Self-reflection as a Tool to Improve Teaching Practice: The Practice and the Timing of Self-reflection by Primary Schools Teachers in the Mankweng Circuit, Capricorn District

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ABSTRACT The aim of this study was to investigate the practice and timing self-reflection by primary schools teachers, with the aim of encouraging the use of self-reflection to improve teacher's practice. The researchers used qualitative research approach in this study with phenomenological research design. Sample size consisted of twenty teachers who were given open-ended questionnaires to fill in and out of twenty teachers, ten teachers volunteered to participate in one- on- one interview. Themes were identified and analysed in a qualitative approach. The results of this study revealed that self-reflection is important for teachers because it helps them to improve their teaching practice and it provides multiple opportunities for learners to learn. The study recommended a new reflective model for a rural primary school context. The model is titled Big Four Reflective Model: critical thinker, resource allocator, problem solver, practice developer.

INTRODUCTION

Reflective practice is a vehicle that allows teachers the ability to explore, contemplate, and analyse experiences in the classroom. Kolb (1999) emphasizes these experiences as a cyclical process through stages: (1) observing oneself as a teacher, (2) thinking about the observed experience to gain understanding and meaning of what is happening, and (3) applying the insights gained to future teaching experiences. Reflection helps individuals improve their actions and professional practice. According to Zeicher and Liston (2005), "reflection is also a means by which practitioners can develop a greater level of self-awareness about the nature and impact of their performance." This awareness of one's performance makes individuals think about and mull over their experiences, classroom activities and leads to improved practice. Teachers use reflection to facilitate their own teaching as well as for the facilitation of learners' learning.

According to Amulya (2012), reflection is an active process of witnessing one's own experience in order to take a closer look at it, sometimes to direct attention to it briefly, but often to explore it in greater depth. This can be done in the midst of an activity or as an activity in itself. The key to reflection is learning how to take perspective on one's own actions and experience—in other words, to examine that experience rather than just living it.

Reflection requires the ability to analyse and prioritize issues, to use tacit and resource-based knowledge, and to develop a feasible plan of action. Clarke (1995) suggests that reflection is not about a single event in time, but occurs over time as teachers begin to construct meaning for them. Reflective practitioners take responsibility (Dewey 1997). Reflective practitioners consider and accept the consequences of their decisions and the changes they make in teaching style, in the learning environment, or in the school culture. Furthermore, reflective teachers are sincere as they closely investigate their teaching (Dewey 1997). They take reflection seriously. Their reflection is purposeful and exciting because it helps them better understand who they are as teachers and how they can be more effective. Reflective teachers are interested in the subtleties of the art and science of teaching. They want to learn all they can about teaching from both theory and practice. They think deeply about their course work and about how it should impact their teaching.

Bulman (2012) sees reflection as reviewing experience from practice so that it may be described, analysed, evaluated and consequently used to inform and change future practices.

Clarke (1995) suggests that reflection is not about a single event in time, but occurs over time as teachers begin to construct meaning for them. Two types of reflection facilitate lecturers' teaching: reflection-in-action and reflection-onaction (Kottkamp 1990). Reflection-in-action occurs during the activity; the activity is reshaped while in progress. Reflection-on-action occurs either following an activity or when an activity is interrupted; a retrospective thinking about an experience.

Internationally, researchers have defined reflective practice and the work of reflective practitioners. According to Zeicher and Liston (2005), "reflective practice is the integration of theory and practice, a critical process in refining one's artistry or craft in a specific discipline and bringing to the conscious level those practices that are implicit." Zeicher and Liston (2005) further describe the reflective practitioner as not just skilful or competent, but thoughtful, wise, and contemplative. Two types of reflection facilitate teachers' teaching: reflection-in-action and reflection-on-action (Kottkamp 1990). Reflectionin-action occurs during the activity; the activity is reshaped while in progress. Reflection-on-action occurs either following an activity or when an activity is interrupted; a retrospective thinking about an experience.

