Geography Educators' Perceptions of Learner Performance in Grade 12 Geography in Public Schools

Philip K.A. Ahiaku Dumsani W. Mncube

Abstract

This research study arose out of the perceived poor performance of learners in Grade 12 geography from schools in the uThungulu District. To investigate the cause of the poor performance, the researcher explored Grade 12 educators' perceptions of some of the challenges that could affect the academic performance of Grade 12 geography learners. The mixed method study was used to explore the educators' perceptions. Data were collected from 50 educators who were selected through random and purposeful sampling to participate in both the survey and semi-structured interview. Of the 50 teachers, 40 were selected by means of systematic random sampling to fill in the questionnaires, while 10 were selected through purposeful and convenient sampling to participate in the semi-structured interview schedule. Data collected from the survey were analysed using t-test and Pearson product moment correlation coefficient and descriptive statistical techniques. The findings reveal that gender characteristics of educators, and educators' teaching and marking experience were found to be significantly related to learners' performance in geography in public high schools in the uThungulu District. The results reveal that educators' teaching and marking experience significantly contributes to educator competence in the assessment, and learners' answering of national examination questions.

Keywords: Educator characteristics, teaching experience, educator qualification, learner performance

Introduction

Geography is one of the most important subjects in secondary school education that equips learners with spatial competence to make them functional in life (Kerski 2011). It is a subject that builds young people's own experiences, develops intellectual skills and helps them find answers to local issues affecting their lives as it introduces them to distinctive investigative tools such as maps, fieldwork and use of powerful communication technologies (Gikunda 2016). The need for improved Grade 12 geography learner performance, as noted by Kimathi (2015), cannot be overstated considering high post-matric expectations, Geography is one of the examinable subjects in the school curriculum, but its enrolment and performance have been declining, and this poses a serious challenge for the schools (DBE 2015). Learners' performance in matric attracts the attention of all those involved in the teaching and learning profession. The recent concern for the stakeholders, including the Department of Basic Education, curriculum planners, parents and learners is the poor performance of learners in the final examination.

In recent years, there has been some notable decline in the quality of performance in the matriculation examination in geography as shown in Table 1 below (DBE 2014). The assessment of the NSC examination results six years' cycle for 2009 - 2014 has shown a pattern of considerable decline. Although this phenomenon is consistent with other optional subjects, and the percentages are higher than for mathematics and the sciences, it has raised concern for educators, parents and government over the years. The main concern from the geography educators in the main has been the quality of performance shown by Grade 12 learners in the subject (Innes 2012; Kimathi 2015; Gikunda 2016). Several scholars argue that this situation is not unique to the South African context.

Year	No. wrote	No. achieved at 30% and above	% achieved at 30% and above	No. achieved at 40% and above	% achieved at 40% and above	
2009	215 120	155 481	72.3	84 279	39.2	
2010	209 854	145 187	69.2	85 241	40.6	

Table 1: Performance of learners in geography in the NSC examination in the uThungulu District from 2009 to 2014

2011 199 248
 139 405
 70.0
 84 169

 2012 213 735
 162 046
 75.8
 99 760

 2013 239 657
 191 726
 80.0
 127 976

191 966

42.2

46.7

53.4

54.0

Philip K.A. Ahiaku & Dumsani W. Mncube

Source: DBE (2014)

236 051

2014

Any stagnation in learner performance sends shockwaves to stakeholders in education, and raises serious questions to ponder. No doubt any threat to learner performance is especially disconcerting to stakeholders, especially geography teachers, parents and the Department of Basic Education. Although there are studies confirming the decline of academic performance in general (Adeyemi 2009; Innes 2012; Ncanywa 2014; Omoro & Nato 2014), there is a shortage of comprehensive studies on educators' perceptions of the challenges that influence learners' performance in geography, particularly in the Grade 12 final matriculation examination in South Africa.

81.3

127 358

Purpose of the Study

There is very little previous research extensively undertaken towards exploring the views of educators with regard to the challenges contributing to the poor performance of Grade 12 geography learners. Therefore this study was commissioned to explore the perceptions and experiences of Grade 12 geography educators regarding learners' academic performance at the uThungulu District schools. The objectives of this research were therefore to: 1) gain an understanding of how teacher qualification influences learner performance in Grade 12; 2) explore the reasons for the poor performance of the Grade 12 geography learners; and 3) explore the challenges that Grade 12 educators were perceived to be experiencing with regard to their academic performance. In essence, this study aims at investigating the contribution of teaching experience, marking experience, qualification, content knowledge and pedagogical content knowledge in learner performance. The findings of this study may shed some light on what educators perceive are the challenges influencing learner performance in Grade 12 geography. This study might be used to improve learners' basic educational levels, and provide support for

Grade 12 learners experiencing poor academic performance, as well as for their educators.

