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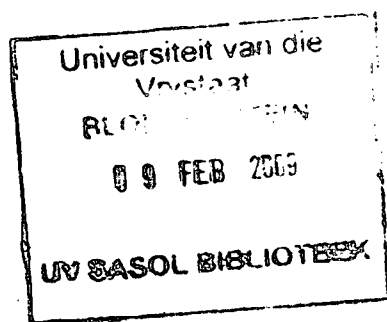
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**ASSESSMENT TOWARDS QUALITY  
IMPROVEMENT IN FREE STATE PRIMARY  
SCHOOLS: A MANAGEMENT CHALLENGE**

BY

**NALIZE MARAIS**

Submitted in accordance with the requirements for the degree

**MAGISTER EDUCATIONIS**

**(Interdisciplinary)**

in the

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EDUCATION MANAGEMENT**

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**JUNE 2007**

**SUPERVISORS:      PROF SM NIEMANN  
                             DR GS KOTZE**

## STATEMENT OF APPROVAL BY SUPERVISORS

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We, Prof SM Niemann and Dr GS Kotzé, hereby approve the submission of this dissertation and that it had not been submitted as a whole or partially to the examiners previously.

**Promoter's name:** Prof. SM Niemann

**Signature:** \_\_\_\_\_

**Date:** 5 June 2006

**Promoter's name:** Dr GS Kotzé

**Signature:** \_\_\_\_\_

**Date:** 5 June 2006

## DECLARATION

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I, **NALIZE MARAIS**, solemnly declare that the dissertation hereby submitted by me for the **MAGISTER EDUCATIONIS** degree at the University of the Free State is my own and independent work through the professional guidance of my promoters whose names appear on the title page. I have not previously submitted this dissertation at any other university/faculty. I furthermore cede copyright of the dissertation in the favour of the University of the Free State.

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### Article 1

Education in South Africa has undergone major transformations, in which the search for quality has remained dominant. Assessment quality is related to the continuous improvement of teachers' competencies in order to provide education which would address the needs of its customers (teachers and learners). Numerous evidence exists that outcomes-based assessment seems to be problem among teachers and research has revealed that quality management could be the vehicle to improve the quality of assessment in schools. In terms of Total Quality Management, aspects such as the focus upon customer needs and the quest for continuous improvement through staff development by the organisational leader (principal), could make a valuable contribution to quality education in the Free State Province.

A preliminary study revealed the relationship between staff development and teachers' attitudes towards outcomes-based assessment. Thereafter, a hypothesis was tested by means of the t-test to determine the efficacy of staff development as a vehicle for continuous improvement in schools. Furthermore a number of qualitative responses revealed respondents' views on staff development and exposed teachers' expectations from their school leaders to improve the quality of their assessment practices in Free State primary schools.

**Keywords:** quality; assessment; empowerment, continuous improvement

## Article 2

Quality in an organisation to a large extent depends on the leader who has to manage a system towards continuous improvement. A literature study revealed that the principles of Quality Management can be applied to manage the quality of assessment in schools. A preliminary study revealed that Free State teachers have a need for support and guidance to improve assessment practices in their schools. However, official South African documentation has not assigned assessment leaders in schools who can take the responsibility and manage the quality of assessment. Questionnaires were used to conduct an empirical investigation. The data was computed by means of linear regression, ANOVA as well as a Bonferroni post hoc test to determine the extent to which principals can contribute to quality teaching in Free State schools. The empirical investigation revealed teachers' need for assessment leaders who can inter alia create opportunities for staff development and establish a culture for quality assessment by taking responsibility for assessment in schools.

**Keywords:** quality management; assessment leadership; staff development

### Artikel 1

*Onderwys in Suid-Afrika het groot veranderinge ondergaan, terwyl die soeke na gehalte deurentyd dominant gebly het. Gehalte-assessering is onder andere verwant aan die kontinue verbetering van onderwysers se vaardighede sodat onderwys, wat die behoeftes van die kliënte (onderwysers en leerders) aanspreek, voorsien kan word. Daar bestaan heelwat getuienis dat onderwysers probleme met uitkomsgebaseerde assessering ervaar en dat gehaltebestuur as 'n moontlike instrument aangewend kan word om die gehalte van assessering in skole te verbeter. In terme van Totale Gehaltebestuur blyk dit dat aspekte soos die fokus op kliëntetevredenheid en die strewe na kontinue verbetering deur middel van personeelontwikkeling deur die organisasieleier (die skoolhoof) 'n waardevolle bydrae tot gehalte-onderwys in Suid-Afrika kan maak.*

*'n Voorafstudie om die verband tussen die bemagtiging van onderwysers en hul houdings jeens uitkomsgebaseerde assessering aan te dui, is onderneem. Daarna is die hipotese gestel en deur middel van die t-toets ondersoek om sodoende die doeltreffendheid van bemagtiging, as middel tot kontinue verbetering, te bepaal. 'n Aantal kwalitatiewe reponse het die deelnemers se siening angaande bemagtiging en hul verwagtinge ten opsigte van hul assesseringsleiers met die oog op die verbetering van die gehalte van assessering in Vrystaatskole, verder te ontbloot.*

**Kernwoorde:** *gehalte, assessering, bemagtiging, kontinue verbetering, gehaltebestuur.*



## **Artikel 2**

*Gehalte in 'n organisasie hang grootliks van die leier, wat die stelsel tot kontinue verbetering moet bestuur, af. 'n Literatuurstudie het getoon dat die beginsels van Gehaltebestuur aangewend kan word om die gehalte van assessering in skole te bestuur. 'n Voorafgaande ondersoek het getoon dat Vrystaatonderwysers 'n behoefte aan ondersteuning en leiding het om sodoende hulle assesseringspraktyke te verbeter. Desnieteenstaande, het Suid-Afrikaanse amptelike dokumentasie nie assesseringsleiers, wat die verantwoordelikheid moet neem en die gehalte van assessering moet bestuur, aan enige van die rolspelers in skole toegesê nie. Vraelyste is vir die empiriese ondersoek gebruik en die data is deur middel liniêre regressies, ANOVA en die Bonferroni post hoc-toets verwerk om die mate waarin skoolhoofde tot gehalte-onderwys in Vrystaatskole kan bydra, te bepaal. Die empiriese ondersoek het getoon dat onderwysers 'n behoefte het aan assesseringsleiers, wat onder andere personeelontwikkelingsgeleenthede skep en wat 'n kultuur vir gehalte- assessering vestig deur die verantwoordelikheid vir assessering in skole te aanvaar.*

**Kernwoorde:** *gehaltebestuur, assesseringsleierskap, personeelontwikkeling.*

## Orientation to the study

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This dissertation complies with Regulation G7.4.2 of the Faculty of Humanities of the University of the Free State, which determines that the final research report may be presented in the form of two related academic articles.

The dissertation with the title:

**Assessment towards quality improvement in Free State primary schools: A management challenge**

is presented in the form of two articles, namely

**Article 1: Assessment quality as South African curriculum challenge: an analysis of teacher empowerment in Free State primary schools**

**Article 2: Assessment quality in Free State Primary Schools: an educational leadership challenge**

### **Background to the study**

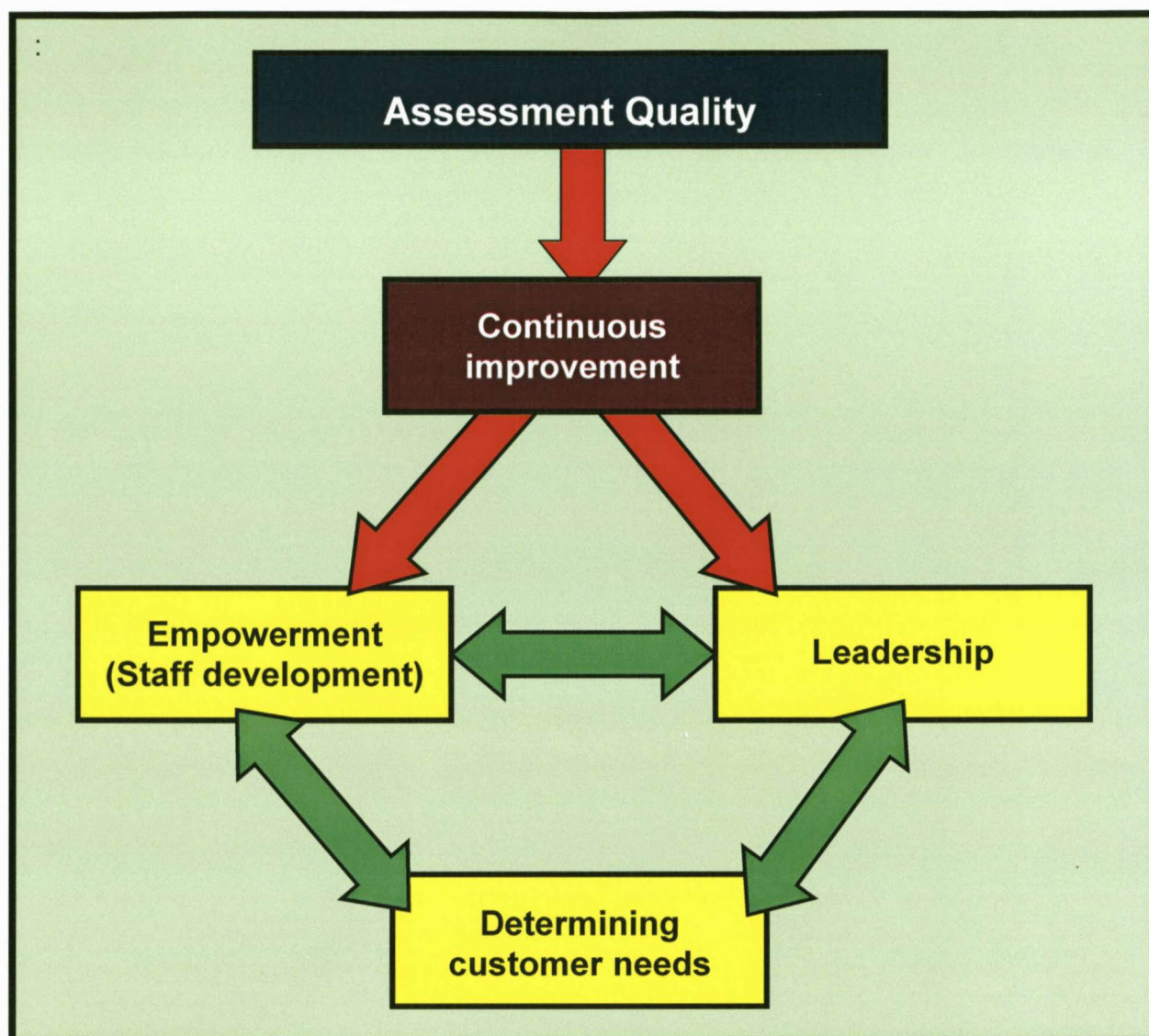
The focus on quality management programs which proposes the improvement of services and processes is an international phenomenon which has influenced transformation in South African education during the last decade. Accordingly reform in South Africa had to be aligned with the quality notion. The latter implies an education system in which a diversity of learners may achieve their maximum potential, as the quality of any service is determined by its customers. Some of the main aspects of South African education reform have been the development of an integrated approach to education and training, based on a National Qualifications Framework and the introduction of a new curriculum underpinned by outcomes-based education. Transformation in education resulted in the implementation of an outcomes-based curriculum which called for new approaches in teaching

methodology and assessment, and in effect redefined the roles of teachers, learners and school managers.

### **Problem statement**

The South African media continuously reports that teachers find the challenges regarding OBE very demanding, especially because of a lack of preparation for the paradigm shift towards the new approach to teaching. In order to implement outcomes-based assessment successfully, there are a number of fundamental assessment concepts, principles, techniques and procedures that teachers and administrators need to master, however, the relatively small emphasis on assessment empowerment remains a problem in South African education sector. The latter could have contributed to the prevailing negativity and resistance towards OBE, especially with regard to assessment, its recording and reporting.

Various models for Quality Management such TQM, the Baldrige Quality Awards Models, Six Sigma and the ISO 9000 had been investigated to serve as directions for the management of assessment quality in schools. Total Quality Management (TQM), seems to be a possible model for managing quality as it emphasises the expansion of the capacity of continuous improvement, which demands a leader (in this case an assessment leader) who can facilitate empowerment in order to constantly develop teachers' assessment skills. Improving the quality of assessment inter alia relies on empowerment of the teachers and the educational leaders (who should take the responsibility of the quality of assessment) in the school. Accordingly, the leader may create opportunities for school based staff development, which provides the capacity for teachers to improve their professional skills. As a result, teachers' assessment competencies could be improved by sound leadership which seem to be vehicle for quality education.



It is against the latter background that the TQM principles may contribute to improve assessment practices in schools. The *National Protocol on Assessment* (2005) as well as the *Draft Assessment Policy* (1998) recognises the role-players in assessment, but does not assign leaders to take the responsibility. The latter imposes further research to determine whether there are need for support and guidance regarding assessment in Free State primary schools. Furthermore it is necessary to verify whether principals are contributing to the quality of assessment practices in schools. The contents of this dissertation consist of two main themes; empowerment and leadership, which are to be investigated in the **two articles** to follow.

Assessment quality in Free State  
primary schools: an analysis of  
staff development

*Nalize Marais*

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# Assessment quality in Free State primary schools: an analysis of staff development

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## **Abstract**

*Education in South Africa has undergone major transformations, in which the search for quality has remained dominant. Assessment quality is related to the continuous improvement of teachers' competencies in order to provide education which would address the needs of its customers (teachers and learners). Numerous evidence exists that outcomes-based assessment seems to be problem among teachers and research has revealed that quality management could be the vehicle to improve the quality of assessment in schools. In terms of Total Quality Management, aspects such as the focus upon customer needs and the quest for continuous improvement through staff development by the organisational leader (principal), could make a valuable contribution to quality education in the Free State Province.*

*A preliminary study revealed the relationship between staff development and teachers' attitudes towards outcomes-based assessment. Thereafter, a hypothesis was tested by means of the t-test to determine the efficacy of staff development as a vehicle for continuous improvement in schools. Furthermore a number of qualitative responses revealed respondents' views on staff development and exposed teachers' expectations from their school leaders to improve the quality of their assessment practices in Free State primary schools.*

## **1. Introduction**

Internationally, education is undergoing a revolution where the pressures of society demand sites of learning to develop competent citizens, capable of flexible thinking and independent learning. The quality of education will have a significant effect on South Africa's ability to compete in the global marketplace, as quality education is a prerequisite for sustainable development. Less than 40% of learners who enrolled for Grade 1 (1991) reached Grade 12 in 2002 and only 13.7% of the learners who passed matric proceeded to higher education (Chisholm, 2004: 1). The small



number of learners in higher education seems to result in a lack of expertise in the South African labour market, therefore unmistakably demanding an investigation into the improvement of the quality of education in schools.

Prior studies have shown that quality concerns the development of staff in order to improve the service provided to fulfil the needs of the customers (Kanold, 2006; Svensson, 2004; Arcaro, 1995(a), Arcaro, 1995(b) and Sallis, 1996). Quality education *inter alia* relies on the quality of classroom assessment as assessment is interrelated with teacher decision-making and instruction (McMillan, 2004: 8). Consequently, schools should respond to assessment challenges by facilitating the continuous improvement of assessment practices to enhance assessment quality in South African classrooms. The latter implies a continuous commitment towards excellence in assessment practices to satisfy the education needs of the learners, their parents and the community (Chien, 2007: 196 – 198 and Sallis, 1996: 16). Managing quality in a school implies that schools should verify who their customers are in order to determine their needs and expectations (Fitzgerald, 2004: 1 and Arcaro, 1995(b): 12).