This shows that reflection-on-action brings about an understanding of practice and is a way practitioners may learn from their experience. Schön (2000) identified three stages or levels of reflection: conscious reflection, criticism, and action. In subsequent research, Boud (1990) presented four-stages of reflection: analyse, interpret information, prepare an evaluation report, and prepare an action plan. The four-stage model focused on the behaviours, ideas, and feelings that comprise experience. Later, Peters (1991) describes a four-step process called DATA: describe, analyze, theorize, and act. In the first step, the critical aspect of practice is described. The second step includes the identification of assumptions that supported practitioners' current approaches and underlying beliefs, rules, and motives governing teaching and learning. In the third step, practitioners theorize about alternative ways to approach learning, taking theory developed from the previous step, and creating a new theory. In the last step, the practitioner tests the new theory. Success of this process would occur only through additional thought and reflection.

According to Amulya (2012), reflective practice is simply creating a habit, structure, or routine around examining experience. A practice for reflection can vary in terms of how often, how much, and why reflection gets done. At one end of the spectrum, a work group could go on an extended annual retreat and spend many days documenting and analyzing the learning that has emerged from their past year of work. At the other end, an individual could reflect throughout the day, bringing a high level of awareness to her thoughts and actions in the moment without stopping to analyze her actions and thinking at a broader level.

From the early research emerged models of reflective theory. The reflective cycle by Rodgers (2002) encompassed Dewey's (1933) conception of reflective thought. Rodgers's (2002) model illustrates reflection as a cyclical process comprising of four phases: presence in experience (learning to see); description of experience (learning to describe and differentiate); analysis of experience (learning to think from multiple perspectives and form multiple explanations) and experimentation (learning to take intelligent action). According to Rodgers's model, practitioners move forward and backward through the reflective cycle, especially between description and analysis.

This model shows that teachers reflect because they want to improve their teaching experiences and the learning experiences for learners. A number of researchers state the importance of reflective practice. As a result of engaging in a reflective process, individuals acquire knowledge and understanding (James 2007; Schön 2003), learn from their experiences (Kolb 1999; Schön 2000), apply knowledge to practice while being coached by professionals in the discipline (Schön 2000), and explore assumptions they bring to the workplace (Du Plooy 1997). As reflective practitioners, teachers gain a deeper understanding of their teaching approaches and they consider and accept responsibility for the consequences of the decisions they make in the learning environment.

When discussing events teachers have experienced, colleagues describe what has happened and this benefits the teacher being observed; and at the same time they examine their own experiences and check, reframe, and broaden their own theories of practice. Reflection within one's classroom is the first step of the reflection process but should not be the final step. When teachers discuss their experiences with others, the reflection process enhances their own individual practice (Gabriel 2004). This study investigated the practice of self-reflection by primary schools teachers of Mankweng Circuit. In this context, a gap exists because self-reflection is embedded in policies, but there is no formalised template that guides the teacher on how to apply self-reflection. In conclusion, Bulman (2012) asserts that the interest in reflection is timely in relation to the climate change in higher education more generally. The proposed study also aimed at investigating this gap in order to recommend a model that will assist teachers to reflect on their practice.

Theoretical Framework

For the theoretical framework, Henderson's (1992) Ethically Based Model of Inquiry on Reflective Practice will be used. The theory is on reflective practice and it also discusses what characterizes reflective practice. It points out the kind of teacher a reflective practitioner should be. This theory is relevant to the present study, because it assisted researchers to look at the characteristics of reflective practitioners in order to explain the practices and the timing of self-reflection by schools teachers of Mankweng Circuit, Capricorn District.

Henderson's (1992) model indicates that the reflective practitioner should be problem solver, have a knowledge base and should have a love of teaching. The theory will assist the researcher to examine the kinds of practitioners is the teachers in the primary schools of this circuit in order to explain their practices and timing on self-reflection. According to Henderson (1992), reflective teachers are expert teachers who know their subject matter and are able to teach it well. They must be experts in time management, discipline, psychology, instructional methods, interpersonal communication, and learning theory. Reflective teachers willingly embrace their decision-making responsibilities. They regularly reflect on the consequences of their actions. They are receptive to new knowledge and regularly learn from their reflective experience (Henderson 1992).

Statement of the Problems

The practice of self-reflection assists individuals to identify their weaknesses and improve their practice. It becomes a problem when primary schools teachers do not know how and when to reflect on their practice because they are unable to identify their weak points in their teaching practice and these results into poor teaching and learning.

