

**TOTAL QUALITY MANAGEMENT (TQM):
TEACHERS' PERCEPTIONS ON THE IMPLEMENTATION OF
TOTAL QUALITY MANAGEMENT IN SECONDARY SCHOOLS IN
THE LICHTENBURG AND ZEERUST DISTRICTS OF
NORTH WEST PROVINCE.**

BY

MBULELO GRATITUDE VAN DOU

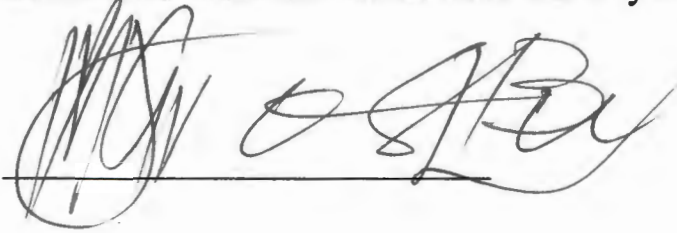
**A MINI DISSERTATION SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE DEGREE MASTER OF
EDUCATION IN THE DEPARTMENT OF EDUCATIONAL
PLANNING AND ADMINISTRATION IN THE FACULTY OF
EDUCATION AT THE UNIVERSITY OF NORTH WEST.**

**THE FINANCIAL ASSISTANCE OF THE CENTRE FOR SCIENCE
DEVELOPMENT (HSRC – SOUTH AFRICA) TOWARDS THIS
RESEARCH IS HEREBY ACKNOWLEDGED. OPINIONS
EXPRESSED AND CONCLUSIONS ARRIVED AT, ARE THOSE OF
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DECLARATION

I, MBULELO GRATITUDE VAN DOU declare that the dissertation for the degree of Master in Education at the University of North West hereby submitted, has not previously been submitted by me for a degree at this or any other university, that it is my own work in design and execution and that all material contained herein has been duly acknowledged.

A handwritten signature in black ink, appearing to read 'Mbulelo Gratitude Van Dou', is written over a horizontal line.

ACKNOWLEDGEMENT

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GLORY BE TO GOD IN THE HIGHEST

ABSTRACT

TOTAL QUALITY MANAGEMENT (TQM): TEACHERS' PERCEPTIONS ON THE IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN SECONDARY SCHOOLS IN THE LICHTENBURG AND ZEERUST DISTRICTS OF NORTH WEST PROVINCE.

The purpose of this study was to determine empirically teachers' perceptions on how total quality management (TQM) can be used as a tool to improve the quality of education in secondary schools in the Lichtenburg and Zeerust districts of North West Province.

The survey method was used to gather the data. A questionnaire was administered to a sample (n=250) respondents. The aim of the questionnaire was to collect information from secondary school managers, deputy principals, heads of departments and teachers on how total quality management can be used as a tool to improve the quality of education.



The subjects of the study were principals (n=20), deputy principals (n=19), heads of departments (n=66) and teachers (n=100). The survey population was drawn from the two educational districts of Lichtenburg and Zeerust. From a list of all secondary schools in Lichtenburg district (n=16) and Zeerust district (n=31), a random sampling (n=25) was selected by picking-up the names of 10 secondary schools in the Lichtenburg district and 15 secondary schools in the Zeerust district. In each of the 25 secondary schools: 1 principal; 1 deputy principal; 3 heads of departments and 5 teachers were requested to complete the questionnaires. Thus the sample of (n=250) was composed of 10 respondents

from each of the twenty-five (25) secondary schools in the Lichtenburg and Zeerust districts of the North West Province.

The empirical investigation conducted revealed that the vast majority of the respondents are of the idea that total quality management is a methodology that can help educational professionals to cope with today's changing environment and total quality management is a philosophy about quality which demands the involvement of everyone in the school in the quest for quality. Schools that have implemented TQM have produced a coherent and integrated approach and goodwill of staff. Motivation, expertise and enthusiasm have assured quality.

The study also revealed that there is a need for an intensive training of teachers and school management in the understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures.

The conclusions drawn from the study is that the success of using TQM as a tool to improve the quality of education in schools depends on training that will result in change of attitude towards the implementation of quality culture. Training is an integral component of managing quality. School management teams need to adopt and implement Deming's fourteen points by integrating them into the school developmental plan.

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CHAPTER ONE

ORIENTATION

1.1 INTRODUCTION

The focus of this research is to determine teachers' perceptions on the implementation of total quality management (TQM) in secondary schools in the Lichtenburg and Zeerust districts of North West Province.

Total Quality Management (TQM) is a technique developed by Deming to improve the efficiency of flexible work teams. The broad goal of TQM is continuous improvement. TQM starts with the adoption of a philosophy of quality throughout an organization. An organization has to adopt the philosophy of TQM as a significant organisational norm and create an organisational culture based on the norms and values of TQM. Quality control circles are an important vehicle for the development of TQM norms both within and across functional areas (Sallis, 1996).

Total quality management is a vehicle that education professionals can use to cope with the forces of change that are buffeting our nation's education system. The major difficulty education professionals face today is their inability to deal with the system failures that are preventing them from developing or implementing new educational processes that will improve the total quality management in education (Arcaro, 1995).

This chapter provides the rationale for the study the aims of the study and an understanding of the problem under investigation. Following that, the research design is given and terms relevant to the study are defined.

1.2 RATIONALE FOR THE STUDY

Education is being assailed from all sides. Education is viewed as ineffective, expensive, and desperately in need of reform. Quality is the single most important issue in education, business, and government today. We all recognize that there are problems with today's education system. Students are leaving or graduating from high school and college underprepared to meet the demands of society. This problem has a ripple effect throughout society. Students who are not prepared to become responsible, productive citizens become a burden to society. These students are products of an education system that does not focus on

not prepared to meet the needs of the next generation, and more importantly, they are citizens who feel alienated from society.

TQM requires a change of culture. This is difficult to bring about and takes time to implement. It requires a change of attitudes and working methods. The staff in institutions needs to understand the value of TQM, if TQM is to make an impact (Arcaro, 1995). However, culture change is not only about changing the behaviour of staff. It also requires a change in the way in which institutions are managed and led. The latter is characterised by an understanding that people produce quality.

Two things are required for staff to produce quality. Firstly, staff needs a suitable environment in which to work. They need the tools of the trade and they need to work with systems and procedures which are simple and which aid them in doing their jobs (Arcaro, 1995). The environment that surrounds staff has a profound effect on their ability to do their job properly and effectively. Among the important environmental features are the systems and procedures with which they work. Laying down good and workable procedures by itself does not produce quality, but if procedures are poor and misleading, it makes producing quality extremely difficult. Secondly, to do a good job the staff needs encouragement and recognition of their successes and achievements. They need leaders who can appreciate their achievements and coach them to greater success. The motivation to do a good job comes from a leadership style and an atmosphere which heightens self-esteem and empowers the individual (Sallis, 1996, Dale, 1994, Greenwood & Gaunt, 1994).

Domb (1996) argues that, a systematic approach to quality management is needed to implement an effective and efficient quality management strategy that can deliver outstanding service and consistently demonstrate quality. This means that organisations implementing quality must focus on the total organisational transformation through quality management.

Deming (1986) has helped the Japanese improve their quality and quantity by preaching that management, not workers, are the primary means through which improvements in quality and productivity can be made. He believed that managers have not learned to co-operate and co-ordinate well between themselves, their workers and organisations. Deming argues that, the primary purpose for an organisation is to provide meaningful, satisfying jobs for employees. He stated that producing quality is the result of setting precise standards for all the processes that yield an organisation's output, minimizing variances from those standards, and then

working to set higher standards once operations have been controlled. Organisations must become more focused on building teams and employees who are more involved in planning and whose members take more responsibility for everything, especially with regard to customer service. Managers have to figure out how to motivate, co-ordinate and conduct these collections of individuals, whether in an organisation or in a school situation. TQM starts with articulating clear and limited goals about where the organisation or the school should go (Deming, 1986).

According to Bonstingl (1992), efforts in improving quality depend on employee attitudes and the attitude of employees depend on their work environment. It is only the management that can change the work environment. Managers need to create, manage, sustain and nurture the environment in which learning and value creation can occur. The organisation has to support its employees, develop their skills and create an enabling environment. Quality goes together with productivity. Improvement that lead to increased productivity must also lead to increases or sustained high levels in the quality of the product or service.

The Japanese concept of *miryokuteki hinshitsu*, or “things gone right”, has taken over in many organisations around the world. It means that, from design to implementation, every effort must be made to give a personality that dictates quality to each product and service. Everyone involved with the product must be trained and willing to think about quality in all the organisation’s operations (Murgatroyd, 1993).

Domb (1996) is of the idea that, improvements to both quality and productivity begin with a commitment from the top of the organisation to achieve total quality management - a commitment from all the people involved with a product to meet the quality standards set for it.

According to Sallis (1996), without managers at every level and in every department working their best to ensure high productivity and quality, their best-made plans will simply not bear fruit. The Japanese have a word for this *kaizen*, which means to seek continual improvement, to constantly search for a better way to do everything. This philosophy must be part of the entire organisation’s culture if the organisation is to achieve significant improvements to its productivity and quality.

The following research question provides the focus of this research :-

- How can total quality management (TQM) be used as a tool to improve the quality of

education in secondary schools in the Lichtenburg and Zeerust districts of North West Province?

1.3 AIMS OF THE STUDY

From the above mentioned research question that provides the focus of this research, the aims of the research were:-

Aim 1 : To determine from the literature, the nature and scope of total quality management (TQM)

Aim 2 : To determine empirically, teachers' perceptions on the implementation of TQM in secondary schools.

1.4 RESEARCH METHODOLOGY

This investigation was conducted through the following :-

1.4.1. Literature review

In the review of literature, a thorough study of primary and secondary sources was made with the intention of collecting information on the nature and scope of TQM and how total quality management (TQM) can be used as a tool to improve the quality of education in schools.

1.4.2 Empirical research

1.4.2.1 Questionnaire

A questionnaire was developed and pretested. The aim of the questionnaire was to collect information from secondary school principals, deputy principals, heads of departments and teachers on how total quality management can be used as a tool to improve the quality of education in secondary schools in the Lichtenburg and Zeerust districts of North West Province.

1.4.2.2 Population and Sampling

From a list of secondary schools in the Lichtenburg district (N=16) and Zeerust district

From a list of secondary schools in the Lichtenburg district (N=16) and Zeerust district (N=31), (N=47), a random sampling (n=25) was selected by picking-up the names of 10 secondary schools in the Lichtenburg district and 15 secondary schools in the Zeerust district. In each of the twenty-five secondary schools : 1 principal, 1 deputy principal, 3 heads of departments and a sample of 5 teachers were requested to complete the questionnaires. Thus the sample of (n=250) was composed of 10 respondents from each of the twenty-five secondary schools in the Lichtenburg and Zeerust districts of North West Province.

1.5 DATA ANALYSIS

With the help of statistical consultant of the University of the North West, computer aided statistical analysis was employed. The computation of frequencies (f), percentages, means, SD and χ^2 was conducted.

1.6 DEFINITION OF CONCEPTS

Quality refers to the totality of features and characteristics of a product or service that bare on its ability to satisfy stated or implied goals (Murgatroyd and Morgan, 1993).

Total Quality Management (TQM) refers to an organisation - wide effort to achieve quality. It is a philosophy about quality which involves everyone in the organisation in the quest for quality (Stevenson, 1996).

TQM extends to suppliers and customers, with the customer as the focal point and customer satisfaction as the driving force. In this instance the customer is the learner. Total involvement is important, because everyone in the organisation from the minister of education on down to the parent of the learner must be involved and committed.

According to M. Murgatroyd & M. Morgan, (1993) there are three basics definitions of quality and these are:

- Quality assurance
- Customer-driven quality
- Contract conformance
- **Quality Assurance**

Murgatroyd and Morgan (1993) say, quality assurance refers to the determination of standards, appropriate methods and quality requirement by an expert body, accompanied by a process of inspection or evaluation that examines the extent to which practice meet the standards.

- **Customer-driven Quality**

Customer-driven quality refers to a notion of quality in which those who are to receive a product or service make explicit their expectations for the product or service in this case the curriculum. Quality is defined in terms of meeting or exceeding the expectations of customers, being the learners in the field of education.

- **Contract conformance**

The third definition of quality, is that of contract conformance, where some quality standards in education have been specified during the negotiations of forming a contract. The stakeholders in education make a contract in the form of curriculum. Quality standards are specified during the design of curriculum. Quality is then defined in terms of meeting or exceeding contracted requirements.

- **Secondary schools** refer to post primary schools with grade 12 as the highest class.

- **District** refers to an educational area comprising of a number of circuits under the supervision of a district manager. North West Province is divided into twelve districts. Districts ensure co-ordination and management of education

1.7 CHAPTER HEADINGS

1. Orientation.
2. Nature and scope of total quality management.
3. Research methodology.
4. Analysis and interpretation of data.
5. Summary, recommendations and conclusion.

1.8 SUMMARY

In this introductory chapter, a brief orientation to the study outlining the rationale for the study and formulating the aims of the study is improved. The major focus of the study was to determine teachers' perceptions on how total quality management (TQM) can be used in secondary schools as a tool to improve the quality of education.

CHAPTER TWO

NATURE AND SCOPE OF TOTAL QUALITY MANAGEMENT (TQM)

2.1 INTRODUCTION

In this chapter an overview of total quality management (TQM) research is provided. Declining school performance is not usually recognized to be caused by the inadequacy of traditional school administrative practices to meet today's requirements. We usually look for something wrong with teachers, children and parents, or teaching techniques and materials. Seldom do we look for the cause on the human side of school management i.e. changes in the internal operations and outside circumstances of schools, and how these are impacting on the people involved - i.e. teachers, administrators, members, parents, and students. The cause of declining performance lies in challenging circumstances combined with inadequate management (Genck, 1983).

In the absence of management techniques suited to these new circumstances, and to the nature of education, most schools are in a situation of internal disruption that is demoralizing and damaging to performance and productivity (Genck, 1983). The internal communication and teamwork essential to good schools is made difficult, sometimes impossible. There is no means of pulling together the efforts of the many people involved. So, naturally, performance drifts lower. In spite of the widely documented and perceived decline, neither complaining nor setting higher standards will help schools improve without the internal management practices that are required.

Genck (1983) says that, some schools are performing well in spite of these circumstances. Some schools are functioning successfully, in every kind of community. What do these schools have in common? They have created a more participative and humane process of management that emphasizes performance and results as well as people and relationships. What are the key features of their management process? They evaluate performance, using information wherever possible, even in a field like education that sometimes defies any quantitative indicators. They accept responsibility for performance, organizing teachers and administrators to strive for and achieve good results. They maintain teamwork and constructive working relationships among teachers, administrators, and students in spite of universal pressure towards conflict and fragmentation (Genck, 1983).

As a result, these schools realize the ultimate objective of all education - the academic achievement and development of students. They sustain high levels of public confidence, parent and community satisfaction, staff morale, productivity, and job satisfaction (Genck, 1983). Costs are reasonable and under control. They accomplish these things whether their communities are black or white, rural or urban - and whatever their position on the socioeconomic scale.

These schools produce a coherent and integrated approach to quality management which harnesses the commitment and goodwill of staff. Motivation, expertise and enthusiasm assures quality, not appraisal and inspection. The quality improvement programme must involve all who work in the institution. Everybody is responsible for the quality of the service they deliver, whether they are institutional managers, teachers or staff in support roles. Harnessing commitment from staff and channeling it into improvements is a major aspect of TQM (Sallis, 1996). Quality systems must be vehicles for assisting staff to solve their own problems not as means of controlling them. It is all too easy to turn a quality system into a means of control rather than empowerment. It is important to remember that people produce quality, and to ensure that there are practical means of recognizing their achievement. Educationalists need to keep in mind that the quality message is in essence extremely simple. Quality is about doing the ordinary things extraordinarily well.

No institution can purchase TQM off the peg. It has to be customized so that it harmonizes with and develops from the existing culture (Sallis, 1996) says that TQM should be developed from existing good practice within the institution. Quality already exists in educational institutions, what TQM does is to build on existing quality and develop it into continuous quality improvement.. Industrial models can be drawn on to provide useful pointers and examples. However, it is important to ensure that any approach used is realistic, workable and affordable. It needs to be remembered that introducing total quality requires perseverance(Sallis, 1996). TQM is not something that can be introduced overnight. Nor is it a miracle cure. It does not provide instant success, nor it does it solve all the problems. It will throw up new difficulties and challenges. It is a slow process, but the benefits are long term (Sallis, 1996).

2.2 DEFINITIONS OF THE CONCEPT TOTAL QUALITY MANAGEMENT (TQM)

In this section, a brief attention will be paid firstly to the definition of the concept total quality management (TQM) and total quality management movement. The latter part will concentrate on the characteristics of total quality management models of total quality management in schools, and total quality management research in developed and developing countries as identified by the related literature.

2.2.1 What is total quality management (TQM)?

Total quality management (TQM) is a technique developed by W. Edwards Deming to improve the efficiency of flexible work teams. The broad goal of TQM is continuous improvement. According to Jones (1995), TQM aims to impress upon workers the importance of continuously improving the efficiency of the production process in order to reduce costs, increase quality, and reduce waste. Workers in a TQM system are expected to make suggestions for improving all aspects of the work process and are expected to share their specialized knowledge with management so that it can be communicated throughout the organization (Jones, 1995).

Total quality management has many definitions. Essentially it is concerned with customer-focussed organizational improvement achieved through the activities of groupings of employees at various levels in the structure.

The employees identify problems and opportunities for improvement and engage in endeavours which determine root causes of these problems, generate and choose solutions and implement improvements. These activities are usually supported by the development of teams and a focus on corporate goals. The teams primarily identify with matters of specific relevance to their own functions in order to engender a sense of involvement in organizational affairs. TQM proposes that all employees can make an impact on the quality of goods and services provided, thus the organization's systems and processes are regarded as highly as its products and outputs (Harris, 1998).

Total Quality Management is a philosophy and a methodology that assists institutions to manage change, and to set their own agendas for dealing with the plethora of new external pressures (Sallis, 1996). TQM does not and will not bring results overnight; neither is it a

panacea for all the problems that beset education. TQM is an important set of tools that can be employed in the management of educational institutions (Sallis, 1996).

Navaratnam and O'Connor (1993) defined quality management as a set of concepts, strategies, tools, beliefs, and practices which is aimed at improving the quality of products and services, reducing waste, and saving cost. TQM is related to the way in which all employers of the organization work and contribute to meet quality standards set by customers.

Oakland, (1989) defines, total quality management as an approach to improve the effectiveness and flexibility of an organization as a whole. It is essentially a way of organising and involving the whole organisation: every department, every activity, every single person at every level. For an organisation to be truly effective, each part must work properly together, recognising that every person and every activity affects, and in turn is affected by others.

TQM is a philosophy of continuous improvement, which can provide any educational institution with a set of practical tools for meeting and exceeding present and future customers needs, wants and expectations (Sallis, 1996).

Total quality management incorporates quality assurance, and extends and develops it. TQM is about creating a quality culture where the aim of every member of staff is to delight their customers, and where the structure of their organization allows them to do so. In the total quality definition of quality the customer is sovereign. It is the approach popularized by Peters & Waterman (1982).

2.2.2 Definitions of quality

There are three basic definitions of quality namely - quality assurance, contract conformance and customer-driven quality. Murgatroyd & Morgan (1993), discuss the three basic definitions of quality as follows:

Quality assurance

Quality assurance refers to the determination of standards, appropriate methods and quality requirements by an expert body, accompanied by a process of inspection or evaluation that examines the extent to which practice meets these standards. The public examinations systems

can be seen as quality assurance systems. Students sit for examinations set by a provincial body, with all students from different schools sitting for the same examination. The idea is that students will have an equal opportunity of succeeding in the examination and that the results will reflect standards set by the provincial body for conformance to their expectations.

Contract conformance

The second definition of quality is that of contract conformance, where some quality standard has been specified during the negotiation of forming a contract.