## **2. Assessment quality in South African education**

Quality demands that anything being done may probably be done better (De Bono, 2005: 62), which means that improvement and quality go together. Schools should therefore engage in a system of continuous improvement in order to achieve goals and progress towards excellence. Thomas (2003: 234 - 235) defines the principle of continuous improvement as a requirement of quality in education. Thomas (2003: 234 - 235) further stresses that effective education facilitates progression, which relies on the development and improvement of knowledge and skills.

In 1994 the ANC (Part 1, Section 3) proposed that quality education for all children requires major investments in the South African education system. Improving the quality of education requires additional facilities and teachers, as well as the re-thinking of structure, curriculum and certification. Reform in South African education

should consequently be aligned with the quality notion which, according to Mehrotra (2002: 1) addresses the functioning of a system in order to establish a context in which learners may achieve their maximum potential. One of the main aspects of South African education reform has been the development of an integrated approach to education and training, based on a National Qualifications Framework and the introduction of a new curriculum underpinned by outcomes-based education (Motala, 2001: 63).

The National Department of Education (1998: 4) recognises one of the driving forces behind educational reform as the desire to improve standards, in terms of knowledge, skills and values which in turn requires a focus on their attainment. Accordingly, the *Revised National Curriculum Statement* (RNCS) (DoE, 2002) portrays the assessment standards which underlie the learning outcomes of every learning area while the *National Protocol on Assessment* (DoE, 2005) guides classroom assessment practices. The *RNCS* and the *National Protocol on Assessment* are thus mutually reliant.

It is against the abovementioned integrated approach to education and training that the views of Potenza and Monyokolo (1999: 231) on the success of educational transformation are valued. Potenza and Monyokolo emphasise that the processes of curriculum development, teacher development and the development of learning materials should be aligned. The latter implies appropriate preparation and sufficient training in order to prepare teachers for the implementation of the new curriculum. Accordingly, teachers will be able to implement the new curriculum successfully and meet the learners' education requirements. Chisholm (2003: 3) emphasises that while there has been overwhelming support for the principles of outcomes-based education, its implementation has been confounded by a lack of alignment between the curriculum, the assessment policy and the orientation, and the training and development of teachers. The latter is supported by the views of Arif, Smiley and Kulonda, (2005: 5), who stress that success, is only possible if the three levels of implementation are aligned at senior leader, key process and school level. A relevant example of an unaligned process is that the *RNCS* had been implemented in

2002, while teachers received official guidelines for assessment when the *National Protocol on Assessment* was introduced only during 2005 and received the addenda to the *National Protocol on Assessment* only in 2006. The fact that South African teachers experienced outcomes-based assessment as frustrating may be ascribed to the abovementioned lack of alignment - implying a need for direction and training.

### **3. Problem statement and preliminary study**

#### **3.1. Problem Statement**

It is widely agreed by South African education policy-makers and leaders that a paradigm shift in assessment is required in order to ensure that assessment practices guide, support and underpin our transformative outcomes-based model for education (Pahad, 1999: 247). The outcomes-based assessment policies (DoE, 1998 and DoE, 2005) expected teachers to change the fundamentals of their assessment practices, however, previous studies on assessment reveals that insufficient planning and preparation for the implementation of outcomes-based assessment had a negative influence on teachers' experiences after the implementation of the new assessment policy (Fleisch, 2002: 131 and Chisholm, 2003: 3). Furthermore in-service training in South Africa has tended to focus on procedural and bureaucratic function – such as how to fill in and calculate marks sheets – rather than helping teachers to understand the rationale and potential of outcomes-based assessment (SchoolNet Africa, 2003).

The above inconsistencies which seem to result in frustration among teachers, are supported by the media, revealing a great deal of criticism, countering outcomes-based assessment (Beeld, 2004; Rapport, 2005, Business Day, 2005; Burger, 2005(a); Beeld 2005; Burger 2005(b); Beeld, 2006; Volksblad 2006(a); Rapport, 2006 and Volksblad 2006(b)). The unconcealed discontent among teachers, expressed in the media and previous research on assessment, is based on the apparent lack in training and development. Accordingly Stiggins (2004:22) proclaims that we have inherited an assessment legacy that has actually prevented us from tapping the full

power of assessment as a tool for school improvement. The preceding discrepancies, based on a lack in staff development (training) impose one to question the quality of assessment.

As this study focuses on primary school teachers in the Free State (N = 13 637) who represent about 6.08% of the target group (N = 224 439) (DoE, 2006: 18, 19), one may assume that teachers in this province could also be experiencing a need for continuous improvement. A lack of staff development might induce their attitudes towards outcomes-based assessment, but in order to scientifically ground the preceding assumption a preliminary study has been conducted in Free State primary schools.

### **3.2. Preliminary findings**

For the purpose of the preliminary investigation, 80 questionnaires were distributed randomly among teachers from urban (61.33%) and rural (38.67%) schools in the Free State. The participants were randomly selected from the population of primary school teachers in the province (N= 13 637). The questionnaires were disseminated among the participants and immediately returned to the researcher after completion, therefore a 100% return rate was obtained. As this had only been a preliminary study, a small sample was considered sufficient, but it nevertheless remains important to use a reliable and valid questionnaire. The reliability of the research instrument was determined by the Cronbach Alpha coefficient, revealing a high reliability coefficient of 0.9214. External validity (Cooper and Schindler, 2006: 318) was ensured by the representative sample of respondents which was made up of 68% female teachers and 32% male teachers, approximately portraying the male-female teacher composition in Free State schools (DoE, 2006: 17). The items measured were related to whether teachers experienced their assessment competencies as sufficient and if not, what they regarded as necessary to contribute to the continuous improvement thereof. Because the research items in the questionnaire would provide evidence contributing to theory-building, the construct

validity of the questionnaire was consequently enhanced (Cooper and Schindler, 2006: 320,720).

The data obtained from the questionnaires were processed by means of Excel for descriptive purposes and by means of the STATA data processing programme to determine relationships between the responses.

Firstly it became evident that 63.78% of the teachers regarded their skills and knowledge of assessment as insufficient implying that a need for improvement as necessary. Secondly a linear regression was used to reveal the relationship between staff development and the teachers' views of outcomes-based assessment. The calculated r-value (0.5944) is larger than the critical r-value (0.3248) (Ary, Jacobs and Razavieh, 2002: 548) for a 99% confidence level. One may therefore regard the correlation as significant. From the above correlation it is apparent that the more teachers had been exposed to staff development activities, the more positive they became towards outcomes-based assessment.

South African teachers' frustration (customer dissatisfaction) concerning outcomes-based assessment is substantiated by the results of the preliminary investigation, which also accentuated the problem concerning the lack of sufficient staff development. The fact that teachers find themselves on the receiving end of implementing outcomes-based education necessitates a study on how staff development could contribute to the attainment of assessment quality.

### **3.3. Purpose of the study**

The purpose of this study is to explore the relationship between the improvement of teachers' assessment competencies and staff development, and extending the study to identify the most appropriate type of staff development for improving quality. The possible relationship is to be tested by the following hypothesis:

*There is a significant relationship between staff development for improving teachers' assessment competencies, and assessment quality.*

The null hypothesis was set from the above hypothesis, that is:

*There is no significant relationship between staff development for improving teachers' assessment competencies, and assessment quality.*

#### **4. Theoretical point of departure**

The work of Deming (Dale, Wu, Zairi, Williams and Van der Wiele, 2001: 444), Juran (2005), the Baldrige Award for Education (Arcaro, 1995(a)), as well as the Six Sigma (2002) and ISO 9000 models on quality reveal a number of quality indicators focusing on, amongst others, aspects such as customer satisfaction and continuous improvement. Against the above background it implies that these quality management principles may contribute to improving schools and according to Fitzgerald (2004: 1) might enhance the progression towards quality classroom assessment.

As already mentioned the continuous improvement of the quality of the education service is largely determined by its customers (Sallis, 1996: 17). A service which suits the customers' needs, have to account for practical usefulness, implying focusing on fitness for purpose and what works in practice. The latter could be associated with a pragmatic approach; a philosophy which *inter alia* encourages organisations to select those processes which enable people to achieve the best they can. True to the pragmatic style, John Dewey believed that even teachers could and should educate students around their intellectual interests and needs (Arif, Smiley and Kulonda, 2005: 4). The above approach which focuses on customer satisfaction and the continuous movement towards improvement also forms, according to Arcaro's model (1995:21), two of the pillars of Total Quality Management (TQM).

TQM concentrates among others on the external and internal customers, as well as improvement which is a continuous process, where the management of the process plays an important role (Brits, 2005: 1035). TQM, therefore implies managing an organisation by continuously analysing the customers' needs and accordingly creates opportunities for staff development in view of improvement. In terms of the transition to an outcomes-based education, the reality in South Africa means that teachers need development and training to improve the quality of their teaching. As indicated, the problems that teachers encounter with assessment, necessitates further research into the matter in order to find possible solutions to the problem. TQM might be a viable option in this regard as it requires a leader to evaluate the current development needs of teachers (an analogy to customer needs) regarding classroom assessment, and accordingly strives to develop their skills to enhance the quality of assessment (implying the search for continuous improvement).

Although this study views the TQM approach as a possible management solution, this study does not negate the neo-liberalistic character of the approach and acknowledges criticism on TQM. The TQM critics divide their concerns about the approach into a number of perspectives of which the following reflects the core. One perspective about quality management in schools emanates from the point of view that TQM implies an economisation of the education sector and an introduction of a new set of values that challenge the traditional pedagogical value of education (Svenson, 2004: 168). Another view is presented by Bergquist, Fredriksson and Svensson (2005: 315), who states critically that TQM places customer experiences in relation to customers' expectations and consequently introduces a new set of values that also challenge the traditional educational ideals. The preceding may reduce the quality of teaching and assessment to the extent to which the expectations of learners, parents and the community are met; rather than the actual intellectual level and academic value of teaching and assessment.

The above criticism against the Total Quality Management viewpoint may be absolutised, but this study recognises the positive elements of the approach which requires that an organisation needs to improve and adapt to the customers' expectations on a continual basis. This implies that new assessment knowledge and skills may be acquired by teachers with the aim of improving education as a whole.

In the above context of continuous improvement towards customer satisfaction, outcomes-based education draws a parallel with the principles of TQM, as outcomes-based education also proclaims that all "learners" can learn and be successful (Spady, 1994: 8). Teachers, therefore, need to be provided with learning opportunities to continuously improve their knowledge and skills until they have mastered a learning outcome.

## **5. Research design**

In order to scientifically investigate the issue at stake, a literature study was initially conducted to investigate various quality management theories, as well as issues on outcomes-based assessment. The literature study enabled the researcher to establish basic criteria for quality teaching and assessment. These criteria were used to conduct a quantitative investigation by means of a researcher-developed questionnaire. The questionnaire aims to explore the type of staff development needed by teachers, as well as the relationships that exist between the type of staff development they receive and teachers' perceived improvement in their assessment competencies. An open-ended question provided qualitative data, providing an in-depth view of teachers' expectations regarding staff development and its implications for school management. Triangulation was used to designate a conscious combination of quantitative and qualitative data, as both methods were applied to investigate a single research problem (De Vos 2005: 361).



## **5.1. The research instrument and analysis**

Data were obtained by means of a questionnaire that was completed by 332 of the 400 Free State primary school teachers to whom questionnaires had been sent, implying a return rate of 83%.

The questionnaire was developed by the researcher who primarily used principles of quality teaching, management and assessment as a foundation. The questionnaire was divided into four sections: Section A requested the respondents' demographic information, Section B dealt with their attitudes towards staff development, Section C with their assessment abilities and Section D contained an open-ended question on teachers' staff development requirements. A Likert-scale was used in Section B to assess teachers' attitudes towards the staff development opportunities to which they had been exposed and particularly attempted to reveal teachers' perceptions regarding the effectiveness of the different types of staff development. Section C investigated the teachers' insight and understanding of outcomes-based assessment and contained questions which required the respondents to choose between various assessment tasks for a number of situations such as:

- formative assessment;
- co-operative learning;
- problem-solving;
- appropriate tasks for assessing learners' ability to analyse;
- methods to assess learners' reasoning skills;
- authentic assessment; and
- grading scales.

In constructing Section C of the questionnaire, internet and literature sources were consulted (DoE, 2006(b); Making history, 2005; Bryanlee Publishers and Consultants, 2005; McMillan, 2004; Western Cape DoE, 2002 and Hart, 1994). Assessment forms an unlimited area of teachers' competencies. Due to the restrictions of this research project only a few competencies were tested. These competencies that

were included in the questionnaire were primarily based on the critical outcomes (DoE, 2002: 11) that every learner need to achieve, e.g. analyzing, working co-operatively, reasoning, communicating and recognizing that problem-solving contexts do not exist in isolation (authentic assessment). Each assessment task was awarded a particular score (5 – 1), starting with the highest score for the most appropriate answer. The overall score of the responses in Section C was then used to reflect the teachers' understanding of assessment. After statistical analysis of the data had been conducted by means of the STATA program, the qualitative responses in Section D were coded according to the categories of meaning that emerged from the open-ended question.

## **5.2. Sampling**

The population of Free State primary school teachers (N = 13 637), may be divided into three sub-populations, namely teachers in rural areas, townships and in urban areas. Accordingly, the sample size was determined by means of disproportionate stratified sampling. Each stratum was large enough to secure adequate confidence levels and an error range estimate for individual strata (Cooper and Schindler, 2006: 418). The respondents depict a practical representation of the educator population (urban = 42.77%, township = 40.88% and rural = 16.53%), as there are more educators in urban and township areas, than in rural schools in the Free State. The sample also represents 74.05% female teachers and 25.95% male teachers which is an reasonable reflection of the male-female ratio (1:3) (DoE, 2006: 19) in Free State primary schools.

## **5.3. Reliability**

The research instrument may be regarded as reliable, because the items on staff development (items 15 – 17) revealed a Cronbach Alpha coefficient of 0.8859, while teachers' experiences of assessment workshops (items 12 – 14) has a Cronbach Alpha coefficient of 0.8607. In addition, Zumbu and Rupp (2004: 81) mention that reliability is akin to determining the ideal sample size for the project, because

practical consideration will eventually be the ultimate determining factor for test construction and analysis methods. The latter corresponds with Cooper and Schindler (2006: 318) who mention that practicality is one of the fundamental criteria for evaluating a measurement tool.

#### **5.4. Validity**

The research findings in this study may be generalised across the population, because the population of educators in the Free State rightfully represents gender and location as fundamental strata of the target group, i.e. (Cooper and Schindler, 2006: 318), enhancing external validity. Content validity was enhanced by ensuring that the investigative questions regarding assessment quality and staff development had been guided by a grounded study on assessment and quality in education (Cooper and Schindler, 2006: 318 and Kerlinger and Lee, 200: 667).

#### **6. The relationship between staff development as vehicle of continuous improvement and assessment quality**

As indicated, continuous changes and transformation in education demand major improvement in the quality of education. Quality in schools may be managed by applying various models for quality management. As indicated, this investigation focused on the teachers as customers of staff development activities. Staff development in schools is required to equip teachers for their task as assessors in the classroom and therefore contribute to the improvement of the quality of education in South Africa. The principle of customer satisfaction may also be extended to the learner because if teachers' assessment competencies are improved, they are able to provide a service that meets the needs of the learners in their classrooms. The concept of customer satisfaction and the necessity for continuous improvement will hence be viewed in more detail and substantiated by empirical data.

