

Exploring the influence of the school setting on quality of education in a rural context in South Africa

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Abstract

Quality of education and achievement of learners should be the commitment of every educational system. Yet institutions have their unique characteristics that either facilitate or hinder the achievement of universal primary educational goals. Individual schools therefore initiate their own mechanisms, unique or used by other institutions, to ensure quality in schools. This study focused on how school-based factors influence quality of education in primary schools. The great concern was the poor performance of learners in English and Mathematics. This study employed a qualitative design to gather systematic, comprehensive and in-depth information. Data were collected using focus group interviews with twenty Grade 6 English and Mathematics teachers. Data collected was transcribed, categorised and presented as themes with verbatim quotes from the participants to support the themes. The findings reveal that most teachers lack the requisite knowledge of English and Mathematics content to improve learners' performance. The findings show that quality and achievement challenges brought by the implementation of free primary education in King Cetshwayo primary schools in KwaZulu-Natal are still prevalent. Understaffing; insufficient syllabus coverage; overcrowded and deficient classrooms; and inadequate instructional materials are some of the factors that have impacted on the quality of education in schools. The study also found that there are inadequate teacher development programmes for English and Mathematics to regularly capacitate them on how to improve learner results in English and Mathematics. The study recommends that principals, teachers, parents and government need to put measures in place that will address quality challenges in schools to ensure the realisation and sustainability of Universal Primary Education and the Millennium Development Goals (MDGs). The study therefore recommends that the Department of Basic Education should ensure that teacher developmental programmes are conducted as frequently as possible at the cluster level, circuit and district levels to enrich teachers with pedagogical knowledge that they need to improve the English and Mathematics performance of their learners.

Keywords: School-based factors, quality education, achievement, assessment, curriculum narrowing

Introduction

The issue of academic performance of primary school learners in South Africa has been of much concern to all stakeholders (Khumalo, 2014). Many countries have come to realise that learners are the heart of educational processes and that without good learner performance, all educational reforms are destined to failure. Jaiyeoba (2011) argues that primary education is the foundation on which subsequent education is built. Consequently, the broad goals of primary education are aimed at preparing the individual for useful living within society and to progress to higher education. It can therefore be argued that education at primary school level is the key to the success and/or failure of the whole education system.

Performance of learners in basic education is considered a vital indicator of good schooling. Accordingly, the reported poor performance of learners at the basic level of education has not only led to public outcry, but educationists have also been increasingly occupied in the attempt to identify factors that influence performance of learners in primary education (Adane, 2013). According to Asikhia (2010), various states and governments globally spend a large share of their budget on the education sector, yet this does not yield desired results. Educators also complain about learners' poor performance in both internal and external examinations (Asikhia, 2010). This is of importance since academic performance of primary school learners in such external examinations has been used to determine excellence. The South African government introduced Free and Compulsory Basic Education in 1994 with the view to improving the quality of the educational system. Through the Free and Compulsory Basic Education Programme, the government seeks to ensure that all learners are equipped with the fundamental knowledge and skills that will enable them to be full stakeholders and beneficiaries of development (Department of Education, 2012).

Various researchers internationally and locally have investigated and found a number of factors that contribute to poor performance in primary schools (Ong et al., 2010; Pretorius & Currin, 2010). These studies have shown that the majority of primary schools which serve African children in South Africa still reflect the legacy of apartheid schooling: they serve low socio-economic communities, are poorly resourced and are often poorly managed. Further, classes

are large, and teachers are often poorly qualified (Pretorius & Currin, 2010). Additionally, the effects of poor academic achievement during the early school years often carry over to the adolescent years, with a higher proportion of school dropouts, behavioural problems and even delinquency among this population. Anamuah-Mensah (2007) attributed the phenomenon to the lack of effective supervision and monitoring at school, lack of motivation for teachers and inadequate numbers of qualified teachers to fill the teacher's place in overfilled classrooms.