Customer-driven quality

Customer-driven quality refers to a notion of quality in which those who are to receive a product or service make explicit their expectations for this product or service and quality is defined in terms of meeting or exceeding the expectations of customers.

The essence of total quality management is leadership - the kind of leadership required to ensure that everyone in the organization is working in a way that ensures consistently high performance and constant improvement. Leadership in the TQM context is visionary in that it embraces empowerment, performance and strategy. From the TQM perspective there is the need to see leadership as a systematic basis for facilitating the work of others (empowerment) so that they can achieve challenging goals (performance) that meet or exceed the expectations of stakeholders (strategy). Management, in terms of TQM, refers to this kind of visionary leadership (Murgatroyd & Morgan, 1993).

From an analysis of high-performing organizations and those that can be described as permanently successful, there are five critical features of successful TQM organization that are required to achieve sustainable, steep-slope quality improvements. According to Murgatroyd and Morgan (1993) these organizations have the following features :

- Alignment within the organization (everyone pulling towards the same strategic ends) and commitment to a shared vision,
- An extended understanding of the customer-driven and process-oriented basis for quality,
- An organization designed around teams, with investments made in team development and changes made in performance management systems to reflect teamwork as the

basis for the organization's activities,

- The setting of particularly challenging or outrageous goals, which commit the organization to significant increases in performance outcomes, and
- The systematic daily management of the organization through the use of effective tools for measurement and feedback.

Where all of the above mentioned elements are strong, they provide the focus for the work in the organization. TQM has proven remarkably successful. Without these elements, TQM is likely to be ineffective (Murgatroyd and Morgan, 1993). Each of these features namely shared goals, knowing the customer, the primacy of teams, outrageous goals and effective feedback by measurement can be regarded as a task that the management team within a TQM organization has to achieve if it wishes to be successful (Murgatroyd & Morgan, 1993).

In this study total quality management (TQM) refers to an organization wide effort to achieve quality:

- It is a philosophy about quality which involves everyone in the organization in the quest for quality.
- Total involvement is important, because everyone in the organization must be involved and committed.

2.2.3 Total quality management movement

The movement for total quality in education is of more recent origin. Much of the pioneering re-organization work practices on TQM lines have been carried out in the USA and in UK. The initiatives in the USA developed somewhat before those in Britain, but in both countries the surge of interest has occurred from 1990 onwards. Many of the ideas associated with quality are now well developed in education and notions of quality are increasingly being investigated and implemented in schools (Sallis, 1996).

The roots of the quality movement can be traced to the economic recession that beset the world in the 1970's. The symptoms of the recession were manifested in high levels of unemployment, a marked decline in the balance of payments of most nations and the alarming growth of the public sector expenditure (Sallis, 1996). However, as Navarro (1982) has

pointed out, the real root of the crisis was the declining profitability of most commercial enterprises. They were thus forced to explore new tools for increasing productivity in highly competitive commercial markets. As a response to this crisis, management gurus such as Deming, Peters & Waterman, Juran & Crosby suggested new ways of increasing productivity through techniques such as Total Quality Management (TQM). Total Quality Management (TQM) is a technique developed by Deming to improve the efficiency of flexible work teams. The broad goal of TQM is continuous improvement. TQM starts with the adoption of a philosophy of quality throughout an organization. Peters and Waterman's (1982) argued that companies that embraced these new management techniques were most competitive in the changing economic climate and were thus most profitable. The bottom line is the increasing profitability which could be achieved by ensuring customer satisfaction.

The quality movement was thus an attempt to reorganize the nature of the capitalist economies in response to the economic recession that began with the oil crisis of the 1970s (Navarro 1982; Clarke 1987; Hall & Jacques, 1988; Kallaway 1991).

These pressures were reflected in education in, *inter alia*, attempts to cut educational expenditure and an increasing emphasis on management.

Terms such as 'quality', 'efficiency', 'rationalization', and 'effectiveness' became part of the new slogan system in the discourses of educational restructuring. This, as Apple (1989), Whitty 1989), Ball (1990) and others have pointed out, is an attempt by the Conservative government in the UK to use the language of quality to create a market-driven approach to education in which parents as consumers are expected to bear greater cost for their children's education.

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In South Africa the notion of educational quality has become part of the repertoire of academics and policy-makers. For example, the ANC framework document (1994a:99) states that 'if quality improves, repetition and drop out rates will improve. This will reduce spending on education and increase possibilities for greater quality'. The ANC's *Implementation Plan for Education and Training* (1994b) identified two main components for achieving quality education in South Africa, namely, improving the quality of provision and an education quality improvement programme (EQUIP). Another example is the Educational Renewal Strategy (ERS) document (DNE, 1992:139) which argued that attempts to

restructure South African education must in no way compromise education standards and quality (Sayed, 1993).

2.2.4 Main elements of total quality management (TQM)

The essential elements of TQM may be summarized as follows (Harris, 1998):

- Quality is conceptualized as customers' perceptions;
- A customer is defined as anyone who receives a product or service, whether inside or outside the organization;
- The aim is to identify and meet the customer requirement through the design, development and management of processes which are error-free, that is by concentrating on prevention to eliminate waste and reduce cost;
- By utilizing the internal customer concept, the result of each process is viewed as a product; consequently evaluation takes place immediately, possibly by the immediate customer but preferably by the processor;
- Central to TQM theory is the idea of continuous self-improvement; therefore TQM organizations are essentially learning systems;
- TQM requires the involvement and commitment of all organizational members in quality matters and continuous improvement; and
- TQM requires superior quality information systems to provide timely measures of and feedback on performance.

2.3 THEORETICAL CONSIDERATION

A brief discussion of the theoretical consideration of total quality management is as follows:

2.3.1 Conceptual framework of total quality management

This study describes a framework for analysing existing quality initiatives and planning and implementing new ones. It has been designed to assist institutions both in managing quality and in using quality management as a means of institutional development. What is discussed here is a guide. The starting premise has always been that each and every institution has to find its own route to quality, and that externally prescribed approaches are usually the least effective (Dale and Boaden, 1994).

A quality framework needs to meet the special requirements of education and must make sense within the context of the pedagogic developments currently taking place. To be appropriate in the educational context, a quality framework must concern itself with teaching and learning.

As Warren (1992) has pointed out in a higher education context, 'what students learn is the most critical element of educational quality', and one that has been virtually ignored. The delivery of learning to students, who are the primary customers of the process, must therefore form the central focus of the framework. Spanbauer has similarly argued 'No school reform or restructuring is worth its salt unless its major focus is the teaching/learning process (Spanbauer, 1992).

2.3.1.1 Developing leadership and strategy

Leadership and strategy are key elements in any quality framework. Quality management requires a commitment from management for quality initiatives to succeed. This is the conclusion of all the major writers on quality (Deming, 1987; Juran, 1989). Linked to purposeful leadership, effective educational institutions need well worked out strategies to deal with the competitive and results-oriented environment in which they operate. Together with effective teamwork, leadership and strategy provide the engine for the transformational process of quality development. To be effective educational institutions require processes for developing their quality strategy. These include:

- a clear and distinctive mission;
- a strategy for achieving that mission;
- the involvement of customers, both internal and external, in the development of strategy; and
- the assessment and evaluation of the institution's effectiveness against the goals negotiated with customers.

Leadership and commitment to quality must come from the top. All models of quality emphasize that without the drive of management quality initiatives will be short lived.

It is leadership that puts strategy into action and communicates the vision to the staff. Stanley Spanbauer has argued that quality management requires a particular style of leadership, which he characterizes as 'transformational management'. The function of management is to

provide both the vision and the culture of a 'mutually supportive environment in which teachers and managers realize that their individual successes are interlocked with team action - their achievements rise and fall together (Spanbauer, 1992).

2.3.1.2 Delighting customers

Delighting the customers is the purpose of TQM. This is achieved by a continual striving to meet both internal and external customers' needs and expectations. Customers' needs are established by regularly soliciting their views. There are various methods of doing this : focus groups; questionnaires; advisory groups; open days; and informally talking to people. It is important that this work is done systematically and that the views of people who decide not to attend the institution are also solicited. The information from these consultations must be collated and analysed and used when taking decisions. It is important to involve the customers in the process because, at the end of the day, it is their views that count, not those of the institution's management. 'Students do not come to the college because there is a great budget; to them quality is about convenience, promptness, courtesy and reliability' (Sallis & Hingley, 1992).

Barrie Dale (1994) in his study of Japanese approaches to quality, shows the total belief that exists in Japanese companies that business operations and efficiency can always be improved by reflecting customer needs and requirements. He demonstrates the considerable lengths to which Japanese firms go to identify needs and to keep the company focussed on the market. However, the key idea mentioned by Dale is the translation of customer requirements into the design of products (Dale, 1994). Unless this link between listening and action is established, the activity of sampling customer requirements has little purpose.

2.3.1.3 Designating quality champions

Regardless of the actual position of this person in the hierarchy it is important that the designated quality facilitator should report directly to the principal. The champions do not undertake all the quality projects. Their role is to assist and guide teams in discovering new ways to tackle and solve problems. It is the responsibility of these people to publicize the programme and to lead the quality steering group in developing the quality programme. The quality steering group must represent key interests and have representation from the

management team. Its role is to drive and support the quality improvement process. It is both the powerhouse of ideas and the initiator of projects (Brownlow, 1994).

2.3.1.4 Ensuring that the management team monitor progress

The management team will not be committed to the process unless they are well informed about both the philosophy and the methods of quality management. It is necessary to build up a well-integrated and robust management team which can set an example to the teams in the rest of the institution. If TQM requires a 180° turn this can only happen if they are as well trained as anyone else in the institution, and are prepared to change their working patterns to support the development of new ways of working. Specific training in evaluation strategies will probably be necessary. The management team must lead the quality cascade (Burnham, 1997).

2.3.1.5 Initiating staff training for quality

Staff development can be seen as an essential tool for building the awareness and knowledge of quality. It can be the key strategic change agent for developing the quality culture. If TQM is largely about culture then a means has to be found of capturing the hearts and minds of staff. It has long been recognized by motivational theorists that training is one of the most important motivators in an organization's armory (Weller, 1993).

It is important in the initial stages of implementation that everyone is trained in the basics of TQM. Staff need a knowledge of some of the key tools including teamwork, evaluation methods, problem-solving and decision-making techniques. Both internal and external trainers have their part to play. It can be helpful to visit other organizations, whether educational or business, which are developing total quality initiatives (Schmoker, 1993).

2.3.1.6 Monitoring the delivery of the curriculum

Monitoring the delivery of the curriculum is the stage where quality systems are vital. The methods of learning need to be established and followed for each aspect of the programme. The type of information which needs to be part of the curriculum includes syllabuses, course submissions, schemes of work, records of work, assessment records, action plans, and records of achievements. The recording of failure and below-average performance and the actions taken to correct them, should be documented. (Sallis, 1996)

The stage of documentation includes the aims and objectives of each programme, and the specification of the programme. The latter can take the form of a syllabus or submission document to a validating body. What needs to be included, where relevant, is the evidence for the demand of the programme and the resources devoted to it. Evidence of learners' or sponsors' inputs into the design will be a feature of this part of the quality system (Sallis, 1996).

The process of curriculum and programme management needs to be specified, including arrangement for teamwork. The roles within the team and their responsibilities and levels of authority should also be clarified (Sallis, 1996).

2.3.1.7 Verifying the assessment of student performance

The details of both formative and summative assessments and the criteria for grading and the award of qualifications are necessary elements of the quality framework. A system for the internal verification of the assessment arrangements needs to be in place and documented. External examiners', moderators' and verifiers' reports will provide important evidence, where available, of the quality of the management of learning (Arcaro, 1995).

2.3.1.8 Communicating the quality message

The strategy, relevance and benefits of TQM need to be effectively communicated. There can be a great deal of misunderstanding about the purpose of quality. The long-term nature of the programme needs to be made clear, as well as the reasons for embarking on it. Staff development, training and team building are some of the most effective means of achieving it. Staff needs to be regularly informed with either special newsletters or regular reports in the in-house journal. The importance of good communications and their feedback to management cannot be overemphasized. It is important to highlight good practices so that positive attitudes and goodwill can be drawn on. An institution will need to find its champions and leaders and to recognize their success. Achievement needs to be celebrated, and there needs to be public recognition of good work. This does not have to be monetary recognition, but the motivational effects of public recognition and praise should not be underestimated. All the staff need to be involved in the quality process (Dale and Boaden, 1994).

The importance of a clear and positive communications strategy also cannot be overstated. An organization has to know what it is about and what constitutes the quality it is seeking to improve. Dale & Boaden (1994) have made the point that management has to share the strategy and outline to employees what needs to be done to make mission statements and strategy documents a reality. Without clear thinking and thoughtful communication, energy can be misdirected and wasted. Too often schools concentrate on doing things rather than doing the right things. W. Edwards Deming as summed up this phenomena in his terse phrase "Having lost sight of our goals we re-doubled our efforts".

2.3.1.9 Measuring the costs of quality

It is important to know both the cost of implementing the quality programme and the costs of not undertaking it. The costs of ignoring the quality message could involve lost enrolments, student failures, damage to reputation, lost opportunities. The exercise is important as it highlights many of the reasons for pursuing quality improvements and provides a motivation for sticking with the programme (Rooney, 1988).

2.3.1.10 Supporting teams

Teamwork is the element that links teacher professionalism to the quality development process. It is the framework in which innovation and change become an accepted fact of life. Without teamwork quality development cannot be instituted (Schotles et al, 1990). The key aspect of teamwork in this framework is recognition of other people's roles within the institution and the need to deliver services internally to agreed standards. Teaching a modern curriculum requires the close integration of academic staff together with support staff, particularly learning resource professionals.

Teams can be seen as the engine of quality improvement. They make quality management work. Teams can clarify issues and ideas, and they are the means by which conflicts over direction and policy can be constructively handled. Working in teams can provide every person in the organization with a means of expressing their views and making a contribution to the quality improvement process (Schotles et al, 1990).

A number of different types of teams are needed to produce quality improvements. As well as the more familiar curriculum teams, it is important to use *ad hoc* teams to tackle urgent quality issues (Schotles et al, 1990).

2.3.1.11 Applying quality tools and techniques

Peters (1987) says that applying quality tools and techniques focuses on getting things done and achieving initial successes. It focuses on the things that the institution knows it has to improve, and selects the correct tools to tackle them. Starting a TQM process by tackling problems head on avoids TQM paralysis. The danger is that it is easy to run out of steam or for the initiative to flounder if problems are difficult to resolve. If this approach is adopted, it needs to be closely followed by a thorough analysis and a more strategic approach. Nevertheless, it may be useful to demonstrate those important first achievements.

Teams best tackle projects, and they should be encouraged to tackle problems and issues close to home. Peters believes that organizations should 'encourage pilots for everything' (Peters, 1987). Pilots have the advantage of speeding up innovation, providing sources of excitement and interest. When setting-up improvement action teams or task groups, it is important to recognize that some issues can only be tackled by cross-organizational improvement teams. These are probably best set up as *ad hoc* groups given the brief to tackle a particular problem according to a fixed timescale. They have the additional advantage of helping to engender greater organizational collaboration.

Teams can start by analysing workflows and the existing processes methods and their results. Usually the process of analysis highlights areas that need improvement and provide the initial agenda for the improvement programme. It is important that teams be supported with training in teamwork, problem solving and the use of tools if they are to be successful in their task (Peters, 1987).

2.3.1.12 Developing a self-assessment culture

An institution should have means for evaluating its total performance. External inspectors may undertake this. However, the institution may decide to undertake its own audit, (Dale and Boaden, 1994).

Staff can assess areas other than their own. Outsiders may be included in the audit. A system of peer preview can build confidence and trust, and can act as significant staff development. Mechanisms need to be developed to feed the results of this auditing back into the strategic planning processes.

Feedback loops are vital for assessing and assuring quality. The quality system will need to document the evaluation mechanisms that the institution has in place to monitor both the achievement of individuals and the success of its programmes. The participation of the learner in the assessment of their own progress and their experience of the programme is an important element in this assessment. The methods might include records of achievement, review meetings, questionnaires and internal audits. Whatever the method employed, it must be appropriate to the process (Dale and Boaden, 1994).

Regular review and evaluation need to be an integral part of the programme. The steering group should undertake regular reviews and the management team should consider their reports and carry out its own monitoring. No new initiatives should be undertaken until the successes and failures of the existing ones are fully understood (Dale & Boaden, 1994).

2.3.2 Characteristics of total quality management (TQM)

Quality is a valuable criterion for gauging the effectiveness and efficiency of an action since it encompasses both outcome and process: 'Quality refers to features and characteristics of a service that bear on its ability to satisfy stated or implied needs' (Rooney, 1988). TQM can be seen as an approach to improving quality. 'Quality management will include in its totality a continuous cycle of planning, training, actioning, monitoring, improving and reviewing the performance of an organisation (Stebbing 1990).

TQM has the following characteristics (Rooney, 1988):

- total commitment from all involved;
- active involvement of everyone throughout the organization; and
- the breakdown of professional and functional barriers.

TQM has the following four main components:

- problem-solving - the ability to break down complex series of issues to a set of manageable task requiring a solution, a decision, a plan or an idea;

- getting decisions right the first time - decision-making requires a method or organizing information and evaluating the benefits and potential problems of each alternative;
- preventing problems - through a process of analysis, potential and actual problems can be identified, assessed and eliminated or catered for by contingency planning; and
- establishing an innovative attitude, so that opportunities for making improvements can be identified.

2.3.3 Total quality management guiding principles

QUALITY is satisfying agreed customer requirements (Sallis, 1996).

TOTAL QUALITY is continually satisfying customer requirements, at minimum cost to the school. Furthermore, the ultimate aim is to go further and 'delight' customers, that is, do more than they expect in having their requirements satisfied (Sallis, 1996).

TOTAL QUALITY MANAGEMENT is achieving these objectives through the total commitment and personal involvement of *all* members of the school organization (Sallis, 1996).

According to Greenwood (1994) TQM has the following eight guiding principles:

- It is management led.
- It requires good customer-supplier relationships.
- It requires the recognition of customer-supplier relationships which are both internal and external to the school.
- It requires the prevention rather than detection of faults and failures at all points in the system. You cannot inspect quality into an activity; it must be built in to start with.
- Quality is everybody's responsibility.
- In everything we do we must seek to get it right first time so far as humanly possible. Zero defects is our goal, but (since we are human) it is probably unattainable. TQM is a journey, not a destination.
- It requires measurement of the 'costs of quality', i.e. prevention, appraisal and failure. Prevention costs will rise as we eliminate the costs incurred in checking whether we got it right, and then putting it right. Failure is the cost of not doing it right.

- It requires a non-stop search for improvement.

2.3.4 Barriers to be overcome when implementing Total Quality Management (TQM) in schools

Sallis (1996) states that, TQM is hard work. It takes time to develop a quality culture. Hard work and time are two of the most formidable blocking mechanisms to quality improvement. TQM needs a champion in the face of the myriad of new challenges and change facing education. Quality improvement is a fragile process. Cultures are essentially conservative and homeostasis is the norm. Most staff is most comfortable with what they know and understand. However, to stand still while competitors are improving is a recipe for failure.

If TQM is to work, it must have the long-term devotion of the staff of the institution. They must back it and drive it. Management may themselves be the problem. They may want the results which TQM can bring, but be unwilling to give it their wholehearted support. Many quality initiatives falter because managers quickly return to traditional ways of managing. Fear by managers of adopting new methods and approaches is a major barrier. This is potentially the most serious of blockages. If management does not give TQM their backing there is little that anyone else in the organization can do (Sallis, 1996).

The sheer volume of external pressures also stands in the way of many organizations attempting TQM. Although quality programmes are introduced with considerable publicity, too often they can be overtaken and submerged by other initiatives. There is a need to ensure that despite other pressures quality always has an important place on the agenda. This is where strategic planning plays such an important role. If TQM is firmly a part of the strategic role of the institution, and if there are good monitoring mechanisms in place, then there is a good chance that quality will keep a high profile. This makes it harder to ignore, and increases the chances of its being taken seriously (Sallis, 1996).

