

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

The purpose of the literature study was to identify and analyse documents pertaining to the research problem(s). The literature study further determined what had already been done which was relevant to the research problem and it also shed light on the research strategies, specific procedures and measuring instruments that had been found to be productive or unproductive whilst investigating the problem. It also formed the theoretical basis of the research questionnaire.

The purpose of this chapter is threefold: Firstly the clarification of methodologies used in the empirical research, secondly to describe the empirical research process and thirdly to interpret and table the results of the empirical research.

This chapter deals with research design and methodology because it is about "... the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure". The aim of research design and methodology is to plan, structure and indicate the methodologies employed in a given research project in such a manner that the eventual validity of the research findings is maximised (Mouton & Marais 1990:32-32). In this chapter the findings and results of the empirical research as well as the results of the follow-up interviews will be presented.

4.2 Purpose of the study

The purpose of this study was to determine:

- 4.2.1 whether effective management of change can lead to quality or effective schools;
- 4.2.2 how the school management teams (principals, deputies and HODs) can adopt total quality management (TQM) as their operational philosophy to create schools of quality and provide quality education; and

4.2.3 whether the educational changes as introduced since 1994 in the South African education system contributed to total quality management (continuous improvement) of schools.

To investigate the above, a literature review, which forms the theoretical basis, was done. This was preferred because through this method the researcher tried to determine what others have learned about similar research problems and to gather information which is relevant to the research problem at hand. This helps in forming the theoretical basis of the research project, and in the second place an empirical study was conducted where the questionnaire method was employed. These were distributed to randomly selected schools for principals, deputy principals, HODs and educators to complete, after which they were returned for analysis to determine whether the purposes of the study were realised or not.

4.3 Perspectives on qualitative and quantitative research

Science is consistently regarded as a relatively open system which must necessarily comply with the systematic characteristics of equifinality – the idea that the same goal may be attained through different methods (Mouton & Marais 1990:154). This is so as the true scientist does not accept things at face value for he has a critical and inquisitive attitude.

In this research project use was made of both qualitative and the quantitative approaches of research as they complement each other in many ways. A brief analysis of the two approaches will be given to clarify the above assertion.

The qualitative approach seeks to understand human and social behaviour from the “insiders” perspective, that is, as it is experienced by a participant in a particular social setting like a school or community. It is thus an intensely personal kind of approach, one that freely acknowledges and admits the subjective perception and biases of both participants and researcher into the research frame. It therefore seeks to interpret human actions, institutions, events, customs and the like, and in so doing construct a reading or portrayal of what is being studied. Its ultimate goal is to portray the complex pattern of what is being studied in sufficient depth and detail so that one who has not experienced it can understand it. On the other hand, the quantitative approach deals with, amongst others, the collection of facts and a study of the relationships of one set of facts to another is made using scientific techniques that are likely to produce quantified

and, if possible, generalisable conclusions (Ary, Jacobs & Razavieh 1990:444-445; Bell 1993:5).

In a qualitative approach the researcher's point of view is that the phenomenon should speak for itself – the phenomenon as it exists should reveal itself and the researcher will register it. In this approach the researcher is more involved with the phenomenon and he becomes part of that which is being studied and this approach is thus more open and broader than the quantitative approach.

In a quantitative approach the researcher is inclined to impose a system upon a phenomenon, in other words, the researcher attempts to superimpose a certain structure upon a phenomenon. The researcher adopts a more distanced stance – the researcher studies a phenomenon as an outsider (Mouton & Marais 1990:159-163).

However, these two approaches are both important as they complement each other. In this research project both the qualitative and quantitative approaches were employed. In the answering of the questionnaires the qualitative approach prevailed as the feelings and views of respondents were sought, but when the results were computed into scores and the results expressed as percentages, the quantitative approach came into play. Even in the follow-up interview probe the qualitative approach was utilised as the feelings and genuine views of respondents was sought, but the results were again quantified. The two approaches were therefore both utilised successfully in this research project.

The two approaches were used to ensure reliability and validity of the data collected. Reliability refers to the accuracy and consistency of a measure in assessing whatever it measures, validity, to the extent to which a measure actually assesses what is intended to measure: Reliability is assessed by looking at the consistency

- (a) of responses across the items that make up a measure, called internal consistency and
- (b) of measures across associations and possible settings, called test-retest.

Validity (construct validity) is assessed by looking at the strength of the relations of a measure with other measures of the same theoretical variable (convergent validity) as well as with measures of other variables with which it should (convergent validity) and should not (discriminant validity) be related. Note that whereas assessing consistency requires only the

measure of interest, validity cannot be assessed unless measures of other variables also are collected (Maruyama & Deno 1992:69).

Triangulation is a technical term used by ethnographers (researchers) to describe a process for verifying and clarifying interpretations. It involves using three data sources like interviews with different participants, repeated observations and test questions. The aim in using three different sources is to obtain multiple perspectives on the same events (Brase & Mayher 1991:193; Vulliamy, Lewin & Stephens 1990:160-161).

4.4 Research methods

In this research project the researcher contends that educational research activities can be based on empirical grounds or evidence (quantitative research) complemented by the researcher's reflection, rationality and social interaction (qualitative research). Although there are many methods of research under qualitative and quantitative approaches, for example interviews, participant observation, survey and attitude tests, in this research project only the literature review method and the empirical study method (comprising the questionnaire and interview methods), were used (Waghid 2000:26; Cooper & Schindler 1998:134).

The above mentioned methods were employed as they were able to elicit people's perceptions, beliefs and experiences with minimum stress. In both the questionnaire and the interview, respondents are guaranteed complete anonymity. Interviews, unstructured at first, were employed during the follow-up interview probe as the interviewer firstly explained the purpose of the research and clarified concepts and allowed respondents to ask questions for the sake of clarity and therefore administered the structured interview probe. However, neither the questionnaire nor the interview *per se* can be clearly placed within either the qualitative and quantitative divide as in the first place the questionnaire may embrace questions which are closed, factual and pre-set as well as questions which are open-ended, thus allowing the respondent to set the agenda, and secondly in the same way interviews can be used in different ways from the collection of factual data to the itemising of opinions and views of participants (Scott 1996:61). The two approaches should therefore be viewed as being complementary to each other rather than pursuing different goals.

4.4.1 The literature review method

This method involved the systematic location, identification and analysis of documents with information pertaining to the research problems. Documents analysed included books, periodicals, abstracts and other research reports.

The literature review method was employed because it determined what had already been done that was relevant to the research problem. It further sheds light on the research strategies and specific procedures and measuring instruments that had been found by other researchers to be productive or unproductive in investigating the problem.

The literature review method is viewed by Wiersma (1991:45) as a method through which “the researcher attempts to determine what others have learned about similar research problems and to gather information relevant to the research problem at hand”.

Ary *et al* (1990:67-68) argued that a thorough review of the literature can yield the following outcomes:

- 4.4.1.1 a knowledge related research enables investigators to define the frontiers of their field;
- 4.4.1.2 a thorough review of related theory and research enables researchers to place their questions in perspective;
- 4.4.1.3 reviewing related literature helps researchers to limit their questions and to classify and define the concepts of the study;
- 4.4.1.4 a critical review of related literature often leads to insight into reasons for contradictory results in an area;
- 4.4.1.5 through studying of related research, investigators learn which methodologies have proved useful and which seem less promising;
- 4.4.1.6 a thorough search through related research avoids unintentional replication of previous studies; and
- 4.4.1.7 the study of related literature places researchers in a better position to interpret the significance of their own results

From the literature review in Chapter 2.2.1 it was clear that TQM is a well tried and successful approach in the field of business and that its introduction and adaptation in education will also yield successful and quality fruits as it did in business. It was also evident that the use of TQM

tools and techniques (paragraph 2.10) in schools will help in bringing about continuous improvement, for instance using a check sheet in recording parental complaints. This helps in recording the number of times the event has occurred. It was also evident from the literature review that changes as introduced by the Department of Education since 1994 were aimed at continuous improvement. This is verified in paragraph 3.2 of the literature review.

4.4.2 The empirical study method

Two empirical study methods were employed, namely the questionnaire and the interview method.

4.4.2.1 The questionnaire

In this research study, the questionnaire is used as the main and most important instrument for eliciting information. Babbie (1992:147) contends that "... the term questionnaire suggests a collection of questions", while Sekeran (1992:200) regards a questionnaire as a preformulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives.

McMillan and Schumacher (1989:40) conclude that a questionnaire is a very common instrument of collecting data in educational research. This is further confirmed by Mouly (1979:188) who argues that it is the most used and most abused instrument in educational research.

A questionnaire usually consists of questions aimed at eliciting specific information on various topics. There are no right or wrong answers to the questions and questions can be in the closed form (allowing only certain responses) or in the open form (where respondents make any response they wish in their own words) (Borg & Gall 1979:295).

Travers (1978:330) reiterates that the formulation of questions is very important but even though the researcher may formulate good questions relevant to the purpose of the study, criticisms will still be there.

The advantages of questionnaires are that they are an efficient data collection mechanism when the researcher knows exactly what is required and how to measure the variables of interest. They can also be administered personally or mailed to respondents and information can also be obtained by electronically administering the questionnaires (Sekaran 1992:200).

Babbie (1992:278; 282) summed up the advantages of questionnaires as follows. They:

- ◆ are particularly useful in describing the characteristics of a large population;
- ◆ make a very large sample feasible;
- ◆ are economical as far as time and money is concerned;
- ◆ there is lack of interviewer bias; and
- ◆ encourage more candid responses on sensitive issues, and are easy to dispatch due to the possibility of anonymity and privacy of questionnaires.

The most important advantage of the questionnaire over the interview is one of economy. Good (1972:227) quotes Webb and others when they say: “As to uses and applications, the questionnaire extends the investigator’s powers and techniques of observations ...” The questionnaire can be sent almost anywhere, a condition that is usually impractical for interviews and over and above this each respondent receives the same set of questions phrased in exactly the same way.