The Lens of Teacher Education Teachers' Qualifications and Learner Performance

Educators' characteristics have been identified in both national and international literature as influencing current trends in learner performance. Several studies have suggested that there is a positive relationship between learners' achievements and educators' academic qualifications (Hanushek & Rivkin 2004; Darling-Hammond 2006; Hattie 2009; Hinton & Fischer 2010). Hanushek and Rivkin (2004) posit that learners taught by highly qualified educators perform well, hence are likely to progress faster than those taught by unqualified educators. Darling-Hammond (2006) suggests that high school learners learn more from their educators with higher qualifications in their teaching subjects, especially those with bachelor's and master's degrees. Hattie (2009); Hinton and Fischer (2010) attribute excellent teaching to higher qualifications, and find that an excellent teacher has the ability to teach and has a sound knowledge of the subject, is likely to develop positive relationships with learners, has strong classroom management skills, and works with other members of staff to improve overall school performance.

Some researchers, such as Mji and Makgato (2006), have consistently supported the call for the recruitment of highly qualified educators in South African schools. These authors state that desirable teacher qualities include good subject knowledge, teaching skills and classroom management, sound relationships with learners, dedication, accessibility and hard work. The study conducted by Mji and Makgato (2006) investigated factors associated with high school learners' poor performance in mathematics and physical science in South Africa, and shows that teacher qualifications and quality are crucial in learner performance.

Akinsolu (2010) writing on teachers and learner performance in Nigeria, shows a positive and significant relationship between the quality and quantity of teachers and learner performance in high schools. He found that schools with poor performance lacked qualified teachers. These findings correlate with the work of Adeyemi (2009), which linked excellent teaching skills and other attributes of high quality to teachers' qualifications. He noted,

for example, that a well-qualified geography teacher promotes quality teaching and learning, and the lack thereof leads to a decline in learner performance.

Educators' Experience and Learner Performance

'Experience is the best teacher', goes the English maxim. Studies have shown that educators' years of teaching experience in certain subjects is a determinant of learners' academic performance. A study conducted in California on teachers' experience and learner performance in mathematics by Darling-Hammond (2006) revealed that learners taught by experienced educators performed better than those under novice educators. Darling-Hammond's study concurred with an earlier study done by Rivkin, Hanushek and Kain (2005) in Texas. These authors concluded that less experienced teachers perform significantly worse than more experienced ones.

In South Africa, Bhorat and Oosthuizen (2006) investigated factors that determine the Grade 12 pass rate in the public school system. The result indicated that educators' teaching experience was predictive of Grade 12 performance in the NSC examination. A study on the state of the Eastern Cape schools revealed a positive relationship between educator experience and learner performance (Ncanywa 2014). 'Educator experience was found to be positive and significant in all specifications, indicating a strong positive effect on learner performance' (Ncanywa 2014:13).

Teaching Methodology and Learner Performance

The training and qualification of educators is to equip them with knowledge and skills to enable them to handle the task of imparting that knowledge and those skills (Ganyaupfu 2013). It is the educators' duty to acquire the learning resources and teaching ability to deliver knowledge to learners. According to Innes (2012:6), 'what makes methodology very important in teaching geography is that the methods required for spatial development are quite different from the content'.

According to Omoro and Nato (2014), teaching methods refer to a broad range of teaching styles, approaches, strategies and procedures used by educators to facilitate learning. The appropriate choice of strategy for a particular lesson is a determinant of a successful or unsuccessful lesson. According to these authors, there are various strategies available to an educator to choose from and adapt for a lesson, especially a geography lesson: for example, a lecture discussion, demonstration, project or field trip (Adeyemi 2008; Weeden 2011; Omoro & Nato 2014). Akintade (2011) and Ganyaupfu (2013) state that the choice of an appropriate strategy depends greatly on the quality of the educator, in that a good teacher will always make the right choices and produce good teaching results. The appropriateness of the method used to deliver a particular lesson makes a difference. Akintade (2011) blames the poor performance of learners on poor delivery of lessons by educators using inappropriate strategies. According to Omoro and Nato (2014), teaching is an art which must be done methodically, and when an educator teaches with inaccurate planning, she or he does nothing but recite from the textbook, and rote learning takes place. The lesson delivery from introduction to conclusion should be well planned.