The strategic plan can help staff understand the institution's mission. It helps to bridge gaps in communication. There is a need for staff to know where their institution is going and how it will be different in the future. Management must trust their staff sufficiently to share their vision for the institution's future. Visions are often not shared because of a fear of a loss of status and disempowerment by managers. When coupled with a fear of delegation by managers this can make quality development nearly impossible. Managers have to be able to

let their staff take decisions and be willing to see them make honest mistakes (Schmoker, 1993).

A potential problem area in many institutions is the role played in it by management. They have a pivotal role because they both maintain the day-to-day operation of the institution and act as one of its most important communications channels. They can often block change if they have a mind to or they can act as the leaders of teams spreading the impetus for quality improvement. Managers may not define their role as one of innovation unless managements communicate to them their vision of a new future (Schmoker, 1993).

Managers must be consistent in their behaviour when advocating and communicating the message of quality improvement. They cannot say one thing and do another and then expect to engender enthusiasm among their staff or loyalty and commitment. They have to persuade others that new working methods will pay dividends (Schmoker, 1993).

Barriers to quality are not the sole prerogative of managers. Many staff fear the consequences of empowerment, especially if things go wrong. They are often comfortable with sameness. They need to have the benefits demonstrated to them. For this reason TQM must avoid being about nothing but jargon. This can easily lead to TQM involving an element of fear and uncertainty. Fear of the unknown, of doing things differently, of trusting others, and of making mistakes, are powerful defence and resistance mechanisms. Staff cannot give of their best unless they feel that they are trusted and their views are listened to. Deming argues that it is essential when undertaking the quality revolution to 'drive out fear' (Sallis, 1996).

2.3.5 Applying Deming's management philosophy to schools

Schmoker (1993) says that the most important elements of Deming's philosophy, as they apply to school improvement, are:

- A democratic, collegial atmosphere should prevail in schools. Ideas should be shared in a setting that recognizes and supports ongoing data collection and assessment. All decisions and practices should be information-driven; facts, reasoning, and evidence, not power or authority or personality, should determine practice and govern decision-making.
- Management should eliminate threat, encourage continuous improvement, and

recognize and use the expertise that employees have acquired in their jobs. This expertise, combined with the best research, should be the basis for practice. To encourage this, management must allow time for study, reading and discussion about best practices in order to compare them against what is currently being done. Just as important, management should routinely recognize accomplishment, improvement, and commitment to purpose with appropriate methods of appreciation.

- Improvement must become an obsession that employees thrive on. This can occur only when management makes every effort to enhance employees' capabilities as well as the quality of their lives through training, trust, and professional respect (Schmoker, 1993).

2.3.6 Implementation of total quality management in schools

Sallis (1996), discusses some of the issues associated with the implementation of TQM in a school. He argues that :

- A long-term view is needed; TQM is about attitudes and these are not moved by exhortation or lecture. In many organisations it has taken three to five years to be confident that a quality culture has been created.
- More organisations have failed to implement TQM than have successfully implemented it. The reason is usually a lack of commitment and failure to appreciate the totality of TQM in an organisation.
- The implementation progress must be seen as a quality process in its own right. Those who are responsible for managing the implementation must use quality processes and techniques.

According to Sallis (1996), the principal components of the implementation process are as follows:

2.3.6.1 Management commitment

TQM will only work if there is explicit single minded and obsessive commitment to quality. The importance of vision in leadership has to be stressed equally important is the way that the vision is communicated and the way that it is demonstrated in action.

Sallis (1996) says that, the specific requirements on managers are clear and are as follows:

- to develop and display consistency of purpose, i.e. to speak with one voice;
- to implement quality procedures in all aspects of their work - especially team development and problem solving/decision making techniques;
- to engage in training and development activities;
- to recognise that many quality problems are the result of management action;
- to ensure that resources are made available;
- to talk and act quality; and
- to manage the implementation of TQM as a high priority.

Long before managers presume to introduce TQM, they should review their own preparedness and take appropriate action. The most important single determinant of the success of an implementation strategy is the behaviour of managers. Actions which are incompatible with the quality approach, language which implies skepticism or cynicism will inevitably diminish credibility and create cynicism. Once initiated, quality cannot be compartmentalised - it must permeate all aspects of schools leadership and management.

2.3.6.2 Driving the process

Although quality is everyone's responsibility, it is necessary to identify an individual and a team specifically responsible for driving the implementation process in school. Commercial organisations usually appoint a TQM manager or facilitator. Schools cannot afford the luxury of a specific appointment but there is a need to designate a named individual to have the responsibility for managing implementation. There are three criteria for such an appointment - authority to make decisions, knowledge of TQM, and enthusiasm and commitment. The specific responsibilities of such a post might include (Sallis, 1996):

- promoting the total quality approach;
- acting as internal consultant to teams;
- advising managers on operations issues;
- designing and delivering training;
- liaising with external suppliers and customers;
- communicating progress to all staff; and
- monitoring and evaluating the implementation process.

In essence the role of the facilitator is to make TQM live and to help all colleagues translate the theory into practice. However, the task is a major one and probably too much for one individual. It may therefore be appropriate to establish a quality team, a task team with the specific purpose of making TQM happen. Whatever the constitution of the team, it should never be allowed to detract from the fact that every team has to be a quality team and the creation of a specific team should not allow others to abrogate responsibility for quality in its own sphere of activity. The existence of a 'quality team' can create inertia elsewhere.

According to Sallis (1996) the team's most appropriate functions are probably to:

- provide advice and support to the facilitator;
- act as a model of effective team working;
- integrate TQM with other school initiatives;
- pilot specific strategies;
- generate resources to support implementation;
- act as a forum for generating commitment; and
- disseminate ideas and experience.

Two intangibles are vital to the quality facilitator and team and infectious enthusiasm for quality and high levels of personal integrity.

2.3.6.3 Review

According to Sallis (1996), the main purpose of the review is to establish what is to be changed, that is to analyse the existing situation in quality terms. Such a review should be initiated and managed by the quality facilitator. The content and structure of the review should be determined by the context, audience and possible applications of the outcomes. Thus a range of review documents may be necessary, aimed at:

- children;
- parents; and
- teaching and non-teaching staff;

Whatever the audience is composed of, the central issues remain the same (Sallis, 1996) and these are:

- current levels of satisfaction;
- the extent to which needs are being met;
- how the school compares with other schools;
- identification of areas of waste;
- identification of areas of non-conformance; and
- suggestions for improvement.

The results of this review process help to identify the priorities to be taken into account in planning the strategy. The inventories can also be used at a later date to allow measurement of changes in levels of satisfaction, that is, the extent to which the TQM process is actually changing the way the school is managed. Two important principles are established by the use of reviews; *listening* to customers at the very outset and *measuring* changing levels of satisfaction.

2.3.6.4 Strategy

Arcaro (1995) says that once the personnel has decided to implement TQM and the priorities have been established, then it is appropriate to identify the specific strategy. Although the implementation of TQM has to be seen as a specific initiative, it should not be divorced from school management processes. It should not be seen as a 'what?' but rather as a 'how?'. It would therefore be appropriate to integrate the TQM strategy into the school development plan. The plan is necessary to provide a clear view of the path to be followed and to act as a quality criterion, a benchmark to monitor progress as well as acting as a constant reminder of the central purpose. The development plan needs to include the following elements (Arcaro, 1995) :

Mission statement

Existing school aims and 'objectives' need to be integrated into a mission statement. At this stage, it is vital that the desired culture and values are made explicit and articulated into the mission statement.

Objectives

The mission statement should be translated into specific objectives which indicate the outcomes to be achieved in a specified time-scale (Arcaro, 1995). These objectives should have the following characteristics:

- success criteria are identified;
- time-scale is specified;
- responsibility is delegated;
- resources are allocated; and
- teams and individuals are specified.

These objectives form the basis of personal target setting through the appraisal process. The objectives should relate to the specific components of implementation, notably training and organisation.

Organisation

The review committee indicates specific issues relating to the organisation of the school. Central to this will be the extent to which existing structures are compatible with the notion of quality teams. The plan should indicate the processes for transforming existing structures and working procedures into suitable vehicles for managing quality (Arcaro, 1995).

Training and development

This is so central and significant that a move towards TQM cannot be contemplated without training. Fundamental principles of training and development can be stated as follows (Sallis, 1996):

- every stage of the implementation process should be accompanied by training;
- everyone should be trained;
- training should cover the spectrum of skills; and
- the training programme should be based on a process of needs analysis.

The development plan should indicate the training priorities for implementing TQM, the methods of needs analysis to be employed, the means of delivery and the resources available.

Resources

The implementation strategy needs to be costed both in terms of financial expenditure and staff time. As with all educational activities, many aspects of the management process will be difficult to cost.

However, it is essential that an attempt is made in order to allow for prioritising in the budget and to demonstrate commitment. It is also important to view expenditure on implementing TQM as an investment from which there may not be immediate returns. The most significant item of expenditure will be staff time, but the criterion to be applied is that of opportunity cost - what will happen if significant change is not implemented (Sallis, 1996)?

Success Criteria

Integral to the development plan there should be success criteria to allow progress to be measured. These should be as specific as possible and quantified where appropriate. One of the most important criteria relates to the use of attitudinal surveys to measure the impact of the quality programme (Sallis, 1996).

2.3.6.5 Training

The success of implementing TQM depends on training because the success of the process depends fundamentally on attitudinal change. At the same time, to make the total quality approach work requires the application of very specific skills and procedures. Training has to be seen as an integral component of managing quality. Continuous improvement means continuous development and the principles of right first time and conformity to requirements are particularly appropriate (Arcaro, 1995). The following principles should apply (Arcaro, 1995):

- Training and development should be specific to the school;
- Trainers, consultants and training materials should work to the specific needs of the school; customer needs must be stated;
- Training should not be restricted to attending courses or 'training days', all meetings and activities should be examined for their training potential; and

component to ensure that there is genuine change.

The training programme needs to include a wide range of topics some specific to TQM, others of a broader applicability. The contents of a training strategy might include:

- introduction to the principles of TQM;
- identification of the need to change;
- raising the issue of customer awareness;
- analysis of work processes;
- application of quantitative and analytical techniques;
- team building skills;
- leadership skills;
- interpersonal skills, notably listening and feedback;
- oral and written communication and presentation skills; and
- review and debriefing skills.

2.3.6.6 Structures and systems

What can be done very rapidly is to enhance existing structures by refocusing and realigning their working procedures. In essence by converting departments into teams, by changing meetings into problem solving and creative activities. This change can take place with minimal cost and disruption and can produce a dramatic impact on motivation, involvement and satisfaction.

More complex but equally vital is the realignment of systems. In practical terms this means establishing customer requirements and then recording them in such a way as to ensure consistency and conformity. In practical terms this means producing codified operating procedures which define in significant detail the components of a process so that there is no ambiguity.

According to Sallis (1996) the core process of training should include the following school activities.

- job descriptions;
- syllabuses and schemes of work;

- appraisal and staff development;
- marking criteria;
- homework procedures;
- uniform;
- health and safety;
- time tabling;
- record keeping;
- option procedures;
- records of achievement;
- development planning;
- budget planning; and
- stock control.

Many of the above mentioned school activities are routine but all impact on customers and, if efficiently managed, can create time for more specifically educational activities - most importantly is communication with learners, parents and colleagues. It is only through codification that quality can be guaranteed - as long as it is customer requirements that are codified and not bureaucratic routines (Sallis, 1996).

2.3.6.7 Management behaviour

TQM is not to be dismissed as another management 'fad', as the results of another course or even the outcome of reading a book. According to Sallis (1996) certain attributes that are essential are:

- **Consistency:** This means all managers, in all situations delivering the same service.
- **Message:** The management team must speak with one voice and act with one purpose.
- **Enthusiasm:** It is easy to ridicule the 'enthusiast' but real change will be directly proportionate to express commitment.
- **Attention to be paid to details:** Every aspect of work must be noted, successes reinforced and praised, problems solved and weaknesses and lapses picked up.
- **Listening:** Constantly listening - remembering always that we have two

- **Listening:** Constantly listening - remembering always that we have two eyes, two ears and one mouth and that ratio sends an important message to quality managers.
- **Accessibility:** Being available, constantly on the ground, managing by walking about (MBWA).

In the final analysis quality management comes down to performance and relationships and managers have to display the highest standards of integrity at all times (Sallis, 1996).

2.3.6.8 Continuous improvement

Although it is essential to have a clear strategy for the implementation of TQM it would be a mistake to see it as a separate process. It needs to be seen as the start of a process of continuous improvement in which there is a continuous challenging of norms and expectations (Sallis, 1996). TQM implicitly denies the possibility that any organisation or individual has reached a plateau which represents an acceptable level of performance. Implementing TQM requires the acceptance of the principle that 'We can always improve' and although the gradient may lessen, going up is the only direction for a TQM school (Sallis, 1996).

In practice this means constantly checking, redefining and improving. Schools are the most natural organisations for this culture as they are already expert in managing the most complex improvement process of all i.e. the moral, intellectual, social and personal development of children (Sallis, 1996).

2.4 MODELS OF TOTAL QUALITY MANAGEMENT IN SCHOOLS

Three of the most important models of quality management are those of W. Edwards Deming, Joseph Juran & Philip B. Crosby.

All three have concentrated on quality in manufacturing industry, although all claim that their ideas are equally applicable to service industries. None of them has given much consideration to quality issues in education. Nevertheless, their contribution to the quality movement has been so great that it is difficult to explore quality without recourse to their thinking (Arcaro, 1995).

When discussing the ideas of Deming, Juran & Crosby, it is necessary to realize that their approaches have their limitations and drawbacks, especially as they were developed in an industrial context. Even so, they are illuminating and can provide direction. There is much that can be learnt from them and be readily adapted to education. There is much overlap in their thinking and their general conclusions complement each other (Sallis, 1996).

2.4.1 Deming's fourteen points for management

Bonstingl (1992) says that total quality management is a technique developed by Deming to improve the efficiency of flexible work teams. Deming compiled a famous list of 14 points, which he believed were the prescription needed to achieve quality in education. Deming's view is that the cause of inefficiency and poor quality is the system, not the employees. It is the responsibility of the school management to correct the system to achieve the desired results. Deming's 14 points for school management could be applied to improve the quality of education in schools. Bonstingl (1992) discusses the application of Deming's fourteen points to improve the quality of education as follows:

- Create constancy of purpose for improvement of product and services

Schools must focus on helping students to maximize their own potentials through continuous improvement of teachers' and students' work together. Maximization of test scores and assessment symbols is less important than the progress inherent in the continuous learning process of each student.

- Adopt the new philosophy and abandon traditional ways of working

School teachers must adopt and fully support the new philosophy of continuous improvement through greater empowerment of teacher-student teams. Cynical application of the new philosophy, with the sole intent of improving district-wide test scores, destroys interpersonal trust which is essential to success.

- Move from inspection to building quality into every product and process

Reliance on tests as the major means of assessment of student production is inherently wasteful and often neither reliable nor authentic. It is too late at the end of the unit to assess students' progress if the goal is to maximize their productivity. Tests and other indicators of

student learning should be given as diagnostic and prescriptive instruments throughout the learning process. Learning is best shown by students' performance, applying information and skills to real-life challenges.

Students must be taught how to assess their own work and progress if they are to take ownership of their own educational processes.

- Stop awarding contracts on the basis of lowest bid - specify and buy quality

Build relationships of trust and collaboration within the school and between school and the community. Everyone's roles as supplier and customer must be recognized and honoured. Work together whenever possible to maximize the potentials of students, teachers, administrators and the community.

- Engage in a process of continually improving every aspect of company activity

School administrators must create and maintain the context in which teachers are empowered to make continuous progress in the quality of their learning and other aspects of personal development, while they learn valuable lessons from (temporary) failures.

- Use work based training techniques

School leaders must institute programmes of training for new employees unfamiliar with the specific culture and expectations of the school. Effective training programmes show new teachers how to set goals, how to teach effectively, and how to assess the quality of their work with students.

- The emphasis for leaders and managers must be on quality, not quantity

School leadership consists of teachers, parents, students and members of the community as coach and mentor. The organizational context in which all students' growth and improvement is valued and encouragement can be maximized by teachers and students, parents and community members who support the common effort. Leading is helping, not threatening or punishing.

- Drive out fear by improving communication

Fear is counter- working with production in school as it is in the workplace. Fear is destructive so the school culture and everything good that is intended to take place within it. Institutional changes must reflect shared power, shared responsibilities and shared rewards.

- Break down organisation barriers

Teacher and student productivity is enhanced when departments combine talents to create more integrated opportunities for learning and discovery. Create cross-departmental and multi-level quality teams to break down role and status barriers to productivity. Teachers must also institute programmes in which students learn how to set learning goals, how to be more effective in their schoolwork and how to assess the quality of their own work. Teachers should show students by attitude and actions what a good learner is all about. Educators learn how to be educators from the modeling they receive as students.

- Eliminate slogans and exhortations

Teachers, students, administrators, families and community members may collectively arrive at slogans and exhortations to improve their work together, as long as power, responsibility and rewards are equitably distributed. When educational goals are not met, fix the system instead of fixing blame on individuals.

- Eliminate arbitrary numerical targets

Assignments and tests that focus attention on numerical or letter symbols of learning and production often do not fully reflect the quality of students' progress and performance. When the grade becomes the bottom-line product, short-term gains replace student investment in long-term learning, and this may prove counter-productive in the long run.

- Allow for pride of workmanship by locating responsibility with the worker

Teachers and students generally want to do good work and feel proud in it. Schools must dedicate themselves to removing the systemic causes of teacher and student failure through close collaborative efforts.

- Encourage education and self-development

All of the school's people benefit from encouragement to enrich their education by exploring ideas and interests beyond the boundaries of their professional and personal worlds.

- Create a management structure and culture that will drive the preceding 13 points

School personnel at all levels, including students, must put this new philosophy into action so it becomes embedded into the deep structure and culture of the school. Teachers and students alone cannot put the plan into effect. Constant top-level dedication to full implementation must be supported by a critical mass of school and community people to implement the plan and make it stick (Bonstingl, 1992).

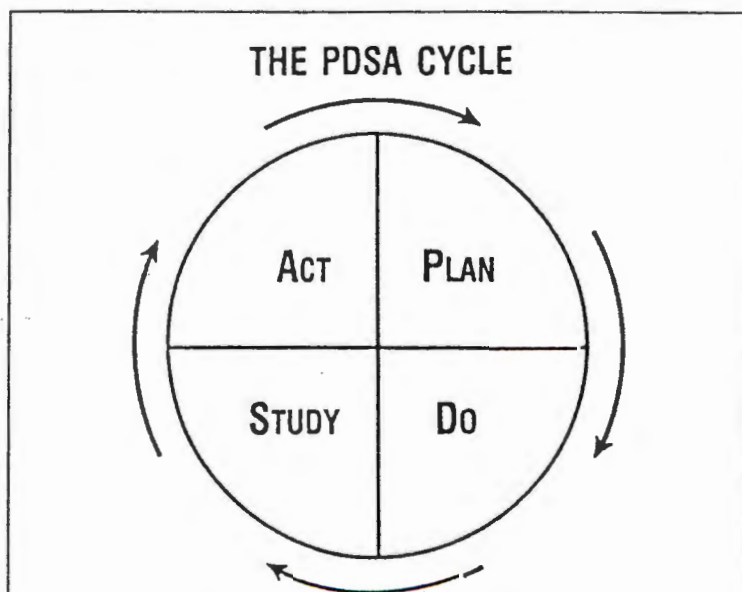
Deming has been criticised for the perceived banality of these points. However, his philosophy has been widely adopted and applied and it is highly congruent with other theorists (Bonstingl, 1992).

2.4.1.1 The PDSA Cycle Model of Deming

PDSA stands for Plan, Do, Study, Act. The concept came to industry from education, from no less an educator than John Dewey himself. Shewhart derived his PDSA Cycle from Dewey's emphasis on meeting regularly to discuss progress and innovation, always with the intention of refining efforts relative to results (Schmoker, 1993).