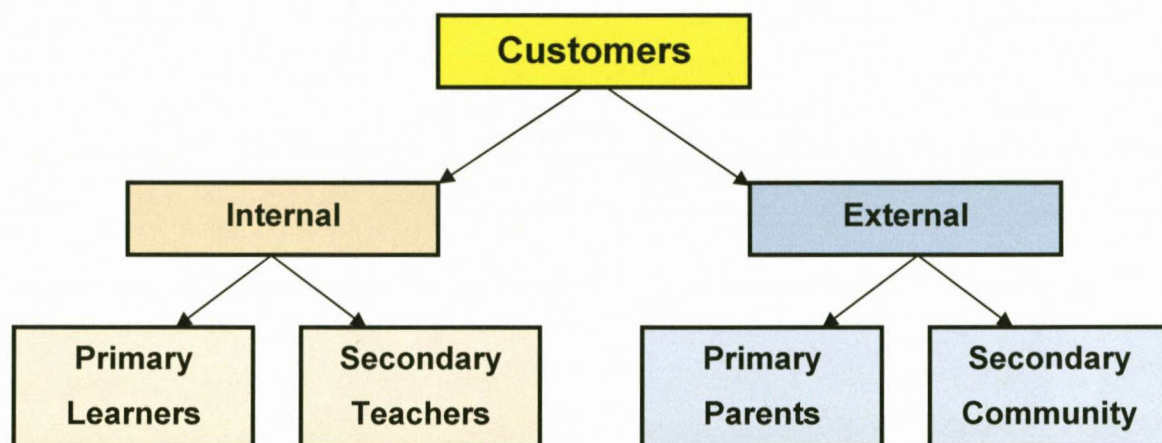
## 6.1. Customer Focus

In the world of business, organisations depend on their customers and therefore should understand current and future customer needs so as to meet their requirements and strive to exceed customers' expectations (Global Quality Village, 2005: 1). Because education as a profession is closely related to its customers, quality teaching and learning, and also assessment should be imbued with the interests of its customers. Although every member in the organisation should focus on the needs of his/her customers, the manager finally remains accountable. In the school where the principal *inter alia*, acts as the curriculum leader, he/she should initiate the quality improvement process by identifying and addressing the factors that contribute to customer satisfaction. In the school, however, there are a variety of customers, which implies that a school should serve customers at various levels with dissimilar needs and expectations.

This study recognises the learners as the primary customers of education, while the teachers represent the secondary customers (Sallis, 1996: 24). The principal (curriculum leader) should therefore facilitate the development of teachers' knowledge and skills with the intention of continuously improving their teaching practices in order to meet learners' educational needs. If the frustration of teachers regarding outcomes-based assessment, as mentioned earlier, is considered, their need for staff development becomes evident, because teachers who do not possess the necessary assessment competencies, will in turn be unable to meet the diverse needs of the customers in their classrooms.

The customers in the school context may be divided into several groups which are linked to the educational processes. Pereira and Da Silva (2003: 3) have classified the customers into external and internal groups, emphasising that internal customers are those who work to satisfy external consumers. Furthermore, Sallis (1996: 24) distinguishes between primary and secondary customers. Primary customers are those who are responsible for the functioning of the organisation by constantly improving their skills to provide a quality service, while the secondary customers can

be regarded as those who are on the receiving end of the service provided. Arif, Smiley and Kulonda (2005: 1) provide a further classification, namely internal and external customers, classifying the internal customers of the education service as the teachers and the learners, and the external customers as those outside the boundaries of the school such as the parents and the community. According to the above it seems as if the location of the customers in the education process, determines their classification as illustrated in Figure 1.



**Figure 1: Customer profile for Outcomes-Based Education (Adapted diagram from Kanji and Tambi, 1999)**

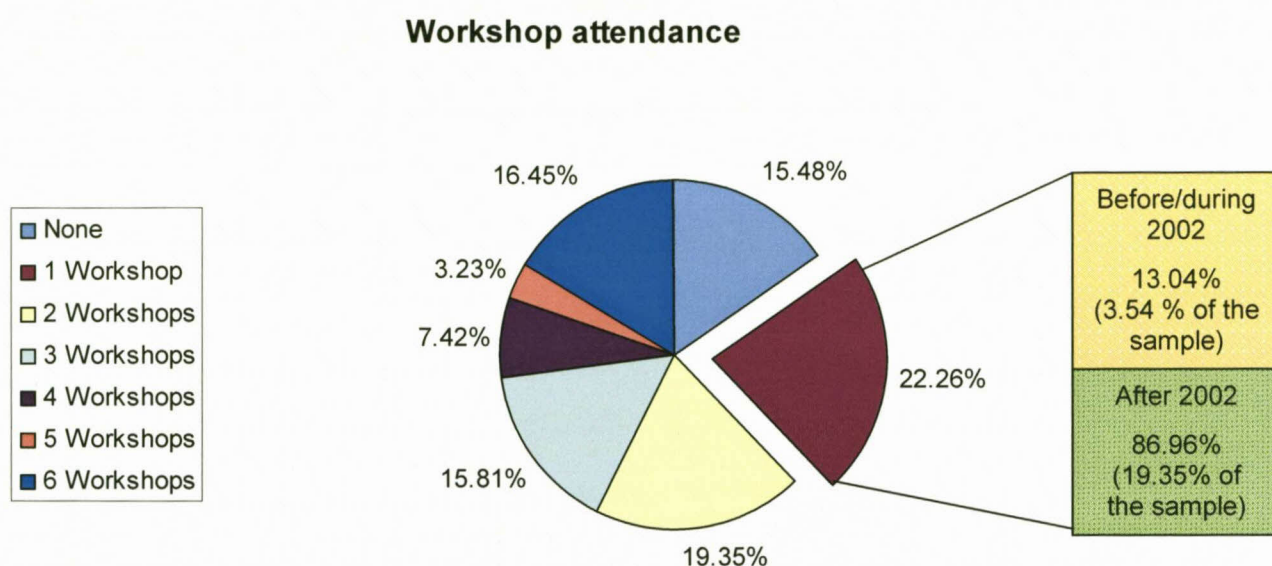
Colantonio (2005: 26) further contends that education is not solely driven by the needs of its customers (teachers and learners), but that education is also a primary agent of transformation towards sustainable development, increasing people's capacities to transform their visions for society into reality (UNESCO, 2005: 28). Therefore, the changes that teachers and policy makers implement should continue to meet the needs of education as defined by the community and the leaders in the public sector. However, this study focuses only on the needs of the internal customers, who are represented by teachers and learners, as they are the key role-players in the assessment process.

Because outcomes-based education has to be facilitated in a learner-centered environment, teachers' assessment practices should account for the level and competence of their learners. McMillan (2004: 5) mentions the importance of specific assessment skills, tools, knowledge and attitudes which teachers need to develop, in order to integrate assessment and learning to a satisfactory extent. Teachers need as prerequisite, continuous professional development to facilitate quality teaching, assessment and the growth of multi-skilled learners, requiring an operational plan to ensure quality (Tsiakkiros, 2005: 7). It is in the latter context that Rwentala (Daily Dispatch, 18 April 2002) emphasises that the above preconditions for the successful implementation of outcomes-based assessment was lacking in the South African education system. It seems as if the level of staff development has not been achieved in time for the implementation of the transformed curriculum. Apparently, training for outcomes-based education mostly focused only on the provision of suitable materials and the development of a learner-centered teaching environment. A Sunday Times spot-survey pointed out that training workshops were presented too late and that the trainers did not know enough to give practical examples or to demonstrate outcomes-based lessons and assessment (Sunday Times, 8 July 2001).

In the light of the above, this study particularly highlights staff development for the improvement of outcomes-based assessment, whereby section B of the questionnaire investigated the issue of assessment workshops. The indictment on the unsatisfactory status of training in outcomes-based assessment is supported by Figure 2 below, which portrays a descriptive analysis of the data concerning the attendance of workshops presented by the Department of Education. Figure 2 illustrates that 15.48% of teachers have never attended any workshop on assessment. Furthermore it was determined that 84.52% of teachers did attend workshops, of which 22.26% attended one workshop only. Of the mentioned 22.26% of teachers who attended a workshop, 86.96% (19.35% of the total sample) attended the workshop on outcomes-based education after 2002. The latter implies that a large number of teachers had to implement the new curriculum during 2002 without any relevant training regarding outcomes-based assessment.



**Figure 2: Attendance of assessment workshops by Free State educators**



The information regarding the attendance of workshops, as illustrated in Figure 2, substantiates the fundamental problem in South African schools, as explained in the problem statement, namely that teachers are experiencing changes in their teaching practices, but show a lack in the necessary skills due to a shortage in training. This may account for the teachers' discontent as a result of the change to outcomes-based assessment. As already mentioned, teachers need to improve the quality of teaching by engaging in professional development, to improve their assessment competencies and consequently meeting the learners' (the primary customers) needs.

## 6.2. Continuous improvement

The outcomes-based education approach aims at the development of a high level of knowledge and skills for every learner. According to Du Toit and Du Toit (2004: 5) teachers should provide more than one opportunity for learners to demonstrate if they have mastered the outcomes. Assessment in South African schools has changed from the traditional process that permitted some learners to give-up, to a process that encourages success. Not only should teachers focus on an approach that

emphasises effective learning by means of the continuous acquisition of new knowledge and an unremitting improvement of skills, but also of managing progression in the classroom. Notwithstanding this new approach towards success, Professor Crain Soudien (City Press, 9 July 2006) said at a recent Assessment in Education Conference that schools are still not functioning as they should, because teachers appear to be failing which might mean that the search for the continuous improvement of assessment practices has been disconnected from the development of the everyday instruction processes. The latter concern is shared by Stiggins (2001:5) who refers to the incoherent development in teachers' assessment and teaching skills, as well as the lack of assessment leadership that has kept classroom assessment from reaching its potential as a school improvement tool.

### **Staff development by means of departmental workshops**

The empirical investigation of this study further investigated the views of Soudien and Stiggins mentioned above. Items 15 – 17 of the questionnaire focused on the need for the improvement of teachers' assessment skills while items 12 – 14 the questionnaire focused on teachers' experiences of assessment workshops which have been measured by means of a Likert-scale. The respondents were asked to indicate their perceptions of the efficacy of the departmental assessment workshops they had attended. Only 40.91% of the respondents regarded departmental workshops on assessment as effective for the improvement of their skills. However, it is not possible to draw conclusions from the above statistics, before it has been scientifically determined whether the teachers, in fact, lack assessment competencies.



**Table 1: Results of section C: teachers' assessment competence**

Item		N	Scored below average		Scored above average		Mean
			N	%	n	%	
32	Authentic assessment	237	164	69.20	70	30.80	1.548
33	Assessing learners analyzing skills	228	134	58.77	94	41.23	1.819
34	Assessing reasoning skills	234	110	47.01	124	52.99	2.199
35	Co-operative learning	248	162	65.32	86	34.68	1.783
36	Reading proficiency	210	132	62.86	78	37.14	1.271
Total: Assessment competence		290	227	78.28	63	21.72	

Table 1 portrays the results of Section C of the questionnaire, which dealt with teachers' assessment competencies. It seems as if the respondents found it difficult to conduct authentic assessment as only 30.80% of the respondents chose an appropriate task to conduct authentic assessment. Most of the respondents (52.99%) found it easy to choose an appropriate task to assess reasoning skills. According to Table 2 a mere 21.72% of the respondents revealed an overall score which will reflect an above-average assessment competence, while 78.28% encountered problems with assessment, implying a failure to successfully execute their task as assessors.

According to Figure 2 (cf. pp. 18) 15.48% of teachers had never attended any departmental workshop on assessment, while 84.52% indicated that they did attend such a departmental workshop. The fact that there had been two distinctive groups (teachers who attended workshops on assessment and those who did not) enabled the researcher to conduct a t-test (Cooper and Schindler, 2006: 506 & Acock, 2006: 130) in order to determine whether departmental workshops in particular could have had a significant effect on their assessment competencies.

**Table 2: The effect of assessment workshops on teachers' assessment competencies**

	Teachers' assessment competencies						
	N		Mean		Std dev	df	t-value
	Teachers scoring below average on assessment competencies	Teachers scoring above average on assessment competencies	Teachers scoring below average on assessment competencies	Teachers scoring above average on assessment competencies			
I attended departmental workshops on assessment skills	227	63	1.9391	1.3810	1.5957	270	1.8988

The above results of the t-test revealed an observed t-value of 1.8988, which is **smaller** than the critical t-value of 2.576 ( $p = 0.10$ ) (Cooper and Schindler, 2006:672). Consequently it is evident that there is no significant difference between the competencies of the teachers who had undergone training at departmental workshops and those who did not. The abovementioned findings emphasise that departmental workshops do not seem to be the answer to the problem concerning appropriate staff development. Therefore an investigation into staff development in schools had become necessary in order to determine whether it has an influence on teachers' assessment practices.

**Staff development activities in schools**

The two groups of means: scoring above and below average in the assessment competencies test enabled the researcher to conduct another t-test to determine whether staff development in schools have had an influence on teachers' assessment. Table 3 reveals the frequency of staff development activities in schools, while Table 4 provides the results of the t-test.

Table 3: Frequency of staff development in schools

Item	Indicate how often the following takes place at your school	N	1		2		3		4		5		Mean
			n	%	n	%	n	%	n	%	n	%	
15	Staff development that are focused on the development of assessment skills	286	38	13.29	66	23.08	102	35.66	64	22.37	16	5.59	2.707
16	Staff development results in noticeable improvement in assessment practices in our school	268	34	12.68	64	23.88	104	38.81	44	16.42	22	8.21	2.695

Table 4: The influence of staff development in schools on teachers' assessment competence

	Teachers' assessment competencies							df	t-value
	n		Mean		Std Dev				
	Teachers scoring below average	Teachers scoring above average	Teachers scoring below average	Teachers scoring above average	Teachers scoring below average	Teachers scoring above average			
Staff development that are focused on the development of assessment skills	210	59	2.795	2.424	1.186	1.429	267	2.0282*	
Staff development results in noticeable improvement in assessment practices in our school.	194	57	2.814	2.281	1.181	1.436	249	2.8496**	

\* Significant (p = 0.05)

\*\* Significant (p = 0.01)

The above comparison revealed observed t-values of 2.0282 and 2.8496, which are both **higher** than the critical t-values of 1.960 (p = 0.05) and 2.576 (p = 0.01) (Cooper and Schindler, 2006:672). The above findings could possibly be attributed to the fact that respondents have undergone staff development activities within the school which they regard as more focused on the development of their assessment skills. The results of the t-test (cf. Table 4) confirm that there are significant differences between the two groups of means, which illustrate that staff development in schools seem to have a more valuable influence on the assessment competencies of teachers. Teachers who indicated that they had been exposed to regular *staff development*

*activities that had a noticeable improvement on assessment practices in their schools*, scored significantly higher in the assessment test. The observed t-value of 2.8496 is higher than the critical t-value (2.576,  $p = 0.01$ ) (Cooper and Schindler, 2006:672), which reveals that staff development that takes place in the school, is a possible solution to improve teachers' assessment competencies, which in return could relieve their assessment frustrations. When staff development becomes a possible solution, it implicates the principal becomes an important role player in the process of teacher staff development (Clement and Vandenberghe 2001: 54). The outcome of the t-test (Table 4) substantiates the need for staff development, as there are a disturbing number of educators who have not received the necessary assessment training (cf. Figure 2). The latter confirms that staff-development seems to be the most plausible method for continuously improving the assessment quality in classrooms.

The quantitative findings confirms prior research by Bernhardt (2004:3), who emphasizes that staff development becomes valuable if the curriculum leader facilitates the process and creates an environment in which opportunities for teachers to learn and share are provided. Every school therefore needs an assessment leader who has the responsibility of creating a culture of continuous improvement which includes a variety of opportunities for teachers to interpret standards, develop quality assessments, and foster quality instruction.