Locating learner performance within a South African context

In the study conducted by Hoadley (2010) in the Western Cape Education Department, many of the research projects showed that little reading and writing was being done in classrooms, with a lack of textbooks for use emerging as the main cause. The researchers further found that, although educators were implementing forms of 'learner-centred' practice and co-operative learning, very little learning was taking place. The Khanyisa Baseline Project assessed a sample of Grade 3 teachers in their 24 schools in Western Cape, testing them on Grade 6 Mathematics and Literacy items. The results indicate the low levels of literacy and numeracy among this small sample of teachers (Hoadley, 2010). The introduction of other educational policies such as the Revised National Curriculum Statement, National Curriculum Statement and currently Curriculum Assessment and Policy Statement has also been aimed at redressing the imbalances of the past and improving the quality of education in South Africa. After all these attempts, it is so surprising that the Annual National Assessment (ANA) reveals a tremendous decline of performance of learners in Mathematics and English.

The worrisome problem in South African schools has been the observation that, in spite of relatively large investments made into education compared to neighbouring countries, increased inputs do not seem to match the observed learning outcomes (Chisholm & Wildeman, 2013). Both regional and international benchmarking studies continue to show that the level and quality of learning outcomes in South African schools tend to be lower than those of countries that invest significantly less in their schooling sectors (Moloi & Chetty, 2010).

Studies have shown that educator quality—whether measured by content, experience, training and credentials or general intellectual skills—are strongly related to learners' achievement

(Stronge et al., 2007). The study by Stronge, et al. (2007) on the relationship between educator quality and student achievement in Virginia reported that basic teacher qualification in the United States, as stipulated in No Child Left Behind Act of 2001, is certainly an important starting point in the critical role played by educators in students' learning. Ordinary least squares regression analyses and hierarchical linear modelling were used by Strong et al. to identify teacher's effectiveness levels based on qualifications while controlling for student-, class- and school-level variables. Based on student gains, findings by Stronge et al. indicated that effective educators were those with higher qualifications. The above argument implies that educators' qualifications lead to educator quality and competence which eventually improve learner's performance. This view is also echoed by Dobbie (2011) who found that educators' academic achievement, leadership, experience and perseverance are associated with student gains in Mathematics and English. These findings suggest that educator success can be predicted by his or her qualifications. Although we acknowledge that teacher's qualifications play a vital role in learners' achievements, there are teachers with few qualifications who produce good results (Khumalo, 2014). However, such cases are very rare and sporadic. Thus, educators who do not have professional and academic teaching qualifications are likely to have a negative impact in their teaching and learning of the learners.

Ochwo (2013) examined the importance of subject content on teacher performance. However, the author noted that the formal level of education of the teacher is not necessarily synonymous with quality or competence. In the same vein, Ochwo's classroom observations in different countries show that certain teachers have insufficient mastery of the subject matter that they teach. In addition, the author found that many teachers lack the pedagogical knowledge required for good presentation of the material. Therefore, besides professional training, subject knowledge plays a crucial role in teacher performance and has an impact on the quality of teaching. However, studies completed in two African countries, namely Tanzania and South Africa, show that teacher professional development is a predictor of student academic performance, especially in critical subjects such as Literacy and Mathematics. The studies found that more than three years of training had a positive impact on student performance in Mathematics. Similarly, studies in the United States have found that teacher professional development can impact student achievement (Fullan & Stiegelbaue, 2007; Raudenbush et al., 1993; Vainikainen, 2014).

Kanjee and Sayed (2013) argue for greater use of assessment for learning practices; they identify the lack of capacity of teachers (and support to teachers) in making effective use of assessment to inform teaching. Kanjee and Moloi (2014) argued that a single most critical challenge to address when dealing with effective use of assessments pertains to supporting teachers and schools in enhancing their use of assessment results to improve learning in all classrooms. In this regard, Marsh (2012) notes that although districts occupy a strategic position to support schools in developing a culture of data-driven interventions, one of the limiting factors towards district support for schools is the lack of capacity at that level. It is therefore important to highlight the significance of teacher competency coupled with evidence-based interventions towards enhancing assessment effectiveness and ultimate enhanced learner achievement.