The PDSA Cycle shown in the diagram below consists of four steps.

Figure 2.1 : THE PDSA CYCLE



Step 1 : Plan

The first step is developing a PLAN or process to study and analyse (for example, the way a lesson or unit is taught or an assessment process is developed). What can be done to improve it? Firstly you must organize the team to develop the plan. Thereafter determine what data you currently have, what additional data you will need to assess the improvement, and possibly how the data will be used. You cannot proceed without a plan (Schmoker, 1993).

Step 2 : Do

Carry out the plan, institute the improvement, preferably on a small scale or pilot basis (Schmoker, 1993).

Step 3 : Study

Study or check the data on the effects of the improvement or innovation (Schmoker, 1993).

Step 4 : Act

Act on what the pilot programme teaches you. Either institute the innovation on a permanent basis, discard the innovation, or go back to step 1 by modifying or refining the innovation and gathering new data on its effectiveness as you make adjustments to it (Schmoker, 1993).

2.4.2 Juran's ten steps to quality improvement

Joseph Juran is generally recognised as the most intellectual profound of the management theorists. Juran defines quality as 'fitness for purpose' and identifies the principal outcome of quality management as reducing the cost of quality and increasing conformance. He identifies the following three steps to quality improvement (West-Burnham, 1992):

Step 1: Structural annual improvement plans;

Step 2: Training for the whole organization; and

Step 3: Quality directed leadership.

Juran (1989) identifies the following components of a systematic approach to a company-wide quality programme:

- Identify goals and policies for quality;
- Implement plans to meet the goals;
- Provide resources to evaluate progress; and
- Ensure appropriate motivation.

As with the other 'gurus' Juran has summarised his principles of quality management into a series of epithets as follows:

Juran's ten steps to quality improvement (West-Burnham, 1992):

Step 1: Create awareness of the need and opportunity for improvement.

Step 2: Set explicit goals for improvement.

Step 3: Create an organisational structure to drive the improvement process.

Step 4: Provide appropriate training.

Step 5: Adopt a project approach to problem solving.

Step 6: Identify and report progress.

Step 7: Recognise and reinforce success.

Step 8: Communicate results.

Step 9: Keep records of changes.

Step 10: Build an annual improvement cycle into all company processes (West-Burnham, 1992).

2.4.2.1 Strategic quality management (SQM)

To assist managers in planning quality Juran has developed an approach which he calls Strategic Quality Management (SQM). SQM is a three-part process based on staff at different levels making their own unique contributions to quality improvement. Senior management has the strategic view of the organization middle managers take an operational view of quality while the workforce is responsible for quality control. This is an idea which has a ready application to education and which closely matches the ideas which Consultants at Work have developed for improving quality in further education. John Miller and his associates at Consultants at Work argue that senior managers and governors need to take the strategic quality management role by setting out the college's vision, priorities and policies (Juran, 1989).

Middle managers - heads of department/faculty - are responsible for quality assurance, which involves them in coordinating information from course teams, systematically checking on effectiveness and transmitting the results of monitoring both to course teams and to senior management. Quality control is exercised by teachers operating in course teams who design the characteristic and standards of programmes of study so that they conform to the needs of their learners (Juran, 1989).

The Juran Institute, which provides consultancy based on Juran's principles, preaches a project-by-project team-solving approach to quality improvement. Quality improvement only has meaning in practical application, and those applications are of the project variety. Juran has said that all quality improvement takes place project by project and in no other way (Juran, 1989).

2.4.3 Crosby's fourteen steps

Crosby is probably the most significant writer in terms of influence in the USA and Europe. He focuses on senior management and argues for the centrality of increased profitability through quality improvement. He is best known for his fourteen steps of quality management (Sallis, 1996):

Step 1 : Management commitment

The essential first step in a quality programme, according to Crosby, is *Management Commitment*. This is crucial to success and is a point agreed on by all the quality gurus. The quality initiative must be sanctioned and led by management. Crosby suggests that this commitment is communicated in a quality policy statement, which needs to be short, clear and accessible (Sallis, 1996).

Step 2 : Quality improvement team

The second step builds on the commitment with the setting up of a *Quality Improvement Team*. Since every function within the organization is a potential contributor to defects and quality failures, it follows that every part of the organization must participate in the improvement effort. The Quality Improvement Team has the task of setting and directing the programme which will be implemented across the organization. This team does not do all the quality work. The task of implementing improvements is the responsibility of teams within individual departments. The plan which the Quality Improvement Team draws up must be

accepted and endorsed by management. An important task of the Quality Improvement Team is to decide how to specify quality failure and improvements (Sallis, 1996).

Step 3 : Quality measurement

It is important to be able to measure the current and potential nonconformance in such a manner that it permits objective evaluation and corrective action. The types of measurement vary between manufacturing and service organizations, and typically include data from inspection and test reports, statistical data, and feedback data from customers. A major contributor to quality measurement is provided (Sallis, 1996).

Step 4 : The cost of quality

The cost of quality consists of such things as the cost of things going wrong, rework, scrap, having to do things again, inspection, and testing. It is important to be able to identify the costs of quality and to put a value on them (Sallis, 1996).

Step 5 : Quality awareness

It is necessary to raise the awareness of everyone within the organization of the costs of quality and the need to implement a quality improvement programme. This requires regular meetings between management and employees to discuss specific problems and means of overcoming them. Information about the quality programme needs to be communicated. He argues that quality awareness should be low key and linked to a constant stream of events. Once awareness has been raised it is possible to move on (Sallis, 1996).

Step 6 : Corrective action

Supervisors need to work with staff to eliminate poor quality. A systematic methodology is required to deal with problems. Crosby suggests setting up a series of task teams with a carefully constructed agenda for action. Reports of the task teams should be fed up the chain of command in a regular series of meetings. To decide which problem to tackle first, he suggests applying the Pareto rule. This suggests that 2.0 percent of the processes cause 80 percent of the problems. The biggest problems need to be tackled first followed by the next most important and so on. One way of highlighting the improvement process is through zero defects planning (Sallis, 1996).

Step 7 : Zero defects planning

He argues that a zero defects programme should be introduced and led by the Quality Improvement Team which is also responsible for its implementation. Crosby argues that all staff should sign a formal contract or pledge to work towards zero defects (Sallis, 1996).

Step 8 : Supervisor trainer

It is important that all managers understand their role in the improvement process and this is carried out through a formal training programme. This is particularly important for staff carrying out crucial middle-management roles (Sallis, 1996).

Step 9 : Zero defects day

This is a day long event which establishes the idea of zero defects and informs employees that there has been a change. This is essentially a jamboree to highlight and celebrate the work being carried out on quality and to emphasize the management's commitment to it. It has a more serious side, which is staff development (Sallis, 1996).

Step 10 : Goal setting

Once the pledges to work towards zero defects have been made and the idea has been launched on Zero Defects Day, it is important that individual action plans are completed. The goals which teams set themselves must be specific and measurable. Goal setting leads naturally into the following step (Sallis, 1996).

Step 11 : Error - cause removal

There needs to be a means by which individual employees can communicate to management the situations which make the pledges difficult to implement. This is best achieved by designing a standard form which goes to the appropriate line manager. All such forms must receive a reply within a particular time period. It is important to appreciate those who participate in the improvement exercise (Sallis, 1996).

Step 12 : Recognition

Crosby in Sallis (1996) argues that people do not work for money. Once their salary is established, something more important takes over. What staff need is recognition of their

achievement and contribution. Crosby argues that the recognition needs to be linked to previously set goals. The awards can be prizes or certificates. Recognition, not money, is what is important.

Step 13 : Quality councils

This is an institutional structure also favoured by Juran. It is important to bring the quality professionals together to decide how problems can best be tackled. Inspectors and quality controllers need a consistent and professional approach to their work. Part of the role of the Quality Council is to monitor the effectiveness of the programme and to ensure that the improvement process continues. This is emphasized in (Sallis, 1996).

Step 14 : Do it over again

The quality programme never ends. Once goals are reached, the programme needs to start over again (Sallis, 1996). When discussing the ideas of Deming, Juran & Crosby, it is necessary to realize that their approaches have their limitations and drawbacks, especially as they were developed in an industrial context. Even so, they are illuminating and can provide direction. There is much that can be learnt from them and be readily adapted to education. There is much overlap in their thinking and their main general conclusions complement each other (Sallis, 1996).

2.5 TOTAL QUALITY MANAGEMENT RESEARCH

Total Quality Management is being implemented in America and Britain to restructure and improve educational outcomes. In reforming American and British schools, educators are pressurized to be cost effective in pursuing academic excellence despite the lack of adequate funding, increased student enrolments, and the call for schools of choice and vouchers for private schools. To be market competitive, customer needs and expectations must be met which reflect the value of the service and product (Weller and McElwee, 1997). To be market competitive, educators must provide a quality education which is cost-effective. The 14 points of Deming's quality model provides a systematic, structured template to promote educational excellence and meet the demands of the external environment's social, political, and economic forces. This model helps educators avoid many pitfalls associated with unsuccessful attempts at implementing the quality theory of Deming (Weller & McElwee, 1997).

2.5.1 An overview of TQM in developed countries

An overview of TQM in America is discussed as follows:

2.5.1.1 Total quality management research in America

The use of TQM as a school restructuring paradigm has been recently applied and has yielded varying degrees of success. Schmoker & Wilson (1993) note that the theory behind Deming's (1986) management principles "provides a template, an overreaching body of principles that can promote intelligent action toward improving schools". TQM has produced high positive results in promoting student achievement, self esteem and motivation. It has increased teacher morale and self esteem, and renewed teachers' professional commitment through empowered teams (Schmoker & Wilson, 1993; Murgatroyd & Morgan, 1993).

Weller (1993) points out that TQM is enjoying an increased acceptance in American schools because the principles of Deming are easily adaptable to education. They can absorb and modify that which is already producing positive results in the classroom. TQM has appeal to both educators and the public with its trust toward achieving excellence through cost effective means.

Bonstingl (1992) finds TQM to be important for school revitalization for its "new conceptual framework" and its new synthesis of knowledge about leadership and psychology which allows educators to incorporate the research-proven practices of prior reform movements (e.g. effective schools) and leadership theory (human relations movement) into Deming's principles of quality management.

TQM also applies the knowledge of systems theory through the promotion of social interactions within a school's "interconnected networks" by emphasizing team work and group decision making (Schenkat, 1993). English (1994) notes that Deming's theory (1986) on leadership is research-based and coming out of the work on organizational development and the behavioural science theories has direct application for educational leaders. Found within Deming's Fourteen Points of Quality Management is a new leadership paradigm, based on congruent sets of assumptions, beliefs, and practices. In his 1993 volume, Deming maintains that 90% of the problems in any organization lie with the management system. To correct the system, management must adopt a new set of beliefs and attitudes about the practice of leadership. Instead of blaming people for organizational failures, management needs to examine the root cause of the problems, which is the management system itself.

“Fixing” the system means changing the way management views its purpose, its role and responsibilities and its interactions with the organization’s human resources.

Weller & Hartley (1994) examined Deming’s (1986) Fourteen Points of Quality Management and found direct application to the research on leadership behaviour in effective schools. Successful Georgia superintendents are not dictators, but human engineers who design pathways for the success of others, remove barriers to job efficiency, and facilitate the work of their subordinates by providing the necessary time and resources required to do their job. Superintendents in Georgia’s TQM school systems have adopted the philosophy that “everyone is a leader” and that leadership is not limited to appointment or authorization. In order for people to be truly productive and maximize their talents, they need freedom to innovate and explore, and not be restrained by the fear of failure. These superintendents report that goal oriented teams, empowered to solve problems and make decisions over their own work environment, reduce dissonance in the workplace through consensus management.

In these TQM schools, principals and teachers set their own performance targets and are accountable through their own goals and not through top administrative regulations or self-developed goals. In these schools systems, the responsibility of the principals is to be committed to TQM principles, model Deming’s Fourteen points of quality, and more importantly provide the necessary time and resources for teachers to work the Fourteen Points of quality (Weller and Hartley, 1994).

Georgia’s school superintendents, like their counterparts experience a general decline in student enrolment and an increased reluctance of local taxpayers to increase property tax dollars to pay for education. Fiscal shortfalls have resulted in fiscally insolvent school systems over the past decade and have triggered the need to downsize staffs and reduce instructional programmes such as fine arts and other elective courses. Public and student dissatisfaction with these practices has increased the demand for school administrators to be more cost-effective in their spending. It has forced many superintendents to focus on identifying inefficient practices in their school systems. TQM became the fiscal management philosophy which helped many Georgia school systems cope with their economic crisis by identifying areas of wasted resources and the inefficient use of human capital in developing practices to turn ineffective, high cost programmes into efficient, low cost quality-producing operations (Weller, 1995)

Chappell (1994) notes that the Deming's (1986) quality principles are practiced in over 400 public school districts with many of these districts using TQM to reduce costs and increase quality performance in administrative and business services.

Case studies in Alaska, New York, Texas, and California, reported by Schmoker & Wilson (1993) closely parallel the findings of Weller & Hartley (1994) and relate the highly successful outcomes of TQM regarding gains in student achievement scores for both at-risk and traditional students, increased student self-esteem, and greater pride in doing one's best. Decreases in student dropout rates, student absenteeism, and cases of vandalism were also reported. Teachers have reported higher morale, enhanced self-concept, and renewed commitment to teaching through their participation on empowered teams. Schmoker & Wilson emphasize the point that TQM is not just another educational faddish scheme to cosmetically enhance the outcomes of schooling, but a management paradigm which really works.

They state that the emphasis on customer satisfaction, continuous improvement, and the Fourteen Points provide a structured, systematic strategy for restructuring and constitute American educator's best hope to revitalize education (Schmoker & Wilson, 1993).

Sallis (1993) and Ross (1993) agree with Schmoker & Wilson's observation about the value of TQM for school restructuring when they concur that Deming's Fourteen Points (1986) are the key components to organizational revitalization, success, and preeminence for the 1990s and beyond.

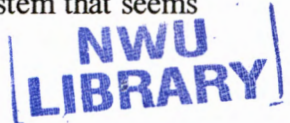
2.5.1.2 Total quality management research in Britain

The British education system has gone through a period of unprecedented change. Much has been imposed on the system by Central Government. Some of the initiatives align well with the principles of Total Quality. Others have conflicted with basic principles and created a real tension for schools trying to apply continual improvement (Brownlow, 1994).

Many applications of Total Quality are being reported across the UK. These are spread across the spectrum of educational establishments. Often these initiatives come with different labels such as School Improvement or Effectiveness, but they embrace many of the underlying principles of Total Quality. Hamblett School in St Helens was one of the first special schools to officially introduce TQM (Brownlow, 1994) but many others have been close to the spirit of

the philosophy for a long time. The ideal of focussing on the individual's wants and needs is more second nature in this environment. Also special schools are less constrained by the national curriculum and are often allowed to be more innovative. The level of commitment from teachers is usually very high. Similarly the concepts of Total Quality, particularly based on the teachings of Deming are generally well received in primary schools. The more progressive primary schools have been developing collaborative, project-based learning approaches for many years. Some have even questioned regard and punishment concepts and moved away from grading and ranking to concentrate on intrinsic motivation (Brownlow, 1994).

Ironically Government initiatives designed to improve quality by concentrating on standards and testing, have forced many of these pioneers to abandon their work and return to 'chalk and talk' and 'teaching to the test'. Many primary teachers have a fundamental belief in the same principles articulated by Deming but they are frustrated by a national system that seems to be driving them backwards (Weller, 1993).



Many secondary schools in Britain have been making gains. Somervale Comprehensive School, Midsomer Norton, has been implementing Total Quality for years. They were supported by Avon Training and Enterprise Council, a Government-funded organization aimed at improving prosperity by increasing investment in education and training throughout the community. Somervale, exchanges students with Mt Edgecumbe High School, started with a strategic review involving all stakeholders, including students. This identified the critical processes for improvement. Improvement teams involving parents, teachers, support staff and students were established and facilitated through a cycle of Process Improvement (Marsh, 1993). A major breakthrough occurred when some teachers, support staff, students and parents went through a training process spread over six months to become facilitators. These people then went on to lead improvement initiatives in many areas. One of the most successful was the complete redesign of the process for reporting with parents and students (Marsh, 1993).

There are many other examples of secondary schools implementing Total Quality Management across the country. Another innovator is Westwood St Thomas School in Salisbury. They have used Total Quality Management to engage 150 stakeholders in Strategic Planning. They too, use the tools in the classroom. Most of these schools realise that they are at the start of a long process and that there are no quick fixes (Marsh, 1993).

Sometimes the impetus for Total Quality Management comes from outside the educational establishment. Leading Total Quality employers such as Rank Xerox, ICL and the Royal Mail have been assisting local schools to start implementation TQM. It is clearly to their advantage that the quality of students can be improved. The Royal Mail has in fact sponsored the Centre for Total Quality Management in Education and Community which exists to promote TQM nationwide. Other bodies such as Local Education Authorities and Training and Enterprise Councils have been acting as catalysts. The British Deming Association has taken a lead, mentoring many schools throughout Leicestershire (Davies & West-Burnham, 1997).

2.5.2 An overview of TQM in developing countries

2.5.2.1 Total quality management research in Zimbabwe

The focus of this section is on a general discussion of Total Quality Management (TQM) in Zimbabwe to try and show how some schools attempted to cope with problems of increased access, declining human and financial resources, equity, quality, school effectiveness and efficiency (Dzvimbo, 1994). At both the primary and secondary levels, there were excessive demands for access into the education system. Not all schools in Zimbabwe attempted to use TQM in their school management practices. This style of management was, and is still largely concentrated in both the established private and public schools which are convinced of its efficacy in school improvement. The private schools tend to be missionary and selective in their admission criteria.

Such schools regard TQM as a strategic mechanism of managing schools when the educational sector, educational markets and its external environments are changing rapidly. The changes were mainly due to the cultural, religious, moral, political and economic factors in both the State and civil society as from 1980 onwards. The need for market rationality in the economy is equally putting pressure on schools to effectively and efficiently manage their institutions since budgetary allocations to schools are declining (Dzvimbo, 1994). In the private schools, the issue of democratic school governance and accountability to pupils, teachers, parents and school boards is making it imperative for them to devise better and more efficient styles of school management such as TQM (Dzvimbo, 1994).

- **Reasons for adopting TQM**

- **The democratic imperative**

Both the democratic imperative and the need to improve the quality of graduates from both primary and secondary schools pushed some schools in Zimbabwe to introduce various forms of TQM. Professionally, some school principals were committed to client needs and the desire to meet those needs by utilising and mobilising knowledge and skills to meet the professional imperative.

- **Diminishing resources**

Since independence, Zimbabwean schools are now competing for resources, teachers, pupils and survival in a turbulent political and economic environment. In fact, under the current economic development plan, there is an emphasis on decreasing government expenditure for social services. Budgetary allocations were reduced from 45.9% in 1990 to 38.5% during the 1995/96 financial year.

- **Accountability**

Zimbabwean schools were also moved to adopt TQM concepts because of the need to continually interact with its clientele and other stakeholders. The drive for quality was towards improving the quality of service being provided by schools. This imperative was also closely linked to the desire for accountability especially in private schools where stakeholders were contributing more money than in public schools towards the education of their children. For instance, in public schools a three-tire system of fees has been developed. Thus, fees payable per school term were as follows:

♦ Residents of middle class urban areas.	Z\$150
♦ Residents of low income urban townships	Z\$70
♦ Residents of rural areas	Z\$50

Fees for the rural areas are the lowest because 75% of Zimbabwe's population resides in rural areas. In addition to these fees, schools are allowed to charge school "levies" which have resulted in large differentials among schools in the country. Wealthier parents are able to pay more for the education of their children. Consequently, their schools have better facilities and

are able to attract the best teachers. In the final analysis, such schools on the whole continue to produce better results.