As indicated earlier, the questionnaire also included an open question which had as its aim the gaining of insight into what the respondents expected from their principals in the empowerment process. The qualitative responses were analysed, coded and clustered according to themes that arose from the data (Terre Blanche, Durheim and Kelly, 2006: 324-326; De Vos, 2005: 338 - 339). Main themes that emerged from the data were identified which enabled the researcher to organize the data according to a set of related themes. The various themes reflect teachers' expectations regarding their school leaders' (learning mediator's) contribution towards improving their assessment skills. Because theoretical saturation occurred when the data had been

analysed, the data may be regarded as valid. The following responses reflect the trends that emerged from the qualitative data:

### **Creating a culture for development and improvement**

- *"Principals should create opportunities for development."*
- *"Principals should design assessment policies for their schools"*

### **Monitoring and control**

- *"The principal must see to it that learners are effectively assessed – does the type of assessment that has a purpose?"*
- *The principal should monitor assessment to ensure that it is done correctly in the respective classes."*
- *"He/she must ensure that the types of assessment which are applied fit the purpose."*
- *"It is the principals' responsibility to ensure that assessment in the school measures up to a set standard, and that it is linked with the critical outcomes in the OBE system."*

### **Teacher involvement**

- *"He should be the one who encourages teachers to work and plan together and help one another."*
- *"Principals should be actively involved in the assessment of learners by having regular meetings with educators at grade level and decide on what is to be considered in assessment."*

### **Guidance and support**

- *"The principal should clarify guidelines in the Assessment Policy and inform teachers of changes."*
- *"The principal should take supportive, as well as corrective actions."*

The above qualitative data enabled the researcher to get "under the skin" of teachers' expectations of staff development. These qualitative statements provided insight into the assessment needs of teachers and confirmed the findings from the empirical investigation. Respondents felt that the principal should monitor their assessment practices, which indicates that they are not confident in conducting outcomes-based assessment. Respondents also indicated that the principal should create opportunities for staff development, incite involvement, guide the assessment process and provide the required support. The next article will in particular investigate the role of the assessment leader in this regard.

## **7. Summary of findings and recommendations**

The literature study revealed that TQM may be applied to improve the quality of assessment in schools. TQM requires that schools need to determine the needs and expectations of their customers, and accordingly create opportunities for staff development and improve the education service provided. Figure 2 portrayed that numerous teachers have never attended any workshops on assessment, while a relatively high percentage of teachers did attend departmental workshops. However the media revealed that teachers experienced outcomes-based assessment as frustrating, which depicts that teachers were not adequately trained and informed before the implementation of OBE. The latter necessitated an investigation to determine whether there are a relationship between teachers' assessment competencies and the attendance of departmental workshops. The fact that only a small number of teachers attended workshops before the inception of OBE, confirms teachers' inadequate staff development, possibly adding to their discontent with outcomes-based assessment. Furthermore, a t-test (Table 3) portrayed that departmental workshops had no significant effect on teachers' assessment competencies. The findings stresses that departmental workshops do not seem to be the solution to teachers' assessment frustrations therefore, an investigation into staff development in school context had been necessary.

Staff development in the school which is focused on assessment skills had a positive relationship with enhanced assessment competence (99% confidence level) (cf. Table 5). Free State teachers' competencies could therefore benefit by staff development in schools, which could contribute to the quality of assessment, and thus the quality of the service provided to their customers.

*The findings validate the rejection of the null hypothesis, which confirms teachers' need for staff development, but this revealed that it must be staff development through focused, school-based staff development activities, facilitated by the curriculum leader in the school.*

Following the above analysis of the literature and the empirical data, the following recommendations seem to be warranted:

- The needs of Free State teachers for the development of their assessment competencies have to be a priority at provincial planning level. It seems as if the province's departmental professional development opportunities should be examined and linked to the assessment needs of teachers;
- School leaders need to determine the assessment needs of the teachers with regard to policy interpretation, clarification of terms, changes in classroom assessment practices and the construction of reliable assessment instruments in order to conduct staff development activities to optimise teachers' assessment competencies;
- More emphasis should be placed on staff development within the schools;
- Staff development in schools demands an assessment leader. It should therefore be considered that principals should be trained to provide effective staff development to equip teachers with the necessary assessment skills.

## **8. Conclusion**

Teachers in South Africa have experienced radical changes in teaching practices due to global educational reform, driven by the need for an improved quality of education. Managing quality in schools, by means of quality management principles, demands

customer satisfaction, implying that the needs and expectations of the customers are determined and that the service provided is improved in order to meet these needs. Customer satisfaction therefore requires a system of continuous improvement by means of staff development. A quantitative analysis revealed that staff development in schools results in improved assessment practices, proclaiming the need for staff development, while a qualitative analysis determined that teachers are particularly in need of the support and development provided by the curriculum leader. The quality of assessment in Free State schools may therefore be improved by quality management whereby ample opportunities for staff development, in assessment in particular, are provided.

As quality management demands a leader to facilitate the process, further research in leadership towards the enhancement of assessment quality is required. Pursuing the management of quality assessment practices in schools will be a challenging venture for both principals and teachers, as quality management demands the continuous improvement of skills. To do less, is to deny a learner-centred school culture which is focused on the future.



## Bibliography

- Acock, A.C. 2006. *A Gentle Introduction to Stata*. Texas: Stata Press.
- African National Congress (ANC). 1994. *A policy framework for education and training*. [Online] Available URL:  
<http://www.anc.org.za/ancdocs/policy/educate.htm>.
- Arcaro, J.S. 1995(a). *The Baldrige Award for Education. How to Measure and Document Quality Improvement*. Delray Beach: St Lucie Press.
- Arcaro, J.S. 1995(b). *Quality in Education. An Implementation Handbook*. Delray Beach: St Lucie Press.
- Arif, M., Smiley, F.M. and Kulonda, D.J. 2005. Business and Education as push-pull processes: An alliance of philosophy and practice. *Education* 125(4): 1 – 9. [Online] Available URL:  
[http://web4.epnet.com/citation.asp?tb=1&\\_ug=sid+E11DA1D5%2D](http://web4.epnet.com/citation.asp?tb=1&_ug=sid+E11DA1D5%2D).
- Ary, D., Jacobs, L.C. and Razavieh, A. 2002. *Introduction to Research in Education*. Belmont: Wadsworth/Thompson Learning.
- Beeld. 2004. Stelsel mors onnies se tyd. Onpraktiese assessering weer bekyk, 26 August.
- Beeld. 2005. Word onnies reg opgelei? Onderwyskenners vra vrae na matrieks sleg vaar, 31 December.
- Beeld. 2006. Meeste SA skole is wanfunksioneel, 27 June.

- Bergquist, B., Fredriksson, M. and Svensson, M. 2005. TQM: terrific quality marvel or tragic quality malpractice? *The TQM Magazine*, Vol 17(4): 309 – 321.
- Bernhardt, V.L. 2004. Continuous improvement. It takes more than test scores. *Leadership*, Vol 34 (2): 16 – 19.
- Brits, H.J. 2005. A pilot audit exercise based on the principles of Total Quality Management: A case study. *South African Journal of Higher Education*, Vol 19(6): 1033 – 1046.
- Brue, G. 2002. *Six Sigma for Managers*. New York: McGraw-Hill.
- Bryanlee Publishers and Consultants. 2005. *Conduct Outcomes-Based Assessment*. Pinetown: PBC
- Burger. 2005(a). Skoolhoofde voel onseker oor Pandor se nuwe gr. 10-kurrikulum, 19 May.
- Burger. 2005(b). Proefkonlyne van UGO se uitslae straks nie so goed, maan talle, 28 December.
- Business Day*. 2005. Schools 'abandon aim of education', 29 August.
- Chien, T.K. 2007. Using the learning satisfaction improving model to enhance the teaching quality. *Quality Assurance in Education*, Vol. 15 (2): 192 – 214.
- Chisholm, L. 2003. *The Politics of Curriculum Review and Revision in South Africa*. Paper presented at the Oxford International Conference on Education and Development, September 2003. [Online] Available URL: [www.hsrb.ac.za/research/output/outputDocuments/2285\\_Chisholm\\_PoliticsofCurriculumReview.pdf](http://www.hsrb.ac.za/research/output/outputDocuments/2285_Chisholm_PoliticsofCurriculumReview.pdf).

- Chisholm, L. 2004. Marking matric: Overview of the Debate. *HSRC Review*, Vol 2 (4). [Online] Available URL: [http://www.hsrc.ac.za/about/HSRCReview/Vol2No4/marking\\_matric.html](http://www.hsrc.ac.za/about/HSRCReview/Vol2No4/marking_matric.html).
- City Press. 2006. Assessing the quality of education is the key. 9 July.
- Clement, M. and Vandenberghe, R. 2001. How School Leaders can Promote Teachers' Professional Development. An Account from the Field. *School Leadership and Management*, Vol. 21 (1): 43 – 57.
- Colantonio, J.N. 2005. Assessment for a learning society. *Principal Leadership*, Vol. 6 (2): 22 – 26.
- Cooper, D.R. and Schindler, P.S. 2006. *Business Research Methods. Ninth Edition*. New York: McGraw Hill.
- Costa, M.M. and Lorente, A.R.M. 2004. ISO 9000 as a Tool for TQM: A Spanish case study. *Quality Management Journal*, Vol 11(4): 20 – 30. [Online] Available URL: [www.asq.org](http://www.asq.org).
- Dale, B.G., Wu, P.Y., Zairi, M., Williams, A.R.T. and Van der Wiele, T. 2001. Total Quality Management and theory: An exploratory study of contribution. *Total Quality Management*, Vol 12 (4): 439 – 449.
- De Bono, E. 2005. *The six value medals. The essential tool for success in the 21<sup>st</sup> century*. London: Vermilion.
- De Vos, A.S. 2005. Qualitative data analysis and interpretation. In: A.S. de Vos (Ed.), H. Strydom, C.B. Fouche and C.S.L. Delport. *Research at Grass Roots*. (pp: 333 - 349). Pretoria: Van Schaik Publishers.

- De Vos, A.S. 2005. Combined quantitative and qualitative approach.. In: A.S. de Vos (Ed.), H. Strydom, C.B. Fouche and C.S.L. Delport. *Research at Grass Roots*. (pp: 357 - 366). Pretoria: Van Schaik Publishers.
- Department of Education (DoE). 1998. *Draft Assessment Policy in the General Education and Training Phase. Grade R to 9 and ABET*. Pretoria: Government Printers.
- Department of Education (DoE). 2002. *Revised National Curriculum Statement Grades R – 9 (Schools). Overview*. Pretoria: Government Printers.
- Department of Education (DoE). 2005. *The National Protocol on Assessment for Schools in the General and Further Education and Training Band (Grades R – 12)*. [Online] Available URL: [www.education.gov.za/dynamic/dynamic.aspx?pageid=329&catid=9&category=Policies&legtype=null](http://www.education.gov.za/dynamic/dynamic.aspx?pageid=329&catid=9&category=Policies&legtype=null).
- Department of Education. 2006. *Education Statistics in South Africa at a Glance in 2005*. [Online] Available URL: [www.education.gov.za/emis/emisweb/statistics.htm](http://www.education.gov.za/emis/emisweb/statistics.htm).
- Du Toit, G.F. and Du Toit, E.R. 2004. Understanding outcomes-based education (OBE). In Maree, J.G. and Fraser, W.J. (Eds.), *Outcomes-Based Assessment* (pp. 1 - 28). Sandown: Heinemann Publishers (Pty) Ltd.
- Educators point to OBE problems. 2002, April 18. *Daily Dispatch*, pp. 13.
- Fitzgerald, R. 2004. *Total Quality Management in Education*. [Online] Available URL: <http://www.minuteman.org/topics/tqm.html>.
- Fleisch, B.D. 2002. *Managing Educational Change. The State and School Reform in South Africa*. Sandown: Heinemann Publishers.

Global Quality Village. 2005. *Eight Principles of Quality Management*. [Online]  
Available URL: <http://www.globalqualityvillage.com/qmprinciples.php>

Hart, D. 1994. *Authentic Assessment: a handbook for educators*. California:  
Addison-Wesley Publishers.

Jansen, J.D. 1999. Setting the Scene: Historiographies of Curriculum Policy in  
South Africa. In Jansen, J.D. and Christie, P. (Eds.), *Changing Curriculum.  
Studies on Outcomes-based Education in South Africa* (pp. 3 - 20). Kenwyn:  
Juta & Co. Ltd.

Juran Institute. 2005. *The leading provider of training and consulting Solutions to  
Attain Quality Leadership*. [Online] Available URL: <http://www.juran.com>.

Kanji, G.K. and Tambi, M.B.A. 1999. Total Quality Management in UK Higher  
education institution. *Total Quality Management*, 10 (1): 129 – 153.

Kanold, T.D. 2006. The Flywheel Effect. Educators Gain momentum from a model  
for continuous improvement. *Journal of Staff Development*, Vol. 27 (2): 16 –  
21.

Kerlinger, F.N. and Lee, H.B. 2000. *Foundations of Behavioral Research. Fourth  
Edition*. Fort Worth: Harcourt College Publishers.

Making History. 2005. *Conducting assessment and collecting, recording and  
interpreting evidence of assessment performance*. [Online] Available URL:  
[www.makinghistory.co.za/ForTheTeacher/Conductassess.asp](http://www.makinghistory.co.za/ForTheTeacher/Conductassess.asp).

McMillan, J.H. 2004. *Classroom Assessment. Principles and Practice for Effective  
Instruction*. Boston: Pearson Education Inc.

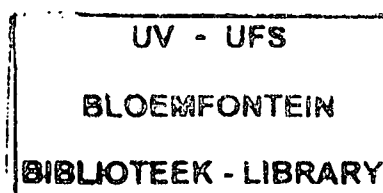
- Mehrotra, D. 2002. *Applying Total Quality Management in Academics*. [Online]  
Available URL: [www.isixsigma.com/library/content/c020626a.asp?action=print](http://www.isixsigma.com/library/content/c020626a.asp?action=print)
- Motala, S. 2001. Quality and indicators of quality in South African education: A critical appraisal. *International Journal of Educational Development*, Vol 21: 61 – 78. [Online] Available URL: [www.elsevier.com/locate/ijedudev](http://www.elsevier.com/locate/ijedudev).
- Pahad, M. 1999. Outcomes-based Assessment: The need for a Common Vision of what counts and How to Count it. In: J.J. Jansen and P. Christie. *Changing Curriculum. Studies on Outcomes-based Education in South Africa* (pp.247 – 278). Kenwyn: Juta.
- Pereira, M.A.C. and Da Silva, M.T. 2003. *A Key Question for Higher Education: Who are the customers?* Proceedings of the 31<sup>st</sup> Annual Conference of the Production and Operations Management Society (POM), 4 – 7 April, Atlanta.
- Potenza, E. and Monyokolo, M. 1999. A Destination without a map: Premature Implementation of Curriculum 2005. In Jansen, J and Christie, P. (Eds.), *Changing Curriculum. Studies on Outcomes-based Education in South Africa* (pp. 231 - 245) Kenwyn: Juta & Co. Ltd.
- Rapport. 2005. Onnie-tekort kan 'n ramp word, 6 November.
- Rapport. 2006. UGO doen meer kwaad as goed, 2 July.
- Sallis, E. 1996. *Total Quality Management in Education*. London: Kogan Page.
- SchoolNet Africa. 2003, *Testing times for teachers: educational assessment in South Africa*. [Online] Available URL:  
<http://www.schoolnetafrica.net/index.php?id=248>

- Spady, W.G. 1994. *Outcomes-based education: critical issues and answers*. Arlington: American Association of School Administrators.
- Stiggins, R.J. 2001. The Unfulfilled Promise of Classroom Assessment. *Educational Measurement*, Fall: 5 -15.
- Stiggins, R. 2004. New Assessment Beliefs for a New School Mission. *Phi Delta Kappan*, Vol. 86(1), September: 22 – 27.
- Sunday Times*. Curriculum 2005 in a shambles. Frustrated teachers fear troubles will prejudice pupils. 8 July 2001, pp. 10.
- Svensson, M. 2004. *TQM-Based Self-Assessment in Educational Organizations. Help or Hindrance?* Published Doctoral Thesis. Luleå University of Technology. Department of Business Administration and Social Sciences. Division of Quality and Environmental Management. [Online] Available URL: <http://epubl.luth.se/1402-1544/2004/40/LTU-DT-0440-SE.pdf>.
- Terre Blance, M., Durreheim, K. and Kelly, K. 2006. First steps in qualitative data analysis. In: M. Terre Blanche, K. Durrnheim and D. Painter (Eds.) (pp: 320 – 344). Cape Town: University of Cape Town Press (Pty) Ltd.
- Thomas, H. 2003. The arguments for and the meaning of quality. *English Language Teaching Journal*, Vol. 57(3): 234 – 241.
- Tsaikkiros, A. 2005. The Application of the Concept of Continuous Development to the Cyprus Educational System. *International Electronic Journal for Leadership in Learning*, Vol 9 (7). [Online] Available URL: [www.ucalgary.ca/~iejll](http://www.ucalgary.ca/~iejll).
- UNESCO. 2005. *EFA Global Monitoring Report*. [Online] Available URL: [http://portal.unesco.org/education/en/ev.php-URL\\_ID=35939&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.php-URL_ID=35939&URL_DO=DO_TOPIC&URL_SECTION=201.html)


*Volksblad*. 2006(a). Kyk in klaskamers, 3 July.

