Teachers’ use of formative assessment in the teaching of reading comprehension to grade 3 learners.

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1.1 Introduction

Formative assessment is one of the most effective classroom interventions to improve learning (Black & Wiliam, 1998). The role of formative assessment during the learning process is to support teaching and to improve learners’ learning. Teachers should communicate assessment data to learners through feedback and use the data to plan instructions (Black & Wiliam, 1998). The argument of this study is that effective use of formative assessment can support the teaching of reading comprehension.

1.2 Rationale for this study

This study is driven by the low achievements of South African learners in reading. Recent studies on reading achievements have indicated that reading is still a problem to the South African learners. The grade 4 and 5, 2011 Progress International Reading Literacy Study (PIRLS) indicated that the South African learners perform below the international standard. It further revealed that many learners in grade 4 and 5 struggle with higher-order comprehension skills which include interpretive, inferential, analytical and critical reading (Howie, et al, 2011).

The low achievement levels of learners in reading comprehension were also reported in SACMEQ III (2009). The overall performance in basic reading was at 21% while achievement in higher-order comprehension was below 20%.
The overall low results and patterns in the Annual National Assessment (ANA) in grade 3 Literacy also confirm that South African learners function at a low level. The 2012 ANA qualitative report indicated that grade 3 learners perform better in literal comprehension while the majority of learners struggle to interpret and integrate ideas and information (DBE, 2012). It further revealed that reading comprehension is one of the areas where most learners are struggling in literacy. The following regarding reading comprehension were discovered: the majority of learners were unable to respond to questions correctly; leave blank spaces without providing the answer; transcribe the questions and fail to construct sentences to respond to the text. These reading comprehension problems were common especially to learners who reside in rural areas and historical disadvantage townships schools (DBE, 2012).

The prominent factor that motivated me to focus on formative assessment to enhance the teaching of reading comprehension is that in the international literature formative assessment is highly recommended to support learners’ learning and to inform teachers’ instructions. There is substantial evidence on literature to confirm that effective practice of formative assessment enhances learners’ performance and improve the standards (Taras, 2009). Most education institutions around the world have adopted the use of formative assessment to support learners’ learning and to guide teachers’ instructions.

In South Africa, little research has been conducted on formative assessment of the foundation phase learners (Grade R-3). This research study is being undertaken to obtain evidence-based data on the facilitation of formative assessment activities in the foundation phase. According to DBE (2007) formative assessment should be administered within the assessment guidelines of the Provincial Education Department which complies with the National Policy on Assessment.
Thus, this research study will hopefully contribute to the body of knowledge on formative assessment activities of Grade 3 teachers by providing evidence-based information on how teachers use formative assessment in teaching of reading comprehension.

1.3 Purpose of the study

The purpose of this study was to explore and describe grade 3 teachers’ use of formative assessment to enhance the teaching of reading comprehension. In doing so, the research also observed learners’ workbooks to determine the nature of feedback given to learners to support their performance.

1.4 Research questions

The main research question is:

**How do grade 3 teachers use formative assessment to enhance the teaching of reading comprehension in siSwati?**

The sub-questions that I assisted me in answering the main research questions were:

- What do grade 3 teachers understand about formative assessment?
- Which learning activities do teachers employ to support formative assessment of reading comprehension in grade 3?
- What is the nature of feedback given by Grade 3 teachers when teaching reading comprehension in siSwati?

1.5 Clarification of the key concepts

1.5.1 Reading comprehension
Recent theorists of reading view comprehension as a constructive and interactive process between the written text, the reader and the context in the construction of meaning from the print (Gunning, 2000). According to Gunning (2000) the three aspects have an influence on the comprehension and do not take place in the same way to all learners. Learners vary in the amount and the type of the prior knowledge they possess, the strategies they use, their attitude towards reading and their work habits. Gunning (2000) also cited that the text differs in type, theme or topic, style and difficult level. The context in which reading comprehension takes place has an influence on the comprehension of the text. The context involves information about when, where and why the text is being read. According to Oczkus (2004) learners should work collaboratively to discuss the text as discussion support learning, which include the comprehension of the text.

1.5.2 Formative assessment

In this study, formative assessment refers to all learning activities undertaken by teachers during the learning process, which intention is to support the learning process through feedback (Black & Wiliam, 1998). Formative assessment can only be said to have taken place when feedback has been used to support teachers instructions and to improve the learner’ performance.