- Schools as social systems

The need to view schools as a social system was also responsible for the adoption of TQM concepts in some schools. In such schools, it was generally accepted that the school principal and senior management in general would of course drive the TQM process but it would be the responsibility of teachers, parents, pupils and other stakeholders. In the process, quality would be built into every school activity. Such a process was largely responsible for the development of school cultures that enhance a culture of teaching and learning in schools. In fact, such schools are well known for their distinctive school culture, value systems and excellent performance at public examinations (Dzvimbo, 1994).

The notions of a school's value and belief system are also similar to the notions of quality of assurance germane to the world of commerce and industry. Thus, schools that adopted TQM were also concerned with the view of making sure that vision and culture building and a commitment to high standards in teaching and learning would permeate to all levels of the schools. In the process, the concept of quality teams or circles as articulated in TQM were established among teachers and partnerships were also built with local communities.

- School-based staff development

School-based teacher development was seen by school principals who adopted TQM as one of the most important strategies of making sure that teachers learned from each other and, in the process, adopted a collegial approach to teaching and learning. This was also seen as the best mechanism for establishing effective teamwork among teachers which was conducive to a collaborative approach to decision-making. In the majority of the institutions, school-based staff development or self-study focussed on developing autonomous teachers who would be transformative intellectuals.

• Results of TQM in Zimbabwe

Successful and effective schools that use TQM in Zimbabwe value team work among teachers especially in the areas of curriculum improvement, classroom instruction and extra-curricular activities in the school. Emphasis in such schools is on collegiality among teachers in the realisation of a school's instructional and non-instructional goals. These are schools that

operate as learning organizations and focus on the language of hope and possibilities. They are visionary and anchored in a genre of discourse that privileges the concepts of emancipation, liberation and democracy in which emphasis is on the inquiring teacher as a responsible and reflective practitioner. Observations, dialogue, interaction, responsibility, open-mindedness, analysis, and shared meanings become the hallmarks of teachers as reflective practitioners even in the true Deweyan sense of reflectivity (Dzvimbo, 1994).

Effective schools in Zimbabwe that emphasize school quality by focussing on team work among teachers have the following characteristics:

- There is emphasis on shared aims, norms, beliefs, values, collective involvement and a common direction as encapsulated in the school's mission statement and in some cases, the strategic plan;
- The teams are committed to situational leadership styles rather than focussing on hierarchy and power within the school;
- Every teacher has a sense of belonging to the school. They feel that they are part and parcel of the school management and its mission;
- The goals and tasks that the teams of teachers are supposed to achieve are clearly articulated and are practical or achievable;
- A process of continuous feedback is in-built into the operations of the teams of teachers as life-long learners; and
- They create opportunities to develop a comprehensive, open, collaborative and shared language for describing, analyzing and refining the multiplicity of the discourse practices of teaching and learning (Dzvimbo, 1994).

2.5.2.2 Total quality management research in South Africa

South Africa is currently faced with serious problems in schools. These problems have a lack of quality management as a common denominator (Steyn, 1995):

- **Reasons for adopting TQM in schools (Steyn, 1995)**
 - High dropout rate of pupils;

- A shortage of people who are trained in science and technology;
- Poor basic education;
- Poor pupil performance;
- Increasing concern that education does not equip children for employment;
- Increasing demands for literacy, numeracy and social skills;
- Increase in industry expenditure on training which is seen as industry responding to the failure of schooling (Steyn, 1995);
- Students leave or graduate from high school underprepared to meet the demands of society.

• Results of implementing TQM in schools

A number of schools that have implemented TQM principles indicate tremendous improvements in various spheres. The following significant changes have been identified (Rappaport, 1993; Tribus, 1990; Moore, 1993; Schargel, 1993):

- Pupils have become more involved in after school activities;
- Membership of School Governing Bodies (SGB) has grown;
- Requests for admission to institutions have increased;
- Schools have raised large sums of money for new or additional programmes or services;
- The curricula were developed to motivate pupil intrinsically to do their best;
- Pupils have become “co-managers” of their education;
- Teachers have become facilitators and not taskmasters;
- Morale and motivation have improved;
- Less conflict is apparent between staff members; and
- TQM has led to general academic improvement in the schools (Steyn, 1995; Hayward 1997; Haquet, 1995).

2.6 SUMMARY

This chapter examined the nature and scope of total quality management as revealed by total quality management movement research. Particular attention was paid to : definitions of the concept total quality management; total quality management movement; theoretical consideration; models of total quality management and an overview of TQM research in developed and developing countries.

From the literature reviewed, it is clear that organizations that have successfully pursued total quality management have achieved the following:

- TQM has led to general academic improvement in schools;
- All associates were properly trained, developed and empowered to continuously improve themselves as well as what they did and delivered;
- Increase in student self-esteem, motivation and self confidence ;
- TQM has enhanced teachers' motivation, morale and self-esteem;
- TQM has promoted safe schools in which the number of dropouts, discipline and vandalism incidents have been reduced; and
- Both students and teachers in quality-oriented schools have a new vitality, a new direction and vision of what education should and can be.

Total quality management in education requires a commitment to customer satisfaction and a commitment to creating an environment in which staff and students can do their best. Schools that have not started implementing total quality management can benefit a lot from this chapter, since a brief guideline in implementing total quality management in schools has been outlined.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter three outlines the method of the study. It explains the rationale behind the methodology employed, how the research was conducted and what steps were taken to ensure the validity and reliability of the study. The aim of the study as stated in chapter one, was the guiding force in this investigation. It aimed at investigating teachers' perceptions on how total quality management (TQM) can be used as a tool to improve the quality of education in secondary schools in the Lichtenburg and Zeerust districts of the North West Province.

3.2 RESEARCH TOOLS

According to Borg and Gall (1989), the questionnaire and individual interview are the most common instruments used for data collection in survey research. In the empirical investigation of this study the mail questionnaire discussed below was used as a tool to collect data.

3.2.1 QUESTIONNAIRE AS A RESEARCH TOOL

The questionnaire is commonly used as a tool for data collection. The mail questionnaire is the best form of survey in carrying out an educational inquiry. According to Legotlo (1996), the most important aspect of this type of data collection is that the questionnaire

is the only means of communication between the respondents and researcher. It is a device which enables respondents to answer questions.

3.2.1.1 Advantages of a questionnaire

The questionnaire was employed because of the following advantages (Legotlo, 1994: 162-163):

- Low unit cost: travelling and subsistence costs are minimal;
- Homogeneous stimuli: the stimuli provided are identical since questionnaires are identical;
- Anonymity of respondents; the respondents names are not given;
- Speed; information from many respondents could be obtained within a month; and
- Ease of processing: the questionnaires could be carefully structured and precoded, and few open-ended questions are used.

3.2.1.2 Disadvantages of a questionnaire

Like other strategies for data collection, the mail questionnaire has some disadvantages such as:

- Representativeness; high non-response rate is common;
- Impersonal: may cause frustration to some respondents;
- Negative attitude to the questionnaire: questionnaire are commonly used these days and some respondents might have negative attitude towards them; and
- Availability of address of the sample population poses some problems.

Despite these disadvantages, the mail questionnaire is still commonly used to collect data. Researchers have identified a number of factors and several aspects of design and layout

in securing a good response rate to a postal questionnaire (Cohen & Manion, 1985: 105; Borg & Gall, 1989: 430) and these are:

- The appearance of the questionnaire is vitally important. It must look easy and attractive;
- Clarity of wording and simplicity of design are essential. Clear instructions should guide the respondent;
- Contents of the questionnaire should be arranged in such a way as to maximise co-operation;
- The practice of sub-lettering questions is a useful technique for grouping together questions to do with a specific issue; and
- The wording of the self-completion questionnaire is of paramount importance and that pretesting is crucial to its success.

If these factors are carefully considered and great care taken in the construction of the questionnaire and its administration, then more favourable responses could be attained.

3.2.2 Questionnaire construction

The measuring instrument has the greatest influence on the reliability of the collected data, hence great care was taken in the construction of the questionnaire. A well-designed questionnaire boosts the reliability and validity of the data to acceptable level of tolerance (Borg, 1987). Even though the questionnaire is commonly used as a tool for data collection, there are some criticisms against its use.

Some of the rules for constructing a questionnaire as indicated by Borg & Gall (1989: 430-431) are:

- Clarity, items should mean the same to all respondents;
- Short items are preferable;

- Negative items should be avoided;
- Doubled-barreled items which require the subject to respond to two separate ideas with a single answer should be avoided; and
- Biased questions are to be avoided.

3.2.2.1 Development of questionnaire items

The main aim of the questionnaire was to gather information on teachers' perceptions and how total quality management (TQM) can be used as a tool to improve the quality of education in secondary schools.

This instrument was successfully used to determine teachers' perceptions on:

- How total quality management can be used as a tool to improve the quality of education;
- The role played by the school management to improve the quality education;
- Total quality management guiding principles;
- Implementation of total quality management in schools;
- Commitment and involvement of the school management in the quest for quality education; and
- The goals and objectives of the school management to improve the quality education.

To gather more information on the nature and scope of total quality management in schools, the researcher has chosen to use a questionnaire. Respondents in this study were: principals of (25) twenty-five secondary schools in the Lichtenburg and Zeerust districts; (25) twenty-five deputy principals; (75) seventy-five heads of departments and (125) one hundred and twenty-five teachers. The researcher wanted to determine the perceptions of the respondents on how total quality management (TQM) can be used as a tool to improve the quality of education in secondary schools.

3.2.2.2 Format and content of the questionnaire

The questionnaire was divided into four sections (See Appendix A). section A (Questions 1-7). The purpose of these questions was to gather biographical and demographical information about each respondent. This information is essential to understand the background information of the respondents.

Section B (Question 8.1-8.26). The objective of these questions was to gather data on total quality management as a tool to improve the quality of education in schools. For each item the respondents were asked to reflect, on a five-point scale, their opinion about the implementation of total quality management in the schools as follows:

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Uncertain
- 4 = Agree
- 5 = Strongly agree



Section C (Questions 9.1-9.10). These questions were constructed to collect data on the commitment and involvement of the school management in the quest for quality education. In this ten items instrument, respondents mainly teachers, were asked to indicate their response on the commitment and involvement of the school management in the quest for quality education in their schools, in a three-point scale as follows:

- 1 = Agree
- 2 = Uncertain
- 3 = Disagree

Section D (Questions 10.1-10.5). The objective of these questions was to collect data on the goals and objectives of the school management to improve the quality of education. A space (11-12) was provided for respondents to comment and motivate their answers.

3.2.3 Pre-testing the questionnaire

A pilot study is a small preliminary investigation designed to acquaint the researcher with the flaws and problems that need attention before the major study. It offers the researcher an opportunity to pre-test the instrument. The major purpose of the pilot-study is to detect the problems that must be solved before the major study (Legotlo, 1996).

To determine any ambiguity and flaws, the questionnaire was pre-tested using a sample of (n=20); Twenty respondents were asked to comment on other points that might need to be considered to improve the instrument (Borg and Gall, 1989:435). The pre-test results were checked and the suggestions made by the respondents were taken into consideration to improve the questionnaire. Ten respondents in the pre-test suggested that the questionnaire was too long and they preferred to complete the questionnaire rather than to be interviewed.

3.2.4 Final questionnaire

The final questionnaires were administered to (25) twenty-five principals; twenty-five (25) deputy principals; seventy-five (75) heads of departments and one hundred and twenty-five (125) teachers of secondary schools, in the Lichtenburg and Zeerust districts of Education in the North West Province.

3.2.5 Covering letter

The covering letter is a tool employed to introduce the questionnaires to the respondents. The purpose of the covering letter is to indicate the aim of the survey, to convey to the respondents its importance, to assure them confidentiality and encourage their participation (Cohen & Manion, 1980:110). It gives the respondents the direction to complete the questionnaire and guarantees anonymity (Borg and Gall 1989:436). A

simple covering letter (Appendix B) that explained the purpose and topic of study accompanied the questionnaire to the respondents.

3.3 ADMINISTRATIVE PROCEDURES

Permission for access to schools was first secured from the district managers of Lichtenburg and Zeerust districts. The list of all secondary schools in the Lichtenburg and Zeerust districts was obtained from the respective district managers. From the information provided especially on the geographical location of the selected schools, the researcher delivered the questionnaires.

In one of the districts, the district manager granted permission provided that this activity of fieldwork, research project does not disrupt normal schooling and classes.

The researcher requested the principals to help with the distribution of the questionnaires to the selected respondents. In each school, the questionnaires were completed by : 1 principal; 1 deputy principal; 3 heads of departments and 5 teachers. The arrangement for the collection of the completed questionnaires was made with the principals of the selected secondary schools.

3.4 FOLLOW-UP

Non-response is a major disadvantage of the questionnaire. Follow-ups are important in maximising response level. Follow-ups were made personally with principals of selected schools. The researcher repeatedly went to the selected schools to check whether the respondents of the various secondary schools have completed the questionnaires. These follow-ups were costly and demanded a lot of perseverance.

3.5 POPULATION AND SAMPLING

The survey population was drawn from two educational districts of Lichtenburg and Zeerust. From a list of all secondary schools in the Lichtenburg district (N=16) and

Zeerust district (N=31). A random sampling (n=25) was selected by picking-up the names of the first 10 secondary schools in the Lichtenburg district and 15 secondary schools in the Zeerust district.

In each of the twenty-five (25) secondary schools: 1 principal; 1 deputy principal; 3 heads of departments and 5 teachers were requested to complete the questionnaires. Thus the sample of (n=250) was composed of 10 respondents from each of the twenty-five (25) secondary schools in the Lichtenburg and Zeerust districts of North West Province.

TABLE 3.1 : DISTRIBUTION OF THE SAMPLE POPULATION

	SAMPLE POPULATION	%
Principals	25	10
Deputy Principals	25	10
Heads of Departments	75	30
Teachers	125	50
TOTALS	250	100

3.6 RESPONSE

Questionnaires were delivered to the 25 random selected secondary schools in Lichtenburg and Zeerust districts to be completed by 10 respondents in each school.

Table 3.2 bellow shows the response rate.

TABLE 3.2 : RESPONSE RATE

	n	RESPONSE	%
Principals	25	20	80
Deputy Principals	25	19	76
Heads of Departments	75	66	88
Teachers	125	100	80
TOTALS	250	205	82

It was clear from the Table 3.2 that of the total sample population (250), 82% usable questionnaires were returned. This good response rate indicates the importance of follow-ups and the fact that questionnaires were delivered and collected by the researcher.

3.7 STATISTICAL TECHNIQUES

3.7.1 Descriptive data

A computer-aided statistical analysis was employed. The SSPS-programme was used to compute the results of the study. The first step in the analysis was to compute descriptive data for each respondent in the study. These include statistics like frequency distribution, percentages, mean, standard deviation and chi-square.

3.7.2 Quantitative data

To determine the principal significance and statistical significance between group means, the chi-square (χ^2) was computed. (The χ^2 -value is discussed in chapter four (cf. 4.11). A test of statistical significance is done to determine whether the null hypothesis can be rejected or not (Borg & Gall, 1989: 350). The χ^2 -test is used to determine the level of statistical significance of an observed difference between sample means.

3.8 SUMMARY

The survey questionnaire was employed as the main instrument in the collection of data because of its disadvantages (cf. 3.2.1.1). With the help of the statistical consultant of the University of North West, statistical and influential statistics were employed to verify teachers' perception on how total quality management can be used as a tool to improve the quality of education in secondary schools.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

This chapter reports on the results of the empirical investigation conducted to determine teachers' perception on the implementation of TQM in secondary schools. The qualitative and quantitative data collected through the investigation are summarised and discussed in this chapter.

4.2 REVIEW OF THE SUBJECTS

Of the total number of cases, which was 250, 205 (82%) respondents returned usable questionnaires.

4.3 DEMOGRAPHICAL DATA OF RESPONDENTS

Table 4.1 below was drawn to gain an understanding of the demographic characteristics of the respondents. Such information helps us to know who the respondents are. The information on both the school management (principals, deputy principals, HOD's) and teachers are provided to highlight the similarities and differences between the two groups. A brief summary of the information provided in Table 4.1 is discussed on page 70.

Table 4.1 Description of the demographic aspects of the respondents.

1. Age groups of the respondents		f	%
1.1	Below 30	12	6
1.2	31 - 35	26	13
1.3	36 - 40	36	18
1.4	41 - 45	52	25
1.5	46 - 50	64	31
1.6	51 and above	15	7
TOTAL		205	100
2. Gender of the respondents			
2.1	Male	113	55
2.2	Female	92	45
TOTAL		205	100
3. School location of the respondents			
3.1	Urban	100	49
3.2	Rural	105	51
TOTAL		205	100
4. School enrolment			
4.1	Under 100	-	-
4.2	101 - 150	-	-
4.3	151 - 550	-	-
4.4	551 - 850	80	39
4.5	851 - 1000	120	59
4.6	Over 1000	5	2
TOTAL		205	100
5. Positions held by respondents in schools			
5.1	HOD	81	40
5.2	Deputy principal	18	9
5.3	Principal	20	10
5.4	Teacher	86	41
TOTAL		205	100
6. Experience of the respondent			
6.1	Less than a year	2	1
6.2	1 to 3 years	18	9
6.3	4 to 5 years	89	43
6.4	Over 5 years	96	47
TOTAL		205	100
7. Highest qualifications of the respondents			
7.1	UED	42	20
7.2	BA Degree	10	5
7.3	BA Ed	68	33
7.4	Honours	12	6
7.5	.B Ed	69	34
7.6	M Ed	4	2
TOTAL		205	100

4.3.1 Age of the respondents

The respondents reported their age by selecting one of the six age groups. From Table 4.1 it is noted that 116 (57%) of the respondents were between 41 and 50 years old, and only 12 (6%) were below the age of 30. Only 15 (7%) of the respondents are above the age of 51. This suggests that the majority of the respondents have many years of teaching experience. Their views can be appreciated and be implemented.

4.3.2 Gender of the respondents

Of the total respondents 113 (55%) were male and 92 (45%) were females, as reflected by Table 4.1. The fact that male respondents outnumbered the female representatives in this study suggests that males are still in the majority in key management positions and the current debates on gender equality have not yet been resolved.

4.3.3 School location of the respondents



Respondents were asked to indicate whether their schools were located in an urban or rural area. Table 4.1 shows that 100(49%) of the respondents were teaching in urban schools, while 105(51%) were in rural areas.

4.3.4 School enrolment

Subjects were asked to indicate students' enrolment in their schools. Table 4.1 shows that of the total respondents, 120(59%) are attached to schools with the enrolment of 851 - 1000, while 80(39%) are in schools with 551 - 850 students. This finding suggests that the present stipulated educator-learner ratio plays an important role in the improvement of education. Individual attention can be given to each learner in class.

4.3.5 Position held by respondents in schools

Table 4.1 shows that of the total respondents, 86 (43%) were teachers, and 119 (58%) represented the school management (principals, deputy principals and HOD's).

4.3.6 Experience of the respondents

The respondents were also asked to state their experience in the positions they were holding. Table 4.1 shows that 89(43%) of the respondents had 4 to 5 years experience, while 96(47%) had over 5 years. This finding is important because the number of years the respondents have in teaching system can be of great value in the implementation of TQM in schools. They have the experience and understanding of the success of quality improvement and setting up the required infrastructure. Their experience can be of great value if successfully utilized.

4.3.7 Highest academic qualifications of the respondents

Subjects were asked to state their highest academic qualifications. Table 4.1 shows that 42(20%) of the respondents had UED as the highest academic qualification. Most of the respondents, 68(33%) held a BA Ed degree as the highest academic qualification, while 69(34%) held a B Ed. 4(2%) M Ed held a post graduate degree. The highest academic qualifications of the respondents could have a positive influence on the implementation of TQM in schools, because some of them have done an intensive study on the modern methods of management and planning. They are well equipped with the theory of total quality management.

4.4 TOTAL QUALITY MANAGEMENT AS A TOOL TO IMPROVE THE QUALITY OF EDUCATION

The purpose of the study was to determine empirically teachers' perceptions on how total quality management (TQM) can be used as a tool to improve the quality of education in secondary schools. The variables considered in the study were perceptions on factors contributing to the implementation of total quality management in schools and the

respondents' perceptions on factors that tend to promote the implementation of total quality management in schools. This section gives a brief summary of these variables.