Research Design and Methodology

This article is based on the mixed method approach, which included 50 Grade 12 geography educators teaching in the uThungulu District. A total of 40 educators participated in the survey, while 10 took part in the semistructured interview schedule. Participants completed the questionnaire on their perceptions of what influences learner performance in geography in the NSC. Convenience sampling was used to select the schools offering geography from the list of schools in the district. The selection of respondents was done through multiple stage sampling. First, the district was subdivided into clusters of 10 using the existing clusters, and simple random sampling was employed to select five respondents from each cluster. The researchers made use of three different data collection instruments, namely: inventory, questionnaire and semi-structured interview schedules. The inventory was used to collect results in geography in the NSC in the six years from 2009 to 2014. The questionnaire was structured to address the issues of respondents' biodata and perception of educators on what factors influence learner performance in the NSC Grade 12 examination. The interview schedule was used to augment the questionnaire (Creswell 2008). The content of the questionnaire included issues to do with teaching experience, marking experience, knowledge of pedagogical method, and

Philip K.A. Ahiaku & Dumsani W. Mncube

content knowledge which might influence learner performance in geography in the Grade 12 NSC examination.

Participation in this study was voluntary. Educators who chose to participate submitted their responses personally to their SMT member. All participants were given pseudonyms to protect their identities as ethical research practices as espoused by Maree (2016) were observed in this study. All submissions were completely anonymous so that educators could be honest about their experiences of learner performance in geography without feeling that their answers would affect their work in any way.

The duration of the semi-structured interview was between one to two hours. Semi-structured interviews were used rather than structured interviews as they allowed the participants a platform to guide, and where there was a need for probing, the researcher would be able to steer the interview towards the desired end. Again, semi-structured questions were used to stimulate the session and ensure that all topics were covered, such as participants' backgrounds and experiences, as well as their thoughts and feelings about the challenges that their Grade 12 learners were experiencing.

Data Analysis and Results

The quantitative data were analysed statistically, using the Statistical Package for the Social Sciences (SPSS), while thematic analysis was used to analyse qualitative data. Descriptive statistics such as means, percentages and standard deviation were used in the data analysis. Relationships were established between the dependent and independent variables by means of inferential statistics. Depending on the distribution of the data, the t-test and analysis of variance (ANOVA) were used to specify the relationships between the variables. A 95% confidence level with p-value smaller than, or equal to, 0.05 was used for statistical significance. The qualitative data were transcribed verbatim and the steps followed in order to analyse the data were as follows: coding and grouping similar codes into categories, and then the grouping of the categories into patterns or themes.

To ensure trustworthiness, the 10 geography teachers who participated in semistructured interviews were required to write personal reflective journals to identify any possible biases that they might have had about Grade 12 geography learner performance. In order to enhance the dependability of data, the researcher had to use the services of external auditors (senior researchers), who arranged for peer debriefing after each focus group, and certainly questioned their interpretation of the data after their coding and thematic analysis. In order to enhance credibility, member checking was also conducted by the researchers with all participants after the thematic analysis was completed to ensure that the information was understood correctly by the researcher.

Findings

This section presents findings generated from the survey and semi-structured interviews with Grade 12 educators who participated in this study. Grade 12 geography educators were able to share their views about what could be the challenges facing learners' performance in Grade 12. The triangulation of data is an integrated approach that brings both the quantitative and qualitative instruments together (Cresswell & Clark 2007). The results of this study are presented in two folds. The first section presents the analysis of data collected from the respondents on factors influencing learner performance using the questionnaires and interviews. The analyses were presented as descriptive and inferential statistics which were represented as tables, graphs, percentages, means, and significant tests to determine an association between the variables. The qualitative data were integrated into analysis in order to ensure that verbatim quotations, i.e. the participants' voices, were there to deepen understanding of why learners' performance has been what it has been in recent years.

Educators' Qualifications and Learner Performance

The result from the analysis of collected data on teachers' qualifications shows that most educators (72.5%) in the sample were qualified. However, this figure falls below the average national norm of 97% and the average provincial norm of 92% (Stats SA 2014). In KwaZulu-Natal, the average norm of 92% has been described as the lowest in the country (DBE 2012), and the province has been struggling to recruit qualified educators (Stats SA 2014). The result confirmed that there is a significant number of educators in the uThungulu District who do not meet the Minimum Requirements of Teacher Education Qualifications

Policy of 2007. The policy requires that all educators should be in possession of a BEd degree or appropriate first degree with teaching diploma (PGCE), or a diploma (NPDE, for example).