Assessment is formative if teachers allow the following to take place:

- Assessment take place during the learning and teaching;
- Learners are given feedback on their performance;
- Scaffolding activities are used to support learning;
- Teachers’ feedback to learners in their learning;
- Useful practice activities in a variety of materials to move learners towards independence;
- Assessment data is used for future planning of instructions;
1.5.3 Feedback

Feedback is an important aspect of formative assessment, which provides information to teachers and learners about the progress of the lesson. Sadler (1989) defined feedback as information about the gap between the learners’ demonstrated learning and the learning they should achieve.

1.6 Literature review

Worldwide, there has been a growing interest over the past years in the use of assessment by teachers to enhance learners' learning and improve classroom instructions (Baird, 2009). The use of assessment to improve learners' learning was first popularized in the United Kingdom. Teachers in the United Kingdom took control of their learners' progress by giving them feedback on their daily work, which gave learners an opportunity to improve their learning (Torrance, 1998).

1.6.1 Challenges and gaps regarding the implementation of formative assessment

The literature review indicates various challenges surrounding the proper introduction, implementation and the classroom practice of formative assessment worldwide. Those challenges range from common curriculum development issues up to appropriate teachers' professional training. According to Carless, (2005) and Brown, et al, (2009) the main challenge facing the implementation of formative assessment at school level is that its implementation is weak since it is not well understood by teachers. Watson (in Marshall & Drummond, 2006) emphasized the centrality of pedagogical subject knowledge for formative assessment as he believed that the success of formative assessment is dependant on the development of knowledge and skills in that specific subject.
The results of formative assessment had been challenged on validity and reliability (Singh, 2004; Carless, 2005; Paris, 2007). Campbell and Evans (in Brookhart, 2006) believed that this might be caused by that teachers are not knowledgeable about the reliability and validity of the formative assessment information. In a study conducted by Carless (2005) in Hong Kong on the practice of formative assessment, the teacher participants reported concerns to colleagues about how “formative assessment can provide accurate assessment”.

However, Black et al, (in Taras, 2009) argued that the issues of reliability and validity in formative assessment should not be considered since formative assessment does not use assessment for accountability or certification. Black et al, (2003) contest that formative assessment is usually informal, embedded in all aspects of teaching and learning, and conducted by different teachers as part of their own diverse and individual teaching styles and its main purpose is to promote learners’ learning and teaching.

The review of international and national literature indicates that feedback is a most challenging area to teachers regarding the implementation of formative assessment (Nakabugo, 2003; Adendorff, 2007; Lee, 2008). Adendorff (2007) on his study about feedback in the teaching of senior phase mathematics emphasized the role of teachers in giving quality feedback. He believed that feedback does not simply happen intuitively, but teachers should learn specific techniques on how to give and receive feedback effectively.

1.6.2 Literature on the teaching and assessment of reading comprehension

Although the study primarily aimed to find out about formative assessment of reading comprehension, it was necessary to explore teaching of reading comprehension since formative assessment should only be identified during the teaching of reading comprehension. Teaching and formative assessment are
inextricably linked. Formative assessment should take place during the course of teaching and formative assessment data should be used to support the planning of instructions (Black & Wiliam, 1998). In this study, teachers’ use of formative assessment was understood in a way the teacher plans, provides instructions and regulates the learning activities during the teaching of reading comprehension.

Various authors of reading cited that comprehension instructions should be dealt with through the teaching of cognitive and metacognitive comprehension strategies. Comprehension strategies refer to the techniques used by learners to get information they need from the text. According to Dymock and Nicholson (2010) skilful readers use various comprehension strategies and have good understanding of how comprehension strategies work and when to use those strategies. Comprehension strategies used in the lower grades include the following; activating of prior knowledge; making predictions about the text; teachers question; self questioning and summarising. Various authors of reading suggested that these comprehension strategies should be taught in an integrated way.

Duffy et al, (1986) provided three principles on how teachers should provide comprehensions instructions to the learners. Their principles include that comprehension instructions should be explicit; modelled by skilful and taught in a scaffolded pattern. These principles have been supported by various researchers of reading and have been used to develop guidelines on teaching of comprehension strategies. An important aspect about the principles of comprehension instructions is that they emphasize the collaboration between the learner and the teacher to share the responsibility of employing the metacognitive strategies (Dewitz, Jones & Leahy, 2009). However, learners are expected to play an active role during the comprehension process. According to Hilden & Pressley (2007) if learners participate actively they stand a better of self-monitoring their own comprehensions.
Almasi (2003) supported the above view, in his description of explicit instructions; he mentioned three types of knowledge that teachers should communicate to the learners about the comprehension strategies, namely declarative, procedural and conditional knowledge. According to him, declarative knowledge refers to the direct explanation of the strategy or knowledge about the strategy. Procedural knowledge concerns how to carry the strategy. While, conditional knowledge concerns to questions like when and why the reading strategy should be used.