Table 4.2 bellow illustrates respondents' views on how total quality management can be used as a tool to improve the quality of education. Respondents were asked to rate items reflecting their opinions about their schools on how total quality management can be used as tool to improve the quality of education. The scale used was as follows:

1 = SD : Strongly disagree

2 = D : Disagree

3 = U : Uncertain

4 = A : Agree

5 = SA : Strongly agree

A brief discussion of Table 4.2 is given below the table.

Table 4.2 How total quality management can be used as a tool to improve the quality of education.

	SD		D		U		A		SA	
	f	%	f	%	f	%	f	%	F	%
8.1 Total quality management is a methodology that can help education professionals to cope with today's changing environment.	12	6	18	9	25	12	54	26	96	47
8.2 Total quality management can provide the focus for educational improvements	10	5	16	8	14	7	46	22	119	58
8.3 Total quality management is an organization's wide effort to achieve quality	13	6	17	8	30	15	68	33	77	38
8.4 Total quality management is a philosophy about quality which involves everyone in the organization in the quest for quality education	12	6	13	6	25	12	73	36	82	40
8.5 Total quality management requires the commitment of all organizational members in quality matters	11	5	22	11	12	6	68	33	92	45
8.6 Total quality management requires a commitment from management for quality initiatives to succeed	22	11	15	7	12	6	64	31	92	45
8.7 Total quality management requires a particular style of leadership which is characterized as transformational management	10	5	14	7	18	9	74	36	89	43

Key : SD = Strongly disagree; D = Disagree; U = Uncertain; A = Agree; SA = Strongly Agree

Item 8.1 Total quality management is a methodology that can help education professionals to cope with today's changing environment.

Table 4.2 shows that 47% of the respondents strongly agreed that total quality management is a methodology that can help education professionals to cope with today's changing environment. Only 9% of the respondents disagreed with the statement. This finding indicates that total quality management is an important set of tools that can be employed in the management of educational institutions. Harnessing commitment from staff and channeling it into improvements is a major aspect of TQM (cf. 2.2.2).

Item 8.2 Total quality management can provide the focus for educational improvements.

The majority of respondents (58%) strongly agreed that total quality management can provide the focus for educational improvements. Only 5% of the respondents strongly disagreed with the statement while 7% were uncertain. A possible explanation for this finding could be ascribed to the fact that alignment within the organization, that is, everyone pulling towards the same strategic ends ensures consistently high performance and constant improvement (cf. 2.2.1).

Item 8.3 Total quality management is an organization's wide effort to achieve quality

Around 33% of the respondents agreed and (38%) strongly agreed that total quality management is an organization's wide effort to achieve quality. 8% of the respondents disagreed with the statement. The possible explanation for these results could be ascribed to the fact that total quality management is a set of concepts, strategies, tools, beliefs and practices which are aimed at improving the quality of education. Total quality management is related to the way in which all employees of the organization work and contribute to meet quality standards set by the learners (cf. 2.2.1).

Item 8.4 Total quality management is a philosophy about quality which involves everyone in the organization in the quest for quality education.

About 36% of the respondents agreed and 40% strongly agreed that total management is a philosophy about quality which should involve everyone in the organization in the quest for quality education. Only 2% of the respondents were uncertain because they are not clear about their roles in the quest for quality. About 6% strongly disagree because they are not involved by the school management in decision making-processes.

Item 8.5 Total quality management requires the commitment of all organizational members in quality matters.

On this variable of commitment 33% of the respondents agreed and 45% strongly agreed that total quality management requires the commitment of all organizational members in quality matters. Only 11% of the respondents disagreed with this statement. Total quality management is an essential way of organizing and involving the whole organization, every department, every activity, every single person at every level. For an organization to be truly effective, each part must work properly together, recognizing that every person and every activity affects, and in turn, is affected by others (cf. 2.2.1).

Item 8.6 Total quality management requires a commitment from management for quality initiatives to succeed.

About 76% of the respondents agreed that total quality management requires a commitment from management for quality initiatives to succeed. Only 18% disagreed with this statement. The fact is total quality management must come from the top. All models of quality emphasize that without the drive of management quality initiatives will be short lived. This is the conclusion of all the major writers on quality (cf. 2.3.1.1).

The views of the respondents on the role of the school management to improve the quality of education are outlined in Table 4.3. The majority of respondents (74%) strongly disagreed that the school management provides teachers with training that they need to improve the quality of education. Sending teachers to workshops is associated with high costs and time consuming.

Item 8.7 Total quality management requires a particular style which is characterized as transformational management.

According to Table 4.2, 43% of the respondents strongly agreed and 36% agreed that total quality management requires a particular style of leadership which is characterized as transformational management. TQM requires a change of culture, change of attitudes and working methods. The staff in institutions need to change by adopting TQM and practice the guiding principles of TQM

This study supports what emerges from the literature consulted (cf. 2.3.4), that many quality initiatives falter because managers quickly return to traditional ways of managing. Some managers fear to adopt new methods and approaches. Most staff is most comfortable with what they know and understand.

4.5 THE ROLE OF THE SCHOOL MANAGEMENT TO IMPROVE THE QUALITY OF EDUCATION.

Table 4.3 below illustrates respondents' views on the role of the school management to improve the quality of education. A brief discussion of Table 4.3 is given below the table.

Table 4.3 Respondents' views on the role of the school management to improve the quality of education

	SD	%	D	%	U	%	A	%	SA	%
	f		f		f		f		F	
8.9 The school management is committed to a quality culture	130	63	32	16	15	7	16	8	12	6
8.10 The school management backs up goals by providing the means to achieve the goals of the organization	129	63	44	21	10	5	12	6	10	5
8.11 The school management meets regularly with staff to define their Requirements	120	59	52	25	7	3	20	10	6	3
8.12 The school management provides teachers with the training that they need to improve quality of education	152	74	38	19	5	2	6	3	4	2
8.13 The school management sees to it that the vision and mission statement that has been developed, is implemented to its outmost	140	68	26	13	5	2	26	13	8	4
8.14 The school management practices the principles of quality	120	59	50	24	5	2	10	5	20	10
8.15 The school management succeeds in its responsibility to change from quantitative to qualitative approach	158	77	32	16	5	2	6	3	4	2

Key : SD = Strongly disagree; D = Disagree; U = Uncertain; A = Agree; SA = Strongly Agree

Item 8.9 The school management is committed to a quality culture.

According to Table 4.3, 63% of the respondents strongly disagreed that the school management is committed to a quality culture. The possible explanation to this finding could be ascribed to the fact that there are no laid down implementation strategies or policies to improve the quality of education in some secondary schools. There is a lack of knowledge about TQM and its guiding principles. This finding is also supported by the study of Deming (cf. 2.4.1.1).

Item 8.10 The school management backs up the means to achieve the goals of the organization.

Most of the respondents (63%) strongly disagreed and 21% disagreed with this statement, because in most cases there are no laid down guiding principles, policies or strategies to achieve the goals of TQM in some of the schools. Staff meetings are held and decisions are taken, but it is very rare that decisions are implemented or backed up by the school management (cf. 2.3.1.6).

Item 8.11 The school management meets regularly with staff to define their requirements.

In most cases, the only time when the school management meets with staff is when the management failed to resolve an issue and it is brought to the staff for its input. Some respondents mentioned that most of the decisions are taken by the management in the principal's office and a brief session is held with the teachers just to inform them. They used words like "rubber stamping". 59% of the respondents strongly disagreed and 25% disagreed with this statement that the school management meets regularly with staff to define their requirements (cf. 2.3.1.8).

Item 8.12 The school management provides teachers with the training that they need to improve quality of education.

It is noted that 74% of the respondents strongly disagreed that the school management provides teachers with the training that they need to improve the quality of education. Even though workshops are conducted by the management, they are not done intensively so that teachers can benefit from them. These are just a formality, a report by the principal from meetings held with the education district manager. The teachers' views are not entertained because to conduct an intensive workshop will take most of the teaching time. Most of the important issues that need serious deliberations will be mentioned just in passing. To conduct or send teachers to workshops is time consuming and expensive, the school in some cases cannot afford to pay for four to five days valuable workshops held far from schools (cf. 2.3.1.5).

Item 8.13 The school management sees to it that the vision and mission statement that has been developed, is implemented to its outmost.

About 68% of the respondents strongly disagreed with this statement that the school management sees to it that the vision and mission statement that has been developed, is implemented to its outmost. The possible explanation to this finding could be ascribed to the fact that in some schools, there is no vision and mission statement displayed at the entrance of the administration block or in the principal's office. In some schools the vision and mission statement is not known by the entire staff or it has never been formulated. This results in some schools not knowing what their driving force is.

Item 8.14 The school management practices the principles of quality.

Around 59% of the respondents strongly disagreed with this statement that the school management practices the principles of quality. This could be caused by the fact that most schools' managers have little or no understanding of the philosophy and logic underlying TQM and its associated goals, tools, techniques, system and procedures. The

principles of quality are not known to some school managers, and that is why TQM is not practiced. One cannot practice what one does not know.

Item 8.15 The school management succeeds in its responsibility to change from quantitative to qualitative approach.

The majority of the respondents, mainly teachers (77%) strongly disagreed with this statement that the school management succeeds in its responsibility to change from quantitative to qualitative approach. The possible explanation to this finding could be ascribed to the fact that some school managers insist on the expected number of exercises to be done, a certain large quota of work done makes them happy. Finishing the syllabus within a short space of time is their goal, whether the learners have mastered or understood the work, they will catch up with it when revision is being done. The aim is to cover a lot of work within a short space of time.

4.6 TOTAL QUALITY MANAGEMENT GUIDING PRINCIPLES.

Table 4.4 below illustrates respondents' views on total quality management guiding principles. A brief discussion of Table 4.4 is given below the table.

Table 4.4 Respondents' views on total quality management guiding principles

	SD		D		U		A		SA	
	f	%	f	%	f	%	f	%	F	%
8.16 Total quality management can be achieved through the total commitment of all the members of the school organization	10	5	25	12	15	7	45	22	110	54
8.17 Total quality management is led by the management in the school	130	63	12	6	12	6	43	21	8	4
8.18 Total quality management requires the prevention rather than detection of faults at all points in the system	23	11	12	6	8	4	54	26	108	53
8.19 Total quality management is integrated into the development plan of the school	130	63	12	6	6	3	47	23	10	5
8.20 Total quality management strategies are effectively communicated to the staff members in the school	123	60	42	20	10	5	12	6	18	9

Key : SD = Strongly disagree; D = Disagree; U = Uncertain; A = Agree; SA = Strongly Agree

Item 8.16 Total quality management can be achieved through the total commitment of all the members of the organization.

Around 54% of the respondents strongly agreed that total quality management can be achieved through the total commitment of all the members of the school organization. The possible explanation to this finding could be ascribed to the fact that total quality management should involve everyone in the organization in the quest for quality. Total involvement is important, because everyone in the organization must be involved and committed (cf. 2.2.1).

Item 8.17 Total quality management is led by the management.

The majority of the respondents (63%) mainly teachers, strongly disagreed that total quality management is led by the management in their schools. In some schools there are no total quality management guiding principles adhered to. The school management has no understanding of the philosophy and logic underlying TQM (cf. 2.3.3).

Item 8.18 Total quality management requires the prevention rather than detection of faults at all points in the system.

About 53% of the respondents strongly agreed that total quality management requires the prevention rather than detection of faults at all points in the system. One of the eight total quality management guiding principles states that in everything we do we must seek to get it right first time so far as humanly possible. Zero defects is the goal of TQM (cf. 2.3.3).

Item 8.19 Total quality management is integrated into the development plan of the school.

Table 4.4 shows that 63% of the respondents strongly disagreed that total quality management is integrated into the development plan of their schools. The possible

explanation to this finding could be ascribed to the fact that in some schools, TQM is not practiced or given the attention that it deserves. The implementation of TQM should not be divorced from school development plan. It would therefore be appropriate to integrate the TQM strategy into the school development plan (cf. 2.3.6.4).

Item 8.20 Total quality management strategies are effectively communicated to the staff members of the school.

Table 4.4 shows that 60% of the respondents strongly disagreed that total quality management strategies are effectively communicated to the staff members. The importance of a clear and positive communication strategy cannot be overstated. An organization has to know what it is about and what constitutes the quality it is seeking to improve. Dale and Boaden (1994) have made the point that management has to share the strategy and outline to employees what needs to be done to make mission statements and strategy documents a reality (cf. 2.3.1.8).

4.7 IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT IN SCHOOLS

Table 4.5 below illustrates respondents' views on the implementation of total quality management in school. A brief discussion of Table 4.5 is given below the table.

Table 4.5 Respondents' views on the implementation of total quality management in schools

	SD		D		U		A		SA	
	f	%	f	%	f	%	f	%	F	%
8.21 Total quality management will only work if there is obsessive commitment to quality by the school members	11	5	12	6	8	4	24	12	150	73
8.22 It is necessary to identify a team specifically responsible for driving the implementation process in schools	23	11	15	7	16	8	26	13	125	61
8.23 Total quality management process can actually change the way school is managed	16	8	28	14	7	3	42	20	112	55
8.24 The success of implementing total quality management depends on raining that will result in attitudinal change of teachers	13	6	24	12	7	3	18	9	143	70
8.25 Implementing total quality management in education requires a commitment to creating an environment in which staff and students can do their best work	20	10	18	9	5	2	28	14	134	65
8.26 Implementing total quality management requires the acceptance of the principle that teachers can always improve	33	16	26	13	4	2	42	20	100	49

Key : SD = Strongly disagree; D = Disagree; U = Uncertain; A = Agree; SA = Strongly Agree

Item 8.21 Total quality management will only work if there is obsessive commitment to quality by the school management.

According to Table 4.5, 73% of the respondents strongly agreed that total quality management will only work if there is obsessive commitment to quality by the school management. Improvement must become an obsession that employees thrive on. This can occur only when management makes every effort to enhance employees' capabilities as well as the quality of their lives through training, trust and professional respect (Schmoker, 1993), (cf. 2.3.5).

Item 8.22 Identification of a team specifically responsible for driving the implementation process in schools.

It is noted that 61% of the respondents strongly agreed that it is necessary to identify a team specifically responsible for driving the implementation process in schools.

The specific responsibilities of such a team might include:

- promoting the total quality approach;
- integrating the total quality approach;
- designing and delivering training;
- communicating progress to all staff; and
- monitoring and evaluating the implementation process (cf. 2.3.6.2).

Item 8.23 Total quality management process can actually change the way the school is managed.

About 55% of the respondents strongly agreed that total quality management process can actually change the way the schools are managed. The possible explanation to this finding could be ascribed to the fact that school teachers must adopt and fully support the new philosophy of continuous improvement through greater empowerment of teacher-student teams. Cynical application of the new philosophy, with the sole intent of

improving test scores, destroys interpersonal trust which is essential to success (cf. 2.4.1.1).

Item 8.24 The success of implementing total quality management depends on training that result in attitudinal change of teachers.

The majority of the respondents(70%), strongly agreed that the success of implementing total quality management depends on training that will result in attitudinal change of teachers. This finding could be ascribed to the fact that, the success of implementing TQM depends on training because the success of the process depends fundamentally on attitudinal change. Total quality approach work requires the application of every specific skills and procedures. Training has to be seen as an integral component of managing quality (cf. 2.3.6.5).

Item 8.25 A commitment to create an environment in which staff and students can do their work best.

Table 4.5 shows that 65% of the respondents strongly agreed that implementing total quality management in education requires a commitment to creating an environment in which staff and students can do their work best. This finding could be ascribed to the fact that, a democratic, collegial atmosphere should prevail in schools. Ideas should be shared in a setting that recognizes and supports ongoing data collection and assessment. Management should eliminate threat, encourage continuous improvement and recognize and use the expertise that teachers and students have acquired in their experience (cf. 2.3.5).

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Item 8.26 Acceptance of the principle that teachers can always improve on their efforts.

It is noted that 49% of the respondents strongly agreed that implementing total quality management requires the acceptance of the principle that teachers can always improve

their work to greater heights if given the opportunity and the atmosphere of teaching and learning that is conducive to do so. To encourage this, management should allow teachers time for study, reading and discussion about best practices in order to compare them against what is currently being done. Management should routinely recognize accomplishment, improvement and commitment to purpose with appropriate methods of appreciation (cf. 2.3.5).

4.8 THE COMMITMENT AND INVOLVEMENT OF THE SCHOOL MANAGEMENT IN THE QUEST FOR QUALITY EDUCATION.

Respondents were asked to indicate their level of agreement on the commitment and involvement of the school management in the quest for quality education on a three-point scale:

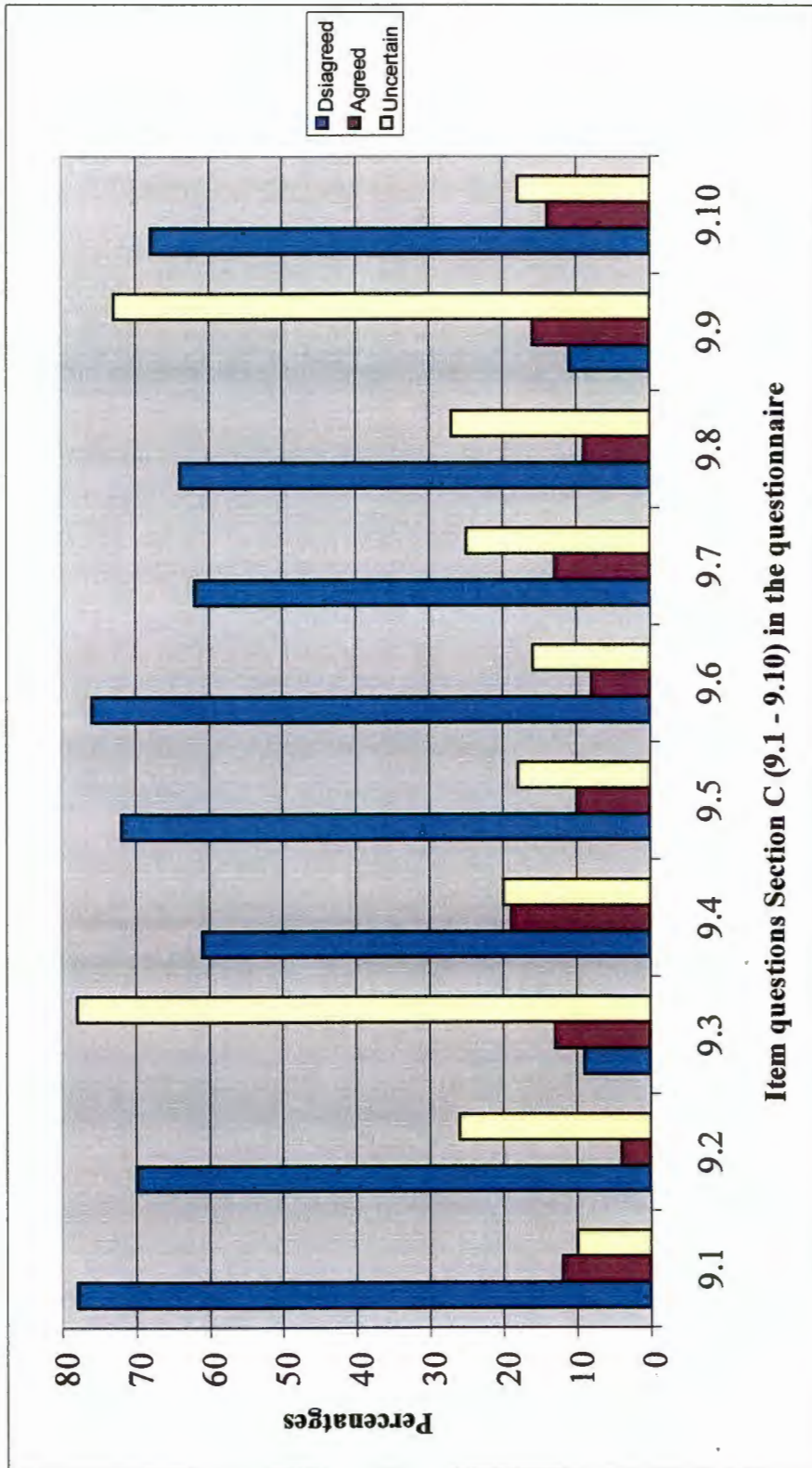
1 = A: Agree

2 = U: Uncertain

3 = D: Disagree

The respondents' views are displayed in figure 4.1 on the next page.