1						
	Sum of Squares	Df	Mean Square	F	Sig.	
Between Groups	17.873	5	3.575	1.694	.163	
Within Groups	71.727	34	2.110			
Total	89.600	39				

 Table 2 ANOVA performed on educator qualification and learner performance

However, it is evident that educators' qualifications are not significant in learners' performance in geography in the uThungulu District schools. This was confirmed by the ANOVA test in Table 2, which shows that the relationship between educators' qualifications and learner performance is insignificant. The ANOVA calculation of F = 1.694, sig = .163 (P > 0.05) suggests that there is no relationship between the qualifications of educators and learner performance in geography in the matric examination. This finding indicates that an educator's high qualification does not necessary lead to more learners passing their final examination in geography. It could also mean that the highest qualifications were obtained in other fields, not necessarily in geography. Participant 1 argued that,

because I know I am not 100% qualified, I have to do a lot of reading and research before meeting my learners. This has helped me over the years to acquire the experience to teach and to make a meaningful impact on my learners.

One educator with an MEd degree in geography has been teaching Grade 12 with less qualified educators with only junior degrees. This case was very interesting because this highly qualified educator conceded that qualification does not yield good performance in the NSC. Participant 9 showed me a teacher who has recently graduated with an NPDE who is a shining example with regard to learner performance in Grade 12.

This teacher is less qualified, but his Grade 12 results have been outstanding. Every year he receive awards for being the best teacher in the district. I have decided to learn from his successful teaching approach to geography.

This view was consistent with that of Participant 4, who stated that teaching is a funny profession: some teachers are born teachers, while others are a disgrace to the profession irrespective of their qualifications. In the previous years, he alleges, they used to have a geography teacher who was very promising, but his work with geography students was dismal. Students would fail geography under his watch, and he would blame learners for their poor performance. The participants felt strongly that an educators' qualifications had a big impact on learner performance, but they could not be the only factor.

More importantly, the educators' subject content and pedagogical knowledge might affect the results since the universities they had attended were not considered. This was because each educator had received different training from different institutions. As mentioned earlier by one of the participants, it may be that educators with lower qualifications put more effort into learning the lesson content before teaching, and acquire their knowledge through this effort, even if they are not certificated. This suggests that teaching can be done through experience rather than academic qualification. Another possible reason for this finding's being inconsistent with the findings of earlier researchers is probably the subject specificity of this research.

Educators' Teaching Experience and Learner Performance

Educators with more than five years of continuous teaching are considered to be experienced (Akinsolu 2010). The results reveal that most of the geography educators at the sampled schools had considerable teaching experience in geography Grade 12. 72% of the educators had more than five years' teaching experience, leaving 28% with less than five years' experience. It emerged from the analysis that educators from the high-performing schools were found to have considerable teaching experience, and had been teaching consistently in their schools, whereas the low-performing schools were found to have educators with the least teaching experience and a high turnover in geography educators. These teachers have very little chance of being given another chance to teach geography at the matric level pending the outcomes of matric results. Hence, educator experience was found to be associated with learner performance in geography.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	37.992	4	9.498	6.441	.001
Within Groups	51.608	35	1.475		
Total	89.600	39			

Table 3: ANOVA table for educator experience and
Learner performance

A statistical analysis of the data as shown in Table 3 revealed a significant relationship between educators' years of teaching experience and learner performance in geography in the NSC examination in the uThungulu District: F(1, 39) = 6.441; sig(p) = 0.001; p < 0.05. This result confirms that the number of years educators had taught influenced learners' academic performance in geography in the NSC examinations. It is conclusive that the more experienced the educator, the better he/she can handle the classroom and teaching dynamics to achieve results (Ncanywa 2014).

Notwithstanding the above conclusions, a study carried out by Glewwe *et al.* (2011) found a weak relationship between teaching experience and learner performance. Using meta-analysis, the authors concluded that there is a weak relationship between educators' teaching experience and learner performance in mathematics. Participant 7 concurred with this finding.

This is my second year in this school teaching geography in Grade 12. I am not used to my learners since I spend a lot of time trying to control the class because learners are not used to me either. The little time spent on teaching and learning is my biggest problem with teaching in this school. I also have to spend considerable time familiarising myself with departmental policies instead of preparing to teach.

The more experienced educators do not seem to deal with non-academic issues, but instead they use their experience to cover the curriculum content. In other words, they are always efficient with time and curriculum implementation to maximise the chance of learner performance in Grade 12. Participant 5 was very confident about his experience and performance in geography:

As for me, to be frank with you I have no problem as far as geography is concerned. I have been teaching this subject for over 10 years, and have been producing a good matric pass rate. Though initially I had some challenges with GIS, I overcame them through the help of an inservice course. In fact, geography is part of me now: I eat geography, drink it and it is me...hahahaha!

Educators' teaching experience has proven beyond doubt to be a powerful tool for classroom management and delivery of lessons. The evidence from this study is that the educators' experience should be coupled with consistency, with fewer turnovers; an educator should spend more years in one school teaching the same subject. Following the English axiom 'experience is the best teacher', school management should deploy the experienced educators in the Grade 12 classes.