Skinner's conception of achievement: A learning theoretical framework

This study is guided by Learning Theory that was developed by Skinner (1965). According to Skinner, achievement varies among individuals for a range of reasons. Levels of performance and aspirations of learners depend on factors that are linked to school environmental factors and socio-economic factors such as lack of education of parents and family income. Maicibi (2005) believes that a good environment should be provided by the home if learners must learn, if the school administration must be successful and if the school must develop. The theory further emphasises the importance of motivation of educators, involvement in learning by learners and involvement of parents in supporting their children's education. The implication of this theory to the study in relation to teaching and learning is that for teaching and learning to be effective and efficient in improving performance, adequate provision of teaching-learning materials and other study material need to be considered. Thus, the school instructional materials are also educational inputs, and they are of vital importance in the successful implementation of any curriculum. Relevant and appropriate textbooks, visual and audio-visual materials like charts, slides, tapes and so forth, are paramount in the teaching-learning process (Obanya, 2009; Isola, 2010 & Momoh, 2010). According to Nyipir (2010), the higher the status of a family, the more likely it motivates its children to learn and perform better. Skinner advised that for proper learning to take place, learning experience should be guided and appropriately controlled. This means the environment or the circumstances under which learning occurs should be supportive and conducive for effective teaching and learning.

Problematising academic performance of learners

Performance of learners in basic education has received much attention in the South African educational system. Every academic year when results are released, educational stakeholders raise concern about the declining performance of learners in Mathematics and English examinations. Overall, the analysis of the assessment tasks and tests show poor results in English and Mathematics. Extremely important are concerns pertaining to whether the educators are providing quality education and how this is reflected in the test scores of their learners. Poor performance has persisted despite it being assumed that schools have adequate and well-trained teachers (Khumalo, 2014). Odhiambo (2008) argues that there is the urgent need to undertake comprehensive evaluation of educators in public schools simply because their professional performance cannot be separated from their learners' achievement of expected outcomes. He adds that there is the need to invest regularly in the development of educators, as educators require access to continuous and effective updating. For this reason, the present study investigates factors that are responsible for the poor academic performance of learners in primary schools. In light of the outlined problem, this study attempts to respond to the research question: What role is played by teachers in the academic performance of learners?

Rationale behind the focus on the influence of the teacher on learner performance

It is envisaged that the findings of this study may reveal factors that influence the academic performance of learners in primary education examinations in King Cetshwayo District, KwaZulu-Natal. This exposition would help the King Cetshwayo District directorate to develop workable measures or strategies that are likely to improve the performance of learners in primary education.

The study would provide information that is likely to be useful for the purposes of all stakeholders in education in the district. It may also serve as a reference material for policy makers to consider in the design of programmes to pursue for basic education that might yield good results. It will thus assist in meeting the government Millennium Development Goals (MDGs) and Education for All by the year 2025—that by this year performance of primary learners would have been improved to 90% in English and Mathematics (DoE, 2012).

Research methodology

This study adopted a qualitative approach in which group conversations with primary school teachers became a prominent feature. The purpose of a focus group discussion is to produce qualitative data to provide insights into the attitudes, perceptions and opinions of participants (Krueger, 1994). This approach to data collection was opted for to determine the factors that

influence the academic performance of learners in primary education examinations in King Cetshwayo District; it was also used to determine concerns of educators about the challenges of poor performance by learners on teaching and learning process in primary schools. Consent of participants was established and they were free to withdraw at any time from participation. Data and methodological triangulation were performed to enhance the validity of the study. Data was analysed by identifying the emerging themes across the full set of data received from the participants.

Study sample and related sampling techniques

The sample population consisted of one English and one Mathematics teacher in Grade 6 from each of ten primary schools in King Cetshwayo District in KwaZulu-Natal province in South Africa. In all, twenty Grade 6 English/Mathematics teachers (10 English and 10 Mathematics teachers) participated in the study. Random sampling was not feasible for the study since the researchers wanted to ensure that they obtained a sample that would be suited to the intent of the study. One of the objectives of the study was to determine how the ANA influences teaching and learning in primary schools.