Figure 4.1 The commitment and involvement of the school management in the quest for quality education



Keys for Figure 4.1

- 9.1 = The school management does create an environment that encourages teachers to speak freely.
- 9.2 = The school management does preach the principles of quality management.
- 9.3 = The school management's quality vision focuses on meeting the needs of the students.
- 9.4 = The school management is committed in the quality transformation.
- 9.5 = The school management provides training for teachers to improve their work process.
- 9.6 = The school management does back-up goals by providing the means to achieve the goals of the organization.
- 9.7 = The school management is well informed about the methods of total quality management.
- 9.8 = The school management does regularly meet with staff to define their requirements.
- 9.9 = The school management collects data to measure improvements.
- 9.10 = The school management does eliminate threats by routinely recognizing accomplishment.

In this category the ratings are as follows:

Item 9.1 The school management does create an environment that encourages teachers to speak freely

Figure 4.1 shows that 78% of the respondents disagreed, 12% agreed and only 10% were uncertain about the fact that the school management does create an environment that encourages teachers to speak freely. This finding could be ascribed to the fact that some of the school managers are still autocratic, they maintain that their views are correct and need no discussions. Teachers in some instances cannot openly express their views. The majority of teachers said that they cannot exercise their freedom of speech in some meetings, fearing that they may be called to account for what they said during a meeting

by the school governing body. A democratic, collegial atmosphere should prevail in schools (cf. 2.3.5).

Item 9.2 The school management does preach the principles of quality management

It is noted that 70% of the respondents disagreed that the school management does preach the principles of quality management. Only 4% agreed and 26% were not convinced that the school management does ever say something about principles of quality management. This can be caused by the fact that some of the school managers do not understand the philosophy behind TQM. The management team will not be committed to the TQM process unless they are well informed about the philosophy and the methods of quality management. It is necessary to build up a well-integrated and robust management team which can set an example to the teams and the rest of the institution (cf. 2.3.1.4).

Item 9.3 The school management's quality vision focuses on meeting the needs of the students

About 78% of the respondents were uncertain, 13% agreed and 9% disagreed that the school management's quality vision focuses on meeting the needs of the students. The school management, without consulting the students, decides the needs of the students and what is best for them. The only time when the management becomes aware of the students' needs is when there is a crisis in the school or when the students put certain demands forward. A meeting between the learners, teachers and management never takes place if things are normal or if the school is running smooth. Students' needs are sometimes not taken into consideration. TQM will only work if there is explicit single minded and obsessive commitment to quality. The importance of vision in leadership has to be stressed. Equally important is the way that the vision is communicated and the way that is demonstrated in action (cf. 2.3.6.1).

Item 9.4 The school management is committed in the quality transformation

Figure 4.1 shows that 61% of the respondents disagreed that the school management is committed in the quality transformation, 19% agreed and 20% were uncertain. Some school managers are still sticking to what they know most. They are not influenced by the modern styles. They still value and believe in the traditional style of management. They find it very difficult to cope with the current trends of management. Effective teamwork, leadership and strategy provide the engine for the transformational process of quality development (cf. 2.3.1.1).

Item 9.5 The school management provides training to teachers with the tools necessary to improve their work process

The majority of the respondents (72%) disagreed that the school management provides training to teachers with the tools necessary to improve their work process, 10% agreed and 18% were uncertain. Lack of training is still one of the most important problems that inhibits the implementation of TQM in schools. Staff development can be seen as an essential tool for building the awareness and knowledge of quality. It can be the key strategic change agent for developing the quality culture. If TQM is largely about culture then, means have to be found of capturing the hearts and minds of staff. Training is one of the most important motivators in an organization's armory (cf. 2.3.1.5).

Item 9.6 The school management does back up goals by providing the means to achieve the goals of the organisation

About 76% of the respondents disagreed that the school management does back up goals by providing the means to achieve the goals of the organization. 8% agreed and 16% were uncertain. Some school managers find it difficult to back up goals of TQM because they are not up to date with the methods of quality management. If TQM is to work, it must have the long-term devotion of the staff of the institution. The school management must back it and drive it. The school management may want the results which TQM can bring, but be unwilling to give it their wholehearted support. Many quality initiatives

falter because managers quickly return to traditional ways of managing. Fear by managers of adopting new methods and approaches is a major barrier (cf. 2.3.4).

Item 9.7 The school management is well informed about the methods of quality management

Figure 4.1 shows that 62% of the respondents disagreed that the school management is well informed about the methods of quality management. 13% agreed and 25% were uncertain. If the school management was well informed about the methods of quality management, TQM could have long reached its goal of continuous improvement, which can provide any educational institution with a set of practical tools for meeting and exceeding present and future customers' needs, wants and expectations (Sallis, 1996), (cf. 2.2.1).

Item 9.8 The school management does regularly meet with staff to define their requirements

According to Figure 4.1, 64% of the respondents disagreed that the school management does regularly meet with staff to define their requirements. 9% agreed and 27% were uncertain. The school management does not regularly meet with staff to define their requirements, because in most of the meetings held by the school management with staff, agreements are not reached. A meeting may end up in a conflicting situation because both parties do not agree on a certain issue. To avoid such conflicts, the school management will take decisions on its own in the principal's office. Such a decision would not have involved the full participation of other stakeholders. Staff need to be regularly informed with either special newsletters, meetings and regular reports. The importance of good communication and feedback to staff members by the school management cannot be overemphasized. (cf. 2.3.1.8).

Item 9.9 The school management collects data to measure improvements

It is noted that 73% of the respondents were uncertain that the school management collects data to measure improvement. 11% disagreed and 16% agreed. When the results are out, they are just analyzed and no further discussions are held to determine why the results are bad. Data may be collected but not scrutinized so as to plan for improvements. Teachers will not accept the blame for the poor performance of the learners, instead of planning how to improve the results, they will pass the buck to the learners. Every aspect must be noted, successes reinforced and praised, problem solved and weaknesses and lapses picked up (cf. 2.3.6.7).

Item 9.10 The school management does eliminate threats by routinely recognizing accomplishment

About 68% of the respondents disagreed that the school management does eliminate threats by routinely recognizing accomplishment. 14% agreed and 18% were uncertain. Many teachers are still being threatened by the school managers that they would be reported to the circuit office if they continue with their unprofessional behaviour. The school managers are taking no corrective measures. Some teachers are never threatened because they are in the "good books" of the management for the same unprofessional behaviour. This creates favouritism and division amongst the staff members. Accomplishment does not motivate other teachers because of the manner in which it is done. Most of the time it is not genuine, it is done for the sake of formality. The school management should eliminate threats, encourage continuous improvement and recognize and use the expertise that teachers have acquired in their jobs (cf. 2.3.5).

Figure 4.1 shows that the majority of the respondents disagreed with most of the items questions Section C (9.1-9.10) in the questionnaire because they reveal the fact that some school principals have insufficient understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures.

4.9 THE GOALS AND OBJECTIVES OF THE SCHOOL MANAGEMENT TO IMPROVE THE QUALITY OF EDUCATION

This section which was based on open-ended questions, is divided into two parts: Item 10 (10.1 - 10.5) on the goals and objectives of the quality of education and Items 11 and 12 on the following questions:

- "How can total quality management be used as a tool to improve the quality of education in schools?"
- "What inhibits the implementation of total quality management in schools?"

4.9.1 The goals and objectives of the school management to improve the quality of education.

In this part, respondents were given five(5) statements on the goals and objectives of the school management to improve the quality of education. The respondents were to indicate whether they agree or disagree with the statement and also to motivate their answers. The majority of the respondents (91%) agreed that the goal and objective of the management is to create constancy of purpose for continual improvement of education, 82% agreed that the management should adopt the philosophy of management; 87% agreed that the management should engage in a process to continually improve every aspect of the organizational goals; 90% agreed that the management should drive out fear by improving communication and 75% agreed that the management should create a management culture that will drive the quality implementation initiatives of total quality management.

Only 105 (51%) of the respondents gave their comments on the goals and objectives of the school management to improve the quality of education. There was a low response rate on the motivation part. This could be ascribed to the fact that some of the respondents have a negative attitude towards motivating their responses in a questionnaire.

It is important to reflect on what emerged from those who responded. The following are respondents' views:

4.9.1.1 The management should demonstrate commitment.

The school management has the power to make decisions that will create a quality organization. Their commitment must be assured first so that they can be role models for other teachers and thus create a quality environment for teachers to enter after training.

4.9.1.2 Establish total quality leadership teams.

Total quality leadership teams need to be established to define the process and to develop its framework. These teams should set the process in motion and continue to monitor it. Membership of these teams should include a cross section of the organization.

4.9.1.3 Provide education and training.

All members of the organization need to be educated in the background of the quality movement and the fundamentals of a quality improvement process. Equally important, teachers will also need training in the skills required to implement a process successfully-communication, problem solving and teamwork.

4.9.1.4 Identify roles and establish performance requirements.

Teachers need an opportunity to identify their roles in the process so that they can immediately begin to implement total quality management in their day-to-day work. Old methods of management need to be reviewed in the context of the school's quality process and new methods to be established.

4.9.1.5 Implement a quality communication system.

Communication is always critical, it becomes even more so in the midst of widespread organizational change. The effort to communicate information about total quality management process must be comprehensive and sustained. The school should analyze its existing communication system to ensure that it can meet this requirement.

4.9.1.6 Identify and eliminate problems.

For the total quality management improvement process to work, obstacles to getting the job done right the first time must be removed. A climate that encourages the identification of obstacles and insists upon their removal must be established. A mechanism to eliminate all existing impediments of total quality management must be developed.

4.9.2 How can total quality management be used as a tool to improve the quality of education in schools.

Respondents were asked to state in their own words how total quality management can be used as a tool to improve the quality of education in schools. For this (Item 11) the respondents identified the following:

- The need to ensure that all staff members know and understand what the strategy and vision for continuous quality improvement in the school is;
- Training needs to be made available so as to cascade TQM expertise and capability from school management to all staff members;
- The need for a quality team culture to be established;
- Shared values and goals that bind the school staff together;
- The need for everyone to become involved in the process of quality improvement;
- The need to integrate TQM with other school initiatives;

- The management must be committed to a quality culture;
- The management must be willing to support the introduction of TQM into the education system; and
- The management should have a clear understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures.

With regard to item 12 “what inhibits the implementation of total quality management in schools?” Most respondents mentioned lack of the school management commitment and underestimating the scope of the changes necessary and the time-scales involved. The following are some of their comments on factors that inhibit the implementation of total quality management in schools:

- Insufficient understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures;
- teamwork is not practiced and fully understood;
- failing to follow consistently the fundamental principles involved in a process of continuous quality improvement;
- failing to commit sufficient time to learn about TQM and become personally involved in planning for its introduction and development;
- not allowing sufficient time for teachers to develop their understanding of the concept and its underlying principles;
- underestimating the resources needed to start and develop a process of quality improvements and setting up the required infrastructure;
- committing insufficient resources to TQM education and training; and
- lack of use of statistical methods and understanding of process variation and capability.

4.10 MEAN SCORES AND RATINGS OF THE TEN HIGHEST RANKED ITEMS

An attempt was made to get a picture of the first highest ten items, on how TQM can be used as a tool to improve the quality of education. The ten most important statements

listed in Table 4.6 below were ranked as the most important requirements for the implementation of TQM in schools.

Table 4.6 Ten high ranked mean scores of respondents.

Item no.	Items	$\bar{x}$	SD
1	Total quality management will only work if there is obsessive commitment to quality by the school management	4.431	1.132
2	The success of implementing total quality management depends on training that will result in attitudinal change of teachers	4.260	1.304
3	Total quality management can provide the focus for educational improvements	4.221	1.160
4	Total quality management can be achieved through the total commitment of all the members of the school organization	4.094	1.225
5	Total quality management requires a commitment from the school management for quality initiatives to succeed.	4.029	1.178
6	Total quality management process can actually change the way the school is managed.	4.010	1.346
7	Total quality management requires the prevention rather than detection of faults at all points in the system.	4.005	1.370
8	It is necessary to identify a team specifically responsible for driving the implementation process in schools.	3.980	1.472
9	Implementing total quality management in education requires a commitment to creating an environment in which staff and students can do their best work.	3.716	1.550
10	Implementing total quality management requires the acceptance of the principle that teachers can always improve.	3.716	1.550

A brief summary of the information provided in Table 4.6 is discussed below:

Item 8.21: Total quality management will only work if there is obsessive commitment to quality by the school management.

($\bar{X}$ =4.431; SD=1.132)

This finding indicates that, without the commitment and involvement of the school management, TQM will never be successfully implemented in schools (cf.2.3.5).

Item 8.24: The success of implementing total quality management depends on training that will result in attitudinal change of teachers.

($\bar{X}$ =4.260; SD=1.304).

This finding indicates that, training in the understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures, provides a mechanism to facilitate change. Training is an integral component of managing quality (cf.2.3.6.5).

Item 8.2: Total quality management can provide the focus for educational improvements.

($\bar{X}$ =4.221; SD=1.160).

This finding indicates that, if TQM is successfully implemented in schools, there can be an emphasis on shared aims, norms, beliefs, values, collective involvement and a common direction as encapsulated in the school's vision and mission statement (cf.2.2.1).

Item 8.16: Total quality management can be achieved through the total commitment of all the members of the school organization.

($\bar{X}$ =4.094; SD=1.225).

Harmonious working relationship where every teacher has a sense of belonging to the school, results in the feeling that they are part and parcel of the school management and its mission. In such an environment, everyone becomes involved and committed in the school activities in the quest for quality education (cf.2.2.1).

Item 8.6: Total quality management requires a commitment from the school management for quality initiatives to succeed.

($\bar{X}$ =4.029; SD=1.178).

The school management must be committed to a quality culture, be willing to support the introduction of new ways of doing things into the education system and the school management must backup goals by providing the means to achieve set goals (cf.2.3.1.1).

Item 8.23: Total quality management process can actually change the way the school is managed.

($\bar{X}$ =4.010; SD=1.346).

A particular style of leadership which is characterized as transformational management can change the way the school is managed. The school management must be prepared to adopt the more participative approach which is the major goal of TQM (cf.2.4.1.1).

Item 8.18: Total quality management requires the prevention rather than detection of faults at all points in the system.

($\bar{X}$ =4.005; SD=1.370).

One of the eight total quality management guiding principles states that in everything we do we must seek to get it right first so far as humanly possible. Zero defects is the goal of TQM (cf.2.3.3)

Item 8.22: It is necessary to identify a team specifically responsible for driving the implementation process in schools.

($\bar{X}$ =3.980; SD=1.472).

There is a need to designate a team to be responsible for managing the implementation of TQM in a school. The specific responsibilities of such a team might include promoting the total quality approach, designing and delivering training, communicating progress to staff monitoring and evaluating the TQM implementation process (cf.2.3.6.2).

Item 8.25: Implementing total quality management in education requires a commitment to create an environment in which staff and students can do their work best.

($\bar{X}=3.716$; $SD=1.550$).

A democratic collegial atmosphere prevails in schools that have adopted TQM. Management encourages continuous improvement and recognizes the expertise that teachers and students have acquired (cf.2.3.5).

Item 8.26: Implementing total quality management requires the acceptance of the principle that teachers can always improve.

($\bar{X}=3.716$; $SD=1.550$).

The management encourages teachers to study, attend workshops and recognizes accomplishment, improvement and commitment (cf.2.3.5).

Table 4.6 displays the mean scores arranged in rank order of ten most important statements which the respondents strongly agreed with. That can contribute towards TQM as a tool that can be used to improve the quality of education. All items rated higher than 3.00 are very important in the implementation of TQM as a tool to improve the quality of education.

4.11 COMPUTATION OF SCORES TO CONSTRUCT INDICES

Chi-Square was used to determine whether two frequency distributions or sets of a categorical data differ significantly from each other. In this study scores for each of the subscales were aggregated using the compute function in SPSS-programme to construct an index for each scale.

The following keys were used:

hp = high perception

lp = low perception

4.11.1 Total quality management as a tool to improve the quality of education

It was assumed that there is no statistical significance between the perceptions of the respondents on TQM as a tool to improve the quality of education and age.

Table 4.7 Total quality management as a tool to improve the quality of education.

Age category	hp	lp	Row total	%
Below 30	11	1	12	5.9
31-35	21	4	25	12.2
36-40	35	2	37	18.0
41-45	51	1	52	25.54
46-50	60	4	64	31.2
51 and above	14	1	15	7.3
Column total	192	13	205	
	93.7%	6.3%		100%

Chi-Square	Value	DF	Significance
Pearson	5.77421	5	0.32881

Table 4.7 shows that there is a significant finding. There is a high perception for age. ($\chi^2=5.774$, $p=0.328$). This means that respondents had a high perception of TQM because the more the number of years the respondents have in teaching, the greater is the possibility to implement TQM successfully in schools.

4.11.2 The role of the school management to improve the quality of education

It was assumed that there is no statistical significance between the perception of the respondents on the role of the school management to improve the quality of education and highest academic qualifications.

Table 4.8 Highest academic qualifications.

Highest academic qualification	hp	lp	Row total	%
UED	1	41	42	20.5
BA Degree		10	10	4.9
BA Ed		67	67	32.7
Honours Degree		12	12	5.9
B Ed		70	70	34.0
M Ed		4	4	2.0
Column total	1	204	205	
	0.5%	99.5%		100%

Chi-Square	Value	DF	Significance
Pearson	3.89998	5	0.56391

Table 4.8 shows that there is a significant finding. There is a low perception relative to the highest qualifications of respondents. ($\chi^2=3.899$, $p=0.563$). This means that the respondents had a low perception on the role of the school management to improve the quality of education. Most of the school managers do not have sufficient understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures.

4.11.3 Total quality management guiding principles

Once more it was assumed that there is no statistical significance between the perceptions of the respondents on the guiding principles of total quality management and positions held by the respondents in schools.

Table 4.9 Total quality management guiding principles

Positions held by respondents in schools	hp	lp	Row total	%
HOD	1	80	81	39.5
Deputy principal		18	18	8.8
Principal		20	20	9.7
Teacher		86	86	42.0
Column total	1	204	205	
	0.5%	99.5%		100%

Chi-Square	Value	DF	Significance
Pearson	1.53837	3	0.67344

Table 4.9 shows that there is a significance finding. There is a low perception with regard to positions that the respondents hold on the total quality management guiding principals. ($\chi^2=1.538$, $p=0.673$). This means that the majority of the respondents ascribed this finding to the lack of well-documented policies and strategies underlying TQM's associated tools, techniques, systems and procedures in schools.

4.11.4 Number of years held by respondents in various positions

It was assumed that there is no statistical significance between the perception of respondents on the number of years they hold in various positions and total quality management ($\chi^2=3.249$, $p=0.354$).

Table 4.10 Total quality management

How long have you been in that position?	hp	lp	Row total	%
Less than a year	1		1	0.5
1-3	14	4	18	8.8
4-5	79	10	89	43.4
Over 5	89	8	97	47.3
Column total	183	22	205	
	89.3%	10.7%		100%

Chi-Square	Value	DF	Significance
Pearson	3.24950	3	0.35473

Table 4.10 shows that there is a significant finding. Respondents had a high perception for the number of years they have in teaching. This means that they have accumulated vast experience, so they are in a good position to successfully implement total quality management if training that will result in attitudinal change can be provided.

4.11.5 Highest academic qualifications

Once more, it was assumed that there is no statistical significance between the perception of the respondents on the highest academic qualifications held by the respondents and total quality management ($\chi^2=2.264$, $p=0.811$).

Table 4.11 Total quality management.