However, questionnaires are not without disadvantages. Questionnaires also have limitations, which are *inter alia* the following:

- ◆ the rate of return may be poor;
- ◆ opportunity to probe is limited;
- ◆ no follow-up of respondent’s answers can be made where clarity is needed; and
- ◆ reluctance on the part of respondents to complete questionnaires (Chadwick, Bahr & Albrecht 1984:138-139).

4.4.2.2 – Interviews

An interview can be described as any conversation in which the roles of the interviewer and respondents continually change. This is one of the major sources of data collection. In this study face-to-face interviews are employed. It is a direct attempt by the researcher to obtain reliable and valid information with regard to the problem at hand and the data obtained from these interviews also represent attempts to either confirm or reject the hypothesis. They are more flexible and the interviewer may change the manner of questioning if the situation so demands and if the responses given are not clear, questions may be rephrased and thereby personal information, attitudes, perceptions or beliefs are easily collected (Johnson 1988:99). Interviews can be structured or unstructured. In this research project, structured and unstructured interviews have been used. Structured interviews are arranged before the interview. They are short, direct and require “yes” or “no” answers (follow-up interview probe). In the unstructured interviews the interviewer is allowed to introduce new material in the discussion which had not been arranged before and it allows the interviewer and the interviewee greater flexibility with the consent of the interviewee. Structured interviews are closely related to questionnaires (Hitchcork & Hughes 1989:81).

4.5 Research population

A research population is defined as all the cases that can potentially be included in an investigation (Charles 1988:73). On the other hand, McMillan and Schumacher (1989:161) and Borg (1987:8) defines a research population as a larger group of cases from which a sample can be selected.

According to Sekaran (1992:225) “Research population refers to the entire group of people, events or things of interest that the researcher wishes to investigate”.

This is due to the fact that a population is too large a group of people for a researcher to handle. Sax (1980:511), however, holds the view that “... where populations are small and accessible, sampling is unnecessary because all cases can be included in the investigation”.

4.5.1 Population

For the purpose of this research project, the population consists of all primary, combined and secondary school principals, deputies, heads of department and educators in the Northern Province because of their accessibility to the researcher.

4.5.2 Target population

The target population for this research project was narrowed down to primary and secondary school principals, deputies, HODs and educators in the Northern region (Region 3) of the Northern Province Department of Education. This was done for the sake of accessibility.

4.6 Sample

Before the questionnaires were sent out to schools, an exploratory study was conducted in two nearby schools, *viz* a primary and a secondary school. This was done in order to determine whether there were misunderstandings with regard to the questionnaires themselves as some of the terminology may be new to some educators, for example total quality management. After this exploratory study, some minor changes were effected to the questionnaire to enable the respondents to understand it fully. The questionnaire also gave explanations under each heading as to what each section required.

A sample is thus viewed as a subset of the population. It comprises some members selected from the population. By studying the sample, the researcher would be able to draw conclusions that would be generalisable to the population of interest (Sekaran 1992:226).

The sample for this study was drawn from a population of principals, deputies, HODs and educators of primary, combined and secondary schools from the Northern Region (Region 3) of the Department of Education in the Northern Province. A list of all schools under the jurisdiction of the Northern Region was obtained from the Regional Office in Thohoyandou. To obtain fair representation from the districts, the researcher used a stratified random sampling strategy which was calculated with the help of a statistician. The reason for sampling is that it is highly impractical in any large population with thousands of elements or more to investigate, test or examine every element in terms of time and cost. The best way is to resort to sampling.

4.7 Procedures for distribution and collection of questionnaires

Since the region is vast, questionnaires were sent to principals with the request to send the completed questionnaires to their circuits and districts from where the researcher would collect them. Follow-up visits and calls were made to individual schools which did not return the questionnaires on time.

The above process was preceded by the application for permission to conduct research in schools under the jurisdiction of Region 3. This was granted by the Regional Director in the Northern Region (Region 3) of the Northern Province Department of Education. To make this approval accessible to all, the letter of approval was written in the form of a circular which was sent to all schools in the region with the request that they (schools) accept and co-operate with the researcher (see annexure 3). It was not necessary for the researcher to seek further permission from individual district managers as the said “circular” was communicated to them and distributed to schools via their offices.

4.8 Questionnaire construction

The question of quality and change affects all individuals in any organisation, hence this study was designed in such a way that the management team and teachers or educators in a school constitute the respondents to the questionnaire. The reason being that they are all crucial for change and quality to take effect.

Information for the construction of this questionnaire was obtained from the literature study (books, journals, newspapers, gazettes and other research articles) and from the researcher's experience as a school manager in the changing situations in the education system.

The questionnaire was divided into four sections. Section A dealt with the biographical data which included age, position held, district and circuit where the respondent is employed. Section B contained 12 statements which are meant to determine the views of the management teams and educators regarding whether schools are managed in a way which ensures and encourages continuous improvement in their total performance.

Section C contained 15 statements meant to elicit information from respondents concerning the educational changes introduced since 1994. The aim was to find out whether these changes have brought about significant improvements in the education system as compared to the pre-1994 education system. Section D contained 22 statements which were aimed at finding out whether school managers are properly equipped with the necessary managerial skills to manage change.

A pilot study conducted in one primary and one secondary school proved the questionnaire to be clear, save for some explanations regarding key concepts like total quality management. Minor adjustments or changes were made to the questionnaire and thereafter the researcher proceeded with the distribution of the questionnaires to different districts.

4.9 Coding and scoring

The SAS-statistical package was used to analyse data. The data extracted was converted to scores to enable the computer to do a fast grouping of similar responses. The data was checked for correctness and all items were correct. Some frequencies were missing as not all respondents responded to all questions, for example most educators did not respond to those statements which were meant to determine whether school managers are skilled in financial management and strategic management.

4.10 Limitations of this research project

For the purpose of this research project, the researcher tried his utmost to avoid the pitfalls inherent in research questions. With the exception of one question on age in the biographical section, all other questions were not threatening.

The ravages caused by the floods in the Northern Region caused a tremendous setback as most of the districts were inaccessible for the most part of February to June 2000. The districts which were seriously affected were Soutpansberg, Sekgosesese, Vuwani and Malamulele. Thohoyandou and Mutale were also affected but to a lesser extent. Nevertheless, there were respondents from all districts who returned the questionnaires, but the proportional representation as formerly decided upon will no longer hold true for the reason stated above.

4.11 Presentation and interpretation of the results

4.11.1 Introduction

This section is aimed at presenting and interpreting the views of principals, deputy principals, HODs and educators with regard to change and continuous improvement. The data was collected by means of a questionnaire (see annexure 1). Respondents from the Northern Region in the Northern Province Department of Education completed the questionnaires. The analysis of data for this research was done in collaboration with the Networks and User Support Department of Information and Technology at the University of Pretoria using the SAS-statistical package system.

4.11.2 Analysis of data

4.11.2.1 Biographical data

Table 4.1: Responses

	Number of questionnaires	%
Questionnaires sent out	400	100,00
Questionnaires received/returned	267	66,75
Questionnaires not returned	133	33,25

Four hundred questionnaires were sent out to randomly selected schools in the Region which constituted 100% of the sample. Of these, 267 questionnaires were returned which is 66,75% whereas 133 questionnaires representing 33,25% were not accounted for. Apart from the fact that most parts of the Northern Region were not accessible as a result of the floods, some respondents were reluctant to complete the questionnaires. Some are not willing to do so while others refuse to complete simply because they do not see the value of filling it in.

Based on 66,75% of responses, the results are reasonably good and therefore generalisable.

Some questionnaires were not returned because of reluctance on the part of principals who did not do any follow-up on these questionnaires as requested. When the researcher did follow-up, more often than not he was told that the questionnaires were misplaced or left at home and that they will be forwarded by post but this never materialised.

Table 4.2: Age of respondents

V3	f	%
≤ 45	207	77,5
≥ 46	60	22,5
Total	267	100,0

According to the data in Table 4.2, the majority of respondents (77,5%) were forty five years and younger, whereas only 22,5% were 46 years and older. This suggests that the changes introduced and to be introduced will take root since the majority of the respondents are those who will continue to teach and implement these changes for some years to come. Research indicated that the average age of principals was 46 years and the average age for deputies was 44 years, while the average age for HODs was 42 years. The average age of educators was 37. This scenario can be attributed to the fact that appointments to senior positions is matched with the experience of the incumbent. The above table reflects that 77,5% of respondents are 45 years of age and younger. The implication for the research is that since most of the respondents (77,5%) still have 20 years and more of service, the process of continuous improvement will take root and therefore stabilise. The 22,5% of those above 46 years of age constitute the very few who may leave the profession because of retirement or even opt for early retirement if they fail to cope with the changes. The other implication is the latter group (22,5%) constitutes those in management positions.

Table 4.3: Respondents by districts

V4	f	%
Mutale	85	31,84
Vuwani	12	4,49
Malamulele	32	44,99
Thohoyandou	74	27,72
Soutpansberg	41	15,36
Sekgosese	23	8,61
Total	267	100,00

From Table 4.3 it is clear that most respondents are from the Mutale district (31,8%), followed by Thohoyandou (27,7%). The responses for Soutpansberg (15,4%) and Malamulele (12%) follow that of Mutale and Thohoyandou respectively. The responses from Vuwani (4,5%) and Sekgosese (8,61%) are poor indeed. This can be ascribed to their inaccessibility during February to March due to the floods, the same factor which affected almost all the districts although some for example Mutale and Thohoyandou, to a lesser extent. The reluctance of some principals and educators to complete questionnaires might have played a role here.

