

Exploring and understanding rural teachers' conceptions of learning and teaching in schools of Acornhoek district, Mpumalanga Province¹

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ABSTRACT

There is a dearth of research that explores teachers' conceptions of learning and teaching in South Africa, especially in rural schools. We argue that although educational researchers are slowly showing interest in researching the dynamics and multifaceted nature of teaching and learning in rural schools, there are no studies that have focused on understanding rural teachers' conceptions of learning and teaching. This article will contribute to this research gap in the field and add the place-based knowledge. The study used qualitative phenomenological methodology, and collected audio-recorded individual semi-structured interviews with six teachers in grades 10 and 11 and three grade 7 teachers. Each participant's responses were analysed to identify and make sense of the conceptions, experiences, and reasons in detail, resulting in the recognition of significant statements. Findings showed a correlation between teachers' conceptions of learning and teaching. Conceptions of learning as rote memorisation correlated with conceptions of teaching as telling and spoon-feeding, while conceptions of learning as internalising information, restructuring it for meaning making and eventually understanding, correlated with teaching as unlocking the mind and transforming learners.

Keywords: learning, teaching, conception, rural, schools, First Additional Language, generational curse

INTRODUCTION

Any attempt to improve the quality of teaching, according to Sethusha (2013), must begin with the teachers' understanding of their conceptions of learning and teaching, and whether and how these relate to their pedagogical practices during teaching. Similarly, Copur Gencurk (2012: 8) states that teachers' beliefs and meanings that they have of learning, teaching and their knowledge of the subject, seem to '... influence what and how they teach'.

It is thus important to conduct research with teachers to gain insight into their conceptions of learning and teaching in South Africa, especially due to the dearth of research in general, and particularly with rural teachers. Although it is important to understand the relationship between the conceptions and enactment in the classroom, the latter was not the focus of this article due to limitation of space. We position the paper within the post-apartheid curriculum reforms in South Africa which expected teachers to transform

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their pedagogical practices without understanding the original meaning of learning and teaching. There is existing research that explores the nature of teachers' content knowledge in different subjects, and especially in mathematics and science education. This article critically engaged with teachers to explore their views about learning and teaching in rural schools to understand the emergence and the nature of their conceptions.

In this paper, conception can be understood as 'teachers' beliefs as individual mental constructs, value laden and subjectively true, being the result, relatively stable, of some significant social experiences and having an increased impact over teacher's interpretations and contributions in the context of their teaching' as well as their educational experiences (Skott, 2015: 19). Conceptions develop over time, depending on new information attained in time and space. Conceptions of learning and teaching 'act as filters through which new information passes as it is processed' (Jacobs, van Lwijk, Galindo-Garre, Muijtjens, van der Vleuten, Croiset & Scheele, 2014: 1). Learning, according to Biggs (2011: 23) is

... a way of interacting with the world. As we learn our conceptions of phenomena change, and we see the world differently. The acquisition of information in itself does not bring about such a change, but the way we structure that information and think with it does. This means that education is about conceptual change, not just acquisition of information.

Teaching is defined as the 'act of using method x to enable students to learn y, a process that has structure and form, situated in, and governed by, place, space, time and patterns of pupil organisation, and undertaken for a purpose of building microcultures' (Alexander, 2015: 255).

The paper presents data of six teachers in grades 10 and 11 and three grade 7 teachers about the correlation between teachers' conceptions of learning and teaching in Acornhoek district. In addition, the paper outlines the literature review on the study of conceptions of learning and teaching to signify the little research that has been conducted internationally and in the South African context since Marton and Säljö's (1976a, 1976b) study.

