisfy the needs of their customers. In the classroom, learners are the customers who receive services and educators are suppliers who provide services.

Finally, conclusions and recommendations on the findings were made. Everyone has a responsibility of encouraging implementation of TQM in schools. It is important to develop quality management systems, because without them, it is impossible to implement. The quality improvement teams should be empowered to manage themselves and provide programmes that will enable them to be more effective.

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APPENDICES

APPENDIX- A

QUESTIONNAIRE

Kindly fill in this form/questionnaire for the purpose of **investigating the influence of Total Quality Management (TQM) on the School Improvement in Secondary schools**. The information you provide will only be used for research purposes. Please be honest and this will be kept confidential.

NB: | **This questionnaire should be answered by educators (PL1 educators, H.O.Ds, Deputy Principals and Principals)** |

PLEASE ANSWER THE FOLLOWING QUESTIONS BY CROSSING (**X**) NEXT TO THE RELEVANT BLOCK OR WRITING DOWN YOUR ANSWER IN THE SPACE PROVIDED.

A. BIOGRAPHICAL INFORMATION

1. Gender:

Male	01		Female	02

2. Age:

21 – 30	01		51 – 60	04
31 – 40	02		61 and above	05
41 – 50	03			

3. Highest Educational Qualification:

Post Matric Certificate	01		Honour's degree	04

Post Matric Diploma	02		Master's degree	05
Bachelor degree	03		Ph. D/D. Ed degree	06
Other (specify)				07

4.   Rank:

Educator PL1	01		Deputy Principal	03
H.O.D	02		Principal	04

5.   Including the current year how many years have you been teaching?

0 – 5 years	01		21 - 25	05
6 – 10	02		26 – 30	06
11 - 15	03		31 and above	07
16 – 20	04			

B.   TOTAL QUALITY MANAGEMENT (TQM) AND SCHOOL IMPROVEMENT

Please put an (X) in the appropriate box.

6.   Does your school have a clear, customer-focused mission statement?

Yes	01	No	02	I do not know	03

7.   Do you know the vision and mission statement of your school?

Yes	01	No	02	I do not know	03

8.   Do you know what quality management is?

Yes	01	No	02	I do not know	03

9.   Is there any quality control taking place in your school?

Yes	01	No	02	I do not know	03

10.   Were your duties explained to you when you started working?

Yes	01	No	02	I do not know	03

Please indicate the degree to which you agree or disagree with each statement. Please place an (**X**) inside the relevant box.

Agree	01	Fully Agree	02	Disagree	03	Fully Disagree	04	Don't Know				05
	STATEMENTS							01	02	03	04	05
11.	Educators are consulted on the quality of service the school is expected to deliver.											
12.	Educators have a say in the planning and control of the service.											
13.	In this school, learners are viewed as most important customers.											
14.	Participants interact for the purpose of improving quality.											
15.	All participants are given direction to improve quality.											
16.	All stakeholders participate in decision-making processes.											
17.	Services rendered in your school are improved continuously.											
18.	There is evidence of quality leadership in your school.											
19.	Barriers are eliminated for stakeholders to work efficiently and co-operatively.											
20.	Stakeholders are empowered to participate in quality improvement process.											
21.	There is effective and constant communication among stakeholders.											
22.	There are positive attitudes which contribute to the development of the school.											
23.	All educators are prepared to work as a team in bringing about change in your school.											
24.	There is climate of respect, co-operation and trust in your school that motivate all stakeholders.											
25.	Physical conditions in the school motivate employees.											
26.	All stakeholders are recognized as contributors in decision-making.											

27.	In your school, stakeholders are educated to understand change.					
28.	Fear for change is eliminated through participation of all stakeholders.					
29.	In your school, resistance to change is overcome by persuasion.					
30.	In your school, good relationships are established among stakeholders.					
31.	School results, at all grades are discussed openly by all staff members.					

C. PERSONAL OPINION

Please indicate your opinion about each statement. Please place an (**X**) inside the relevant box.