Educators' Marking Experience and Learner Performance

Tied to educators' teaching experience is their marking experience and its influence on learner performance in geography in the NSC examination in public schools in the uThungulu District.

	Levene's	Test for	t-test for Equality of				
	Equality of Variances		Means				
	F	Sig	Т	Df	Sig (2-		
		-			tailled)		
Matric results	19.671	0.000	3.031	38	0.004		
Equal variances							
assumed							
Equal variances not			2.460	15.877	0.026		
assumed							

 Table 4: T-test performed on educator marking experience and learner performance

Philip K.A. Ahiaku & Dumsani W. Mncube

Significant differences were observed in Table 4 with respect to educators with marking experience and the matric pass rate in their schools. It is expected that educators with marking experience tend to have the experience and ability to teach learners to answer final examination questions. Levene's Test for equality of variance shows F=19.671, sig (p value) =.000. The p value is considerably smaller than 0.05, indicating variance not equal. From the test of equality t= 13.500, df = 38, p (2-tailled) = 0.000 (p<0.0005). The result is significant, and therefore there is a significant difference in the matric pass rate in relation to educators' marking experience. This finding shows that learners taught by educators with marking experience perform better than those who are taught by inexperienced markers. Marking experience contributes greatly to educator competence in understanding what to teach and how to package curriculum content in line with assessment of learners, since this competence is rare and contributes greatly to learner ability to answer higher order questions that have always been the problem with most learners.

The results presented in Table 4 proved significant as many participants agree with this finding. Almost all the participants who have participated in the NSC marking examination underscore the importance of experience as they prepare learners for final examination. They strongly believe it helps them to better prepare continuous assessment during the course of the year for their geography learners. The idea of knowing how certain topics or sections are examined is enough for these educators to focus on those specific aspects usually targeted by examiners. Linked to this is the issue of how these questions are supposed to be answered, which gives educators' confidence to learners. Participants 1, 4 and 8 were thankful to be part of this experience, and they believe the entire teaching experience will never be the same after participating in the NSC marking of the Grade 12 examination. Participant 1 stated:

> I participated in the marking of Grade 12 examination question papers in 2009. That experience changed my life as a geography educator. It is unfortunate that not all teachers can take part in this significant process. Participating in marking is likely to change the way one looks at the teaching philosophy of geography, and your expectation as you assess your learners.

Some of the participants recounted the experiences they shared with other geo-

graphy educators in marking centres every year. The other participants painted a very interesting picture about the credibility of these marking centres, and this is what Participant 4 said:

The majority of these educators who always get invited to mark Grade 12 examination question papers appreciate the opportunity, and they always count their blessings during the gathering. One gets to learn the thinking behind some of the high order questions, and what the examiners expect from us educators and learners.

The fact that educators learn a great deal of examination technique which they are prepared to share with their learners proves it is worthwhile to be invited to mark in these centres. These centres act as learning platforms of excellence for the few selected teachers. The credibility of these centres is evident when one of the participants brags about how fortunate he has been to be part of the marking process for Grade 12 geography. Participant 8 alluded to this, with the following remark:

I got invited to mark for Grade 12 eight years ago, and all the markers indicated to me that marking centres are reliable spaces for learning. But not just learning to deliver the content, in fact learning to package information for your learners as you prepare them for examination. These techniques are reliable and credible as they give us confidence to teach geography with pride.

The conclusions one draws from these interviews is consistent with findings from the t-test in Table 3. Almost all teachers who participated in the 12 NCS Grade 12 examination marking had an advantage over those who did not. In contrast, certain educators will always remain in the dark about what to expect during the final NSC Grade 12 examinations because they are deprived of this golden opportunity to mark in these national examinations. It is a sad reality that the South African Department of Basic Education cannot select all educators to take part in the marking of geography Grade 12 examinations. Those educators who have been teaching Grade 12 for some time are aware of the kind of struggle one has to endure when the performance is not forthcoming.

Educators' Subject Content Knowledge and Learner Performance

Geography content is packaged to cover human and physical geography; the latter is scientifically driven. The natural science aspect is challenging, but the idea that teaching GIS is challenging was consistent across the entire participants' divide. In reality, most educators believe that the introduction of GIS into the curriculum should have been done in consultation with schools. This was evident from Participant 5 when he gave the following narrative:

I don't like teaching mapwork because of the calculations and the GIS section. I like the map interpretations very much, but as for GIS and those calculations, forget it. My counterpart, who teaches Grade 10, doesn't know it either, therefore we are all struggling to teach this section and it's an embarrassment, I know. Eish! It is a big challenge.