LITERATURE REVIEW

There is no doubt that the relationship between learning and teaching is complex; moreover, one cannot dissociate the one from the other if quality education is to be achieved. In recent years, there has been growing literature and research that explores the relationship between learning and teaching as interconnected concepts instead of two separate concepts (Darling-Hammond, 2016; Loughran, 2013). Research on conceptions of learning and teaching has been mainly conducted internationally, and usually with university lecturers and students (Koç & Köybaşı, 2016; Lamas, Levy, Paraskakis & Webber, 2012; Levy & Petrusis, 2012; Collins & Pratt, 2011). According to Opre (2015: 230) 'teachers' conceptions or beliefs become key factors, being regarded as essential determinants of the instructional activity and of the students' learning process'. Teacher's conceptions shape their instructional decisions in the classroom, because 'what teachers do in their classrooms is oriented by their conception of teaching which are derived from their beliefs including a teacher's prior experiences, school practices, and a teacher's individual personality' (Canbay & Beceren, 2012: 71). From the reviewed literature, we have identified a research gap concerning teachers' conceptions of learning and teaching, and also learners' conceptions of learning and approaches to learning in post-apartheid South Africa. In the article, we discuss teachers' conceptions of learning and teaching, and specifically examine the significance of interacting with rural teachers to access the unknown experiences and meanings of learning and teaching.

We acknowledge that various research has been undertaken that focused on understanding teachers' conceptions in different school subjects in South Africa, such as teachers' conceptions of the nature of

scientific inquiry (Dudu, 2014), teachers' conceptions of teaching Physical Science in the medium of English (Mokiwa & Msila, 2013), teachers' conceptions of assessment (Sethusha, 2013). These studies only focused on teaching and assessment and overlooked understanding learning, which influences teaching and assessment. This article addresses the research gap by focusing on conceptions of teaching and learning independent of subject matter. The limited amount of existing research on conceptions by Ebrahim, Martin, Koen, Daries, Olivier and van Zyl (2015) and Sethusha (2013) has not engaged with teachers in rural schools, and Nkambule, Balfour, Pillay and Moletsane (2011: 341) posit that 'rurality and rural education have been marginalised bodies of knowledge in South Africa'. We therefore argue that in apartheid² and democratic dispensations, rural communities, their knowledge, and their educational experiences have been and continue to be overlooked.

In the article, we have prioritised rural teachers to attend to such concerns, and also concentrate on their experiences and knowledge about learning and teaching. Moletsane (2012) encourages that rurality should be perceived as dynamic and generative, which means we should shift from representing rurality with a deficit paradigm. Our article is situated within such discussions that support a move beyond a deficit paradigm, and promote the understanding of socio-historical and experiential forces that influence teachers' conceptions of learning and teaching.

Conceptions of Learning

The basis for work on conceptions of learning began in Sweden with university students (Säljö, 1975; Marton & Säljö, 1976a, 1976b) who were asked to read parts of chapters in an educational textbook. This marked the emergence of studies on the basis of Säljö's (1982) results that claimed a relationship between general experiences of learning (conceptions) and ways of reading a text (approaches), thus congruence. Säljö (1975) identified five different conceptions, namely:

- a qualitative increase in knowledge
- memorising
- the acquisition of facts and methods for use when necessary
- the abstraction of meaning
- an interpretative process aimed at understanding reality.

These conceptions were expanded by Marton, Dall'Alba and Beaty (1993) with Open University students in the United Kingdom to develop a sixth conception, changing as a person. However, in recent periods, various studies have been conducted which involved 488 10th, 11th and 12th grade learners from senior high schools in various regions in Taiwan (Lin & Tsai, 2013). The findings in Lin and Tsai's (2013) study found that learners held the following conceptions of learning science; lower-level conceptions such as 'Memorizing', 'Testing' and 'Calculating and practicing' and higher-level conceptions such as 'Increase of knowledge', 'Applying' and 'Understanding and seeing in a new way'. Another study on conceptions of learning was with 101 elementary school learners (51 boys and 50 girls), whose ages were from 10 to 12 years also in Taiwan. The findings of the study were that about 70% of the learners perceived learning as sitting in a classroom with a traditional setting and listening to the teacher's lectures (Wang & Tsai, 2012). The results from the two studies above were not far from Säljö's (1982) results: in that learning can be perceived as acquiring information, learning as remembering information, learning as doing hands-on activities respectively.

2 During apartheid the education system was segregated according to race and language, with funding for resources being allocated to white citizens. One of the most distressing marks created by the apartheid system is that rural areas in South Africa were left in miserable and negative conditions, as these were former homelands isolated from big towns and cities (Gardiner, 2008).