1.6.3 Assessment of reading comprehension

Research has shown that assessment of reading comprehension has traditionally been concerned with studies of the validity and reliability of externally designed tests and examinations (Torrance & Pryor, 2001). Summative assessment measures through tests and examinations were often used for the assessment of reading comprehension (Paris, 2007). The use of high stakes of tests and examination to assess reading comprehension was not effective since it mainly focus on the comparisons about proficiency levels of learners rather on supporting of learners on reading (Paris, 2007).

Current researchers of reading criticize the use of high stakes exams for reading comprehension since they are inadequate to represent the complexity of the target domain. They conflate comprehension with vocabulary, domain specific knowledge, word reading ability, and other reader capacities involved in comprehension. Furthermore, the use of high stakes exams to assess reading comprehension did not rest on an understanding of reading comprehension as a developmental process or as a product of instruction; do not examine the assumptions underlying the relation of successful performance to the dominant group’s interests and values; are not useful for teachers; tend to narrow the curriculum; are unidimensional and method-dependent, often failing to address even minimal criteria for readability and validity (Paris, 2007).
Fiene and Macmahon (2007) suggested a comprehensive classroom-based assessment process for the assessment of reading comprehension since it can encourage teachers to examine learners’ specific and ongoing comprehension needs and to design instructions accordingly. According to them the comprehensive classroom-based assessment process focus on different facets of assessment of comprehension which include prior knowledge, literal comprehension, interpretive comprehension, story parts, word meaning, organizing information, visualization, analyzing questions, generating questions, summarizing, applies reading strategies.

Oakley (2011) supported the comprehensive classroom-based assessment for reading comprehension as he believed that it can result in a series of assessment that show progress over a period of time and over multiple contexts. According to him, this type of assessment is more likely to allow teachers insight into strategies that learners use to make meaning. Oakley (2011) suggested that the assessment of reading comprehension should take place through the teaching of cognitive and meta-cognitive comprehension strategies. However, he cited that there is limited literature on how to use the comprehension strategies for the assessment of reading comprehension.

1.7 Reading comprehension in the South African curriculum

The Department of Basic education in South African through the Reading strategies and CAPS documents for home language (Grade R-3) stipulated five components to the teaching of reading in foundation phase which includes phonetic awareness; word recognition; comprehension; vocabulary; and fluency. In the facilitation of reading comprehension of young learners, the teacher should engage children in a range of levels of thinking and questioning and they should also work on meta-cognitive skills to teach children to monitor themselves in comprehension of the text.
According to the DBE (2011) as early as grade R the teacher should introduce learners to literal comprehension. From grade 2, the teacher should develop the higher order of thinking and questioning (DBE, 2011:13). In grade 3, learners should answer a range of higher-order questions based on the passage read.

In the early grades, teacher support in reading is guided by the DBE documents namely “Teaching Reading in the Early Grades: (DoE, 2008a) and a National Reading Strategy (DoE, 2008b). The first document provides practical teaching guidelines on how to implement literacy focus time and language development periods. The latter document clarifies the nature of the problem with and reasons for learners’ poor reading abilities, and offers more all-encompassing goals.

**1.8 Conceptual framework**

Currently there is no single theoretical that informs formative assessment. What all contribute towards is the move from viewing pupils as passive recipients of teacher-transmitted knowledge regarding them as active participants in the learning process who are able to self assess and take control of their learning (Taras,2009).

The study developed a conceptual framework from the literature review of various theoretical models which include Vygotsky’s socio-cultural perspective (1978); Engestrom’s model of activity system (1999) and formative assessment principles (Black & Wiliam, 1998). In figure 1.1, I present the conceptual framework for formative assessment. According to this framework, formative assessment is a cyclical and interactive process between the teacher and the learners. The teacher is responsible to guide and facilitate this process. He or she should involve learners throughout this process. Learners at the center of the formative assessment process as they should be responsible for their own learning. The bidirectional arrows indicate that learners should take part in all formative assessment activities.
According to this framework, the teacher should plan for the teaching and learning. Activities should be planned around content knowledge and skills (DBE, 2012). Teachers should take into account the assessment criteria to be used. The teacher should gather and interpret evidence in terms of the progress towards the lesson goals. He or she should provide feedback to learners about their performance in the learning activity (enacting an intervention). This feedback should help to regulate teaching so that the pace of moving toward the learning goal is adjusted to ensure the active participation of the learners. The
teacher should evaluate the intervention to determine the gap towards the achievement of the learning goals. Teachers can then use information to guide the next activity.