The other respondents shared similar sentiments about the teaching of GIS in their respective schools. The fact that GIS is not properly taught remains a serious concern for most of these participants. It was clear that teachers are embarrassed to teach GIS to their learners, as was echoed by Participant 7:

GIS is new to me, but I know it is a computer course that must be taught to learners. In our schooldays we did not do GIS, and therefore this is entirely new to me. I must be honest with you -I don't teach it. The only thing I do is to copy what is in the textbooks for learners. There was a time I invited another educator who came and helped me.

Educators expressed their dislike for the teaching of mapwork and climatology because of the lack of resources in their schools. There are certain topics in mapwork that cannot be taught without topographical maps, drawing instruments and computers, all or most of which were found to be absent in some schools. The topics on GIS were problematic to all but a few (12.5%) of the respondents. The result shows that learners in these schools would have problems with mapwork in their final year examination. Beside GIS, geography content presents problems for these participants, although they have been teaching it for years. Most educators' lack of mathematical skills contributes towards the poor teaching of mapwork, GIS and climatology. In

essence, educators with low confidence in handling critical mathematical operations and other technical skills has a bad effect on preparing learners for Grade 12 examinations. This finding is even more compelling when you realise that educators perceive the poor teaching of mathematics in their schools. This challenge is not limited to the uThungulu District schools as the general performance of geography content and mapwork in the NSC examination nationwide has been described as problematic in all schools (DBE 2014). The never ending reorganisation of curriculum content for Grade 12 poses a serious challenge for educators, let alone the learners. In some instances these learners are not properly guided to deal with complex examination questions that can maximise their chances to do well in their final examination.

Pedagogical Content Knowledge and Learner Performance

The primary purpose of any teaching is to bring a fundamental change in the learner (Tebabal & Kahssay 2011). Knowing how to teach includes the interpretation of the subject content and ways to transmit the knowledge to learners so that they will understand it. The first step in teaching is to understand what is to be taught and how it should be taught. The four most popular teaching methods – lecture, group discussion, question and answer and demonstration – were employed one way or the other by each respondent in the delivery of geography lessons in the classroom. Studies have found that there is a relationship between teaching methodology and learners' performance in geography (Akinsolu 2010; Innes 2012; Omoro & Nato 2014). Participant 6 reflected on the use of the discussion method when teaching physical and human geography. His detailed account of using this method shows the amount of trust and confidence he has in this method. He claimed that learners respond positively to his teaching style and approaches if the lesson is centred on discussion:

I use a particular method for a particular topic under discussion. For example, when I want to teach mapwork the demonstration approach is the most appropriate because the learners must practise what is taught. You can't use, for instance, the lecture method, which is just giving information to learners. But when teaching a topic like fluvial processes, where learners must

Philip K.A. Ahiaku & Dumsani W. Mncube

visualise, you can use the lecture method because you are exposing learners to some fact they are not aware of.

However, three of the methodologies (lecture, question and answer, and group discussion) were found to be detrimental to learners' performance because they stifled learners' creativity and critical thinking (Adeyemi 2008). This means that the three methods are harmful to learners' performance, and should not be used too much in the delivery of geography lessons. This concern was echoed by Participants 2 and 3, as they were convinced that a lack of guidance and pedagogical skills sometimes lead to unintended use of these three methodologies. The absence of resources in schools for most of the participants directly influenced their choice of teaching methods and other related approaches. They agreed that:

Sometimes they are forced by circumstances and lack of resources to use the wrong methods. In my case, I know that using demonstration will be good for teaching mapwork, but we don't have enough maps in the schools, and therefore I prefer to use chalkboard instead of getting learners to practise.

Some educators used certain teaching methods as a means to solve classroom management challenges. This was evident from the number of participants who spoke of the constant frustration they are experiencing in their classes. The choice to use unpopular teaching methods arises from the calibre of learners they have in a given year. In reality, there are times when you are fortunate to teach a group of learners with integrity, while in other years you deal with hooligans who are not prepared to pass at the end of the year. Participant 7 captured this situation well in his response to the question of how they choose teaching methods for teaching geography.

There are times when you feel the lesson must be taught using question and answer, but the class is so noisy that you can't use it; but when you begin to write on the chalkboard for them they become less noisy, and copy from the chalkboard.

There is a school of thought that seems to suggest that schools should do more to expose learners to real environments as an alternative method of teaching. This idea sounds excellent, but educators have come to realise the power of education authorities in dealing with issues of fieldtrips and authentic learning, as depicted in the words of Participant 10:

Learners understand geography better when they see natural phenomena occurring physically, but we have to raise funds to undertake any fieldtrips. I have proposed trips many times, but funds were not available to support this activity in our school.