Rands and Gansemer-Topf (2016) highlight some limitations of and warnings about phenomenography, which include its reliance on participant and researcher interpretations, contextualisation of experiences, the possibility of different researchers arriving at different categories, and the fact that samples are usually small so that one cannot generalise from the results. For example, in South Africa, Makoe (2008) also identified five of Marton and Säljö's (1976a, 1976b) conceptions and a key conception of learning as a contribution to the community, due to a belief that learning and education is not only benefiting the individual but also contributing to the community. Earlier, McConnachie (2000) identified grade 7 learners' conceptions of learning as reading, which seem to suggest that when an individual reads, this is also learning. We argue in the article that the scarcity of such research in South Africa is of concern, considering learners' continuous poor performances in different international and local tests. Such performances should encourage research with teachers and learners to understand their conceptions of teaching and learning and approaches to teaching and engaging with learning at basic education level.

In order to conceptualise various studies conducted in Africa, there is one study that was conducted in Nigeria by Watkins and Akande (1994). The study consisted of 150 14 to 16 year-old Nigerian secondary students and the findings resulted in four categories of describing learning, which were learning as: increasing knowledge (held by 47.4% of the respondents), memorising and reproducing (8.9%), applying (17%), and understanding (26.7%). They suggest that these four categories were congruent with the first four described by Marton and Säljö (1976a) and Marton et al. (1993) and proposed that the quantitative memorising conception of learning and the conception of learning as understanding are identifiable in the responses of these Nigerian secondary school students. Considering the recurrence of the five original conceptions in various studies from different continents, it is important to observe the dominance of Marton and Säljö (1976a) findings, even a few decades later. Given the above discussion, it is important to examine the factors that influence the conceptions, which is one focus of the article.

From the identified conceptions, Marton and Säljö (1976a) concluded that students could be categorised into one of two groups: those who processed information by memorising important facts, and those who tried to determine the author's argument and develop some form of understanding from the text. They further labelled the two approaches of processing information as the surface learning approach and the deep learning approach respectively and these are hierarchically organised as reproductive conceptions of learning and constructivist conceptions of learning (Adeyemi & Adeyemi, 2014). While the authors have organised the conceptions hierarchically, we argue that they work together and are all important in the process of learning in education and play different roles in different subjects. We also acknowledge that not all memorisation of information leads to surface learning, especially if studies in Hong Kong and mainland China are taken into consideration. Wang (2010) found that Chinese learners and teachers view memorisation and understanding as complementary processes, and that there was a difference between mechanical memorisation and memorisation with understanding. Memorisation with understanding is a process and approach that students use to retain what they have learned by engaging with information critically and owning the process of learning (Wang, 2010).

Conceptions of Teaching

For Loughran (2010: 3), it is through consciousness that teachers are able to critique whether 'what we do in our practice is in accord with what we actually do', which is not an easy task to achieve and a reason it is important for teachers to pay attention to their conceptions of teaching. Gunersel and Etienne (2014: 405) define conceptions of teaching as a 'way in which educators conceive of, or understand, teaching and learning'. Thus, teaching begins with teachers reflecting and observing their behaviours and those of others, to consciously develop various strategies and approaches of teaching that can be beneficial to high quality learning (Loughran, 2010). Thus, conceptions of teaching involve ideas, beliefs and attitudes that teachers hold of learning and teaching, which shape teaching approaches that are defined as an

'educator's actual teaching strategies and intentions' (Gunersel & Etienne, 2014: 405). This addresses a relationship between conceptualising teaching and the actual practice of teaching in a classroom, although the latter is not the focus of the article. Gunersel and Etienne (2014) posit that conceptions of teaching fall within two forms of orientations, namely teacher-centred orientation and student-centred orientation, and this links with the conceptualisation of learning.

It was noticed that teachers who held teacher-centred conceptions of teaching used a lecturing format and viewed themselves as transmitters of knowledge, with the focus on the subject matter and content (Chen, Brown, Hattie & Millward, 2012). Teachers who held learner-centred conceptions took into account learners' existing conceptions and facilitated student learning with interactive classroom activities. While the two orientations are presented in the form of a binary, we consider both orientations significant in ensuring that teaching and learning take place. In a cross-cultural comparative study conducted by Alexander (2009: 11), titled *Five Cultures*, six versions of what constitute teaching were concluded.