Table 4.4: Mutale: Respondents by circuits

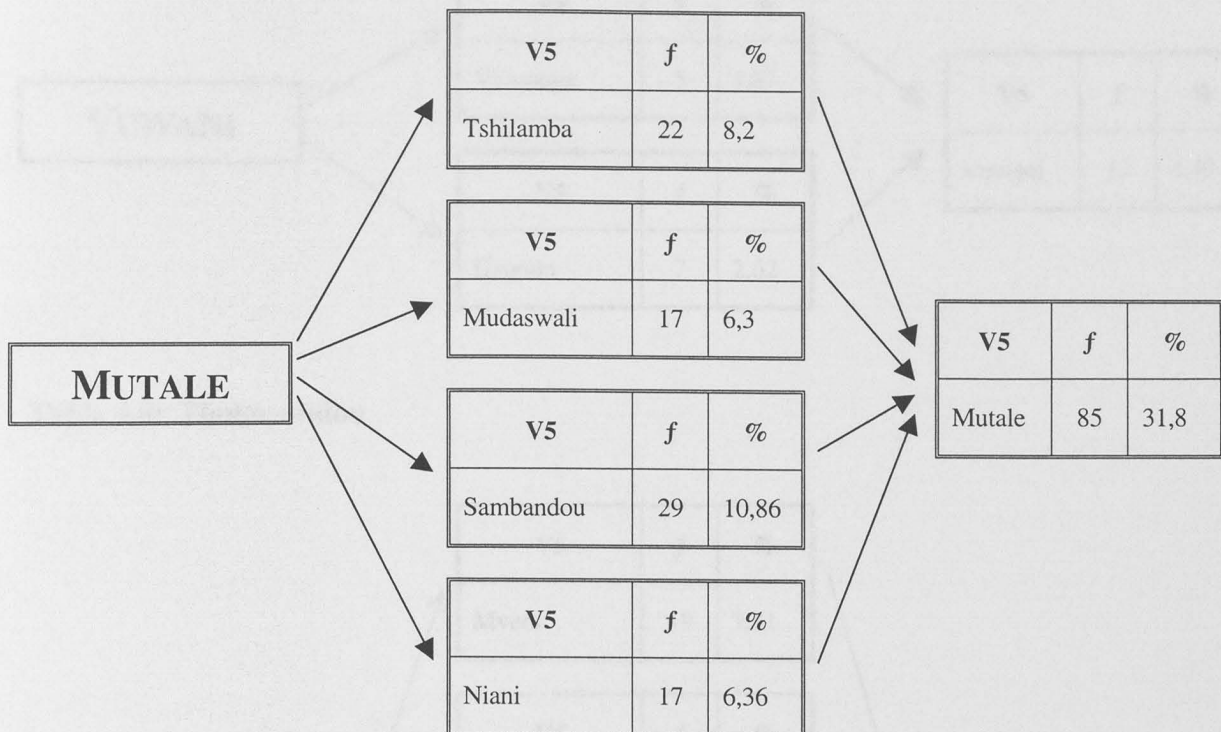


Table 4.5: Vuwani

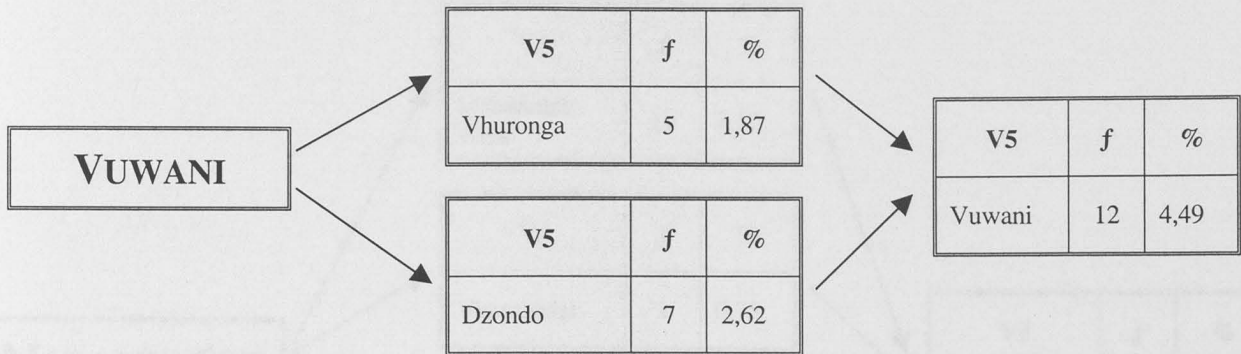


Table 4.6: Thohoyandou

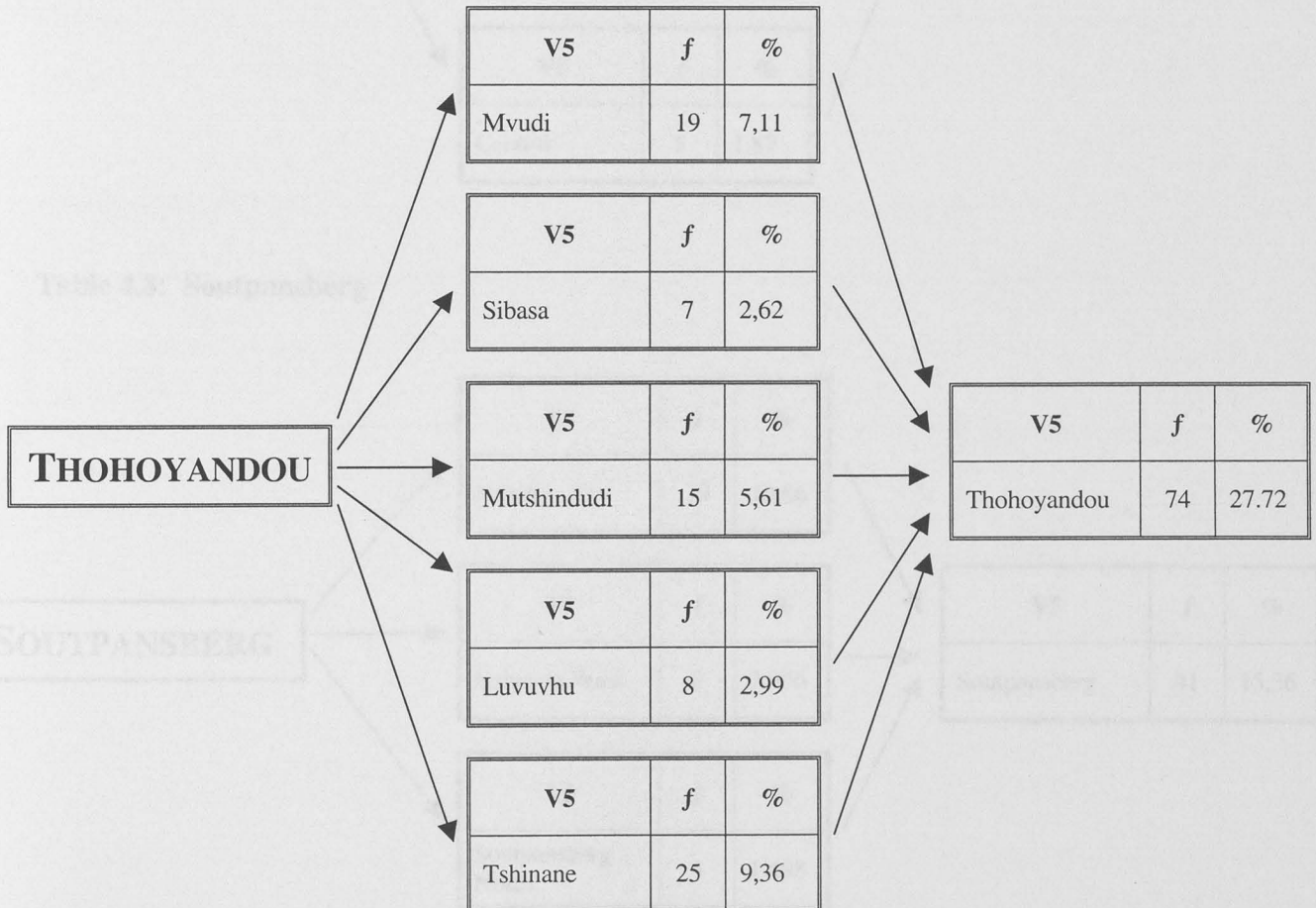


Table 4.7: Malamulele

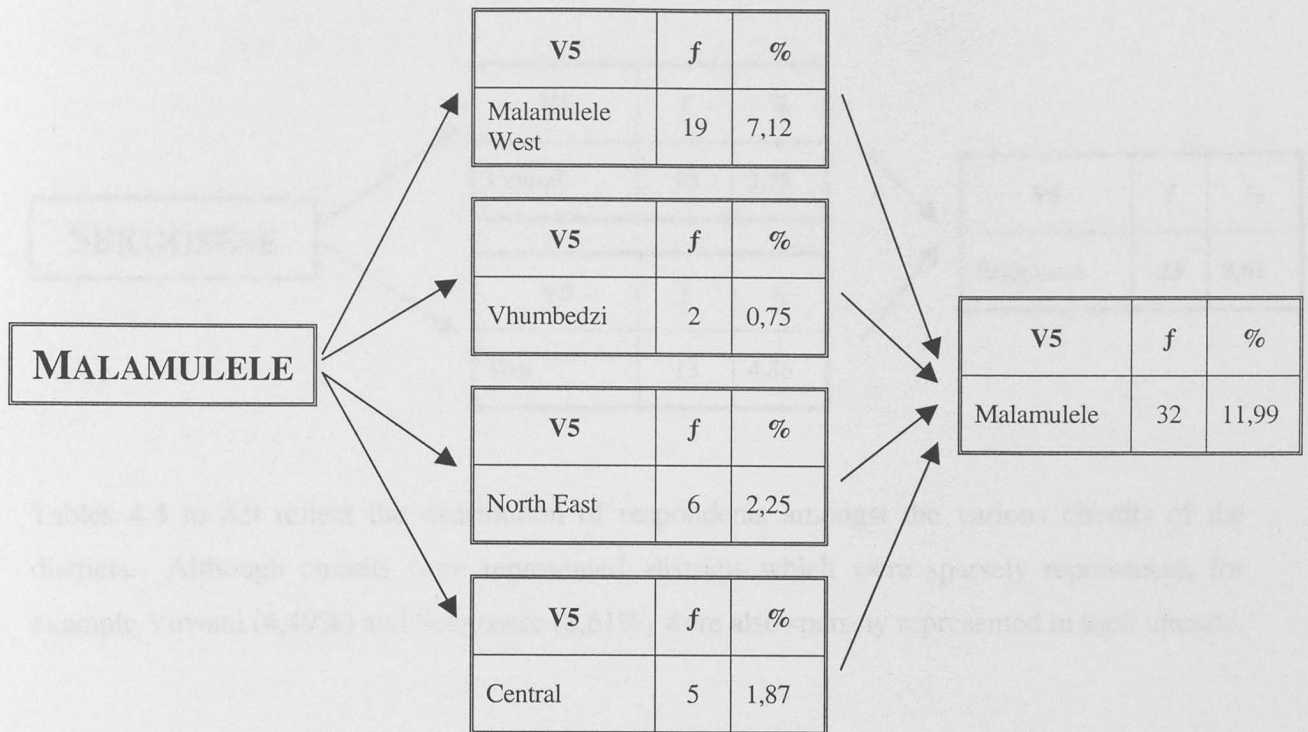


Table 4.8: Soutpansberg

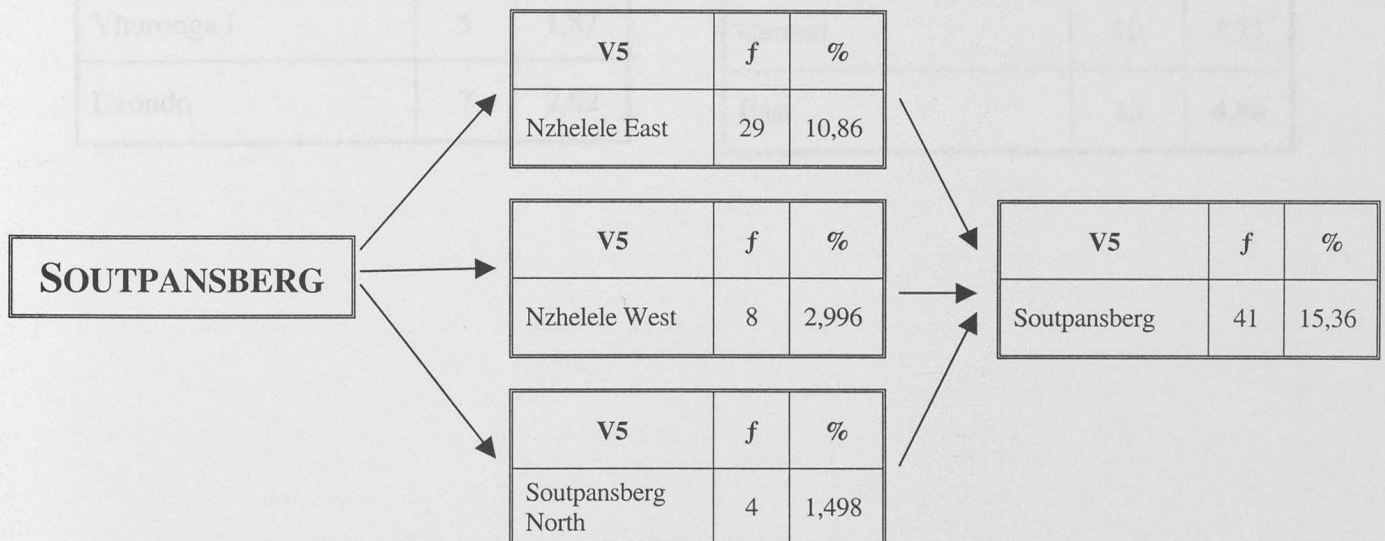
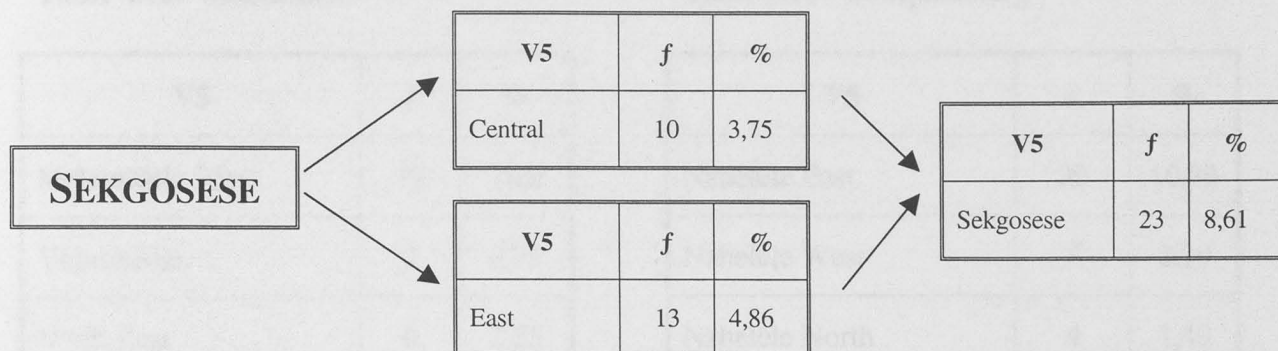


Table 4.9: Sekgosese



Tables 4.4 to 4.9 reflect the distribution of respondents amongst the various circuits of the districts. Although circuits were represented, districts which were sparsely represented, for example Vuwani (4,49%) and Sekgosese (8,61%) were also sparsely represented in their circuits.

Table 4.10: Vuwani

V5	f	%
Vhuronga I	5	1,87
Dzondo	7	2,62

Table 4.11: Sekgosese

V5	f	%
Central	10	3,75
East	13	4,86

Table 4.14: Position held

V5	f	%
Principal	47	17,00
Deputy Principal	6	2,23
Head of Department	35	12,69
Teacher	139	49,97
Total	287	100,00

Even the Malamulele and Soutpansberg's circuits were not proportionally represented.

Table 4.12: Malamulele

V5	f	%
Malamulele West	19	7,12
Vhumbedzi	2	0,75
North East	6	2,25
Central	5	1,87

Table 4.13: Soutpansberg

V5	f	%
Nzhelele East	29	10,86
Nzhelele West	8	2,99
Nzhelele North	4	1,49

Where principals show interest in research matters, the response was better and prompt as he or she is the one to make follow ups to his or her management teams and educators.

The significance of Tables 4.4 to 4.13 for this research lies in the fact that the research covered most of the circuits in the various districts and their views can therefore be generalised as they express the views of respondents from all districts and circuits in the region. In paragraph 1.5.2.1 it was stated that randomly selected schools in the six districts of the Northern Region will be given questionnaires to complete and Tables 4.4 to 4.13 confirmed that all the districts were involved.

Table 4.14: Position held

V6	f	%
Principal	47	17,60
Deputy Principal	6	2,25
Head of Department	55	20,60
Educator	159	59,55
Total	267	100,00

The high number of educator respondents (59,55%) is understandable as there are more educators than members of the school management teams in any school. With the commencement of the process of rationalisation and redeployment, new post provisioning for all schools granted schools promotion posts in accordance with their enrolment, but as of now, neither advertisements nor appointments for those promotion posts were made resulting in the picture above. Had the promotion posts been advertised and appointments made, the picture would have been different. This may affect management in a negative way as very few persons at management level will be expected to achieve more than what they can as a result of lack of appointments of HODs and Deputy Principals. In the literature study in paragraph 2.10.2.1 it was stated that for TQM to take place, top management's commitment must be unwavering. It is further stated in the literature review in paragraph 2.8.11 that success in the total implementation of quality demands leadership and that a new philosophy cannot be adopted without leadership.