Research Questions

In order to achieve the aim of this study, the researchers developed the following research questions:

- What are the practices of primary schools teachers on self-reflection?
- How do primary schools teachers reflect on their practice?
- When do primary schools teachers reflect on their practice?

RESEARCH METHODOLOGY

Research Paradigm

The paradigm used in this study was qualitative approach. The purpose of qualitative research is to develop an understanding of individuals and events in their natural state, taking into account the relevant context (Leedy 2001). Qualitative research is predicated on the assumption that each individual, each culture and each setting is unique. In qualitative research, interpretation of data is done by means of set exterior in order to determine an amount of quality to the understanding of findings (Kolb 1999). Procedures are not strictly formalized, scope is more likely to be undefined, and a more philosophical mode is adopted (Mouton and Marias 1998). Therefore this study is epitomized as qualitative research. It can be epitomized as qualitative because:

- The study is conducted in a natural setting in which teachers were given an open-ended questionnaires to answer questions based on self-reflection. An open-ended questionnaire was used because the researcher wanted to gather in-depth information about teachers' views; feelings and how they practice self-reflection.
- An important concern of qualitative researchers is the meaning of human behaviour and experience. In this study the researcher was interested in the practice of self-reflection in the primary schools,
- The data collected emanated from interviews; and did not follow numerical or sta-

tistical procedures. Thus the focus of this proposed study is on understanding and meaning through verbal narratives rather than through numbers,

 The data was gathered and analysed by qualitative methods; small groups are normally investigated in qualitative research (Van Der Westhuizen 1999). In this particular study the participants consisted of teachers from one circuit, and this was considered as a small group.

The researchers used qualitative methodology because it allowed them to acquire in-depth information in order to explain teachers' practices on self-reflection.

Research Design

According to Leedy (2001), a research design is a complete strategy of attack on the central research problem. In simpler terms, a research design is a plan. It involves the process of planning what and how data is to be collected (Kothari 1997). The design used in this study was phenomenological research design. This approach aims to understand and interpret the meaning that subjects give to their everyday lives. Creswell (1998) regards a phenomenological study that describes the meaning of experiences of a phenomenon, topic or concept for various individuals. Eventually the researchers utilizing this approach reduces the experiences to a central meaning or the essence of the experience (Moustakas 1994), and the product of the research is a description of the essence of the experience being studied. In order to accomplish this, the researchers should be able to enter the subject's "life setting" and place themselves in the shoes of the subject.

According to De Vos (2001), this mainly done by means of naturalistic method of study, analysing the conversations and interaction that researchers have with subject. De Vos further argued that researchers using this strategy of interpretive enquiry will mainly utilise long interviews (with up to ten people) as a method of data collection. Multiple individuals who have experienced the particular phenomenon must be identified. Data is systematically collected and meanings, themes and general descriptions of the experience analysed within a specific context. Phenomenological research design is the kind of research whereby the researchers' forms part of the day to day life of his/her population, while gathering data (Criticos 2002). In this study, the researchers spent some few days getting to know the staff of the relevant schools in order to gather information. The reason for choice of a phenomenological research design is that it enabled the researchers to be in a particular school, for a particular period in order to find out how teachers practice self-reflection.

Population and Sampling

To carry out any type of research investigation, data must be gathered. Many different methods and procedures have been developed to aid in the acquisition of data. These procedures employ distinctive ways of collecting the data. Each is particularly appropriate for certain sources of data, yielding information of the kind and in the form that can be most effective (Kothari 1997). The use of various techniques allows the researcher to confirm the findings. For this study two phases were undertaken; phase 1: openended questionnaire and phase 2: one on one interview to obtain data. The population comprised teachers from three primary schools in the Mankweng Circuit. The total teacher population from these three schools were fifty-five. Du Plooy (1997) refers to sampling as the rigorous procedures involved when selecting individuals from a large population. A sample is therefore a group of subjects chosen from the population using a particular sampling method. In the first phase of data collection an open-ended questionnaire was used. For open-ended questionnaires, the sample consisted of fifteen (15) teachers, five from each of the three schools selected. Thereafter, random sampling was used to determine the number of respondents who are to be interviewed. For this second phase of data collection, three (3) teachers were interviewed from each school; one from foundation phase, one from intermediate and one from the senior phase, the total of nine teachers. 9.4.