Teaching can be summarised as transmission, initiation, negotiation, facilitation, acceleration, and technique. On the other hand, there are various modalities of practice known as visible and invisible pedagogic practices. Visible pedagogic practices are also referred to as performance pedagogy and invisible pedagogies as competence pedagogy (Rogers, & Lapping, 2012). The differences between the two modalities provide a framework to develop different theories of instruction. The emerging pedagogic practices can either be liberal, conservative or radical. In South Africa, curriculum reforms advocate for learner-centred teaching that promotes 'active and critical thinking' and not necessarily rote learning and teachers are expected to reform their conceptions to accommodate the constructivist paradigm (Department of Education (DoE), 2011: 4). It is unclear whether and how teachers' conceptions of teaching changed with the curriculum reforms, a reason this article explores rural teachers' conceptions to identify whether there is any change.

RESEARCH DESIGN

In order to understand teachers' experiences and meanings of learning and teaching, we have also used the phenomenological qualitative approach, similar to previous studies. Phenomenology is the study of lived human experience within the everyday social milieu in which phenomena occur, from the viewpoint of those who experience them (Van Manen, 2016). This design enabled us to obtain a detailed understanding of participants' thoughts, beliefs, and experiences regarding learning and teaching. A qualitative researcher makes knowledge claims that are based on individual shared meanings of their lived experiences with other people (Silverman, 2011). These meanings can either be socially or historically constructed, with the intention of developing a pattern of meanings and understandings of a phenomenon (Van Manen, 2016). We believe that teachers' conceptions could be influenced by past and present experiences, because conceptions are not static but develop over time, place and space.

Research sampling

The study was conducted with six secondary and three primary schools, located in Acornhoek, rural Bushbuckridge in Mpumalanga Province. The schools were purposively selected based on partnership with the Wits School of Education Rural Teaching Practicum Project. Teachers were also purposively selected, and only those who acted as mentor teachers to pre-service teachers during teaching practicum were selected for the study. Participants are presented in Table 1, and we had nine teachers overall.

Table 1:
Participants' Profiles

Teachers	Gender	Grade	No. of years teaching
Teacher A	Male	Grade 11	4
Teacher B	Female	Grade 10	23
Teacher C	Male	Grade 11	27
Teacher D	Female	Grade 10	6
Teacher E	Male	Grade 11	16
Teacher F	Male	Grade 10	8
Teacher G	Male	Grade 7	6
Teacher H	Female	Grade 7	9
Teacher I	Female	Grade 7	11

Research Questions

The paper engaged with the following questions:

- 1) How do First Additional English rural teachers conceptualise learning?
- 2) What are First Additional English rural teachers' conceptualisations of teaching?
- 3) What are the factors that shape teachers' conceptions of learning and teaching?

Semi-structured interviews

Audio-recorded semi-structured interviews were conducted to gather qualitative data from the teachers. Semi-structured individual interviews 'take on a variety of different forms, with varying numbers of questions, and varying degrees of adaptation of questions and question order to accommodate the interviewee' (Rowley, 2012: 262). This means the interviewer brings pre-determined questions, but allows for spontaneity during the interview depending on how the interviewee answers the questions. It is therefore important that a researcher pays attention to participants' responses so that he/she can be aware of meanings being conveyed. Interviews were effective for this study because research stimulates feelings, actions, attitudes and emotions, and through interviews teachers might become conscious of experiences they take for granted. Edwards and Holland (2013) acknowledge that under such circumstances, interviews play an integral part in gathering detailed information that might be unconscious to the interviewer and interviewee. Teachers chose suitable times and venues to ensure no disturbance, and interviews took approximately one hour to one and a half hours. We noticed that some teachers talked in depth about the experiences and meanings of conceptions, and others took time reflecting on their understandings of learning and teaching.