Because of the non-appointment of HODs and deputies, some schools have only the Principal as the top management, and the HODs have not been officially appointed (therefore they are not paid). Deputy Principals are hard to come by. In the whole region for example, there were only six officially appointed Deputy Principals who completed the questionnaires. Most schools have 1,2 or three HODs and none of the schools have the exact allocated number of HODs as per the new post provisioning which each school received at the commencement of the redeployment process. As TQM is aimed at quality, the lack of HODs will have detrimental effects on the quality of education provided as the principal alone cannot have the expertise to supervise the activities of all the subjects in the school.

Table 4.15: Type of school

V6	f	%
Primary	100	37,45
Intermediate Combined	11	4,12
Secondary	156	58,43
Total	267	100,00

In Table 4.15, 100 respondents which constitutes 37,45% were from either junior primary schools (grade R – grade 4), or senior primary schools (grade 5 – 7). Eleven respondents

(4,12%) were from combined junior and senior primary schools (grade R – 7), whereas 156 respondents (58,43%) were from secondary schools.

4.4.10.2.2 Statement based on continuous improvement (TQM)

Statements V8 – V10 were combined and discussed together as they are all aimed at determining if there is continuous improvement in schools.

V8: Does your school focus on satisfying its customers, that is learners, parents and the community?

253 respondents representing 95,8% agreed, whereas only 11 (4,17%) disagreed. Only 3 frequencies were missing. Satisfying the needs and expectations of customers is a prerequisite of TQM schools. The fact that 95,8% of the respondents contend that their schools focus on satisfying their customers is good for continuous improvement implementation. This is confirmed by the literature study in paragraph 2.2.2 which indicated that for schools to survive they must satisfy the needs and expectations of their customers. Paragraph 2.5.5 reflects that one of Feigenbaum's principles is that total quality is a continuous work process which starts with customer requirements and ends with customer satisfaction.

V9: Does your school have policies and plans which ensure the achievement of high standards of performance by the whole school?

250 respondents (94,34%) agreed whereas only 15 (5,66%) disagreed. This indicates that the basis for the implementation of total quality management is already there. If the policies and plans are integrated into the Development Plan of the school, the implementation of TQM will be much easier. Two frequencies were missing. The literature review confirmed and highlighted the importance of policies and plans. In paragraphs 2.8.3.5.1 to 2.8.3.5.4 the creation of teams with policies, plans, vision and mission, clear purposes and goals is encouraged with a view to bringing about continuous improvement.