The researchers adopted a purposive sampling technique to select English as well as Mathematics Grade 6 teachers (intermediate phase) at King Cetshwayo District primary schools as the population for this study. The researchers specifically selected these participants as they had in-depth knowledge of what takes place during the teaching and learning process. They could provide detailed data on learner performance in English and Mathematics. Given this background, it is appropriate to describe the purposive sample for the study as a “distinctive sample” (Fraenkel & Wallen, 2009), which is a sample considered to be typical of that which is being studied.

Instrumentation

Instrumentation refers not only to the description of data collection instruments but also to the way in which the instruments are developed and administered in the study (Fraenkel & Wallen, 2009). Methods of instrument manipulation are considered here as having an inherent bearing or threat to the internal validity of the study. The primary data collection source was five focus group interviews consisting of twenty teachers of English/Mathematics. An interview schedule for all participants was developed to guide the interview sessions.

Data collection

A researcher ensured that all participants from ten schools assembled at a central point for the purposes of data collection. The school where one of the researchers teaches was used as the venue in which participants and researchers assembled. Five sets of focus group interviews were held with two Grade 6 English teachers and with two Grade 6 Mathematics teachers.

Each focus group interview lasted between 30 minutes and 2 hours; this is a common duration for focus group interviews.*Ethical considerations*

Ethical clearance for conducting the study was obtained through the institutional ethics committee of the University of Kwazulu Natal and all suitable consenting participants were recruited into the pilot study.

Findings and discussion

Data was analysed by identifying the emerging themes across the full set of data received from the participants. Analysing the data involved analysing and synthesising the information obtained from the focus group interviews with the teachers. The themes that emerged are set out in Table 1.

Table 1: Sampled teachers' responses and emerging themes

Benefits of Assessment Tasks	Teacher	"Assessment Tasks to me serve as a measuring stick in my classroom. It assists me to identify my teaching methods and techniques whether they suites my learners' understanding in teaching and learning in the classroom to improve learner results."
Lack of Mathematics and English support and knowledge	Teacher	"Subject advisers do not play their role for ensuring the functionality of teaching and learning in the schools. Such weakness and poor visit to give lead to learner poor performance especially in critical subject such as English and Mathematics."
In-service programmes to improve learner results	Teacher	"Among the challenges that we have is that there are no regular content workshops to enrich our knowledge when preparing for and also after administering assessments so as to improve learner performance. Therefore, more content workshops on how to improve learner performance are essential if learner results in are to improve."

Instructional leadership from the School Management Team (SMT)	Teacher	“To be honest with me regarding the preparation of in my teaching and learning I do not get any support from my principal and my Departmental Head. When it is time for test and assessment preparation and writing I am on my own looking for information from neighbouring schools on how to prepare my learners.”
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Benefits of assessment tasks

Conducting learner assessment tasks assists in the identification and ultimately addressing of learner problems is regarded by many teachers as the most critical contribution of improving learner performance in English and Mathematics. In this regard one educator commented: Learner continuous assessments serves as a measuring stick in my classroom. It assists me to identify my teaching methods and techniques whether they suites my learners’ understanding in teaching and learning in the classroom to improve learner results.

Another teacher responded as follows:

Assessment tasks equips me with the style of teaching and learning for my learners. It also helps me with the format to set my internal question papers that are on par with learners’ learning. Through testing, all learners all exposed in external testing in preparing them for the future.

Teachers revealed that assessment tasks help them discover their weaknesses and strengths in certain topics; they try to look thoroughly at their weaknesses and pay special attention to those when teaching, while not overlooking their strengths (but catering for both).

Curriculum specialists’ lack of support and knowledge

The study points out that there is a dearth of English and Mathematics support and knowledge from the subject advisers (curriculum specialists) to improve teaching and learning in schools. Teachers believed that lack of English and Mathematics support and knowledge from the

subject specialists is a cause of poor learner performance in English and Mathematics. In this regard one educator commented:

Shortage of English subject specialists is another challenge that causes poor performance in, because it is difficult for us in our school to get assistance when we need curriculum support due to lack of visit and support of curriculum specialists.