Highest academic qualification	hp	lp	Row total	%
UED	36	6	42	20.5
BA Degree	9	1	10	4.9
BA Ed	62	5	67	32.7
Honours Degree	10	2	12	5.9
B Ed	62	8	70	34.0
M Ed	4		4	2.0
Column total	183	22	205	
	89.3%	10.7		100%

Chi-Square	Value	DF	Significance
Pearson	2.26430	5	0.81150

Table 4.11 shows that there is a significant finding. Respondents had a high perception for highest academic qualifications they have. This means that the highest academic qualifications the respondents have, have a positive influence on the implementation of TQM in schools because some of them have done an intensive study on the modern methods of school management and planning. They are well equipped with the theory of total quality management.

4.11.6 Positions in the school

It was assumed that there is no statistical significance between the perception of the respondents on the positions they hold in schools and total quality management.

Table 4.12 Total quality management

Your position in school	hp	lp	Row total	%
HOD	75	6	81	39.5
Deputy principal	16	2	18	8.7
Principal	16	4	20	9.8
Teacher	76	10	86	42.0
Column total	183	22	205	
	89.3	10.7		100%

Chi-Square	Value	DF	Significance
Pearson	2.80252	3	0.42309

Table 4.12 shows that there is a significant finding. There is a high perception for positions held by respondents in schools. ($\chi^2=2.802$, $p=0.423$). This means that respondents had a high perception for positions they hold in schools. The positions held by the respondents mostly the school management, put them in a better position to implement, appreciate and understand the various theories and methods of motivation and then internalize these theories and their applications for practice. These theories assist them to create an organizational environment which is conducive to TQM. TQM will only work if there is obsessive commitment to quality by the school management. The school management must back-up goals by providing the means to achieve set goals.

4.11.7 The commitment and involvement of the school management in the quest for quality education

Once more, it was assumed that there is no statistical significance between the perception of the respondents on the commitment and involvement of the school management and the quest for quality education.

Table 4.13 Quest for quality education

Value label	Frequency	Percent	Value %
Commitment and involvement of the school management	205	100	100
Total	205	100	100

Table 4.13 above shows that there is a low perception for the commitment and involvement of the school management and the quest for quality education. This means that respondents, mainly teachers, had a low perception for the commitment and involvement of the school management in the quest for quality education. This finding could be ascribed to the fact that there is lack of training for teachers and school management in the understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures. Rationalization and redeployment of teachers has resulted in low teacher morale and negative self-esteem. Teamwork is not practiced or encouraged in some schools. Total quality management is not integrated into the development plan of some schools and its strategies are not effectively communicated to the staff members of some schools.

4.12 SUMMARY

This chapter outlined the findings of the empirical investigation conducted to determine teachers' perceptions on how total quality management (TQM) can be used as a tool to improve the quality of education in schools.

The results of the analysis on the question "How can total quality management (TQM) be used as tool to improve the quality of education in secondary schools", demonstrated that schools that have implemented TQM have produced high positive results in promoting student achievements, self-esteem, motivation, increased teacher morale, self-esteem and renewed teachers' professional commitment through empowered teams (cf.2.5.1.1).

The findings of this study revealed that total quality management in education requires:

- a commitment to learners' satisfaction;
- a commitment to creating an environment in which staff and learners can do their work best.
- both learners and teachers in quality oriented schools have a new vitality, a new direction and vision of what education should and can be (cf.2.5.1.1).

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CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter presents a brief summary of the study. Furthermore, a reflection on the major findings of the study is provided as well as recommendations for how total quality management (TQM) can be used as a tool to improve the quality of education in schools. Improvements on areas for further research are revealed by the study.

5.2 SUMMARY

In chapter one the aims for the study and rationale for the study are outlined. A concern is expressed about the deteriorating standard of education in schools. In an attempt to revive the culture of learning and teaching, the researcher's aim was to determine how total quality management can be used as a tool to improve the quality of education in schools.

Chapter two outlined the nature and scope of total quality management (TQM). From the literature consulted on the characteristics of total quality management (cf. 2.3.2), total quality management guiding principles (cf. 2.3.3) and barriers to be overcome when implementing TQM in schools (cf. 2.3.4) shows that there is hope that the quality of education in schools can be improved, if these ideas are successfully implemented. The implementation of these ideas in schools will result in producing a coherent and integrated approach to quality management, which harnesses the commitment and goodwill of staff. Motivation, expertise and enthusiasm assure quality. Harnessing commitment from staff and channeling it into improvements is a major aspect of TQM (cf. 2.1).

The broad goal of TQM is continuous improvement which can provide any educational institution with a set of practical tools for meeting and exceeding present and future learners' needs, wants and expectations (cf. 2.2.1). TQM requires the involvement and commitment of all organizational members in quality matters and continuous improvement (cf. 2.2.3).

If the school management can appreciate and understand the various theories and methods of motivation and then internalize these theories and their applications for practice, it will assist them to create an organizational environment which is conducive to TQM (cf. 2.6).

From the literature studies on schools that have adopted total quality management (TQM), these schools have shown an increase in student self-esteem, motivation and self-confidence. TQM has enhanced teachers' motivation, morale and self-esteem. TQM has promoted safe schools in which the number of dropouts, discipline and vandalism incidents have been reduced (cf. 2.6).

In this chapter an overview of total quality management research in developed and developing countries was provided. It is clear from literature that research on total quality management has received more attention in developed countries than in developing countries (cf. 2.5.1; 2.5.2).

Chapter three outlined the research methodology of the study. It explained the rationale behind the methodology employed, how the research was conducted and what steps were taken to ensure the validity and reliability of the study.

In chapter four, the results of the empirical investigation are reported. The quantitative and qualitative data collected through the investigation were summarized and discussed. From the empirical investigation it came clearly that teachers ascribed the successful implementation of TQM to include: involvement of everyone in the school in the quest for quality education; a particular style of leadership which is characterized as

transformational management; provision of training that will result in a change of attitude towards management; a training that will improve quality initiatives; the creation of an environment in which staff and students can do their work best and a sufficient understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures.

The study revealed the importance of the school management to lead by example and the adoption of total quality management (TQM) as the new philosophy of management.

A detailed analysis of the responses and the frequencies with which various factors were rated are also provided in chapter four.

Furthermore, the empirical investigation also revealed that teamwork is an essential element of TQM, providing an opportunity for co-operative action in pursuit of quality improvement. Teams are a way of involving everyone in quality improvement initiatives and they aid commitment (cf.2.2.1).

Furthermore the investigation on open-ended questions revealed that the majority of the respondents (91%) agreed that the school management, including teachers and learners, must put this new philosophy of TQM in education into action so that it becomes embedded into the deep structure and culture of the school.

From this study, there are important findings that answer the research question: How can total quality management (TQM) be used as a tool to improve the quality of education in schools?

5.3 RESEARCH FINDINGS

5.3.1 Findings on Aim 1

With regard to Aim 1, namely, to determine from the literature the nature and scope of total quality management (TQM) (cf.1.3) the following findings were made:

Schools that emphasize total quality management by focussing on team work among teachers have the following characteristics (cf. 2.5.2.1.2).

- There is emphasis on shared aims, norms, beliefs, values, collective involvement and a common direction as encapsulated in the school's mission statement and some cases, the strategic plan;
- The teams are committed to situational leadership style rather than focussing on hierarchy and power within the school;
- Every teacher has a sense of belonging to the school. They feel that they are part and parcel of the school management and its mission;
- The goals and tasks that the teams of teachers are supposed to achieve are clearly articulated and are practical and achievable;
- A process of continuous feedback is in-build into the operations of the teams of teachers as life-long learners;
- Learners have become more involved in after school activities;
- Parents are involved in the education of their children;
- Learners have become "co-managers" of their education;
- Teachers have become facilitators and not taskmasters;
- Morale and motivation among learners and teachers have improved;
- Less conflict is apparent between staff members;
- TQM has led to the general academic improvement in the schools;
- Teachers share in decision making and assume greater responsibilities. They are given more power to act and greater autonomy in almost everything they do;
- TQM has promoted safe schools in which the numbers of dropouts, discipline and vandalism incidents have been reduced;

- Staff development programmes aiming at developing teachers professionally are conducted; and
- Training is seen as an integral component of managing quality.

5.3.2 Findings on Aim 2

Regarding Aim 2, namely, to determine empirically teachers' perceptions on the implementation of TQM in schools (cf. 1.3) the following findings were made: -

The empirical investigation conducted revealed that the majority of the teachers and the school management overwhelmingly supported that total quality management is a methodology that can help educational professionals to cope with today's changing environment, because total quality management provides the focus for education improvements and it is an organization's wide effort to achieve quality (cf.2.2.1; cf.1.6).

- Total quality management is a philosophy about quality, which should involve everyone in the school in the quest for quality education (cf.1.6);
- Total quality management requires a particular style of leadership, which is characterized as transformational management (cf.2.3.1.1);
- The school management provides teachers with training that they need to improve the quality of education (cf.2.3.6.5);
- To a certain extent total quality management is integrated into the development plan of schools (cf.2.3.6.4);
- Total quality management strategies are not effectively communicated to the staff members of most schools (cf.2.3.1.8);
- The school management should eliminate threats by routinely recognizing accomplishment (cf.2.3.5);
- It is necessary to identify a team specifically responsible for driving the total quality management implementation process in schools (cf.2.2.1);

- Implementing total quality management in education requires a commitment to creating an environment in which staff and students can do their best work (cf.2.3.1.1); and
- The school management should be well informed about the methods, techniques, strategies and procedures of implementing total quality management in schools (cf.2.3.1..4).

5.4 RECOMMENDATIONS

Recommendation 1

Integration of Deming's fourteen points into the school development plan.

Motivation

Integrating and implementing Deming's fourteen points into the school development plan in any educational system can greatly enhance the level of quality provision of education and training.

Recommendation 2

Intensive training of teachers and school management in the understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures.

Motivation

The importance of up-to date training for school managers and teachers cannot be overemphasized. New ways and methods are constantly being discovered. ~~Training~~ provides a mechanism to facilitate change. It provides a means by which teachers or teams can take the first few steps in translating the training message into practice at school.

Recommendation 3

Establishment of a team designated for managing implementation of TQM initiatives in a school.

Motivation

There is a need to designate a team to be responsible for managing the implementation of TQM in a school. The specific responsibilities of such a team might include:

- promoting the total quality approach;
- designing and delivering training;
- communicating progress to staff; and
- monitoring and evaluating the implementation process.

Recommendation 4

Commitment of the school management to a quality culture.

Motivation

The school management must be committed to a quality culture. The school management must be willing to support the introduction of new ways of doing things into the education system. The school management must backup goals by providing the means to achieve set goals. Teachers become frustrated when management does not understand their roles in achieving goals or does not care enough to find out about their roles and expectations.

Recommendation 5

Adoption of participative approach to TQM.

Motivation

Changing teachers' behaviour and attitude is one of the most difficult tasks facing school management. It is important that school managers who are serious about TQM and quality improvement understand the issues and factors in the process of organizational change. The school management should be prepared to accept the more participative approach, which TQM most certainly requires.

5.5 Conclusion

In conclusion, the success of using TQM as a tool to improve the quality of education in schools, depends on training that will result in change of attitude towards the implementation of quality culture. Training is an integral component of managing quality.

Schools that have adopted and implemented TQM have produced a coherent and integrated approach to quality management, which harnesses the commitment and goodwill of staff. Motivation, expertise and enthusiasm have assured quality.

The new philosophy of TQM in education intends to enhance commitment from staff and channeling it into improvements, which is a major goal of TQM. Total quality management will only work if there is obsessive commitment to quality by the school management. The school management must possess sufficient understanding of the philosophy and logic underlying TQM and its associated tools, techniques, systems and procedures. School management need to adopt and implement Deming's fourteen points by integrating them into the school developmental plan.

It is important for principals, deputy principals, heads of departments and teachers to implement the findings of the research on how total quality management (TQM) can be used as a tool to improve the quality of education in schools.

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APPENDIX A

Questionnaire no.

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TOTAL QUALITY MANAGEMENT (TQM) : TEACHERS' PERCEPTIONS ON THE IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT (TQM) IN SECONDARY SCHOOLS IN THE LICHTENBURG AND ZEERUST DISTRICTS OF NORTH WEST PROVINCE.

In this study total quality management (TQM) refers to an organization's wide - effort to achieve quality in education. It is a philosophy about quality which involves everyone in the organization in the quest for quality education.

SECTION A

BIOGRAPHICAL AND DEMOGRAPHICAL DATA

Kindly answer the following questions by crossing X on the appropriate block.

1. Your age category

1.1	Below 30	
1.2	31 - 35	
1.3	36 - 40	
1.4	41 - 45	
1.5	46 - 50	
1.6	51 and above	

2 Gender

2.1	Male	
2.2	Female	

3. School location

3.1	Urban	
3.2	Rural	

4. School enrolment

4.1	Under 100	
4.2	101 - 150	
4.3	151 - 550	
4.4	551 - 850	
4.5	851 - 1000	
4.6	Over 1000	

5. Your position in the school

5.1	HOD	
5.2	Deputy Principal	
5.3	Principal	
5.4	Teacher	

6. How long have you been in that position?

6.1	Less than a year	
6.2	1 - 3	
6.3	4 - 5	
6.4	Over 5	

7. Highest Academic qualification

7.1	UED	
7.2	BA Degree	
7.3	BA ED	
7.4	Honours Degree	
7.5	B ED	
7.6	M ED	
7.7	D ED	
7.8	Others (specify)	

SECTION B

Please rate the following items on a scale of 1 to 5 reflect your opinion about your school.

Keys : 1 = SD : Strongly disagree

2 = D : Disagree

3 = U : Uncertain

4 = A : Agree

5 = SA: Strongly agree

8. Total Quality Management as a tool to improve the quality of education

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
8.1 Total quality management is a methodology that can help education professionals to cope with today's changing environment	1	2	3	4	5
8.2 Total quality management can provide the focus for educational improvements	1	2	3	4	5
8.3 Total quality management is an organization's wide effort to achieve quality	1	2	3	4	5
8.4 Total quality management is a philosophy about quality which involves everyone in the organization in the quest for quality education	1	2	3	4	5
8.5 Total quality management requires the commitment of all organizational members in quality matters	1	2	3	4	5
8.6 Total quality management requires a commitment from management for quality initiatives to succeed.	1	2	3	4	5
8.7 Total quality management requires a particular style of leadership which is characterized as transformational management	1	2	3	4	5

The role of the school management to improve the quality of education

	SD	D	U	A	SA
8.9 The school management is committed to a quality culture	1	2	3	4	5
8.10 The school management backs up goals by providing the means to achieve the goals of the organization	1	2	3	4	5
8.11 The school management meets regularly with staff to define their requirements	1	2	3	4	5
8.12 The school management provides teachers with the training that they need to improve quality of education.	1	2	3	4	5
8.13 The school management sees to it that the vision and mission statement that has been developed, is implemented to its outmost.	1	2	3	4	5
8.14 The school management practices the principles of quality.	1	2	3	4	5
8.15 The school management succeeds in its responsibility to change from quantitative to qualitative approach	1	2	3	4	5

Total quality management guiding principles

	SD	D	U	A	SA
8.16 Total quality management can be achieved through the total commitment of all the members of this school organization	1	2	3	4	5
8.17 Total quality management is led by the management in this school	1	2	3	4	5
8.18 Total quality management requires the prevention rather than detection of faults at all points in the system	1	2	3	4	5
8.19 Total quality management is integrated into the development plan of this school	1	2	3	4	5
8.20 Total quality management strategies are effectively communicated to the staff members in this school	1	2	3	4	5

Implementation of total quality management in schools

		SD	D	U	A	SA
8.21	Total quality management will only work if there is obsessive commitment to quality by the school management	1	2	3	4	5
8.22	It is necessary to identify a team specifically responsible for driving the implementation process in schools	1	2	3	4	5
8.23	Total quality management process can actually change the way the school is managed	1	2	3	4	5
8.24	The success of implementing total quality management depends on training that will result in attitudinal change of teachers.	1	2	3	4	5
8.25	Implementing total quality management in education requires a commitment to creating an environment in which staff and students can do their best work	1	2	3	4	5
8.26	Implementing total quality management requires the acceptance of the principle that teachers can always improve	1	2	3	4	5

SECTION C

9. Read the statement below and give your response on the commitment and involvement of the school management in the quest for quality education.

KEYS : 1 = A : Agree ; 2 = U : Uncertain and 3 = D : Disagree

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		Agree	Uncertain	Disagree
9.1	The school management does create an environment that encourages teachers to speak freely.	1	2	3
9.2	The school management does preach the principles of quality management.	1	2	3
9.3	The school management's quality vision focuses on meeting the needs of the students	1	2	3
9.4	The school management is committed in the quality transformation	1	2	3
9.5	The school management provides training to teachers with the tools necessary to improve their work process	1	2	3

9.6	The school management does back up goals by providing the means to achieve the goals of the organization.	1	2	3
9.7	The school management is well informed about the methods of quality management	1	2	3
9.8	The school management does regularly meet with staff to define their requirements.	1	2	3
9.9	The school management collects data to measure improvements.	1	2	3
9.10	The school management does eliminate threats by routinely recognizing accomplishment	1	2	3

SECTION D

10. Please indicate your response to the following statements on the goals and objectives of the school management to improve the quality of education.
- 10.1 The goal and objective of the management is to create constancy of purpose for continual improvement of education.

YES	NO

Comments.....

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10.2 The management should adopt the new philosophy of management

YES	NO

Comments.....

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10.3 The management should engage in a process of continually improving every aspect of the organizational goals.

YES	NO

Comments.....

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10.4 The management should drive out fear by improving communication.

YES	NO

Comments.....
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10.5 The management should create a management culture that will drive the quality implementation initiatives.

YES	NO

Comments.....
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11. In your own words how can total quality management be used as a tool to improve the quality of education in your school ?
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- 12 In your own words what inhibits the implementation of total quality management in your school ?

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THANK YOU VERY MUCH FOR YOUR CO-OPERATION

University
of North-West

Department of Planning and
Administration

Private Bag X2046 MMABATHO 2735
Republic of South Africa
Telephone : (0140) 892111
Fax No. : (0140) 25775

Date 09/09/99

Your reference

Our reference

TO: COLLEGE RECTORS
DISTRICT MANAGERS
CIRCUIT MANAGERS
PRINCIPALS
TEACHERS

RESEARCH PROJECT: FIELDWORK

The Department of Educational Planning and Administration hereby request you to grant our B.Ed and M.Ed Postgraduate student(s) permission to conduct research in school(s)/College(s) under your jurisdiction.

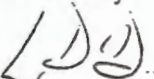
TOPIC:

TOTAL QUALITY MANAGEMENT (TQM): TEACHERS' PERCEPTIONS ON THE IMPLEMENTATION OF TOTAL QUALITY MANAGEMENT (TQM) IN SECONDARY SCHOOLS IN THE LICHTENBURG AND ZEERUST DISTRICTS OF NORTH WEST PROVINCE.

STUDENT NAME: VAN DOU M.G.

Thank you in anticipation

Sincerely


DR M.W LEGOTLO
SUPERVISOR

Information directed to involved
Schools through Circuit Offices
Permission granted provided that
this activity does not disrupt
normal schooling and classes.



DEPT OF EDUCATION
DISTRICT MANAGER

1999-09-13

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APPENDIX B

University
of North-West

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Administration

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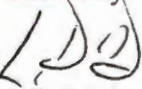
TOPIC:

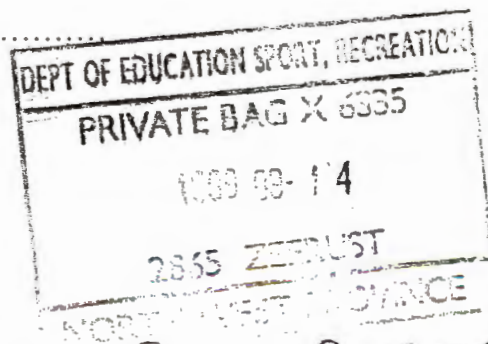
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