In examining this model, one could see the interrelatedness and dependence of the activities of the formative assessments cycle. For example, the collection of evidence should be related to the learning goals. The interpretation of evidence should be based on the collected data. If teachers have skills on the interpretation of data they should able to make proper judgment and make the right decision for the next step. Another important fact about the formative assessment process is that it should help learners to assess their own learning. I have presented the formative assessment process within the activity theory.

1.9 Research Methodology

This study followed a qualitative approach as it seeks to explore teachers’ use of formative assessment in the teaching of reading comprehension in grade 3. According to Gall, Borg and Gall, (1996:40) qualitative methods are probably the best means for discovering educational problems and enable researchers to better understand the total environment in which education takes place. An interactive qualitative research approach was used. Interactive qualitative research is an inquiry whereby the researchers gather information in person, by interacting with participants in their location (MacMillan & Schumacher, 2001). The participants were engaged in a deep interaction and a strong relationship, so that qualitative data on the use of formative assessment in teaching reading comprehension will be obtained.

1.10 Sampling

A purposive sampling technique was used. The study took place in Mpumalanga Province at Ehlanzeni district. Case studies of seven teachers were conducted in four schools. The four schools were from the same socio- economic background.
Teachers from these schools had benefited from the content based workshops on NCS and CAPS. These teachers were in their first year of implementing CAPS with grade 3 learners in 2012, which is the first year of the implementation of NCS after its revision.

The selection of cases also conforms to convenience sampling as I selected schools that were not very far to my work station. The decision was influenced by the fact that it would be easy and convenient to gain access to the participants.

1.11 Research design

An instrumental, explorative and descriptive and case study was used to obtain a clear, in-depth understanding of the way grade 3 teachers use of formative assessment in teaching reading comprehension. A multiple case study of seven Grade 3 teachers in Mpumalanga was conducted at four primary schools, with two teachers from each school. The units of analysis for this research project were grade 3 teachers and their application of formative assessment. I have also observed grade 3 learners during the implementation of formative assessment since they are part of the classroom. I was interested to the teacher-learners’ interactions through feedback.

1.12 Data collection instruments

The data-gathering techniques in this study were non-participant observation, semi-structured individual interviews schedules and documents analysis (teachers lesson plans and leaners’ workbooks). I have observed teachers when reading and posing questions to learners during and after reading of the text to see if they have comprehend what they have read.

1.143 Ensuring validity in the study
The use of multiple cases and different data collection instruments strengthened the findings thus providing triangulation to the study. This is in line with what MacMillan and Schumacher (2006:416) advise about using a variety of data collection tools that it strengthens the study and provides triangulation. Cohen et al, (2007) assert that triangulation is the use of two or more methods of data collection in a study.

Validity in the semi-structured interviews was achieved through the use of face to face semi-structured interviews with individual teachers on the same topic; and posing the same questions to all interviewees, using the same methods of interviewing and analysing the results of all interviews in the same style. In addition to that, teachers were observed in their classrooms as to gather valid and authentic information. I believe all these methods combined supported me to produce credible results.

1.14 Limitations

The fact that this was a baseline study on teachers’ practice formative assessment has limitations to the study. I reported on what I have observed and heard from the teachers.

Another limitation of the study was the chosen sample. The study utilized purposive sampling. The selected schools were allocated in a specific geographical area in Mpumalanga. The relative power of the qualitative analyses of this study would be increased if the study was conducted in a variety of setting with a larger sample size. This is necessary to enhance the generalisability of the study’s findings.

1.15 Suggestions for further studies

- A baseline study which will include many teachers in order get a broader picture of teachers’ use of formative assessment in the province;
• In-depth study on the components of formative assessment;
• Research that can support teachers to explore and plan their teaching approach to formative assessment; and
• An action research study to support teachers’ use of formative assessment in the teaching of reading comprehension.

1.16 Ethical issues

The following activities took place to conform to the international standards of research ethics.

• Submission of the proposal for approval by the University of Pretoria.
• Application to Mpumalanga Department of Education to get permission to undertake the research the study.
• Application to Nelspruit circuit office to get permission to conduct the study in four schools.
• Application to the four schools to request permission to conduct the study.
• Application for approval by the University of Pretoria research ethics committee.