V10: Are all staff members in your school clear about their roles and responsibilities?

214 respondents (80,75%) agreed and 51 (19,25%) disagreed. Clarity about roles is important in that each staff member will do his or her own job effectively and this is good for continuous improvement. However, the number of those who are not clear about their roles (19,25%) is still a cause for concern. For TQM to succeed, this number must be reduced to nil as all educators should know their roles if the implementation of TQM is to succeed. Only 2 frequencies were missing. In paragraph 2.8.3.5.4 it is clearly stated that staff members should work as a team with clear purposes and goals. Their roles should be clearly defined and it should be clear who is the leader and the facilitator. The research findings confirmed what the literature review clearly stated in Chapter 2.

From the above statements, that is V8 – V10, it is clear that the overwhelming majority of respondents 253 (95,8%), 250 (94,34%) and 214 (80,75%) reflect that there are indeed schools which are managed in a way which ensures and encourages continuous improvement in their total performance. The literature study in paragraphs 2.2.2, 2.5.5 and 2.8.3.5.1 to 2.8.3.5.4 confirmed the above and this augurs well for the implementation of TQM in schools because there is a very strong basis.

V11: Has there been continuous improvement on your school's external examination results for the past two years?

204 respondents (81,27%) indicated that there has been an improvement, with 47 respondents (18,73%) indicating that there was no improvement. Although only grade 12 learners write external examinations, the number of respondents include even those from junior primary and combined primary schools as they also regard their highest class (grade 4 for junior primaries and grade 7 for senior primaries) as their external classes or exist points.

According to paragraph 2.7.2.2 the second pillar of total quality management is continuous improvement. Whether the examination is internal or external is immaterial, what is important is that there should be continuous improvement on the previous year's performance.

Results for the Northern Province's Northern Region (Region 3) grade 12 examination for 1998 to 2001:

Table 4.16: 1998 – 2001 Northern Region (Region 3) Grade 12 examination results

Year	Number Wrote	Number Passes	% Passes	Number Failures	% Failures
1998	21 347	9 642	45,17	11 706	54,84
1999	21 320	9 650	45,3%	11 670	54,7%
2000	20 894	12 200	58,4	8 694	41,6
2001	20 795	12 673	60,9%	8 122	39,1

Department of Education Northern Province (Northern Region – Region 3) Grade 12 Examination Statistics 2001:1-2,4)

From 1998 to 1999 there was an improvement pass of 0,13% and from 1999 to 2000 there was an improvement of 13,1% which improved again in 2001 by 2,5%. From 1998 until 2001 the pass rate for the grade 12 examination in the Northern Region has improved by 15,73% which is remarkably well. However, the failure rate at 39,1% (which constitute 8 122 learners) is still a course for concern. This improvement indicates, however, that continuous improvement is taking place which augurs well for TQM.

V12: Does your school encourage creativity by staff members?

233 respondents (88.59%) agreed while 30 (11,41%) disagreed. This is so because an educator should obtain additional information from other sources in the library to supplement what is in the textbooks. This is further confirmed in the literature review. The third pillar of TQM (see paragraph 2.7.2.3) encourages educators to brainstorm in order to generate facts and ideas. Total quality management implementation needs leadership. Paragraph 2.8.1.1 reflects that a leader innovates, develops and is an original. He/she can therefore not rely solely on the textbook. Because he/she has a long range perspective, he/she develops new ideas to supplement what he/she has.

V13: Does your school view quality as a means to improve customer satisfaction?

242 respondents (92,72%) agreed with 19 respondents (7,28%) disagreeing. Paragraph 2.2 confirmed that TQM is focussed on satisfying the needs and expectations of the customers. Paragraph 2.2.1 confirms that quality is defined by customer needs whereas paragraph 2.2.2 emphasises that if schools are to survive, they must satisfy customer needs and expectations.

V14: Does your school have good discipline for both learners and educators?

75,38% of the respondents agreed whereas 24,62% disagreed. For successful TQM-implementation, a well disciplined staff and learners are needed. Paragraph 2.7.2.4 views good discipline by educators and learners as a characteristic of a quality school. A sense of purpose in the school should be created for educators and learners so that they are all motivated to do their best. For this to happen, all involved should be disciplined.

V15: Does your school have clear evaluation strategies?

84,03% of the respondents were positive with 15,97% disagreeing. Four frequencies were missing. In the literature review it was stated that in order to get clear evaluation strategies, use must be made of management tools and techniques. Paragraph 2.9 provides daily management tools and techniques that can be used for effective total quality management implementation. Several tools and techniques can be utilised. Benchmarking (paragraph 2.9.1.1), the Ishikawa diagram (paragraph 2.9.1.3) or check sheets (paragraph 2.9.1.7). These will help in identifying the tool that will be effective in diagnosing the problem faced by the school.

V16: Does your school have clearly outlined vision and mission statements?

83,77% of the respondents indicated that their schools do have vision and mission statements whereas 16,23% of respondents replied negatively. Only two frequencies were missing. Paragraphs 2.8.1.2 and 2.8.1.3 outline the importance of vision and mission statements for total quality management. Vision and mission statements are characteristics of quality schools and their presence augurs well for TQM.

V17: Do all members of staff in your school know about the vision and mission statement of the school? (Could they describe it if asked?)

In this statement 65,90% of the respondents agreed with 34,10% disagreeing. Six frequencies were missing. Paragraphs 2.8.1.2 and 2.8.1.3 clearly state that the development of a mission and vision statement should involve all stakeholders of the particular school so that they also own these statements. If they are involved in the formulation thereof, they would know about them. Even though they might not have been involved in the formulation of these statements, the staff members should know and own them as they are part of that particular school. The fact that 34,10% of the respondents disagreed, indicate that there is still a problem because if such a high percentage of educators cannot identify themselves with the vision and mission statements of their particular schools, then they will not exert the necessary pressure that will see to it that the vision and mission statements of the school are realised. Total quality management requires the commitment of all in the school and unless this situation changes, TQM cannot be fully realised.

V18: Does your school have clean and orderly surroundings?

The fact that 62,21% of respondents indicated that their schools have clean and orderly surroundings is an indication that most of the schools have well kept surroundings. However, the percentage of those respondents whose school surroundings are not clean and orderly (37,9%) is a cause for concern. The implication for this research project is that TQM means continuous improvement in everything that the school engages in including its surroundings. Clean and orderly surroundings are conducive to teaching and learning. Paragraph 2.7.1.1 indicates that when changing the culture of an organisation to a quality driven organisation, one of the areas to be addressed is the environment. One of Deming's 14 points in paragraph 2.5.1 is to engage in a process of continually improving every aspect of school activity – including the surroundings.

V19: Does your school have professionally qualified staff?

96,96% of the respondents agreed with only 3,04% disagreeing. Only 4 frequencies were missing. This indicates that unqualified personnel are very few (3,04%). Quality schools offer quality education because they also have quality teachers. A professionally qualified staff is a recipe for quality teaching and quality education. Professionally qualified educators have been

trained how to teach their learners effectively and it is therefore expected of them to deliver quality teaching.

In paragraph 2.7.2.4 it is clearly stated that for TQM to succeed, every employee must be fully developed and educated so that each individual is the best that he or she can be at what they can do. In paragraph 2.5.5 one of Feigenbaum's comments is that quality improvement always requires extensive training. Research conducted in the USA and Britain on TQM in paragraph 2.6 indicates that quality can only be achieved by a valued work force for which education, training and personal growth are essential.

4.4.10.2.3 Statements based on whether the changes introduced since 1994 have brought any improvement in the education system

In this section, statements V20 – V27 have been grouped together and will be discussed together as they elicit similar responses.

V20: How are parental and community involvement and support in your school at present?

Table 4.17: Parental involvement

V20	<i>f</i>	%
Better	187	71,10
Same	52	19,77
Worse	24	9,13
Total	263	100,00

In paragraph 2.4 TQM has the advantage of unifying all individuals and organisational efforts focused on clear visions, goals and objectives. Parental and community involvement and support are very important for continuous improvement.

V21: How are frequent monitoring of learner progress in your school at present?**Table 4.18: Monitoring of learner progress**

V21	f	%
Better	175	66,29
Same	71	26,89
Worse	18	6,82
Total	264	100,00

Guideline 8, paragraph 2.10.2.8 regards systematic evaluation as important and should be done regularly at different stages of development. According to guideline 6, paragraph 2.10.2.6, learner progress should be monitored consistently and regularly.

V22: How is the emphasis on teaching and learning in your school?**Table 4.19: Emphasis on teaching and learning**

V22	f	%
Better	215	81,75
Same	37	14,07
Worse	11	4,18
Total	263	100,00

In paragraph 2.5.5 quality improvement is regarded as hard work. The more emphasis is put on teaching and learning, the more quality-focussed the school is.

V23: How is teacher's commitment to teaching all periods on all school days in your school?

Table 4.20: Teacher's commitment to teaching

V23	f	%
Better	169	63,77
Same	76	28,68
Worse	20	7,55
Total	265	100,00

TQM requires that teachers teach all periods on all school days and this requires a change in culture for the whole organisation as is verified in paragraph 2.5.5

V24: What is learner's commitment to attending all periods every day except with valid reasons, for example being sick?

Table 4.21: Learner's commitment to attendance

V22	f	%
Better	150	56,39
Same	72	27,07
Worse	44	16,54
Total	266	100,00

V25: What is the level of commitment to continuous improvement of performance by both educators and learners?

Table 4.22: Commitment to continuous improvement

V25	f	%
Better	177	66,79
Same	72	27,17
Worse	16	6,04
Total	265	100,00

V 26: What is the level of attendance and punctuality of educators in your school?

Table 4.23: Attendance and punctuality by educators

V26	f	%
Better	163	61,51
Same	76	28,68
Worse	26	9,81
Total	265	100,00

V27: What is the level of attendance and punctuality of learners in your school?