Trustworthiness

Trustworthiness is a set of quality criteria for judging interpretive research, which is also known as 'authenticity criteria' (Kolb 1999). In this regard, qualitative research theorists advise researchers to explain what precautions they have taken to enhance the trustworthiness of the findings of their studies. Therefore, researchers gave an overview of two trustworthiness criteria: credibility and transferability.

Ethical Issues

This concerns the importance of both accurately informing the respondents as to the nature of research and obtaining their written consent to participate. According to Babbie (2007) coercion is not to be used to force participation and the respondents may terminate their involvement in the research at any time. Participation of the respondents was voluntary. The researchers assured the respondents that the information they provide was only to be used for research purposes. Furthermore, their names were not to be disclosed and the questionnaires were answered in a private place with only the respondent and researchers present. Lastly, the researchers showed respect for the well-being of the participants and the right to self-determination.

According to Kolb (1999), the validity of the instrument produces accurate results or information. In supporting Kolb's idea the researchers ensured validity of the instruments to collect data; by using both open-ended questionnaires and interviews in data collection. The researchers used these two data collecting instruments in order to ensure the validity of the results as the data collected from one instrument was corroborated with the data from the other. Reliability provides consistency of the information. The researchers first piloted the instruments, which according to Taylor (2008), is to test if the instrument will address the problem. The researchers administered afew questionnaires to the teachers from another school to confirm the reliability of it. Adjustments were made to the questionnaire thereafter. Furthermore, the researchers first obtained permission from department of education (DoE) and principals of teachers to participate in order for them to provide me with list of teachers who teach foundation phase, intermediate phase and senior phase. Then teachers were asked to sign some consent forms. The researchersdistributed open-ended questionnaire to the teachers to complete before interview session. Participants were also asked to answer the question: "Would you also like to take part in an interview to contribute more?" Next, after obtaining necessary permission, the researchers asked participants in a silent classroom for interviews.

RESULTS AND DISCUSSION

Phase 1: Open Ended Questionnaire

Data analysed was categorized in to three phases namely: foundation, intermediate and senior. In the first question teachers were asked was to define self-reflection and how they view its process.

When teachers answering this question, the researchers have identified the following themes:

- Self-reflection as a process of asking yourself questions about your teaching;
- Self-reflection as improvement of your weaknesses;
- Self-reflection as looking back from your teaching;
- Self-reflection as questioning the subject matter for deeper understanding;
- Self-reflection as a process to analyse the teaching and learning process.
- Self-reflection as examining yourself;
- Self-reflection as a way of looking in to your achievements and failures;
- Self-reflection as a process of identifying barriers for learning;
- Self-reflection as a process of judging yourself.
- Self-reflection as examining the impact of personal values;
- Self-reflection as self-awareness;
- Self-reflection as self-observation.

Definition and Process of Self-reflection

Foundation phase teachers in Mankweng Circuit define self-reflection as a process of asking self-questions about teaching. This means that teachers need look on their own practice and ask themselves questions about their own teaching. This will enable teachers to identify their mistakes and improve their teaching. When viewing the process of self-reflection, foundation phase teachers mentioned that during selfreflection teachers should look back on their teaching and improve their weaknesses. Selfreflection provides teachers with opportunity to ask questions about their subject matter in order to develop better understanding about their discipline. During this process, teachers should make sure that they analyse teaching and learning process.

Intermediate phase teachers defined and viewed the process of self-reflection differently from foundation phase teachers; as they defined and viewed reflection as a process of self-examination. In this regard, they view self-reflection as a process whereby teachers need to examine their own teaching. They emphasised that during the process of self-reflection, teachers should look in to their achievement and failures. This shows that teachers should work on their failures and make sure that they improve for future purposes. They should do so by identifying their barriers to teaching and make sure that they are not biased when judging their teaching; and this will help them to improve their practice.

On the other side, senior phase teachers added some views about self-reflection, as they defined reflection as a process of examining the impact of personal values. They mentioned that for teachers to practice self-reflection; they should do their self-observation in a way that it will assist them to reach their self-awareness. In other words teachers should know and understand themselves in order for them to become reflective practitioners. Knowing themselves involves the process of asking critical questions about their teaching.