After I have received permission from the Mpumalanga Department of Education; circuit manager and principals of the 4 schools, I came personally to the schools to discuss the study to Foundation Phase teachers and ask for their voluntarily participation. I handed letters of consent for them to read and to sign if they were willing to participate. In the letters, I stated the purpose of the research study as nothing to interfere on their evaluation of teaching. I also explained that no names were to be used only a code for each participant. I informed them about voluntarily participation and that they can withdraw participation at any stage of the research. Informed consent for leaners was obtained from their parents through letters.

1.17 Data analysis
I applied the *within-case and cross-case analysis* as suggested by Merriam (2009). According to Merriam (2009) in *within-case analysis*, each case is treated as a comprehensive case in and of itself and analyzed separately. The *cross-case analysis* involves the identification of similarities or patterns that cross across the cases as well as differences. The purpose of this cross-case analysis was to build abstractions across cases as suggested by Merriam (2009).

As an interpretive researcher I used both inductive and deductive data analysis approaches. The two main concepts of this study (formative assessment and reading comprehension) provided a foundation of analysing the findings of the research on an *a priori* basis. In an *a priori* approach, the researcher uses a deductive approach where the themes required from the data are formulated in advance (Nieuwenhuis, 2007:99). Theme 1 was about formative assessment and Theme 2 was about the use of formative assessment in the teaching of reading comprehension. However, the data categories were not predetermined, but they derived from the data sources. Theme 3 came from the data sources. This theme was about challenges teachers experience when teaching and assessing reading comprehension.

### 1.18 Findings

I presented the findings through themes and categories which emerged from the data collected through various instruments.

#### 1.18.1 Teachers’ understanding of formative assessment

In order to get teachers' knowledge of formative assessment, I have asked teachers to share with me their understanding of the term “assessment” and state reasons why they should assess the learners. I assumed that their responses would assist me to determine whether teachers understand and practice formative assessment in their classrooms. The interviews data revealed that teachers' understanding of assessment was not the same. The analysis of the teachers' responses was grouped into two categories, namely those that
have limited knowledge and those who have reasonable knowledge of assessment.

Five teachers were only aware of the summative function of assessment as they have mentioned that it is used to measure the learner performance as it should take place after the teacher has taught. According to these teachers assessment should take place at the end of the leaning process. I have noted a pattern in their descriptions which is: the teacher teaches, learners learn and teacher assesses. Those teachers were regarded as having limited knowledge of assessment. On the other hand, two teachers showed reasonable knowledge of assessment as they mentioned various purposes and aspects of assessment. These teachers were able to provide explanation on each purpose at the various stages of the learning process.

1.18.2 Learning activities to support formative assessment of reading comprehension

During the teacher-learner interaction, I recorded and reported all learning activities that support formative assessment. This include the following: reflection of the previous lesson; questioning at the beginning, during and end of the lesson; communication of the lesson objectives; giving instructions on how to go about the activities; inviting leaners' context, learners involvement and motivation. However, some of those formative assessment activities needed be modified to enhance learners’ performance in reading comprehension.

The research has revealed inconsistent practice of formative assessment. It shows that teachers provide poor quality of questions to assess reading comprehension and minimal involvement of learners.

1.18.3 Feedback varies in quality, quantity and format
Six teachers lack basic information about feedback, they consider feedback to be merely the corrections teachers and learners engage in after the written tasks. They did not see feedback as an intervention to support learners’ improvement. All teachers did not give feedback to learners, instead they give ticks, marks and evaluative comments such as “good”; “very good”; “You are a star”.

1.18.4 Challenges faced by teachers when teaching reading comprehension

All teachers complained that they do not get support for teaching of reading comprehension, there are no guidelines documents on how to use formative assessment to support the teaching of reading comprehension. Furthermore, there are no reading resources for the learners.

1.19 Recommendations

In the light of the results, recommendations are made with regard to the study on training, monitoring and support of teachers.

- Teachers should have ongoing professional development on formative assessment. Teacher development on formative assessment should become an integral part of the teaching and assessment of reading comprehension.

- Teacher training institutions should develop and offer a module on the formative assessment of reading comprehension as part of the literacy programme. This module should include practical experience for students to use formative assessment to teach reading comprehension.

- The DBE should organize more workshops to help siSwati teachers to become skillful in teaching reading comprehension. The workshops should focus on teaching and formative assessment of reading comprehension.
• The DBE should offer school-based and classroom-support of teachers and monitoring by district officials.

• The DBE should train head of department at schools on formative assessment in order for them to assist teachers.

1.20 References