Table 4.24: Attendance and punctuality by learners

V27	f	%
Better	125	46,99
Same	95	35,71
Worse	46	17,30
Total	266	100,00

V20 – V27: Discussion on statements V20 – V27

In all of the above statements 19 frequencies were missing. The above scenarios indicate that although there is some improvement because of the changes introduced since 1994, there are still serious problems. Although the emphasis on teaching and learning is at 81,75% (Table 4.20) which is better, this trend of having “worse situations” (4,18%) is disturbing indeed. The same applies to all the statements – Table 4.17 (9,13%), Table 4.18 (6,82%), Table 4.20 (7,55%) and Table 4.21 (16,54%). This is worse indeed. Without the commitment of learners, the efforts of educators will not bear fruit (Table 4.22 – 6,04%). If there are still educators whose morale is that low, then much still needs to be done. Table 4.24 reflecting 17,30% of respondents who indicate that attendance and punctuality is worse, shows the type of learners at some schools. Attendance has improved by 46,99% there are still cause for concern. The number of respondents who do not see any improvement whatsoever is also worrying for example V20 (19,77%), V21 (26,89%), V22 (14,07%), V23 (28,68%), V24 (27,07%), V25 (27,17%), V26 (28,68%) and V27 (17,30%). The above scenario suggests that the changes introduced since 1994 have not had the same impact in all schools. The improvement seems to be very slight. For continuous improvement to take root, the commitment of educators (63,77%), learner commitment (56,39%), parental involvement (71,10%), learner attendance and punctuality (46,99%), as well as educator attendance and punctuality (61,51%) should be improved. Commitment to continuous improvement which is at 66,75% should also be improved if total quality management is to succeed.

In paragraph 2.10.2.8 it is stated that in a quality institution the improvement process involves everybody in the school. Learner attendance and punctuality is crucial for continuous improvement.

Quality, according to paragraph 2.2.1 is achieved through continuous improvement. When one examines statements V20 – V27 where a significant number of respondents indicated that there has been no improvement, it is evident that discrepancy of some kind exists. In V8, 95,8% of the respondents indicated that their schools focus on satisfying their customers and in V9, 94,34% of the respondents indicated that their schools have policies and plans which ensure the achievement of high standards of performance. In V10, 80,75% indicated that their schools are clear about their roles and responsibilities. The above-mentioned statistics create the impression that there is a great improvement regarding the performance of schools. The situation as

depicted in Table 4.16 however, indicates a very small improvement of 0,13%, 13,1% and 2,5% respectively. Although this indicates a move towards improvement which augurs well for continuous improvement, the high percentages reflected in V8 – V10 above, the 35,71% in V27 (no improvement) and the 17,30% in V27 (worse situations with regard to attendance and punctuality), prompted the researcher to undertake a further probe. Five respondents were subjected to a structured interview in order to reconcile these contradictory findings. The results of the interview probe will be discussed in paragraph 4.10.3.

V28: What is the level of the learner discipline, hard work and commitment in your school?

Table 4.25: Learner discipline

V28	f	%
Better	143	54,37
Same	72	27,38
Worse	48	18,25
Total	263	100,00

Discipline and hard work cannot be divorced from commitment. The number of respondents who say that the situation is worse (18,25%) and those who say that there is no improvement (27,38%) is indicative of the lack of the culture of teaching, learning and service in most schools. Paragraph 2.5.5 states that quality improvement is hard work and that successful quality improvement frequently requires a change in culture for the whole organisation. Commitment to quality must be continuous. The discipline, hard work and commitment of the learners is therefore important for total quality management implementation.

V29: How is the recognition of learner achievement by way of giving awards to the best achievers?

Table 4.26: Recognition of learner achievement

V29	f	%
Better	128	49,23
Same	91	35,00
Worse	41	15,77
Total	260	100,00

Although some schools are trying to reward hard work as shown by the number of respondents (49,23%), this does not seem to be noticed by those who are not committed. Those who do not see any improvement (35%) and those who see the situation as being worse (15,77%) amount to 50,77% which is a cause for concern if continuous improvement is to be achieved.

In paragraph 2.5.2 one of Juran's principles of quality management emphasises the need to recognise and reinforce success. In other words, learner achievement should be recognised and reinforced. This motivates the learner to continue improving.

V30: How is healthy human relationships between principals, staff, learners and parents?

Table 4.27: Human relationships

V30	f	%
Better	186	70,99
Same	56	21,37
Worse	20	7,63
Total	262	100,00

70,99% of the respondents in Table 4.27 indicate that there is a healthy human relationship between the staff, principal, learners and parents. 21,37% indicated that the situation has not changed with 7,63% saying that the situation is worse. In some schools this sour relationship

might have been caused by the redeployment process which initially involved the formation of right-sizing committees which were responsible for selecting those to be declared in excess. However, this situation (70 – 99%) (better) can be improved upon and this augurs well for TQM implementation as the co-operation and commitment of all are sought.

In paragraph 2.6 it is stated that one of the key features which institutions cannot do without is that quality has to pervade human relationships in the workplace – teams are the most powerful agent for managing quality.

V33: How is the sharing of responsibilities by educators amongst themselves co-operative teamwork?

Table 4.28: Sharing responsibilities

V30	f	%
Better	181	69,35
Same	67	25,67
Worse	13	4,98
Total	261	100,00

In Table 4.28 69,35% of the respondents view the co-operation of educators as better, whereas 25,67% view it as similar to prior to 1994. Co-operative teamwork should be stepped up again because good co-operative teamwork will ensure common vision and mission ownership, thereby enhancing performance. The number of respondents who do not see any change is still high (V33: 35,67%). Without co-operative teamwork, continuous improvement cannot take place smoothly as it is dependent on co-operation and teamwork. All must be on one quality team pursuing the same vision and mission which they must all own. This is further confirmed in paragraph 2.9.5 where the importance of teamwork for total quality management is expounded.

V31: How is provision of adequate teaching facilities, enough classrooms, libraries, laboratories and security fencing?

Table 4.29: Provision of facilities

V31	f	%
Better	35	13,46
Same	98	37,69
Worse	127	48,85
Total	260	100,00

V32: How is supply of water, electricity, writing materials and textbooks?

Table 4.30: Supply of water, electricity and school materials

V32	f	%
Better	93	35,50
Same	111	42,37
Worse	58	22,14
Total	262	100,00

Discussion on statements V30 and V31

Most respondents in V32 (42,37%) Table 4.30 indicate that the supply of water, electricity, writing materials and textbooks is the same as before 1994 – there is therefore no improvement. 22,14% of the respondents state that the supply is worse than prior to 1994 whereas only 35,50% see an improvement. For continuous improvement to succeed, this situation needs urgent attention. The same picture prevails in V31 (Table 4.29) where only 13,46% see an improvement but those who see no improvement constitute 37,69% and those who view the situation as having worsened is 48,85% – this exceed by far those who say that there is change. This situation needs to change urgently if continuous improvement is to succeed. The provision of amenities in V31 and V32 are crucial for continuous improvement to be successfully

launched. Without these facilities and equipment, teaching and learning of quality cannot be realised.

V34: What is the level of the principal's dedication, loyalty and commitment in leading change in your school?

Table 4.31: Principal's dedication and loyalty

V34	<i>f</i>	%
Better	207	79,01
Same	43	16,41
Worse	12	4,58
Total	262	100,00

Most respondents still have faith in the principal's commitment (79,01%) compared to 16,41% who see no change and 4,58% who see the principal's commitment as having worsened. This commitment (79,01%) augurs well since the principal is the one to spearhead the change. However, for TQM to be successfully implemented, total commitment by all managers (principals) is needed. In the literature review, it was indicated in paragraph 2.10.2.1, that the first guideline for the effective development of TQM is top management's commitment to TQM. In other words, the principal, as the top manager in the school, should be committed if he is to successfully guide and lead others to buy into the total quality management strategy. The fact that 79,01% of respondents indicated that principals are committed to continuous improvement is favourable for successful implementation. However, the 16,41% who see no change in the commitment of principals and the 4,58% who view the commitment as having worsened, must be made to see, through motivation, exposure to change through workshops and school improvement workshops the importance of continuous improvement, thereby enhancing their commitment to total quality management.

4.11.2.4 Statements based on whether school managers possess managerial skills to manage and cope with change

In this section (Section D), statements V35 – V45 were grouped together as they elicit similar responses.

V35: Do you as a school manager possess skills for managing a school management team on all educational matters?

Table 4.32: Managing school management teams

V35	<i>f</i>	%
Yes	211	89,79
No	24	10,21
Total	235	100,00

Missing frequencies = 32

V36: Do you possess skills for managing change?

Table 4.33: Skills of managing change

V36	<i>f</i>	%
Yes	213	90,64
No	22	9,36
Total	235	100,00

Missing frequencies = 32

Discussion on V35 and V36

In Table 4.32, 89,79% of the respondents indicated that they possess skills for managing a school management team on all educational matters. Most of these respondents are principals as they are the ones who are subjected to such management courses. The number might have been inflated by those educators who have undergone management courses on their own. The same applies to Table 4.33 where 90,64% of the respondents agree that they do possess skills for managing change. These responses are better for continuous improvement as these skills will then be put to good use in the implementation of total quality management.

V37: Are you given regular in-service training in conflict management?

Table 4.34: Skills in conflict management

V37	f	%
Yes	111	46,84
No	126	53,16
Total	237	100,00

Missing frequencies = 30

V38: Are you given regular in-service training in financial management?