The role of curriculum, as emphasised by Asikhia (2010), is central to learner performance and any gap in this regard usually has consequences on both learner and teacher performance. Teachers emphasised that curriculum advisers do not come to their schools to give them support and knowledge regarding improving learner performance in English and Mathematics". This is how one educator added:

Since I have started teaching in this school three years ago I have not seen any curriculum adviser to come and give me support as how to improve my learners' performance in English and Mathematics. My school is always performing poor because of lack of knowledge and support.

Teachers believe that regular visits of curriculum advisers that provide support and content knowledge in English and Mathematics in schools is imperative for improving learner performance. They suggested that the Department of Basic Education (DBE) should increase the number of curriculum advisers for the benefit of teachers to improve learners' performance in English and Mathematics.

Instructional leadership from the School Management Team

Regarding the poor performance of learners, the study found that there is a vacuum in terms of the different instructional leadership roles that should be played by the respective School Management Teams (SMTs); the SMT of each school should be contributing to improved learner performance in English and Mathematics. However, teachers complained that their SMTs do not take an active role in ensuring that teachers are given necessary support, guidance and sufficient teaching and learning materials to prepare learners. In this regard one educator remarked that:

I think that the SMT needs to guide and support teachers concerning English and Mathematics preparation by ensuring that learning support materials are supplied in time at school. They must ensure that all learners have workbooks, and those workbooks are utilised for effective teaching and learning to improve learner performance.

Therefore, the SMT must ensure that the DBE supplies the school with more exemplars and other support materials like assessment guidelines and Annual Teaching Plans that talk to improving learner performance. Monitoring should be done to ensure that these documents are used properly to improve learner performance in English and Mathematics.

In-service programmes to improve learner performance

In relation to in-service programmes aimed at improving their English and Mathematics performance, teachers alluded to the problem that although workshops are sometimes conducted, there is not enough time to engage with the content. Lack of adequate training results in teachers struggling to discuss learners performance in English and Mathematics. In this regard, one educator commented:

Among the challenges that we have regarding English and Mathematics is that there are no regular content workshops to enrich our knowledge when preparing for administering assessment tasks so as to improve learner performance. Therefore, more content workshops on how to improve learner performance are essential if learner results are to improve.

Teachers emphasised that there is the need for in-service programmes to capacitate teachers with knowledge in English and Mathematics; however, it appears that a key challenge is the capacity of the circuit or district to provide teachers with the training they require.

Conclusions

Teachers need to provide quality teaching and learning of English and Mathematics. However, the paper has shown that English and Mathematics teachers lack adequate expertise mainly because of inadequate support and knowledge from the English and Mathematics curriculum advisers. The SMTs also seem to lack strategies to monitor the implementation of curriculum in schools. Teachers need to acquire sufficient pedagogical content knowledge of these subjects. Further, they need to be afforded the opportunity of extra lessons for learners with learning difficulties. They must understand that learners have different learning abilities and furthermore, parents need to take an active role and support the education of their children. Item analysis needs to be the eminent priority for schools after assessments have been administered. Item analysis serves as the basis for the development of appropriate intervention strategies that could address the issue of learners' performance in English and Mathematics.

English and Mathematics teachers need to scrupulously analyse (question by question) learners' scripts to identify the areas that need urgent attention in the performance of the learners.

Recommendations

Lack of adequate pedagogical content knowledge of English and Mathematics teachers to teach effectively is a challenge that leads to poor performance of learners in the ANA. Teachers should acquire a good knowledge of the subject matter. This will result in teachers teaching competently and confidently. A display of subject incompetence by an English First Additional Language or Mathematics teacher causes the learners to lose confidence, first in the teacher and then in the subject. Therefore, the DBE also needs to award bursaries to English and Mathematics teachers to further their English and Mathematics studies.

To improve English and Mathematical knowledge, the DBE should aim to ensure that every educator in the system has the basic content knowledge required to cover the curriculum that they currently teach. It is imperative that intensive in-service training that lasts for several weeks per year is required to equip teachers with the knowledge they need to teach effectively.

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