*Volksblad*. 2006(b). Gehalte van assessering op skool is onbetroubaar, 19 September.

Zumbu, B.D. and Rupp, A.A. 2004. Responsible Modeling of Measurement Data for Appropriate Inferences. In Kaplan, D (Ed). *The Sage Handbook of Quantitative Methodology for the Social Sciences* (pp. 73 – 92). California: Sage Publications.







# Assessment quality in Free State Primary Schools: an educational leadership challenge

*Nalize Marais*

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## Abstract

*Quality in an organisation to a large extent depends on the leader who has to manage a system towards continuous improvement. A literature study revealed that the principles of Quality Management can be applied to manage the quality of assessment in schools. A preliminary study revealed that Free State teachers have a need for support and guidance to improve assessment practices in their schools. However, official South African documentation has not assigned assessment leaders in schools who can take the responsibility and manage the quality of assessment. Questionnaires were used to conduct an empirical investigation. The data was computed by means of linear regression, ANOVA as well as a Bonferroni post hoc test to determine the extent to which principals can contribute to quality teaching in Free State schools. The empirical investigation revealed teachers' need for assessment leaders who can inter alia create opportunities for staff development and establish a culture for quality assessment by taking responsibility for assessment in schools.*

## 1. Introduction

The pursuit of quality in education is one of the dominant trends that have influenced education development during the last decade. Good leadership remains essential to attain quality, implying that the principal has a responsibility towards managing a quality system in the school to improve the quality of the learning experience (UNESCO 2003: n.p., Knipe and Speck, 2002: 57, Saunders and Stockton, 2005: 7, Sallis: 1996: 78). As assessment forms a crucial part of the learning experience, the development, implementation and evaluation of the assessment practices need to be developed with the prospect of improving the quality of teaching and learning. It is here where the principal has to create opportunities for professional development as a means to enhance teachers' assessment competencies (Csizmadia, 2006: 66).

According to Botha (2004: 240) the role of the school principal can no longer be viewed as merely being a manager and administrator, but rather as a learning-expert and lifelong learner. Principals are expected to establish appropriate preconditions for effective teaching, learning and assessment, and follow through with interventions aimed at improving teaching and learning. The quality of education in every school therefore relies heavily on the principals' contribution to ensure high standards of teaching and learning.

Unless assessment results are used to direct the quality in schools, instruction in schools will not improve. Hearne (2001: n.p.) refers to the assessment revolution where the assessment data drives decision-making on quality and informs teachers' instruction to improve student learning. The quality of classroom assessment is therefore evidently a core issue in the quality of education. Assessment standards have become the centre of debate at many regional and international conferences on education (Chirume, 2006), as a result of a continuous need for improved accountability for classroom assessment. Prior studies by quality experts (Arcaro, 1995(a); Arcaro, 1995(b); Sallis, 1996; Svensson, 2004 and Kanold, 2006) have shown that quality management concerns the empowerment of staff to improve the service provided. Quality management applies to this study as it entails the principal's leadership role in improving assessment practices in schools. In view of the transformed responsibility of school principals and the need for improved assessment quality, education leaders need to be dedicated to the continuous improvement of teachers' competencies and the processes which underlie effective assessment practices. Principals could therefore play a decisive role in the quality of assessment in South African classrooms.

## **2. Preliminary study**

The significance of teaching standards and quality in education has led to reform in teacher education programmes as the importance of quality in education necessitates schools to employ suitably qualified teachers (Darling-Hammond, 2005: 237). Improvement towards enhanced education quality entails that teachers' assessment skills have to constantly improve in order to improve the quality of the assessment process (Thomas, 2003: 234 – 235 and Juran, 2005). Leadership in any organisation plays a fundamental role in the process of improvement towards quality (cf. Article 1), as it is the leaders' responsibility to facilitate opportunities for staff development and develop employees' skills. The principal should therefore lead and support the teachers by identifying their assessment needs and accordingly create opportunities for the development of teachers' assessment skills in order to improve the quality of assessment in the school. A preliminary study was conducted to determine whether Free State primary school teachers need additional guidance and support from their leaders regarding assessment, apart from their prior professional training.

Data were obtained for a simple random sample of 80 educators from Free State Primary Schools, who has completed secondary school education and attained at least a 2 or 3 year higher education qualification. A 100% return rate was obtained as the researcher personally disseminated questionnaires and collected them directly after completion.

The research instrument displays a Cronbach Alpha coefficient of 0.9214 which indicates strong reliability, while the sample which comprised a representative male: female educator ratio in Free State schools, namely 1:3 (DoE, 2006: 17), in turn enhances external validity.

The STATA data processing program was used to determine whether Free State primary school teachers' formal qualifications have a significant influence on their perception of outcomes-based assessment. For this study, an analysis of variance (ANOVA) was used to determine whether the formal qualification of Free State primary school teachers have a statistically significant influence on their experiences of outcomes-based education. The formal qualifications of the teachers were used as the factor variables and consist of 5 groups: namely teachers with a 2-year diploma, 3-year diploma, a degree, a degree and a diploma and those with more than one degree. Table 1 portrays the results of the investigation.

**Table 1: The influence of teachers' qualifications on their perceptions of outcomes-based assessment**

	Teachers' formal qualification				
	Sum of Squares	Df	Mean square	F-value	Sig
Outcomes-based assessment contributes to the quality of teaching and learning in the classroom	84.1176	67	1.2555	0.33**	0.313

\*\* = 95% significant  
p < 0.05

The calculated F-value (Table 2) is significantly smaller that the critical F-value of 3.15 (Cooper and Schindler) ( $0.33 < 3.15$ ) at a 95% confidence level. Consequently there is no significant difference between the groups of means (teachers with a 2-year diploma, 3-year diploma, a degree, a degree and a diploma and those with more than one degree). The latter implies that teachers' qualifications have no significant influence on their perceptions of outcomes-based assessment. Consequently, it seems as if the qualifications of Free State teachers had little or no effect on how they perceive their assessment skills, implying that they experience problems with the implementation of outcomes-based assessment irrespective of their prior training. These perceptions about their assessment competencies could be attributed to their lack of confidence regarding assessment and might be an indication of teachers'

need for support, guidance and empowerment to master their outcomes-based assessment task.

It has already been indicated that sound leadership in the school could contribute to the quality of assessment (cf. Article 1) and therefore the issue of leadership has also been investigated in the preliminary study. The latter relates with the findings from the qualitative investigation in Article 1, where teachers indicated that the principal should provide guidance and support to enhance their assessment competencies. A correlation analysis, by means of pairwise correlations, was conducted to determine whether teachers regard effective assessment leadership as contributing to education quality. The questionnaire used for the preliminary investigation included some key requirements for assessment leadership. These leadership elements were measured by using a Likert-scale, and correlated with teachers' perceptions of outcomes-based assessment. Table 2 illustrates the latter.

**Table 2: The correlation between assessment leadership and assessment quality after the implementation of outcomes-based assessment**

Key requirements for assessment leadership	Outcomes-based assessment make a valuable contribution to the quality of education		
	coeff r	r <sup>2</sup>	p
The principal has to take responsibility for staff empowerment by developing teachers' assessment knowledge and skills	0.5879***	0.3456	0.0001
The principal has to monitor the quality of assessment practices in the classrooms	0.5804***	0.3369	0.0001
The principal uses assessment data to direct school improvement planning	0.4597***	0.2113	0.0046
The principal has to ensure that teachers' assessment skills are continuously improved	0.5129***	0.2631	0.0004

\*\*\* = 99% significant  
p < 0.01



The correlation analysis (cf. Table 2) revealed relatively strong relationships between some crucial requirements of assessment leadership and the teachers' perceptions of the value of outcomes-based assessment. The requirement that *the school leader (i.e the principal) should take the responsibility for staff empowerment by developing teachers' assessment knowledge and skills* shows the strongest correlation ( $r = 0.5879$ ,  $p = 0.001$ ) with teachers' perceptions of outcomes-based assessment. *The expectation that the principal should monitor the quality of assessment practices in the classrooms* ( $r = 0.5804$ ,  $p = 0.001$ ) as well as *that the principal should ensure the constant improvement of teachers' assessment skills* ( $r = 0.5129$ ,  $p = 0.0004$ ) correlates significantly with teachers' perceptions of outcomes-based assessment. Correlations ranging from 0.35 to 0.65 are significant beyond the 99% confidence level, implying that group predictions may be possible (Cohen and Manion, 1995: 139). All the above correlations are above 0.35, therefore we may predict that effective assessment leadership may have a positive influence on teachers' perceptions of outcomes-based assessment. The assessment leader (in this case the principal) can improve teachers' attitude towards outcomes-based assessment by taking responsibility for staff empowerment and ensuring that teachers' assessment skills are continuously improved, as well as monitoring teachers' assessment practices.

It may therefore be concluded that teachers' formal qualifications had no significant effect on their perception of outcomes-based assessment and the implementation thereof. However, the pairwise correlations revealed that principals' contributions to improving assessment in schools contribute to a positive influence on teachers' perceptions towards their approach to outcomes-based assessment. The findings of the preliminary investigation reveal an urgent need for assessment leadership among Primary School teachers in the Free State Province.

### 3. Statement of the problem

Steyn (2007: 271) confirms the importance of leadership by pointing out that effective management of people has been identified as a key element of best practice at many leading organisations. She also elaborates on Total Quality Management (TQM) as a viable option for education as it emphasises the expansion of the capacity of continuous improvement, which demands a leader who should facilitate staff development. The *Draft Assessment Policy* (DoE, 1998: 16) and the *National Protocol on Assessment* (DoE, 2005: 5) recognises the role-players that should be involved in classroom assessment, but does not assign the task of assessment leadership to any of them. Assessment leadership refers to the responsibility of the school principal, namely to manage the quality of assessment in the school by identifying teachers' assessment needs and deficiencies and accordingly creating opportunities for staff development which would enhance the quality of assessment in classrooms.

Previous studies on the implementation of outcomes-based assessment have been conducted (MacMillan, 2004; Chisholm, 2003: 3 and Eastern Cape DoE, 2002), but there is limited evidence of research concerning leadership in assessment. Kunene (Volksblad, 2006: 7) also emphasises that there is no formal training programme to develop South African principals for their task as assessment leaders. The lack in assessment leadership is an evident impediment in South African schools. As revealed in the preliminary study the lack in assessment leadership seems to have a negative influence on the teachers' perceptions of outcomes-based assessment. The problem surrounding the lack of sound leadership is further intensified by the results of the preliminary study which revealed that teachers have particular expectations about the role their principals should play in the improvement of their assessment competencies.

#### **4. Purpose of the study**

The National Protocol on Assessment for Schools in the General and Further Education and Training Band which was published in 2005, provides guidelines and criteria for classroom assessment. However, even when guidelines and criteria are present, teachers still need assessment knowledge and skills to evaluate learners in a meaningful way (Chappuis, 2004: 22). According to the preliminary study, assessment training seems not to be sufficiently addressed in university pre-service programmes, as there was no statistically significant difference between the professional qualifications of teachers and their perceptions of the value of outcomes-based assessment (Table 1). It seems as if quality education in South African schools can be improved by the outcomes-based approach, but only if the assessment practices are directed by the paradigm shift towards quality management.

This study aims at investigating the promotion of quality education for people in a changing world through continuous learning (Demirbag, Tatoglu, Tekinkus and Zaim, 2006: 832 and Craft, 2000: 4) as facilitated by effective leadership. In this regard the principles of TQM, as a holistic management philosophy, are explored to provide plausible data and possible solutions for leading teachers towards assessment quality in schools.

#### **5. Implications of quality management for the assessment leader**

Although the quality approach to management originated with Edward Deming in the previous century, it is generally viewed as the dominant approach of the 21<sup>st</sup> century. Because organizations face formidable challenges, they are pressed to deliver quality as their customers demand quality work (Hellriegel, 2004: 61 and Sallis, 1996: 2). There is a particular emphasis to do what is supposed to be done in a way that it reflects quality and satisfy the needs of the customers (Sallis 1996: 10) and in terms

of this study, it implies that the teachers should also be able to conduct assessment of quality. The latter demand for quality service to the learners has a direct implication for the educational leader's role in the quest for quality (Marsh, 2000: 129 and Sallis, 1996: 77) identifies a number of management actions and particularly emphasizes:

- staff empowerment to deliver quality;
- creating opportunities for development;
- seeking constant improvement;
- monitoring quality;
- using a teams-approach and stimulating a sense of unity;
- achieving the total involvement of the staff;
- catering for customer needs; and
- providing support and clarifying concepts and uncertainties.

This approach to quality culminated in Total Quality Management (TQM) as an approach to management that focuses on achieving quality by continuously improving the service provided to exceed customer expectations (Lombard, 2006:1). By applying the principles of quality management, the principal can contribute to facilitate quality assessment practices in classrooms, as achieving school effectiveness is a critical dimension of school leadership (Saunders and Stockton, 2005: 7). Consequently, principals should act as assessment leaders and take the responsibility for the improvement of assessment quality in schools. An organization should therefore clearly identify and research its target market to obtain valuable information regarding customer expectations. The principal needs to determine which assessment knowledge and skills are required to meet customer expectations and improve teachers' assessment competencies accordingly. The assessment leader is held responsible for improving assessment quality by creating a culture of continuous improvement, culminating in effective assessment.

The above requirements for quality is aligned with outcomes-based education as the impetus for the transformation of South African school education into a meaningful service to all citizens (Jacobs, Vakalisa and Gawe, 2004: 314), providing quality education to South African learners. Teachers who had embarked on outcomes-based education said that the shortage of learning materials as well as inadequate training and support hampered their ability to teach since its inception (Sunday Times, 8 July 2001). The aforementioned statement is verified by Fleisch (2002: 131) who claims that the provincial evaluation of the implementation of outcomes-based education contained a devastating indictment of training, support and guidance. There seems to be consensus that the preparation and support had not been adequate to implement outcomes-based education successfully.