Table 4.35: Skills in financial management

V38	f	%
Yes	119	50,21
No	118	49,79
Total	237	100,00

Missing frequencies = 30

V39: Are you skilled in strategic planning and educational transformation or change?**Table 4.36: Strategic planning and educational change**

V39	<i>f</i>	%
Yes	177	73,44
No	64	26,56
Total	241	100,00

Missing frequencies = 26

Discussion on V 37 to V39

The large number of missing frequencies in these statements is due to the fact that most educators did not respond to those statements simply because most of the managerial skills expected were not instilled in them with the exception of those who completed some managerial courses. Even the number of those who say they are not skilled in conflict management (53,6%, Table 4.34), and in financial management (49,79%, Table 4.35) might have been inflated by those respondents who did not attend training courses for the above as they were meant for principals and treasurers of schools only. Treasurers attend a training course in financial management (V38) only. 73,44% of the respondents indicate that they are skilled in strategic planning and educational change which assists in continuous improvement taking place. The 26,56% of those not skilled is a cause for concern and needs to be remedied soon if TQM is to succeed.

V40: Do you possess skills such as organisation, planning, delegation and evaluation to engage your subordinates in the running of your school?**Table 4.37: Skills in organising and planning**

V40	<i>f</i>	%
Yes	205	87,23
No	30	12,77
Total	235	100,00

Missing frequencies = 32

V41: Do you possess skills to maintain an interpersonal relationship in the school as well as a sound working climate?

Table 4.38: Skills in interpersonal relationships

V41	<i>f</i>	%
Yes	217	91,95
No	19	8,05
Total	236	100,00

Missing frequencies = 31

Discussion on V40 and V41

The respondents in V40 and V41 indicate that they have skills in planning, organisation, delegation and evaluation (87,23%) on the one hand, as well as in the maintenance of interpersonal relationships (91,95%) on the other hand. The negative responses may stem from HODs and educators who have not received training in those skills. This situation must be rectified if continuous improvement is to be achieved. Training HODs and deputies in the various aspects of management is imperative. In paragraph 2.7.1.3.8 emphasis is put on the administrative activities of planning, organising, co-ordinating and controlling.

V42: Do you attend training programmes where your communication skills are further developed?

Table 4.39: Communication skills

V42	<i>f</i>	%
Yes	148	63,52
No	85	36,48
Total	233	100,00

Table 4.39 reflects that training in communication skills is scarce and although 63,52% have attended such training, the number of those not trained (36,48%) is a cause for concern. For continuous improvement to take place, the number of untrained managers must be reduced to nil.

In paragraph 2.5.1 one of Deming's fourteen points states that fear can be driven out by improving communication.

V43: Do you possess skills to negotiate effectively with staff, students and the community?

Table 4.40: Negotiation skills

V43	f	%
Yes	208	87,76
No	29	12,24
Total	233	100,00

87,76% of the respondents indicated that they possess the abilities to negotiate with staff members, students and community members. These courses or negotiations should also be an ongoing process since new members are also appointed to the management team, and above all, educators also need to be skilled in this. The 30 missing frequencies indicate the number of respondents who did not respond, mainly because they are not skilled in those aspects. Paragraph 2.7.2.4 emphasised the importance of respecting people which entails, *inter alia* negotiating with people so that they can perform their jobs with maximum effectiveness.

V44: Have you developed skills in decision-making and problem solving?

Table 4.41: Decision-making skills

V44	f	%
Yes	217	92,34
No	18	7,66
Total	235	100,00

Missing frequencies = 32

V45: Does your district office offer opportunities for continuing professional development for managers and staff?

Table 4.42: Professional development skills

V45	f	%
Yes	150	63,56
No	86	36,44
Total	236	100,00

Discussion on statements V44 and V45

In statement V44 (Table 4.41) 92,34% of the respondents have developed skills in decision-making and problem solving which augurs well for managers with only 7,66% indicating that they are not skilled in decision-making and problem solving.

As for statement V45 (Table 4.42), it is evident that districts do not offer opportunities for continuing professional development for managers and staff. Only 63,56% of the respondents agree, whereas 36,44% disagree. This can only suggest that district offices only seem to be concentrating on organising subject courses and not development courses as the latter seems to be left to the regional office or in-service training centres to organise. This is understandable as the district offices do not seem to have the funds and facilities to conduct such courses. Guideline 3, paragraph 2.10.2.3 emphasised the importance of training for the implementation of total quality management. With regard to Table 4.41, the importance of decision-making and problem solving skills is emphasised in paragraph 2.9.1 where various tools and techniques for problem solving in schools are discussed. Choose the tool or technique that will be relevant to your situation and problems.

Does your school possess the following documents on policy and law of education:

V46: White Paper on Education and Training? (Act no 196 of 1995)

Table 4.43: White Paper on Education and Training

V46	f	%
Yes	179	77,16
No	53	22,84
Total	232	100,00

Missing frequencies = 35

V47: National Education Policy Act, 1996? (Act no 27 of 1996) (admission policy)

Table 4.44: National Education Policy Act

V49	f	%
Yes	223	94,89
No	12	5,11
Total	235	100,00

Missing frequencies = 31

V48: South African Schools Act, 1996? (Act no 84 of 1996) (national norms and standards)

Table 4.45: South African Schools Act (SASA)

V48	f	%
Yes	224	94,92
No	12	5,08
Total	236	100,00

Missing frequencies = 31

V49: Understanding the SA Schools Act – What public school governors need to know**Table 4.46: Understanding SASA**

V49	<i>f</i>	%
Yes	210	90,13
No	23	9,89
Total	233	100,00

Missing frequencies = 34

V50: Guidelines for the consideration of governing bodies in adopting a code of conduct for learners**Table 4.47: Guidelines for governing bodies**

V50	<i>f</i>	%
Yes	222	94,47
No	13	5,53
Total	235	100,00

Discussion on statements V46 to V50

The aims of statements V46 – V50 were to determine whether the documents mentioned above have indeed reached schools and the response is overwhelmingly positive, and ranges from 77,16% (Table 4.43) with regard to the White Paper to 94,92% for SASA (Table 4.45). The response regarding the National Education Policy Act of 1996 is 94,89% (Table 4.44) and with respect to the Guidelines for the Consideration of Governing Bodies in adopting a Code of Conduct for learners stands at 94,47% (Table 4.47) which is also very good. This reflects that the documents have indeed reached their destinations. With regard to the 77,6% of the respondents regarding the White Paper, it can only be assumed that the majority have received it and that most respondents have forgotten about it or even misplaced it since it was the first policy document released by the democratic education system on 15 March 1995.

V51: Are the above-mentioned policy documents being followed or consulted in the day-to-day running of your school?

Table 4.48: Following policy documents

V51	f	%
Yes	190	81,20
No	44	18,80
Total	234	100,00

Missing frequencies = 33

Most respondents (81,20%, Table 4.48) are of the view that these documents are being followed and consulted and this further indicates that with time the changes will stabilise. The 18,80% of the respondents who disagree and the 33 respondents who did not respond might be those educators and school management team members who are not interested in studying documents let alone circulars pertaining to their daily tasks. However, for the sake of continuous improvement, the 18.80% must also be brought on board and be conversant with the information contained in all those policy documents.

V52 Are your governing body members in possession of the documents: Understanding the South African Schools Act – what public school governors need to know?

Table 4.49 Possession of SASA

V53	f	%
Yes	203	86,38
No	32	13,62
Total	235	100,00

Missing frequencies = 32

V53 Do they understand and implement the contents of the document in V53 above?**Table 4.50: Implementation of the contents of SASA**

V54	f	%
Yes	171	72,77
No	64	27,23
Total	235	100,00

Missing frequencies = 32

Discussion on statements V52 and V53

Most respondents (86,38%, Table 4.49) agree that they do possess the document while only 13,62% disagree. This must be attributable to the fact that the copy of the document might be in the possession of the chairperson or some members of the executive and not all members or educators. The most important fact is the understanding and implementation thereof. Only 72,77% (Table 4.50) of the respondents agree that there is understanding and implementation of the said document whereas 27,23% disagree. This can only be due to the fact that most governing body members have not undergone training in SASA and even though they may be trained, the majority of these members are not educated to such an extent that they can understand and implement all the mechanisms of school governance. Thorough training on a regular basis is needed if there is to be continuous improvement in school governance as well. An enlightened school governing body will accept nothing less than the best performance – service of the highest quality.

V54: Is your school run in accordance with the provision as laid down in the above stated policy documents?

Table 4.51: Schools run according to SASA

V55	f	%
Yes	216	91,53
No	20	8,47
Total	236	100,00

Missing frequencies = 31

Since the above policy document is law, the majority of the respondents, 91,53% (Table 4.51) agree that schools are run in accordance with the provisions of the Act. Only a small number (8,47%) do not agree with the statement. This might be the same people who are not happy with the abolishment of corporal punishment. However, the number is not significant enough to warrant any serious attention, but motivation is needed to get the 8,47% respondents to abide by this important education law.

4.11.3 Preliminary findings

The following are the findings that emerged from this empirical investigation.

This study revealed that a very small percentage of the respondents want to be associated with mediocre performance. This was made clear by the large number of responses which indicated that schools are geared towards satisfying their customers (95,8%). Paragraphs 2.2.2 and 2.5.5 confirm the view that schools should satisfy the needs and expectations of their customers if they are to survive. 95,8% of the respondents in V8 indicated that their schools focus on satisfying the customers while only 4,17% disagreed.

It was also interesting to note that most respondents view quality as a means to improving customer satisfaction. This seems to emphasise the fact that all parents want their children to attend school where the standard of teaching and learning is high – in quality schools or effective schools. This is further verified by the literature review (paragraph 2.2.2) which indicates that

schools must satisfy customers' needs and expectations if they are to continue to survive. The literature review further confirmed (paragraph 2.2.2) that if schools fail to deliver quality to the satisfaction of their customers, then their enrollments will dwindle and they will cease to be viable, respectable institutions of learning.

Certain responses revealed the controversial nature of some of the questions, especially those that dealt with the understanding and implementation of the contents of SASA. 72,77% of the respondents understand and implement the contents of SASA while only 27,23% did not understand or implement SASA. Principals and educators showed a lack of understanding and implementation of SASA when it comes to the abolishment of corporal punishment. As a law, this must be enforced and implemented by all without exception.