Ethical Considerations

The interviewees were given two informed consent forms, one a letter asking them to partake in the study and the second asking for the interviewees' informed consent to be interviewed, audio-taped for validity and reliability purposes of the study. The teachers' identities were only known to the researcher and supervisor, teachers were also given pseudonyms 'teacher A-I', to hide their original identities to ensure anonymity. In addition, all information shared in the interviews was kept confidential and anonymous. The transcriptions from the audio-tape were stored in a password protected folder and remote flash drive

to which only the researcher and supervisor had access. The participants were informed of the study and its purposes in advance before the interview sessions commenced. The participants were informed that they had the right to withdraw from the research study at any time if they did not wish to continue. Ethical clearance was sought from the Wits School of Education Research Ethics Committee and Mpumalanga Department of Education.

Data Analysis Process

Creswell and Poth (2017: 183) state that data analysis is the process that 'consists of preparing and organising the data for analysis; then reducing the data into themes through a process of coding and condensing the codes; and finally representing the data'. Each participant's responses were analysed to identify and make sense of the conceptions, experiences, and reasons in detail (Creswell & Poth, 2017), resulting in the recognition of significant statements. The participants' responses showed complexity with the understanding of learning, and we were careful during the coding and categorisation of responses which resulted in two broad themes in relation to the research questions: *learning as mimicking and reproducing same information; learning as self-initiated*. Teachers' conceptions of teaching also resulted in two themes that correlated with conceptions of learning, which are: *teaching as telling and spoon-feeding; teaching as unlocking the mind and transforming learners*, and also addressed factors that shape the conceptions.

FINDINGS AND DISCUSSIONS

Responding to the question 'What is your conception or understanding of learning?' participants described learning processes to highlight their meanings of learning that showed complexity.

Learning as mimicking and reproducing same information

Learning is the activity that individuals engage with all the time, resulting in it being taken for granted. However, participants talked about learning differently, for example, Teacher C stated:

Learning is memorising information that is taught by teachers ... make sure a lot of information is absorbed and memorised not to forget it.

Similarly, Teacher F said:

[Learning] is trying your level best to mimic what the teacher is saying ... acquiring knowledge, and be able to remember it, and reproduce it.

Although memorisation is the primary method for bringing learning into knowledge, we argue that the described memorisation and mimicking of information relate to rote learning and memorisation strategy without conscious attention to move towards understanding the relationship involved in the material that is being learned. While Wang (2009: 95) posits that 'memorization is a key cognitive process of the brain, because almost all human intelligence is functioning based on it', however learning for participants does not proceed from the basic acquisition of information or facts but ends in short term memory. We acknowledge that memorisation is not a negative or bad practice, as it is a 'conscious internalizing, recalling and retrieving of information' (Aldhafri, Alkharusi & Al Ismaili, 2015: 1160). However, of concern with teachers' responses is the lack of association between the absorbed and acquired new information with what is already known, to re-engage, restructure, reconceptualise, and recontextualise learnt information, and to create their own understanding beyond reproducing information.

The understanding of learning as 'cramming' and reproducing information was extended to learning out of school context. Teacher A illustrated this point:

Learning is reading the whole chapter and put the textbook aside, and reproduce the very same things I've read in my empty book ... do that process until it looks like I crammed the information.

On a similar note, Teacher H said:

When I learn at home, I actually soak in the information, whether English or History, to make sure I recall what I have learned at a later time...

Even though textbooks are recognised as important channels of gaining knowledge, regurgitating the same textbook information in the new book signals repetition without understanding. Thus, for these teachers learning is about accumulation of individual pieces of information, with no indication of forming a long-term relationship with knowledge. While Shaik (2016) posits that teachers' beliefs and conceptions of how children learn plays an important role in the way learning is conceptualised, we argue that participants' conceptions of learning do not necessarily mean that the knowledge is not perceived as important. Instead, we agree with Marton's (1981: 31) statement that 'conceptions are closely related to one's experience in a set context', and for participants' learning experiences, relationships in and out of the school context, and personal traits play a role in the formation of conceptions and the described learning.

The responses indicate that although teachers' conceptions of learning mainly relate to rote learning and memorisation, we acknowledge that it is perceived as a way of getting basic knowledge. The concern is that if teachers conceptualise learning only as memorisation and acquisition of information, how this then influences their understanding of teaching becomes interesting. These particular conceptions of learning link with Marton and Säljö's (1976a) original three conceptions, and are perceived as surface and reproducing conceptions of learning.