32. Do you think the **TQM** process is effectively and consistently managed in your school?

Yes	01	No	02	Not sure	03	I do not know	04

33. Do you think that customer needs must be the focus in establishing educational aims?

Yes	01	No	02	Not sure	03	I do not know	04

34. In your opinion, is it necessary for educators to be trained on **TQM** principles?

Yes	01	No	02	Not sure	03	I do not know	04

35. Are departmental policies communicated and discussed openly by all members of staff?

Yes	01	No	02	Not sure	03	I do not know	04

36. Do you have access to documents carrying these departmental policies?

Yes	01	No	02	Not sure	03	I do not know	04

37. Do you think these policies provide a good foundation for the provision of effective teaching and learning?

Yes	01	No	02	Not sure	03	I do not know	04

38. Do you think commitment to Total Quality can improve performance in schools?

| Yes | 01 | No | 02 | Not sure | 03 | I do not know | 04 |

39. Do you think school leaders at all levels need to communicate that staff suggestions are valued and rewarded?

| Yes | 01 | No | 02 | Not sure | 03 | I do not know | 04 |

40. Do you think principals and staff must be retrained in new methods of school-based management?

| Yes | 01 | No | 02 | Not sure | 03 | I do not know | 04 |

41. Do you think the Quality Management System help in improving your school performance?

| Yes | 01 | No | 02 | Not sure | 03 | I do not know | 04 |

42. Do you think there is a need for management method change at your school?

| Yes | 01 | No | 02 | Not sure | 03 | I do not know | 04 |

Give reasons for your answer:

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

I THANK YOU VERY MUCH.

YOUR CO-OPERATION IS HIGHLY APPRECIATED.

APPENDIX - B

TRANSMITTAL LETTER

To Whom It May Concern

UNISA university of south africa

REQUEST FOR APPROVAL TO CONDUCT RESEARCH

University of South Africa encourages responsible research that will be beneficial to the researcher, the University, and the community at large by exploring new ideas, broadening understanding of a particular field of study and seeking solutions to existing problems.

On behalf of the College of Education (UNISA), I hereby request permission for our student to conduct academic research in your organization. The details are as follows:

1. Name of Researcher: **Mrs SD Sibeko**
2. Address of Researcher:

   Khula High School
   P. O Box 580
   Esikhawini
   3887
3. Email Address: **8263558@mylife.unisa.ac.za**

4. Telephone Numbers: **Mobile: 0836559319**

5. Reason for conducting research: **Necessary to complete the requirements for a Doctoral degree in Educational Management**

6. Research Topic: The Influence of Total Quality Management (TQM) on School Improvement in Secondary Schools.
7. Details of Research Supervisor: **Dr M.C Maphalala**

   University of South Africa

   College of Education: Department of Curriculum & Instructional Studies

   AJH Van Der Walt Building, Room 6-36

   No. 1 Preller Street

   Mucleneuck Ridge, Pretoria

   +27 83 430 1088

   +27 12 429 4381

   mphalmc@unisa.ac.za

Yours sincerely

_____

Dr M.C Maphalala

Research Supervisor

Learn without limits.

UNISA | university of south africa

APPENDIX - C

EDUCATION DEPARTMENT PERMISSION LETTER

kzn education
Department:
Education
KWAZULU-NATAL

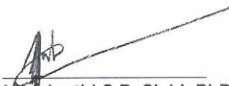Enquiries: Sibusiso Alwar   Tel: 033 341 8610   Ref.:2/4/8/320

Mrs Sylvia Dolly Sibeko
P. O. Box 580
ESIKHAWINI
3887

Dear Mrs

PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct research entitled: **The Influence of Total Quality Management (TQM) on School Improvement in Secondary Schools,** in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 01 November 2012 to 31 December 2014.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Mr. Alwar at the contact numbers below.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report / dissertation / thesis must be submitted to the research office of the Department. Please address it to The Director-Resources Planning, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to the schools and institutions in the Uthungulu District.

Nkosinathi S.P. Sishi, PhD
Head of Department: Education

Date   3e|11|2012

...dedicated to service and performance
beyond the call of duty

KWAZULU-NATAL DEPARTMENT OF EDUCATION

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