According to Meyers (2005: 28) the written curriculum, no matter how high the quality, has no real power without proper preparation and implementation. The success of classroom assessment practices therefore rely heavily on the knowledge and skills that teachers apply during curriculum implementation and in this regard Stiggins (2005: 12) emphasizes the role of the teacher in classroom assessment and the role of the school leader in the preparation of the teacher body to ensure the required learning progression. To manage this progression, teachers need to understand the assessment standard to be mastered and deconstruct it into targets of achievement, so as to create a learner-friendly version of learning targets that lead up to the standard. It is particularly in this regard that teachers should be guided and supported to create opportunities for high quality classroom assessment as a way of tracking improvement over time.

Hess and Kelly (2007: n.p.) verify the importance of the assessment leader and states that school leadership is the key to school improvement, where school leaders are expected to facilitate improvement towards quality assessment. In the dynamic education environment the assessment knowledge and skills of principals therefore matter more than ever. The principal's main task in fostering quality assessment is

to ensure that customers' needs are central to an institution's policies and practices. In return, assessment leaders should lead in innovation within their institutions by spearheading staff development and establishing organisational structures which defines assessment responsibilities and provide maximum delegation which is compatible with accountability. The above implies that principals not only have to understand the key leadership principles, but also involve the teachers in initiating and promoting ideas that would contribute to the improvement of assessment practices in the school (Botha, 2004: 240).

The quality paradigm claims that leaders/managers should create opportunities for staff development (cf. Article 1) and consequently continuously improve assessment skills. Armour (2001: 56) confirms the role of staff development in assessment quality by highlighting the fact that substantial staff development is required on a continual basis, for teachers to understand and use new assessment skills in their classrooms. Enhanced assessment quality relies on the assessment leader who should determine the needs of the learners and the teachers, by building structures and creating an organisational culture which empowers teachers to meet these needs. The latter implies that assessment leaders might enhance the quality of assessment if they take responsibility for staff development actions in schools, and as a result, continuously improve teachers' assessment skills.

Against the above quality paradigm it is necessary to investigate the role of the principals in Free State Primary Schools in terms of assessment leadership. The empirical investigation will primarily focus on:

- the effect of the principals' development activities on the teachers' perceptions of their assessment skills;
- the leadership activities that seem to be crucial for improved assessment practices; and
- the influence of where the schools are situated on the principal's empowerment actions.

## **6. Research design**

Questionnaires were used to determine to what extent the principal's leadership actions influence assessment quality in Free State primary schools. The quantitative research is supported by a literature study on Quality Management and assessment practices, which verify certain aspects of assessment quality.

### **6.1 Research instrument**

Data were obtained by means of a questionnaire which was completed by 332 primary school teachers in the Free State province. 400 questionnaires were distributed among educators yielding a return rate of 83%. The questionnaire was composed by the researcher after an extensive literature study. Questions concerning assessment leadership were based on activities and leadership practices, as explained in literature sources and the internet (DoE, 2006(b): 141 – 160, Northwest Regional Educational Library, 2001 and Sallis, 1996: 77). The leadership-items in the questionnaire were verified by the qualitative investigation, which was conducted by means of an open-ended question in Section D (cf. Article 1). The latter form of triangulation enhances the reliability of the research instrument.

### **6.2 Sampling**

Teachers from rural, urban and townships schools had to be represented in this study, as the population ( $N = 13\,637$ ) (DoE, 2006: 19) of primary school teachers in the Free State Province is compiled by teachers from these areas. Therefore, disproportionate stratified sampling was used for this project, because each stratum is large enough to secure adequate confidence levels and an error range estimate for each individual strata (Cooper and Schindler, 2006: 418). Urban and township educators respectively, represent 42.77% and 40.88% of the sample, while educators

from rural schools represented 16.35%. The latter provides a viable representation of the educator population in the Free State in terms of gender, qualification and location.

Table 3 provides demographic information of the representative sample of Free State primary school educators. Although only the location of schools will be used in this study, the detailed demographic profile of the respondents substantiates the stratified sampling approach followed for this investigation.

**Table 3: Frequency distribution: the respondents' demographic profile**

<b>Characteristic</b>	<b>Number (n)</b>	<b>Percentage (%)</b>
<b>Gender</b>		
Female	234	74.05
Male	82	25.95
<b>Formal Qualification</b>		
2 year diploma	12	3.85
3 year diploma	84	26.92
Degree	74	23.72
Degree and diploma	82	26.28
More than one degree	40	12.82
Other	20	6.41
<b>Location of school</b>		
Urban	136	42.77
Rural	52	16.35
Township	130	40.88

### **6.3 Reliability**

The research instrument could be regarded as reliable, because the variables concerning the principals' empowerment actions, which were used for this investigation, revealed a Cronbach Alpha reliability coefficient of 0.9777.



## 6.4 Validity

External validity was ensured by secure sampling measures, as described earlier in the research design. The research findings in this study may be generalised across the population (Cooper and Schindler, 2006: 318), because the diversity of the population of educators in the Free State is sufficiently represented in the sample. Furthermore, the researcher predicted that principals' leadership actions would have a positive influence on teachers' perception of their assessment practices. Linear regression was used to reveal the relationship between principals' empowerment actions and teachers' improved perceptions of their assessment practices. The latter enhances criterion-related validity, which reflects the success of measures used for prediction (Cooper and Schindler, 2006: 319; Kerlinger and Lee, 2000: 668).

## 7. Results

*The results that emerged from the empirical investigation on the relationship between the principal's leadership and the teachers' perceptions of their assessment competencies will hence be reported.*

A correlational analysis was conducted to explore the possible effect of the principal's leadership with regard to assessment, on the teachers' views on the improvement of their assessment skills. Relationships between variables serve as the basis for predictions, as we use regression techniques to predict the value of one variable from the knowledge of another (Cooper and Schindler, 2006: 544; Walsh and Ollenburger, 2001: 213). These predictions represent the best assumptions derived from the sample data; however, regression minimises prediction error over all cases. In general, the prediction error will decrease in proportion to the increase in sample size (Walsh and Ollenburger, 2001: 219), which implies that prediction error in this study decreases, due to the relatively large sample size ( $n=332$ ). Furthermore, prediction error is also decreased when there is a strong correlation coefficient (Walsh and

Ollenburger, 2001: 219). Relationships (correlations) between the variables enable the researcher to predict that the quality of assessment practices in schools will improve significantly if the principal takes specific staff development actions to improve teachers' assessment competence.

Table 4 reflects the arithmetic means ( $\bar{x}$ ), median (Me) and standard deviation (SD) of items 16 and 19 – 30. Variable 16 represented teachers' views on whether *staff development has an effect on the improvement of their assessment practices*, while variables 19 – 30 represent the *principals' leadership actions required with regard to assessment*.

**Table 4: The arithmetic means ( $\bar{x}$ ), median (Me) and standard deviation (SD) of the items representing the educators views, the principals' leadership actions**

Items		$\bar{x}$	Me	SD
16.	Staff development results in a noticeable improvement in assessment practices in our school.	2.695	3	1.240
19.	The principal supports teachers in their assessment tasks.	2.628	3	1.427
20.	The principal shows the necessary skills to support staff in classroom assessment.	2.739	3	1.355
21.	The principal creates opportunities for staff development regarding assessment.	3.053	3	1.227
22.	The principal creates a culture for the continuous improvement of teachers' assessment skills by communicating quality principles	3.173	3	1.303
23.	The principal acts as an assessment leader in your school.	2.718	3	1.318
24.	The principal engages in professional development activities to enhance the quality of assessment in the school.	2.919	3	1.353
25.	The principal plays a fundamental role in the assessment practices of your school.	2.949	3	1.338
26.	The principal facilitates assessment task teams in the school.	2.807	3	1.382
27.	The principal creates a culture for quality assessment practices in the school.	3.008	3	1.337
28.	The principal provides for easy implementation of the Assessment Policy.	3.029	3	1.358
29.	The principal establishes clear criteria to support classroom assessment.	2.992	3	1.403
30.	The principal monitors assessment in your classroom.	2.889	3	1.415

A simple linear regression was then used to reveal the relationship between the principal's empowerment actions and staff development, which drives the continuous improvement of assessment practices. The principals' empowerment actions were used as the independent variables (items 19-30) and continuous improvement of assessment practices (through constant staff development activities) represented the dependent variable. Continuous improvement of assessment practices was measured by a Likert-scale where teachers had to indicate whether staff development is perceived to result in noticeable improvement in assessment practices in their schools. Table 5 portrays the outcome of the analysis.

**Table 5: The relationship between the principal's empowerment actions and perceived improvement of assessment practices (Pearson's Test)**

Items	The principal's empowerment actions	Correlated with perceived improvement of assessment practices					
		Mean	df	r	r <sup>2</sup>	t-value	P>t
19.	The principal supports teachers in their assessment task	2.628	257	0.4008***	0.161	6.36	0.001
20.	The principal shows the necessary skills to support staff in the classroom	2.739	257	0.4394***	0.192	6.82	0.001
21.	The principal creates opportunities for staff development regarding assessment	3.053	253	0.5543***	0.307	7.89	0.001
22.	The principal creates a culture for continuous improvement of teachers' assessment skills by communicating quality principles	3.173	251	0.4891***	0.239	7.36	0.001
23.	The principal acts as an assessment leader in your school	2.718	245	0.4202***	0.146	5.94	0.001
24.	The principal engages in professional development activities to enhance the quality of assessment in the school	2.919	257	0.4017***	0.162	6.04	0.001
25.	The principal plays a fundamental role in the assessment practices of your school	2.949	259	0.5016***	0.252	8.03	0.001
26.	The principal facilitates assessment task teams in the school	2.807	253	0.4117***	0.170	6.16	0.001
27.	The principal creates a culture for quality assessment practices in the school	3.008	251	0.5008***	0.251	7.67	0.001
28.	The principal provides for easy	3.029	257	0.4675***	0.218	7.48	0.001

	implementation of the assessment policy						
29.	The principal establishes clear criteria to support classroom assessment	2.992	247	0.4244***	0.180	6.41	0.001
30.	The principal monitors assessment in your classroom	2.889	247	0.3845***	0.148	5.96	0.001

\*\*\* = 99% significant  
p < 0.01

The strength of a linear relationship is measured by the Pearson correlation coefficient ( $r$ ) (Walsh and Ollenburger, 2001: 219). The significance of the Pearson correlation coefficient may be determined by the  $t$ -value (provided by STATA) and the degrees of freedom (Statistics Solutions, 2006: 9). If the computed (observed)  $t$ -value is higher than the critical  $t$ -value ( $t = 2.576$ ,  $p < 0.01$ ; Cooper and Schindler, 2006, 672), the researcher may conclude that the correlation (relationship) is significant. All the computed  $t$ -values in Figure 6 are significantly higher than the critical value ( $t = 2.576$ ), which implies that the correlations are significant beyond a 99% confidence level. The strongest relationship is illustrated by  $r = 0.5543$  ( $p < 0.01$ ), which indicates the relationship between continuous improvement of assessment practices and *the principal who creates opportunities for staff development regarding assessment*. Two other strong relationships with continuous improvement are opportunities where *the principal plays a fundamental role in the assessment practices of the school* ( $r = 0.5016$ ,  $p < 0.01$ ) and *where the principal creates a culture for quality assessment practices* ( $r = 0.5008$ ,  $p < 0.01$ ). These relationships confirm that the researcher's preceding prediction has been accurate. Strong linear relationships indicate that where the principal plays a decisive role in guiding and supporting the teachers, it contributes to the improvement of their assessment skills and consequently to the quality of their assessment practices.

Figure 1: Regression line illustrating the correlation between the improvement of teachers' competencies and assessment leadership

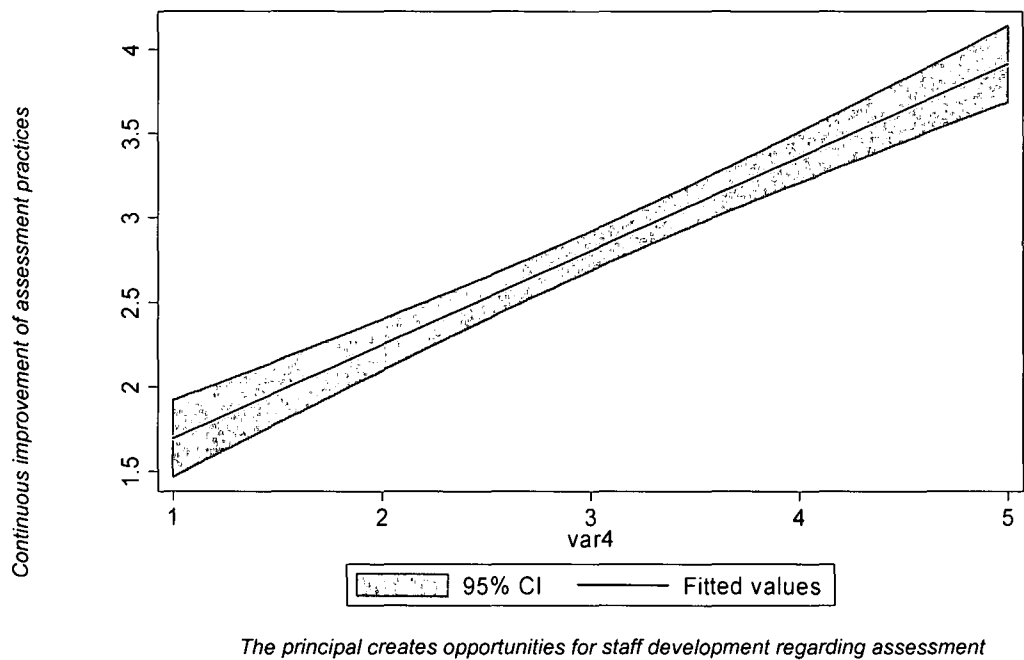


Figure 1 illustrates the positive correlation between teachers' views on their improvement (y-variable) and the *principal's leadership in developing assessment practices* (x-variable). The relationship is linear; therefore, an increase in variable X can be positively associated with an increase in variable-y. The latter linear relationship implies an interrelationship between development leadership and the perceived improvement of assessment practices.

The items which exposed the strongest correlations with the perceived continuous improvement of assessment practices where:

- the principal creates opportunities for staff development regarding assessment ( $r = 0.5543$ ,  $p < 0.01$ );
- the principal plays a fundamental role in the assessment practices of your school ( $r = 0.5016$ ,  $p < 0.01$ );
- the principal creates a culture for quality assessment practices in the school ( $r = 0.5008$ ,  $p < 0.01$ );

- the principal creates a culture for continuous improvement of teachers' assessment skills by communicating quality principles ( $r = 0.4891$ ,  $p < 0.01$ ); and
- the principal provides for easy implementation of the assessment policy ( $r = 0.4675$ ,  $p < 0.01$ ).

The abovementioned correlations indicate which of the forms of staff development do teachers regard as effective for the improvement of their assessment practices. The above is confirmed by Harris and Muijs, (2003: 39) who claims that even in the most difficult circumstances, schools can sustain a culture of continuous improvement through capacity building and equipping teachers to lead innovation and development. Continuous improvement enhances quality; therefore one may assume that the principal has a distinct responsibility in the quality of assessment practices in a school.

#### ***Assessment leadership in terms of the location of the schools: rural, township, urban***

As previously mentioned, variables 19 – 30 of the questionnaire represent a reflection of the Free State principals' empowerment actions, intended to improve assessment quality. Here, an analysis of variance (ANOVA) was used to determine whether the locations of Free State primary schools might be significant in terms of the principals' empowerment actions (cf. Table 3). Three groups of means were represented: namely urban, rural and township schools. The results of the ANOVA are illustrated in Table 6.