Learning as self-initiated

Learning that is initiated and generated by a learner is uniquely different from learning that is expected and directed by the teacher, and means learning is an opportunity and essential for future prospects. This is illustrated by Teacher E:

... at school I've been motivated to learn ... I had developed something inside to read to learn to understand information for a long time...

and this need for comprehension of information from the text through construction of meaning helped to develop critical thinking and critical analytical skills. Freire (1985) regards these skills as crucial for the emancipation of individuals, as it enables them not only to read the word but also to read the world. There is also a sense of intrinsic motivation as the response indicates self-initiated learning which facilitates conceptual learning, performance, and most likely school enjoyment. Similarly, Teacher D thinks of learning as

... internalising what you have read to make sure you remember and use it long after you have learnt it out of school...

which highlights the development of learning identity as proposed by Kolb and Kolb (2009). A particular learning style is adopted focusing on the ongoing process of learning from various experiences rather than for immediate performance, and recognising the potential for future use in different contexts. There is recognition for the significance of meaningful learning **experiences to** expand the subject content knowledge beyond the classroom. de Vries, van de Grift and Jansen (2013) highlight the role that

personal characteristics (beliefs about learning, prepositions that individuals hold true) play in influencing conceptions of learning.

In addition to the abovementioned responses, the internalisation of information and changing as a person was also mentioned by other participants. To elaborate on learning as internalising information, Teacher G said:

... its tough, learning is internalising information taught or individually learnt ... restructure it in your mind, I think asking questions, to make sense of it...

There is critical consciousness in the process of learning which involves the interrogation of knowledge during the process of internalisation which is important for meaning making. Godfrey and Grayman (2014) define critical consciousness as the ability to critically read social conditions and want to change them by actively participating in the change. The notion of change was also identified in Teacher I's response

...when you learn, you own the information, it stays in you and you can actually change – it changes you...

There is a realisation that learning is engaging and thinking about the learnt information differently, owning it, and changing the way situations are perceived and understood, at the same time changing the individual.

This means learning is not an isolated process but involves being

... a lifelong learner, relating school information with the real social situations and issues, think different about them... (Teacher B)

because personal growth is also a continuous process. Learning is continually improving individual information, to reflect new information and construct one's own interpretation of reality. There is an element of problem solving in these conceptions of learning, which is the core of learning, thinking, and development (Bhattacharjee, 2015). The participants' conception of learning links with Marton and Säljö's (1976a) fifth and sixth conceptions, and the difference in this article is that participants linked self-initiated learning to thinking differently about social issues and changing them.

The following section presents teachers' conceptions of teaching which demonstrated a correlation with some of their understandings of learning, and only two teachers had different conceptions of teaching from their conceptions of learning.

Teaching as telling and giving information

Teaching plays a critical role in ensuring the quality of teaching and learning, making understanding teachers' conceptions of teaching essential. In a curriculum reform context that requires teachers to change and improve their teaching approach, it is important to understand rural teachers' conceptions of teaching in post-apartheid South Africa. Teachers' responses to the question 'What is your conception of teaching?' resulted in different responses that interestingly corresponded with their conceptions of learning. For example, Teacher F stated:

When you teach, you must tell learners the information they need, they need to pass at the end, give them information to learn ...

because teachers are expected to know their subject and should impart knowledge accurately and clearly to enable learners to pass. This conception of teaching relates to the teacher's conception of learning as 'mimicking' a teacher and acquiring knowledge, which is packaged for regurgitation when needed. In such a teaching and learning context, if the learning outcomes are unsatisfactory, teachers tend to blame learners and not themselves (Mudau, 2014).

Similarly, Teacher H highlighted that

Teaching is not easy ... is giving learners knowledge, maybe imparting content they need to acquire as much as they can to make sure they pass... they must remember it as I taught it...

The thinking about teaching is limited to the relationship between 'imparting' and 'acquisition' of knowledge and the learner is inactive during the teaching and learning process. Considering that learning is about soaking in the information for recalling, it is unsurprising that teaching is about imparting content to ensure passing. This understanding of teaching promotes rote learning and memorisation, because learners are not stimulated to actively, independently and critically engage with knowledge for meaning making (Blane, 2015). For Teacher C, it has not been easy to think about it:

I am not sure what to say ... is about instructing or giving learners knowledge or information ... they need to perform well, then give them information...