When teachers were asked: How is self-reflection practiced in their schools? Different teachers from different phases responded in different ways. Researchers identified the following themes in order to discuss their response:

- Discuss challenges that hinders teaching and learning
- Setting meeting after each lesson;
- Noting all the challenges in the diary;
- Discuss learner understands;
- Through learner's performance (assessment);
- Through thoughts;
- Subject teachers meeting.

Foundation phase teachers practice self-reflection by discussing challenges that hinders their teaching. Teachers in foundation phase set meetings after each lesson and make sure that they discuss all the challenges they come across during their practice. They also note all the challenges in their diary; so that they can reflect and discuss them during subjects meetings. It appears that teachers in the foundation phase do not reflect on their practice on a daily basis; because they record their challenges in their diary in order to discuss them in the coming subject meetings.

During this subjects meetings; they also make sure they discuss learner's understanding in order to identify the kind of reflective models that will suite them during their teaching. As a result it is important for teaching to find out how his/her learners learn, in order to come up with suitable reflective-model that will suite both the teacher and the learner. This means that during reflective process, teachers need to reflect on how learners learn and discuss learner's understanding in a way that will help learners to improve their learning. Self-reflection itself helps both teachers and learners to improve their practice; therefore teachers need to be encouraged to reflect on their practice because it is through self-reflection whereby teachers can identify his/ her loopholes and improve them.

Differently from foundation phase teachers, intermediate phase teachers reflect on their practice by looking on the performance of learners. This means that they do their self-reflection by checking learners' results and think of a way that will improve such results. They also look at the overall results for a particular assessment and try to talk about the performance and their teaching as a whole. As a result, it appears that intermediate phase teachers reflect on their practice only when learners failed. Since they reflect after assessment; the results further reveals that they do not reflect on their teaching on a daily basis since formal assessment may not be done daily.

Though, intermediate phase teachers regard assessment as central for them to reflect on their practice, senior phase teachers practice it differently. In contrast to intermediate and foundation phase teachers; they reflect on their practice through thoughts. After every lesson, they meet together and think deeply about their teaching and how they can improve. They reflect on every step of their lesson delivery and afterwards they set a subject meeting. This shows that they do self-reflection on a daily basis because after each every lesson they meet together to discuss about the experiences they come across in their practice. Teachers were also asked if they know of any reflection models. In responding to this question, 50% of foundation phase teachers responded that they do not know of any reflective model; while on the other hand, 50% of teachers know about self-reflective models. This shows that there is still a lot to be done in foundation phase, since foundation phase teachers need to be aware of different reflective models because such models serves as important tools that enable them to improve their practice.

When teacher were asked to suggest the best way that self-reflection can be done, foundation phase teachers suggested that the use of video and audio recordings can also be used in selfreflection. This means that teachers will record the lessons while they teach and later listen to every step of teaching with the aim of reflecting if they use right approach. Some teachers in this phase have suggested that teachers should use Gibbs (2002) reflective model and Constructive model by Peter (1991), whereby they should reflect on their practice while they teach and also to reflect after the lesson. Teachers may look at these two models, and come up with the best model to suite the practice of primary school's teachers.

In the intermediate phase, the situation is worse since only 20% of teachers know about self-reflective models while 80% do not know of any reflective model. Therefore, this appears that teachers in the intermediate phase do not reflect because they do not know reflective practice. Teachers in this phase have suggested that reflection should be done through whole class discussion method. In this case learners will also be given a chance to reflect on the teaching that has taken place and these will help teachers to know and understand their weakness and be able to find a way to improve. Intermediate phase teachers also mentioned that teachers should also be allocated with time for self-reflection. They further suggested that each lesson plan should have a part for self-reflection since teachers are only given a chance to reflect about the lesson, not to reflect on their practice.

In contrast to intermediate phase teachers; the results of senior phase teachers are similar to those of foundation phase since 50% of these teachers also know about self-reflection while 50% do not know of it. The results showed that teachers need to be work shopped about the importance of self-reflection, and this will help them to regard self-reflection as central in their practice. Teachers need to be trained to choose the best model that suite their practice, because in primary schools reflection is very important since one may not clearly find out if learners are learning. Self-reflection will help teachers to look on their practice and identify some obstacles that hinder teaching.