Instead, the methods should be used to complement each other in teaching content, i.e. none should be used too much in isolation (Innes 2012). These results are consistent with the finding by Ganyaupfu (2013), which reveals that combining both teacher-centred and student-centred teaching methods in teaching learners is the approach that produces the best results. Geography educators need to take into cognisance that outdoor experience for learners can improve learners' ability to develop insight into the most complex processes that underpin the subject. Examiners always want this complex understanding in learners and for most schools in the province, field trips are a waste of time and resources for the school. Teachers have to rely on show and tell all the time, and are forced to neglect some of the tried and tested methodologies. In recent times, school geography has become one of the less valued subjects in the curriculum because teachers are not allowed to explore geographical knowledge.

Conclusion and Recommendations

Significant progress has been made with regard to the improvement of quality education across the entire educational spectrum. Nevertheless, the quality of geography education is still far from satisfactory for most learners in the uThungulu District. This study set out to discover and assess the trends in learner performance in geography in the uThungulu District for the period 2009 to 2014, and the factors that influenced them, and has highlighted the most significant predictors of geography performance within the uThungulu District. According to the available data, a number of issues arise, and suggestions have been made for the improvement of education in general, and the teaching and learning of geography in particular. Apart from equity and

access, which have improved significantly in the district and nationally, quality can also be improved by looking at educators' attributes such as qualifications and professionalism, school management and curriculum policies, especially those of the non-performing educators. If these challenges are addressed, the quality of education and performance in geography within the district will be significantly improved.

The following recommendations are based on the findings from this study. Educators' qualifications were identified to be a strong predictor of learner performance in geography in the uThungulu District. Quite a number of educators in the district are still without the departmental requirement to teach. The recommendation is that educators must be given study leave with pay to go and upgrade their academic qualifications. Teaching and studying simultaneously has been very challenging tor most of them, especially those in the rural areas, who have to wake up in the early hours of the day, and return only at dusk.

In the case of the older geography educators in the district, strengthening their knowledge of mapwork skills, especially GIS, should be prioritised by the subject specialists through in-service programmes. Likewise, the newly deployed educators should be strengthened in their pedagogical knowledge. The researcher recommends establishing professional peerreviewing centres to teach and improve mapwork knowledge among geography educators.

Educators obtaining consistently good matric pass rates must be retained for a significant period of time. The most experienced and dedicated educators are leaving their schools to go to the well-endowed schools, and others are taking early retirement to have access to their retirement annuities. This clearly shows a lack of motivation among experienced educators. There is a need for the Department of Basic Education to motivate these educators through long-service awards that will put some cash in their pockets. This will also motivate the younger ones to aspire to the same height.

Since marking of the final NSC examination has been found to have contributed significantly to learner performance, the involvement in it of all educators will go a long way to improve both teaching and learning in the classrooms. The marking experience will enable educators to be precise in their teaching as they know what will be expected of the learners in their matric examination. Being paid for participating in the marking will further motivate educators to take part. How about also allowing them to take turns? Those who marked the previous year must not be allowed to do so the following year unless there is a shortage, so that others can learn too

This study has highlighted a number of factors that influence learning, teaching and learner performance in geography in the final NSC examination in selected public schools in the uThungulu District. However, other relevant aspects were not attended to during data collection, and need further investigation. A more comprehensive investigation involving respondents such as learners, school management and parents is encouraged. Also recommended is a rigorous large-scale evaluation using a more controlled experiment in determining the range of factors that influence the teaching and learning of geography. This research is necessarily limited by lack of time, funds, and data from learners, school management and parents, among others.

Significant progress has been made with regard to the improvement of quality education across the entire educational spectrum. Nevertheless, the quality of geography learner performance is still far from satisfactory for most learners in the uThungulu District. According to the available data, a number of issues arise, and suggestions have been made for the improvement of education in general, and the teaching and learning of geography in particular. Apart from equality and access, which have improved significantly in the district and nationally, quality of performance can also be improved by looking at educators' attributes such as teaching experience, marking experience, qualifications, content knowledge and pedagogical content knowledge, particularly of those teaching Grade 12.

References

- Adeyemi, M.B. 2009. Factors Influencing the Choice of Geography as an Optional Subject: A Case of a Senior Secondary Cchool in Botswana. *Journal of Social Science*, 20,2 :101 104.
- Adeyemi, T.O. 2008. Effective Teaching of Geography in Secondary Schools in Ondo State, Nigeria. *The Social Sciences* 3,2: 200 206.
- Akinsolu, A.O. 2010. Teachers and Students' Academic Performance in Nigerian Secondary Schools: Implications for Planning. *Florida Journal* of Educational Administration and Policy 3,2: 86 - 103.
- Akintade, B.O. 2011. Considering the Determinants of Selecting Geography as Discipline: The Case of Senior Secondary School Students, Ilorin.