The dominance of teaching as 'giving' learners packaged knowledge promotes dependent learning, resulting in passive learning. This conception correlates with the teacher's conception of learning that perceived a teacher as the expert of knowledge, and that knowledge is absorbed without interrogating its nature. This understanding of teaching is categorised as teacher/content centred and is perceived by researchers as disadvantaging learners' intellectual development, creative and critical thinking, that is promoted educationally.

We argue that within the curriculum reforms, the context and professional development promote the constructivist learner-centred teaching approach. However, for the teachers to have effective teaching, it is important to begin by understanding the conceptions they are currently holding in order to know how to enhance their own teaching. Jidamva (2012: 18) claims that 'to be able to improve the quality of secondary school education, clear knowledge is needed from teachers, who are the key actors'. We also recommend understanding teachers' prior conceptions of teaching, before the introduction of curriculum reforms with different expectations, especially as they influence teaching and learning both in and outside the classroom.

Teaching as transforming learners and being a lifelong learner

Teaching was also perceived - beyond imparting knowledge and telling learners the content - as transforming the way learners think about the information they learn in school. For example, Teacher E stated that teaching is

... unlocking the mind of learners using the knowledge they learn to see life in a different broader sense
... it is not a one person's show but is a democratic classroom as learners are allowed to give their opinions....

This response addresses the importance of encouraging learners to use the knowledge they learn in class to think beyond assessment and interrogate the nature of social structure issues. The shared knowledge should inspire learners to connect and access the unlimited knowledge that exists in the world, by actively

participating in the process of knowledge construction and meaning making to transform and enhance the existing understanding of life. The teacher co-learns with learners as teaching is viewed as negotiation and dialogue about knowledge, as a teacher and learners jointly co-create knowledge (Alexander, 2009). In addition, Massa (2014: 388) states that one of the desirable goals of school is allowing the process of '... not only thinking about important problem concerning disciplinary areas but thinking about the political, ethical and social challenges in everyday life' for students, which possibly depends on the teacher's conception of learning and teaching that can cultivate critical minds and thinking.

While teaching is about transforming learners' perceptions of knowledge by encouraging the formation of a dialogic relationship, it is also about the teacher being a lifelong learner. This is illustrated by Teacher B:

I think teaching is about being a lifelong learner as you share knowledge with learners, you continue to improve, research more about content ... to transform the way learners think about content also ...

Knowledge changes constantly and it is essential for teachers to continue research about their content knowledge, to ensure that they remain relevant. Transformation of learners also depends on seeing teaching as about learning, and Darling-Hammond (2016) presents this as the interplay between teaching and learning and learning and teaching. Thus, being a lifelong learner as a teacher is to be conscious that to build teaching expertise means also to be a learner of the knowledge you are teaching in order to transform as a person, while at the same time transforming learners. Similarly, Teacher G thinks

Teaching is not only about giving information, learners should be encouraged to get involve in their learning ... they (learners) need to ask questions about knowledge not only a teacher, to make sense of information and grow...

The multidimensionality of teaching is highlighted in this response; as much as teaching is about giving information it is also learner-centred and promotes higher order critical thinking through asking questions, and questioning knowledge during teaching and learning. The participants' responses demonstrate a critical and transformative conception of teaching, which is important in competitive and modern contexts.

In responding to the question 'What are the factors that shape teachers' conceptions of learning and teaching?' two dominant factors emerged from the participants' responses, these are: childhood learning experiences and personal characteristics, and the latter includes family background.

Childhood learning experiences

The schooling experiences during childhood and the teaching practices played a role in the way some participants think of learning, which further shaped their understanding of teaching. For example, Teacher A illustrated this point:

Our teachers, for all subjects, just read the textbook as it is, even copying notes on the board ... then to pass I had to do the same ... copying the information and read it over and over again...

Whether this was conscious or subconscious, it indicates that childhood experiences are sometimes repeated if not reflected critically as adults, especially as teachers. Similarly, Teacher F stated that

... our teachers always wanted us to take everything they said ... because it will be part of the test or exam, they said ... then you only focus on what the teacher said in class, repeat it at home without thinking further...