When teachers were asked when and how they reflect on your practice, they responded differently according to their phases; and the following themes were identified:

- Some teachers reflect:
- At the end of every lesson;
- After a problem has arisen;
- During the lesson;
- After school hours;
- After assessment.

When teachers were asked the question about when do they reflect on their practice; they responded differently phases respectfully: foundation, intermediate and senior phase. Foundation phase teachers have responded by saying that they reflect on their practice at the end of the lesson. It appears that teachers in this phase may not reflect on their practice while they teach, but only after the lesson. This reveals that if teachers are applying or using the wrong method that is not suitable for the lesson, they will continue to do so until the end of the lesson, since they only reflect at the end of the end. The present study will help this teachers to identify the model that will help them reflect while they teach and even at the end of the lesson. Teachers in this phase further argued that they reflect only if the problem has arisen. This shows that teachers reflect only after the damage has already been done. When teachers were further asked the actual time for their reflection; they responded that in most cases they reflect when learners failed. The present study will help these teachers to view self-reflection as a process that goes along with their teaching practice. Teachers need to reflect on their practice on a daily basis, without waiting for a problem to happen first.

Different from foundation phase teachers, intermediate phase teachers practice use selfreflection during their teaching. The kind of reflective model they use has identified by Schon (2000) that teachers should reflect on action whereby the actual teaching is on process. The advantage of this approach is that teachers are having a chance to identify their mistakes while they teach and be able to solve them immediately. The present study looked at this model in order to come up with the model that exactly suite primary teachers of Mankweng Circuit. Intermediate teachers further argued that they also reflect on their practice after school. This means that teachers set meetings after school hours, where they meet with colleagues and discuss the challenges they meet during their practice and how best they can overcome them.

Senior phase teachers also reflect differently from intermediate phase teachers, but similar to foundation phase teachers. They reflect on their practice after assessment has given to learners. This means that the results of assessment will determine the kind of reflection to take place. The kind of reflection that will take after all learners have passed will differ with reflection whereby all learners have failed. It appears that teachers in this phase do not regard self-reflection as a process but as a final product. Poor reflective practice will result in to poor results, so it important to advise teachers to focus on the relevant reflective model for their practice rather than the final product of reflective practice which is assessment results. Clarke (1995) suggests that reflection is not about a single event in time, but occurs over time as teachers begins to construct meaning for themselves. Self-reflection help teacher to improve their practice in many ways. This is the purpose of reflective practice: to generate learning from experience, whether that is the experience of a meeting, a project, a disaster, a success, a challenging interaction, or any other event, before, during or after it has occurred (Amulya 2012).

CONCLUSION

Unlike in the past, education has changed especially after the introduction of the use of technology in the school. It becomes important for teachers always reflect on practice and be able to adjust where a need is. Teaching at primary school can be a challenge sometimes; as a result teachers need to regard self-reflection as their day to day activity in order to improve their practice. Moreover, teachers need to be trained of different ways of doing self-reflection and the timing of self-reflection.

RECOMMENDATIONS

The study recommended a new reflective model for a rural primary school context. The

model is titled Big Four Reflective Model: critical thinker, resource allocator, problem solver, practice developer. The model is recommended to be used in teaching in primary schools and is based on the one of the competencies of an educator, that is, the educator as a reflective practitioner. In terms of critical thinking; the model states that teachers should think critically about their practice before they attempt any self-reflective practice. This means that teachers should give themselves time to think about the overall situation of their environment. Firstly, teachers think about the class they are going to teach; and the kind of learners they are going to teach; the behaviour of learners and the amount of time available to present the lesson. Secondly, teachers need to think about the kind of resources available at their school, and how they can improvise more resources. The last dimension of the Big Four Reflective Model is practice developer. In terms of practice developer, teaching is about making decisions in order to develop the teaching profession. The model emphasises that teachers need to think about their own teaching practice in order to improve their practice. Further research is recommended in this area to investigate the relationship between poor self-reflection and heavy workloads in the primary schools.

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