Another disturbing trend revealed by the investigation was a lack of total commitment to teaching and learning by both educators and learners (only 63,77% of the educators and 66,79% of the learners are committed). This lack of total commitment is further exacerbated by the tendency of both educators and learners to absent themselves and being tardy. Only 61,51% of the respondents do attend school and are punctual while only 46,99% of learners attend and are punctual. The rest, that is 53,01% of the learners, have not improved their attendance and punctuality since 1994 which is not conducive for continuous improvement. In paragraph 2.10.2.1, the first guideline for the development of TQM stated that total commitment to quality by top management and all involved is sought and should be encouraged. The fact that commitment of principals shows some improvement at 77,01% (Table 4.31) augurs well for TQM, although total commitment by all principals is needed if TQM is to be successfully implemented in all schools.

Although the majority of the respondents felt that they do possess skills for managing change (90,64%, Table 4.33); problem solving (92,34%, Table 4.41); negotiating (87,76%, Table 4.40); and communication (63,52%, Table 4.39), the majority of educators still lack these skills. This was revealed by the large number of respondents who did not respond to this (ranging from 30 to 32 missing frequencies). This study also revealed that all respondents were unanimous that the provision of adequate teaching facilities, classrooms, libraries, laboratories, security fencing as well as the supply of water, electricity, writing materials and textbooks have dramatically declined since the inception of changes in 1994. 48,85% of the respondents indicated that provision of the above is now worse than before 1994 (Table 4.29), while 42,37% of respondents

view the supply of water, electricity, writing materials and textbooks as the same as in 1994 (Table 4.30). Only 35,50% indicated that there is an improvement (Table 4.30). The aims of educational changes in the South African education system were also to address the imbalances that existed in the previous political dispensation (paragraph 1.1). Paragraph 3.2 also verifies this finding that change in South Africa is mostly about redressing the imbalances that existed in the previous political dispensation.

It was also determined that although most schools possessed most of the policy documents and laws, it was the understanding and the implementation that posed problems. Only 81,20% of the respondents (Table 4.48) indicated that the policies are being followed in their schools. 18,8% indicated that they are not being adhered to. Total quality management demands improvement regarding the implementation as well. It also became evident that even though there were respondents who saw no improvement as a result of the changes introduced and those who regard the situation as having become worse, the majority of respondents view the changes as bringing about continuous improvement (81,27%). Paragraph 3.2 indicates that change in South Africa means doing the same thing in a different way and that this different way must be the best way possible – the most effective way. This verifies the empirical research findings above. For this reason there is an existing basis on which to structure further planning with a view to entrenching and stabilising continuous improvement to ensure the school's survival.

4.11.4 Follow-up structured interview probe

The research findings also revealed that there is a discrepancy in the findings. While all the findings point to a situation of total quality management (95,8% of schools strive towards satisfying their customers) the practical situation for the past four years reflects a pass percentage of 45,17% (1998), 45,3% (1999), 58,4% (2000) and 60,9% (2001) respectively (Table 4.16). This indicates an improvement of 0,13%, 13,1% and 2,5% over the past four years which constitutes a very small percentage. The percentage (0,13%, 13,1% and 2,5%) albeit small, indicates an improvement but when compared to the 95,8% of the schools that seemed to be run along TQM-lines, it has to be acknowledged that there is a discrepancy. It was for this reason that the researcher undertook to conduct a follow-up structured interview probe to verify the findings. The results of the interview probe were as follows (see Annexure 2):

Five randomly selected respondents were subjected to a structured interview probe. Fifteen statements concerning total quality management were given and respondents were requested to answer either “yes” or “no”.

4.11.4.1 All five (100%) of the respondents contend that:

- ◆ their schools strive towards satisfying the needs and expectations of its customers;
- ◆ their schools view quality work as a means of improving customer satisfaction;
- ◆ attendance by all educators is good;
- ◆ all staff members are committed to continuous improvement of performance;
- ◆ there are quality schools which offer quality education in their circuits and/or districts;
- ◆ attendance by all learners on all school days is very poor; and
- ◆ punctuality by all learners on all school days is very poor.

4.11.4.2 Four (80%) of the respondents contend that:

- ◆ all educators in their schools teach all periods on all school days;
- ◆ learners are not committed to attending all periods on all school days;
- ◆ there is an improvement in parental involvement and support in their schools;
- ◆ the changes introduced since 1994 have brought about improvement in their schools; and
- ◆ their schools are “quality schools”.

4.11.4.3 Three (60%) of the respondents confirm that:

- ◆ punctuality of educators is not good; and
- ◆ there is no good discipline for learners.

4.11.4.4 Two (40%) of the respondents confirm that:

- ◆ there is no good discipline for learners; and
- ◆ punctuality by educators is good.

4.11.4.5 One (20%) respondent contends that:

- ◆ teachers do not teach all periods on all school days;
- ◆ learners are committed to attending all periods on all school days;
- ◆ there is no improvement regarding parental involvement;
- ◆ changes have not brought about any improvement; and
- ◆ his school is not a “quality school”.

All the results of the follow-up interview probe, and more especially paragraphs 4.10.4.1 and 4.10.4.2, point to total quality management run schools which further confirm what the preliminary findings yielded. Possible explanations for these findings could be the following:

- ◆ TQM or continuous improvement is an effective programme and that every educator wants to identify himself or herself with it.
- ◆ Everybody is talking about TQM and continuous improvement and that educators should deliver quality teaching to such an extent that no educator wants to be associated with mediocre performance any longer.
- ◆ Respondents want to tell the researcher what they think he wants to hear.
- ◆ There is indeed TQM going on in schools but that the process has not as yet stabilised.
- ◆ Legislation and structures have been put in place to ensure quality education in all schools and that it is just a matter of time before all schools become quality schools.
- ◆ All educators want quality education and continuous improvement.

The five respondents view the following as characteristics of a quality school:

- ◆ schools with visionary and quality leadership;
- ◆ schools with good parental involvement; and
- ◆ schools with good discipline for teachers and learners.

The above findings of the interview probe further point to the presence of total quality management in most schools and although continuous improvement of performance in practical terms is not as it should be (0,13% improvement on the 1999 results, 13,1% (2000) and 2,5% on the 2001 results), the message is clear. Schools as well as educators are geared towards continuous improvement of performance. The impact of the educational changes introduced by the new political dispensation since 1994 are steadily beginning to take root in educators, parents (4 out of 5 are saying there is an improvement) and schools, hence the findings in paragraph 4.10.4.1. It is interesting to note that all the respondents in this interview probe, like the respondents in the research project, regard discipline for educators and learners, visionary and quality leaders and parental involvement as crucial for the successful implementation of quality. This indicates that respondents know what quality entails and are indeed committed to total quality management or continuous improvement.

4.11.5 Value of thesis as contributory in the field of educational leadership and management

There is a relationship between the principles of total quality management, change and the research undertaken. (See Table 4.52.) The principles of total quality management are the essential element of total quality management and a focus on all of them brings about change in a school. The adoption and implementation of these principles imply a paradigm shift, namely involving all stakeholders in all educational matters, a focus on continuous improvement, improving the teaching and learning processes so as to bring about continuous improvement. All the above can be realised if there is a visionary and committed top management leadership.

The research undertaken was aimed at verifying or refuting whether the changes introduced since 1994 brought in the desired improvement in the output of education. The research suggested ways in which these changes should be managed if total quality management is to be fully achieved.

The value of this thesis in the field of educational leadership and management cannot be over emphasised. It adds to the few literature on total quality management in the South African education system. Its emphasis on school managers to take the lead in managing the changes effectively so as to be able to implement continuous improvement in their own schools is evident. It also helps managers in managing and accepting changes and also transmit the same

evident. It also helps managers in managing and accepting changes and also transmit the same evidence to those directly affected by change. Guidelines for the implementation of total quality management have been given which managers can adopt to suit their situations. Managers of change will find this thesis not only helpful but a source or reference in times of need.

Table 4.52: The relationship between principles of TQM, change and research

Principles of TQM	Change	Research
<ul style="list-style-type: none"> Commitment of management leadership (Daughty 1996:83; Weller & McElwee 1997:212) 	<ul style="list-style-type: none"> Leadership should show clear and visible commitment to change 	<ul style="list-style-type: none"> Top leadership take the lead in implementing total quality management
<ul style="list-style-type: none"> Customer focus first (Weller & Elwee 1997:209) 	<ul style="list-style-type: none"> Identifying the needs of the customers (parents, learners and stakeholders) Satisfy and or exceed the needs of customers 	<ul style="list-style-type: none"> Parental, learner and teacher involvement in the governance of the school Improvement on learner output-results
<ul style="list-style-type: none"> Total involvement (Lo & Scully 1996:21) 	<ul style="list-style-type: none"> All stakeholders of the school should be totally involved in the governance of the school to make TQM happen (top management, teachers, learners, support staff and parents) 	<ul style="list-style-type: none"> Top leadership, teachers, learners, parents support staff and interested stakeholders to be totally involved and work collaboratively to realise the vision of TQM
<ul style="list-style-type: none"> Manage with facts (Daughty 1996:85; Frazier 1997:12) 	<ul style="list-style-type: none"> Use of rational measurement to continuous improvement Decision making to be based on facts 	<ul style="list-style-type: none"> The use of quality tools for measuring customer satisfaction
Quality improvement (Bonstingl 1996:16; Weller & McElwee 1997:209)	Focuses on the continuous improvement of all processes on all levels and views no process as perfect	Discovering the root causes and applying remedies to remove the causes to ultimately attain TQM

4.11.6 Summary

This chapter gave an exposition of the aims and purpose of the empirical investigation as well as the delimitation of the research population. The research methods as well as the target population were discussed. The questionnaire was cited as the main method employed in this research project. The literature review method employed, formed the theoretical basis of this research project. 400 questionnaires were sent out and approximately 267 (66,75%, Table 4.1), respondents returned the questionnaires which makes generalisation of the research results extremely reasonable. The SAS-statistical package was used to code, as well as interpret the data. The preliminary findings were also discussed.

The following chapter will present a total quality management implementation model and brief explanations as to how its components should function.