While it is important in class that learners acquire knowledge from the teachers, discourses shaped their meaning of learning and, in this case, an approach to learning which involved passing without understanding information. Although this might be the case, we have also considered that most participants grew up during the apartheid era and the government wanted teachers to follow a particular teaching approach, thus the participants' learning experiences were also influenced by that political era. Of interest is that learning continues to be understood at surface level, even though participants are teachers.

Personal characteristics

The participants' responses in this theme indicated issues that shaped the way they make sense of reading and learning, including engaging with learning their subjects, both during childhood and as lifelong teachers. Teacher D said:

I was raised by a single mother ... it was important that I become proactive and do prior learning without waiting for a teacher ... I wanted to make sense of the information in class when a teacher teaches and ask questions...

Without overlooking the single parent, taking the initiative and making meaning of information was important for the participant. Although a teacher is important, there is also recognition that asking in-depth questions in class may indicate prior reading to enhance the read information. This response links with the conception of teaching as

allowing learners to ask questions in class, at the beginning ... allow them to engage with the information ... don't ask lot of questions, just open the floor... (Teacher D).

Learning is also about asking questions rather than only responding to them, as a way to enhance existing knowledge. In addition, allowing learners to ask questions has the advantage of promoting prior learning, encouraging learners to ask what they do not know, which might also assist learning for understanding. Teacher B highlighted the importance of the 'love' of reading:

I loved reading a lot when I grew up, because I wanted to know beyond school information ... and to be a lifelong learner than just end with school information...

The childhood practices continued to shape the adult practices, because there is recognition that learning does not end at school, but extends beyond schooling by linking information. Similarly, there is understanding for this participant that learning is not only about a teacher giving information, but learning is 'loving' reading because that is where all information can be found.

Thus, while childhood experiences influenced both themes, of interest for the second theme is the role of the individual in learning and his/her relationship with information. There is no change of behaviour for participants in the first theme, because they continue to think of learning in relation to childhood experiences and this raises the question of whether they reflect critically on their teaching. The difference with the second theme is the continuing recognition that learning starts with the individual and how s/he thinks about reading and information, which shaped the understanding of teaching. There is acknowledgement that teachers are 'expected' to give some knowledge, but learners play a crucial role in the process of learning as they are supposed to illustrate engagement with information through questioning.

The implications for these findings are the need for teachers to be aware of their conceptions of learning, which might indicate whether they have changed the way they think about learning. To be aware as an individual of how a particular phenomenon is conceptualised and that it influences behaviour can make

teachers always conscious of what they think, how they think about it, and why they think in that particular way, whether about content or pedagogical approach(es).

CONCLUSION

While it could have been interesting to observe participants teaching to see whether and how the conceptions of learning and teaching influence teaching practices in the classroom, the responses provided information that could be further used to conduct future pedagogical research. Irrespective of the rural context that is perceived as 'backward' and 'poverty stricken', the majority of the findings indicate that teachers' conceptions of learning promote critical processing of new information, abstracting meaning making, and learning as changing a person. The importance of developing your own understanding and creating meaning from the given information appeared significant to the conception of learning, as the individual appears to critically connect the old and new information and make meaning of it (Loughran, 2010) thus changing the person's understanding of knowledge. Furthermore, conceptions of teaching correlate with their learning, thus it is important to encourage participation and accelerate learning by guiding learners to use learnt knowledge to think beyond their current situation. Loughran (2013) talks about a teacher as a learner and that the more their learners are challenged so should the teacher also be challenged and engage with the new ideas that arise.

We recommend that more research be conducted with teachers to understand their conceptions of learning and teaching, because such research makes them aware of their taken for granted understandings. In addition, more research is needed to understand whether and how the conceptions influence teaching approaches in the classroom, in particular after teachers have talked about their conceptions. This kind of research will provide information about pedagogical practices in the classroom, and also teachers' beliefs and meanings concerning their profession. Lastly, it is also important to conduct research with learners to gain insight into their conceptions of learning and approaches to learning in relation to teachers' conceptions and teaching approaches. Studies state that teachers' teaching approaches shape learners' conceptions of learning and engagement with learning, because teachers spend a lot of time with learners.

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