**Table 6: The influence of school location on the principals' empowerment actions (ANOVA)**

Items	Principal's empowerment actions	Influenced by location of the school				
		Sum of squares	df	Mean square	F-value	Sig
19.	The principal supports teachers in their assessment tasks	275.346	271	2.040	6.19***	0.0027
20.	The principal shows the necessary skills to support staff in classroom assessment.	252.607	275	1.844	7.81***	0.0006
21.	The principal creates opportunities for staff development regarding assessment.	196.625	261	1.513	12.28***	0.0001
22.	The principal creates a culture for the continuous improvement of teachers' assessment skills by communicating quality principles	223.636	263	1.707	11.46***	0.0001
23.	The principal acts as an assessment leader in your school.	226.031	259	1.752	10.19***	0.0001
24.	The principal engages in professional development activities to enhance the quality of assessment in the school.	245.254	267	1.844	8.83***	0.0003
25.	The principal plays a fundamental role in the assessment practices of your school.	242.637	269	1.811	10.75***	0.0001
26.	The principal facilitates assessment task teams in the school.	256.955	267	1.932	6.04***	0.0031
27.	The principal creates a culture for quality assessment practices in the school.	236.992	263	1.809	22.70***	0.0001
28.	The principal provides for easy implementation of the Assessment policy	249.881	269	1.865	18.25***	0.0001
29.	The principal establishes clear criteria to support classroom assessment.	254.992	259	1.977	17.40***	0.0001
30.	The principal monitors assessment in your classroom.	269.333	269	2.010	33.17***	0.0001

\*\*\* 99% Significant  
p < 0.01

The results of the analysis of variance (ANOVA) are portrayed by the F-value. The critical F-value, in this case is 3.00, while the observed values in Table 9 range from 6.04 to 33.17; all higher than the critical F-value. The latter implies that the principal's empowerment actions do differ significantly in the various locations of the schools. Because ANOVA does not compute which differences among the groups of means are statistically significant (Kerlinger and Lee, 2000: 328), a Bonferroni post-hoc test was also performed.

**Table 7: Multiple comparison to determine the differences between groups of means (Bonferroni post-hoc test)**

	Principal's empowerment actions	Influenced by location of the school						
Items		F-value	Means			Sig difference in means	Sig difference between groups	P
			U	T	R			
21.	The principal creates opportunities for staff development regarding assessment.	12.28***	3.60	2.59	2.71	1.014	Urban and Township	0.001
22.	The principal creates a culture for the continuous improvement of teachers' assessment skills by communicating quality principles	11.46***	3.71	2.94	2.89	1.068	Urban and Township	0.001
23.	The principal acts as an assessment leader in your school.	10.19***	3.24	2.19	2.63	1.056	Urban and Township	0.001
25.	The principal plays a fundamental role in the assessment practices of your school.	10.75***	3.5	2.44	2.74	1.061	Urban and Township	0.001
27.	The principal creates a culture for quality assessment practices in the school	22.70***	3.73	2.29	2.63	1.437	Urban and Township	0.001
30.	The principal monitors assessment in your classroom.	33.17***	3.71	1.96	2.65	1.745	Urban and Township	0.001

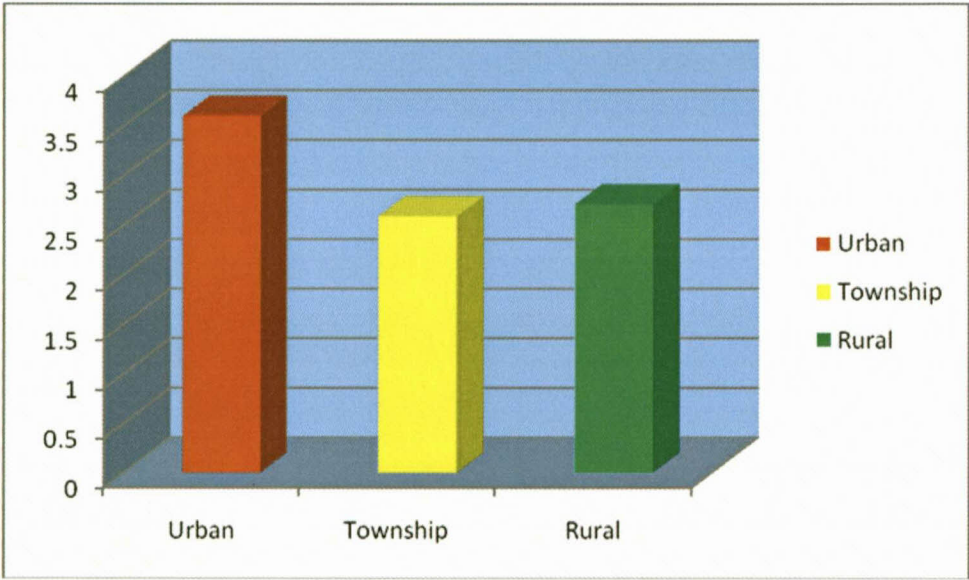
\*\*\* 99% Significant  
p < 0.01  
U = Urban  
T = Township  
R = Rural

The Bonferroni results portrayed in Table 7 reveal that there is a statistically significant difference between the principal's empowerment practices in urban schools and the principal's empowerment actions in township schools. The group of means which represents the township schools is significantly lower than that of urban schools, implying that there are limited/fewer empowerment actions conducted by principals in township schools. It has already been indicated that staff development forms the basis of continuous improvement in order to enhance quality. The



Bonferroni results, therefore, claim that assessment quality in township schools might arouse suspicion, as there seems to be relatively little staff development with regard to assessment in comparison with schools in urban areas. The following bar chart (Figure 2) provides a visual aid to illustrate the difference in means between the groups, where *the principal creates opportunities for staff development regarding assessment*, or not.

**Figure 2: Difference in groups of means for *the principal creates opportunities for staff development regarding assessment*.**



The ANOVA and Bonferroni post-hoc test revealed that there is a difference in the principals' empowerment actions among the schools in the various locations in the Free State. The above bar chart (Figure 2) visually compares the means of the three groups of schools in the Free State, ranging from 2.5 to 3.5. The average for principals' staff development actions in township schools (the lowest of the means) is 2.5, which implies that staff development rarely takes place. The mean score for staff development (which is the highest of the means) in urban schools, is approximately 3.5, implying that the principal creates more opportunities for staff development which therefore seem to consequently enhance the quality of assessment.

The aforementioned discussion places the quality of assessment practices in the Free State under scrutiny and highlights the crucial role of principals to act as assessment leaders and create opportunities for staff development. As staff development regarding assessment does not seem to take place on a regular basis throughout the Province, one may assume that there is a dire need for the development of assessment leadership in some Free State schools.

## **8. Summary of findings and recommendations**

The researcher conducted a preliminary study and determined that there is a correlation between the perceptions of assessment quality and assessment leadership in schools. Consequently, the need for assessment leadership has been revealed which provides a springboard for further research.

A regression analysis revealed a positive correlation between principals' empowerment actions concerning assessment and the perceptions of teachers on the quality of their education. It became clear that continuous improvement forms an essential part of quality management therefore, one may assume that increased assessment leadership, by means of staff development will contribute to the improvement of the quality of assessment in schools. The following elements of assessment are mostly demanded by the teachers. The principal should:

- create opportunities for staff development regarding assessment;
- play a fundamental role in the assessment practices of your school;
- create a culture for quality assessment practices in the school;
- establish a culture for continuous improvement of teachers' assessment skills by communicating quality principles; and
- provide for easy implementation of the assessment policy.

An analysis of variance (ANOVA) was performed to determine whether the location of schools had been significant in the empowerment that had been provided. It was consequently determined that there had been significant differences in terms of the location of the school with regard to assessment leadership provided in the school. Furthermore, the Bonferroni-post hoc test revealed that assessment leadership is almost non-existent in township schools, which may negatively influence the quality of assessment in the school. However, even if assessment leadership in urban schools seems to be a more familiar phenomenon, the relatively low mean score of assessment leadership activities provides sufficient reason to believe that Free State principals are still in need of training regarding the management of assessment in schools.

Following the analysis of the empirical investigation, the following recommendations seem to be justifiable:

- As principals play a decisive role in the quality of assessment practices in schools, they should be trained / empowered for their task as assessment leader. The latter necessitates that the Department of Education should investigate the assessment needs of both teachers and principals, in order to equip principals for their assessment leadership task.
- School leaders need to optimise communication as a tool for quality. Principals should be able to create a culture for continuous improvement in schools by communicating quality principles to teachers. They should therefore have adequate knowledge concerning the principles of quality management.
- Principals need to acquire an understanding and insight into the official assessment policies and guidelines in order to inform the staff and clarify inconsistencies concerning assessment in schools.
- Principals need equal exposure to development opportunities which ensure that every school principal is equipped for the assessment leadership task. Furthermore it is necessary that departmental authorities monitor principals'

assessment leadership practices to ensure that every school, irrespective of its location, are facilitating a system of continuous improvement to enhance the quality of assessment practices.

- Assessment leaders should be aware that teachers require them to create opportunities for staff development, establish a culture for quality improvement and provide support for the implementation of the assessment policy. It is therefore necessary to provide adequate opportunities for the development of principals which would enable them to act effectively.

## **9. Conclusion**

Quality in education is one of the dominant trends influencing education development and transformation. Improving the quality of assessment in schools demands an assessment leader who should determine customers' needs, as well as weaknesses in assessment practices and accordingly create opportunities to empower teachers to strive for the expected standard and meet customer expectations. The latter reflects the changing role of the school principal from administrator to lifelong learner and learning specialist.

An empirical investigation in Free State schools, which was described in the previous section, confirms the importance of an assessment leader. Very few or no assessment leadership programmes have been prevalent in South African schools resulting in the lack of formal training programmes to develop South African principals for their task as assessment leaders. Principals' limited assessment competence seem to hamper the management of assessment quality in Free State primary schools. The latter is substantiated by the observations from the investigation which revealed that numerous principals in Free State schools did not initiate opportunities for empowerment to improve teachers' assessment competence, particularly in township areas. The need to empower principals for their task as assessment leader is therefore imperative for enhancing the quality of education in South Africa.

## Bibliography

- Acock, A.C. 2006. *A Gentle Introduction to Stata*. Texas: Stata Press.
- Arcaro, J.S. 1995(a). *The Baldrige Award for Education. How to Measure and Document Quality Improvement*. Delray Beach: St Lucie Press.
- Arcaro, J.S. 1995(b). *Quality in Education. An Implementation Handbook*. Delray Beach: St Lucie Press.
- Armour, M.K. 2001. Writing Tasks and Measuring Mastery. *Principal Leadership*, January: 54 – 58.
- Benavent, F.B. 2006. TQM Application through Self-assessment and Learning: Some Experiences from two EQA applicants. *Quality Management Journal*, Vol 13 (1): 7 – 25. [Online] Available URL: [www.asq.org](http://www.asq.org).
- Botha, R.J. 2004. Excellence in leadership: demands on the professional school principal. *South African Journal of Education*, Vol 24(3): 239 – 243.
- Brue, G. 2002. *Six Sigma for Managers*. New York: McGraw-Hill.
- Chappuis, S. (2004) Leading Assessment for Learning: Using Classroom Assessment in School Improvement. *Insight*, Vol 18 (3): 18 – 25. [Online] Available URL: [www.assessmentinst.com/forms/INSIGHTnograph.pdf](http://www.assessmentinst.com/forms/INSIGHTnograph.pdf).
- Chirume, F. 2006. *Standards based educational reform and its implications on school-based assessment. Lessons from schools*. Paper presented at the 4<sup>th</sup> Sub-regional Conference on Assessment in Education, hosted by Umalusi from the 26<sup>th</sup> to the 30<sup>th</sup> June.

- Chisholm, L. 2003. *The Politics of Curriculum Review and Revision in South Africa*. Paper presented at the Oxford International Conference on Education and Development, September 2003. [Online] Available URL: [www.hsrb.ac.za/research/output/outputDocuments/2285\\_Chisholm\\_Politics\\_of\\_Curriculum\\_Review.pdf](http://www.hsrb.ac.za/research/output/outputDocuments/2285_Chisholm_Politics_of_Curriculum_Review.pdf).
- Cohen, L. and Manion, L. 1995. *Research Methods in Education. Fourth Edition*. London: Routledge.
- Cooper, D.R. and Schindler, P.S. 2006. *Business Research Methods. Ninth Edition*. New York: McGraw Hill.
- Costa, M.M. and Lorente, A.R.M. 2004. ISO 9000 as a Tool for TQM: A Spanish case study. *Quality Management Journal*, Vol 11(4): 20 – 30. [Online] Available URL: [www.asq.org](http://www.asq.org).
- Cotton, K. 2001. *Applying Total Quality Management Principles to Secondary Education. Mt. Edgecumbe High School, Sitka, Alaska*. School Improvement Research Series. Northwest Regional Educational Library. [Online] Available URL: [www.nwrel.org/scpd/sirs/9/s035.html](http://www.nwrel.org/scpd/sirs/9/s035.html).
- Craft, A. 2000. *Continuing Professional Development. A Practical guide for Teachers and Schools*. London: RoutledgeFalmer.
- Creative Research Systems. 2002. *Correlation*. [Online] Available URL: [www.surveysystem.com/correlation.htm](http://www.surveysystem.com/correlation.htm).
- Csizmadia, T.G. 2006. *Quality Management in Hungarian Higher Education. Organisational Responses to Governmental Policy*. Published PhD Thesis.

University of Twente. Enschede: CHEPS/UT. [Online] Available URL: [www.utwente.nl/cheps/documenten/thesiscsizmadia.pdf](http://www.utwente.nl/cheps/documenten/thesiscsizmadia.pdf).

Darling-Hammond, L. 2005. Teaching as a Profession: Lessons in Teacher Preparation and Professional Development. *Phi Delta Kappan*, Vol. 87(3): 237 – 240.

Demirbag, M., Tatoglu, E., Tekinkus, M. and Zaim, S. 2006. An analysis of the relationship between TQM implementation and organizational performance. *Journal of Manufacturing Technology Management*, Vol 17 (6): 829 – 847.

Department of Education (DoE). 1998. *Draft Assessment Policy in the General Education and Training Phase. Grade R to 9 and ABET*. Pretoria: Government Printers.

Department of Education (DoE). 2005. *The National Protocol on Assessment for Schools in the General and Further Education and Training Band (Grades R – 12)*. [Online] Available URL: [www.education.gov.za/dynamic/dynamic.aspx?pageid=329&catid=9&category=Policies&legtype=null](http://www.education.gov.za/dynamic/dynamic.aspx?pageid=329&catid=9&category=Policies&legtype=null).

Department of Education. 2006(a). *Education Statistics in South Africa at a Glance in 2005*. [Online] Available URL: [www.education.gov.za/emis/emisweb/statistics.htm](http://www.education.gov.za/emis/emisweb/statistics.htm).

Department of Education. 2006(b). *National Curriculum Statement Grades R – 9. Orientation Programme – Grades 8 and 9. Participant's Manual. Part A: Generic*. Pretoria: Government Printers.

Eastern Cape Department of Education. 2002. *Research and Interventions*. [Online] Available URL: <http://www.ecdoe.gov.za/research/research.htm>.