Ocean Journal of Social Science 4,3: 131 - 138.

- Bhorat, H. & M. Oosthuizen 2006. Determinants of Grade 12 Pass Rates in the Post-apartheid South African Schooling System. *Development Policy Research Unit* 1 27.
- Creswell, J.W. & V.L. Plano Clark 2007. *Designing and Conducting Mixed Methods Research*. Thousand Oaks. CA: Sage.
- Creswell. J.W. 2008. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research.* 3rd Edition. Upper Saddle River. NJ: Pearson/ Merrill Prentice Hall.
- Darling-Hammond, L. 2006. *Powerful Teacher Education: Lessons from Exemplary Programs*. San Francisco. CA: Jossey-Bass.
- Department of Basic Education (DBE) 2012. National Senior Certificate examination: Statistics Report. Pretoria: Department of Education.
- Department of Basic Education (DBE) 2014. *National Senior Certificate Examination: National Diagnostic Report*. Pretoria: Department of Education.
- Department of Basic Education (DBE) 2015. National Senior Certificate examination: National Diagnostic Report. Pretoria: Department of Education.
- Ganyaupfu, E.M. 2013. Teaching Methods and Students' Academic Performance. *International Journal of Humanities and Social Science Invention* 2,9: 29 33.
- Glewwe, P.W. *et al.* 2011. School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1999 to 2010. (No. w17554). Natural Bureau of Economic Research. https://doi.org/10.3386/w17554
- Gikunda 2016. Factors Influencing Teacher Performance in the Implementation of Geography Curriculum in Public Secondary Schools in Imenti South Sub County, Meru County Kenya. Unpublished MEd dissertation, University of Nairobi.
- Hattie, J. 2009. Visible Learning: A Synthesis of over 800 Meta-analyses Relating to Achievement. New York: Routledge.
- Hinton, C. & K.W. Fischer 2010. Learning from Developmental and Biological Perspectives. In Dumont, H., D. Instance & F. Benavides (eds.): *The Nature of Learning: Using Research to Inspire Practice*. Paris: Educational Research and Innovation, OECD Publishing. <u>https://doi.org/10.1787/9789264086487-7-en</u>
- Innes, L.M. 2012. South African Geography: Underpinning the Foundation of

Geospatial Competence. South African Journal of Geomatics 1,1: 92 - 108.

- Kerski. J.J. 2011. 'Sleepwalking into the future'. In Jekel, T., K. Donert, A. Koller & R. Vogler (eds.): *Learning with GI 2011. Implementing Digital Earth in Education.* Berlin: Wichmann.
- Kimathi, G.N. 2015. Factors Influencing the Choice of Geography as an Examinable Subject in KCSE Level in Meru Central District in Kenya. Unpublished MEd dissertation, University of Nairobi.
- Maree, K. 2016. First Steps in Research. Pretoria. Van Schaik.
- Mji, A. & M. Makgato 2006. Factors Associated with High School Learners' Poor Performance: A Spotlight on Mathematics and Physical Science. *South African Journal of Education* 26,2: 253 - 266.
- Ncanywa, T. 2014. *The State of the Eastern Cape Schools in almost the Second Decade of Democracy*. ERSA Working Paper 486 (December). Pretoria: Economic Research Southern Africa.
- Omoro, B. & L.W. Nato 2014. Determining Methods Used in Teaching Geography in Secondary Schools in Rongo District, Kenya. *International Journal of Academic Research in Progressive Education and Development* 3,1: 220 - 232.
- Rivkin, S.G., E.A. Hanushek & J.F. Kain 2005. Teachers, Schools and Academic Achievement. *Econometrica* 73,2: 417 458.
- Statistics South Africa 2014a. *Census 2011: Profile of Persons with Disabilities in South Africa*. Pretoria: Statistics South Africa. Available <u>https://www.statssa.gov.za/publications/Report-03-01-59/Report-03-01-592011.pdf</u> (Accessed on 4 June 2018.)
- Tebabal, A. & G. Kahssay 2011. The Effects of a Student-centered Approach in Improving Students' Graphical Interpretation Skills and Conceptual Understanding of Kinematical Motion, *Lat. Am. J. Phy. Edu* 5,2: 374 -381.
- Weeden, P. 2011. An Investigation of Changing Patterns of Entry for GCSE Geography: Choice, Diversity and Competition. Unpublished PhD thesis, University if Birmingham.

Philip Kwashi Atiso Ahiaku Department of Social Science Education, Faculty of Education University of Zululand <u>mangoees@yahoo.com</u> Dumsani W. Mncube Department of Social Science Education Faculty of Education University of Zululand <u>mncubed@unizulu.ac.za</u> or <u>mncubedm@gmail.com</u>