- Fleisch, B.D. 2002. *Managing Educational Change. The State and School Reform in South Africa*. Sandown: Heinemann Publishers.
- Harris, A. and Muijs, D. 2003. Teacher Leadership and school improvement. *Education Review*, Vol 16(2): 39 – 42.
- Hearne, J. 2001. *Assessment as a Tool for Learning*. [Online] Available URL: [www.newhorizons.org.strategies/assess/hearne.htm](http://www.newhorizons.org.strategies/assess/hearne.htm).
- Hellriegel, R., Jackson, S.E., Slocum, J., Staude, G., Amos, T., Klopper, H.B., Louw, L. and Oosthuizen, T. 2004. *Management. Second South African Edition*. Cape Town: Oxford University Press.
- Hess, F.M. and Kelly, A.P. 2007. Learning to Lead: What Gets Taught in Principal-Preparation Programs. *TC Record. The Voice of Scholarship in education*, Vol 109(1). [Online] Available URL: <http://www.tcrecord.org/content.asp?contentid=12742>.
- Jacobs, M., Vakalisa, N. and Gawe, N. 2004. *Teaching-Learning Dynamics. A Participative Approach for OBE*. Sandown: Heinemann Publishers.
- Juran Institute. 2005. *The leading provider of training and consulting Solutions to Attain Quality Leadership*. [Online] Available URL: <http://www.juran.com>.
- Kanold, T.D. 2006. The Flywheel Effect. Educators Gain momentum from a model for continuous improvement. *Journal of Staff Development*, Vol. 27 (2): 16 – 21.



- Kerlinger, F.N. and Lee, H.B. 2000. *Foundations of Behavioral Research. Fourth Edition.* Fort Worth: Harcourt College Publishers.
- Knipe, C. and Speck, M. 2002. Improving Competence in the classroom. *Principal Leadership*, October: 57 – 59.
- Lombard, E. 2006. Good Sales Strategy integral to success. *Business Day. Real Business*, 21 August 2006: pp 1.
- Marsh, D.D. 2000. Educational Leadership for the twenty-first century. In: Fullan, M. (Ed). *Educational Leadership.* New York: John Wiley and Sons.
- McMillan, J.H. 2004. *Classroom Assessment. Principles and Practice for Effective Instruction.* Boston: Pearson Education Inc.
- Meyers, L.H. 2005. Time for a tune-up. *Comprehensive Curriculum Evaluation. Principal Leadership*, Vol 6(1): 27 – 30.
- Sallis, E. 1996. *Total Quality Management in Education.* London: Kogan Page.
- Saunders, N. and Stockton, A. 2005. Transition into headship: leading improvement as a new headteacher. *Management in Education*, Vol 19 (4): 7 – 14.
- Statistics Solutions. 2006. *Correlation.* [Online] Available URL: [www.statisticssolutions.com/correlation.htm](http://www.statisticssolutions.com/correlation.htm).
- Steyn, T. 2007. Adhering to the assumptions of invitational education: a case study. *South African Journal of Education*, Vol 27 (2): 265 – 281.

- Stiggins, R.J. 2001. The Unfulfilled Promise of Classroom Assessment. *Educational Measurement*, Fall: 5 -15.
- Stiggins, R. 2005. Rethinking the Motivational Dynamics of Productive Assessment. *Manitoba Association of School Superintendents Journal*, Spring: 8 – 12. [Online] Available URL: [www.measuredprogress.org/pd/products/papers/index.html](http://www.measuredprogress.org/pd/products/papers/index.html).
- Sunday Times*. Curriculum 2005 in a shambles. Frustrated teachers fear troubles will prejudice pupils. 8 July 2001, pp. 10.
- Svensson, M. 2004. *TQM-Based Self-Assessment in Educational Organizations. Help or Hindrance?* Unpublished Doctoral Thesis. Luleå University of Technology. Department of Business Administration and Social Sciences. Division of Quality and Environmental Management. [Online] Available URL: [www.ltu.se/forskning/1.16009?purefamily](http://www.ltu.se/forskning/1.16009?purefamily).
- Thomas, H. 2003. The arguments for and the meaning of quality. *English Language Teaching Journal*, Vol. 57(3): 234 – 241.
- Volksblad*. 2005. Leerkragte vrees nuwe kurrikulum. Kursus aangebied om hulle te bemagtig, 28 July.
- Volksblad*. Leerkragte nie maklik bevorder. Klem val nou op gehalte. 19 September 2006, pp. 7.
- Walsh, A. and Ollenburger, J.C. 2001. *Essential Statistics for the Social and Behavioral Sciences. A Conceptual Approach* New Jersey: Prentice Hall.

UNESCO. 2003. *General Conference, 32<sup>nd</sup> Session. Ministerial Round Table Meeting on "Quality Education"*. October 2003. [Online] Available URL: [http://portal.unesco.org/en/ev.php-URL\\_ID=15505&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/en/ev.php-URL_ID=15505&URL_DO=DO_TOPIC&URL_SECTION=201.html)

Addendum A:  
Registration of Research Project  
*Department of Education*



Enquiries : Gaborone MMA  
Reference no. : 16/4/1/18-2007

Tel : 051 404 8658  
Fax : 051 447 7318

2007-06-19

**Ms. N. Marais**  
**Arcadia 52**  
**Verster Street**  
**UNIVERSITAS**  
**9324**

Dear Ms. Marais

## REGISTRATION OF RESEARCH PROJECT

1. This letter is in reply to your application for the registration of your research project.
2. Research topic: **Assessment towards quality improvement in Free State primary schools: A management challenge.**
3. Your research project has been registered with the Free State Education Department.
4. Approval is granted under the following conditions:-
  - 4.1 Educators and officials participate voluntarily in the project.
  - 4.2 The names of all schools and educators involved remain confidential.
  - 4.3 The questionnaires are completed and the interviews are conducted outside normal tuition time.
  - 4.4 This letter is shown to all participating persons.
  - 4.5 A bound copy of the report and a summary on a computer disc on this study is donated to the Free State Department of Education.
  - 4.6 Findings and recommendations are presented to relevant officials in the Department.
5. The costs relating to all the conditions mentioned above are your own responsibility.
6. **You are requested to confirm acceptance of the above conditions in writing to:**

**The Head: Education, for attention:**  
**DIRECTOR : QUALITY ASSURANCE**  
**Room 401, Syfrets Building**  
**Private Bag X20565, BLOEMFONTEIN, 9301**

We wish you every success with your research.

Yours sincerely

  
FR SELLO  
DIRECTOR : QUALITY ASSURANCE

Department of Education ∇ Departement van Onderwys ∇ Lefapha la Thuto

## Addendum B: Questionnaire

## LEADERSHIP AND QUALITY IN ASSESSMENT

The questionnaire forms part of a situation analysis to determine assessment leadership in Free State schools. Your honest view is appreciated. This questionnaire will be handled anonymously. Thank you for your participation.

When the (National) Assessment Policy is mentioned in a question, it refers to the *The National Protocol on Assessment for Schools in the General and Further Education and Training Band (Grades R – 12)*.

Use an X to indicate the appropriate option

<b>1.</b>	<b>Type of school</b>	
1.	Pre-Primary School (Gr R)	
2.	Primary school (Gr 1 - 7)	
3.	Secondary School (8 - 12)	
4.	Combined	
5.	Other (Specify): _____	

<b>2.</b>	<b>Location of the school</b>	
1.	Urban	
2.	Township	
3.	Rural	

<b>3.</b>	<b>Designation of teacher</b>	
1.	Teacher	
2.	Head of Department	
3.	Head of the Grade	
4.	Deputy Principal	
5.	Other (Specify): _____	

<b>4.</b>	<b>Gender</b>	
1.	Female	
2.	Male	

<b>5.</b>	<b>Age:</b> _____	
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<b>6.</b>	<b>Teaching experience (in years):</b> _____	
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<b>7.</b>	<b>Formal qualification (completed)</b>	
1.	2 year diploma	
2.	3 year diploma	
3.	Degree	
4.	Degree and Diploma	
5.	More than one degree	
6.	Other (Specify): _____	

<b>8.</b>	<b>What do you regard as quality in assessment? (You may respond to more than one option)</b>	
1.	When all the learners in my class perform well in an assessment task	
2.	When an assessment instrument (rubric/checklist/test/etc.) measures what it intends to measure	
3.	When all the learners in my classroom pass the grade	
4.	When teachers of the school work together to plan an assessment schedule	
5.	When all the teachers of the grade use similar assessment tasks	
6.	When the principal monitors assessment in my classroom	
7.	When a senior member of staff monitors assessment in my classroom	
8.	When parents are satisfied with their children's progress	
9.	When assessment assists teachers in identifying learners' strengths and/or weaknesses	
10.	When assessment provides information about learners' progress and/or achievement.	

<b>9.</b>	<b>Did you attend any workshop(s) on assessment?</b>	
1.	Yes	
2.	No	
3.	Not sure	

<b>10.</b>	<b>How many workshops on assessment did you attend?</b>							
	None	1	2	3	4	5	More than 5	

<b>11.</b>	<b>When was the last time you attended a workshop on assessment?</b>							
	Before 2000	2000	2001	2002	2003	2004	2005	2006

Indicate to which extent you agree with the following statements		Strongly agree	Agree	Not sure	Disagree	Strongly disagree
12.	I found the assessment workshop(s) very useful	1	2	3	4	5
13.	The assessment workshop(s) helped me to develop the necessary skills to implement the Assessment Policy	1	2	3	4	5
14.	The assessment workshop(s) improved my assessment skills	1	2	3	4	5



Indicate how often the following takes place in your school.		Not at all	Rarely	Sometimes	Frequently	Extensively
15.	Staff development that are focused on the development of assessment skills.	1	2	3	4	5
16.	Staff development results in noticeable improvement in assessment practices in our school.	1	2	3	4	5
17.	The development of teachers' assessment skills improves learner progress in the school	1	2	3	4	5

<b>18.</b>	<b>Indicate the nature of activities which improves the quality of assessment in your school. (You may respond to more than one option)</b>				
1.	None				
2.	Support from the principal				
3.	Mentoring (advice from a senior member of staff)				
4.	Networks (teachers working in groups to discuss information and problems regarding assessment)				
5.	Sharing practice (planning assessment together)				

To what extent does the following take place in your school...		Not at all	Rarely	Sometimes	Frequently	Extensively
19.	The principal supports teachers in their assessment tasks.	1	2	3	4	5
20.	The principal shows the necessary skills to support staff in classroom assessment.	1	2	3	4	5
21.	The principal creates opportunities for staff development regarding assessment.	1	2	3	4	5
22.	The principal creates a culture for the continuous improvement of teachers' assessment skills.	1	2	3	4	5
23.	The principal acts as an assessment leader in your school.	1	2	3	4	5
24.	The principal engages in professional development activities to enhance the quality of assessment in the school.	1	2	3	4	5
25.	The principal plays a fundamental role in the assessment practices of your school.	1	2	3	4	5
26.	The principal facilitates assessment task teams in the school.	1	2	3	4	5
27.	The principal creates a culture for quality assessment practices in the school.	1	2	3	4	5
28.	The principal provides for easy implementation of the Assessment Policy.	1	2	3	4	5
29.	The principal establishes clear criteria to support classroom assessment.	1	2	3	4	5
30.	The principal monitors assessment in your classroom.	1	2	3	4	5

<b>31.</b>	<b>Which assessment instruments would you use to conduct formative assessment in your classroom? (You may respond to more than one option)</b>	
1.	Formal tests	
2.	Homework	
3.	Informal observations	
4.	Quizzes	
5.	Worksheets	
6.	Projects	

<b>32.</b>	<b>Which item do you regard as the best example of an authentic (grounded in real world context) assessment task?</b>	
1.	Jane's mother gave her R20. She buys a can of cooldrink which costs R5. She buys an ice-cream of R7-50 and two lolly's of R1-50 each. How much money has Jane got left?	
2.	Use imitation money and give learners the opportunity to play a shopping game in the classroom. They can go to the shop in the classroom and use the imitation money to buy their goods. The shopkeeper has to calculate the price and the change.	
3.	Organise a trip to the grocery store. Each child is required to bring money to the school to buy something from the shop. They need to write down their initial amount of money, as well as the price of the items they are buying in order to calculate the change they should get. When they buy the items and receive their change, they can check their calculations.	

<b>33.</b>	<b>Indicate which task is appropriate for assessing learners' analysing skills?</b>	
1.	Building a model car	
2.	Selected response questions	
3.	Make a summary of a paragraph from your reading book	
4.	Content based questions	
5.	Concept mapping	

<b>34.</b>	<b>You want to assess learners' reasoning skills. Indicate which assessment task would be the most appropriate.</b>	
1.	Do some African farmers struggle to make a living?	
2.	Describe how the weather, soil, politics and poverty in Africa contribute to the fact that farmers struggle to make a living.	
3.	Why do you think that African farmers struggle to make a living?	
4.	Explain how the weather, soil, politics and poverty in Africa contribute to the plight of farmers. Indicate which of these factors contribute most to the farmers' difficulties and give reasons for your answer.	

35.	<b>You want to assess learners' writing, reasoning and communication skills, as well as their ability to determine position in space. Which of the following tasks would be most appropriate?</b>	
1.	Write an essay on How to build a house.	
2.	Work in groups of six and write an essay where you explain how you would build your own house.	
3.	Work co-operatively and write an essay to explain how you would build your own house.	

36.	<b>Which of the following assessment techniques would you use to assess a child's reading proficiency</b>	
1.	Listen when the child is reading aloud	
2.	Ask the child to read the paragraph silently and summarise it afterwards	
3.	Tell the child to read the paragraph and ask questions afterwards	
4.	Tell the class to read a paragraph and give them a test afterwards	
5.	Learners read aloud to one another and assess their peers	

37.	<b>The following grading scale is used to assess a literacy project.</b>				
		1	2	3	4
	Language used				
	Spelling				
	Layout				
	<b>You rate the learner's abilities based on.....</b>				
1.	The school's Assessment Policy provides guidelines which informs me how to determine when a learner achieves a 4;3; etc.				
2.	The teachers in my school determine rules which inform me how to determine when a learner achieves a 4;3; etc.				
3.	The teachers in my grade determine rules which inform me how to determine when a learner achieves a 4;3; etc.				
4.	I make a decision based on my own subject knowledge which determines whether a child achieves a 4,3,etc.				

38.	<b>How would you rate your confidence when you use grading scales in your classroom?</b>	
1.	I have enough subject knowledge to make a confident decision when grading learners' work	
2.	I feel that I need support from my colleagues when grading learners' work	
3.	I feel that I need guidelines which inform me how to determine whether learners achieved a 4;3;etc.	
4.	I don't use grading scales	

<b>39.</b>	<b>Which of the following types of assessment do you <u>prefer</u> to use in your school? (You may respond to more than one option)</b>	
1.	Formative assessment	
2.	Summative assessment	
3.	Continuous assessment	
4.	Baseline assessment	
5.	Diagnostic assessment	
6.	Group assessment	
7.	Parent assessment	
8.	Peer assessment	
9.	Self assessment	
10.	Systemic assessment	

<b>40.</b>	<b>When using rubrics/checklists/grading scales to assess learners.....</b>	
1.	I develop my own rubrics/checklists/grading scales	
2.	The teachers in the grade work together to develop rubrics/checklists/grading scales	
3.	The head of the grade develops rubrics/checklists/grading scales	
4.	The school's assessment task team develops the school's rubrics/checklists/grading scales	

<b>41.</b>	<b>Which of the following assessment instruments do you <u>prefer</u> to use in your classroom? (You may respond to more than one option)</b>	
1.	Co-operative learning project	
2.	Demonstrations	
3.	Tests	
4.	Informal observation	
5.	Content based test	
6.	Reading assignment which includes a comprehension test	
7.	Group assignment	
8.	Interviews with parents	
9.	Checklist	
10.	Rubric	

<b>42.</b> What do you regard as the principal's responsibility in assessment in a school?          
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