

Witchcraft and Mathematics Learning in South African Rural Schools

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Abstract: *In South Africa, there is no adequate research that explored mathematics learning and teaching within rural schools and classrooms. Various literature posits that mathematics education research has virtually over-concentrated on urban and township schools and consistently ignored rural contexts and schools. Arguments exist that rural education and rural education research have been understudied in South Africa. Presumably, this would include mathematics education research as well. This paper explores the relationship between witchcraft beliefs, which is considered as an entrenched cultural phenomenon, and learners' mathematics learning within rural classrooms. In this paper, the local influences include that the learners end up not demonstrating their full understanding of their knowledge of the subject, they may be bewitched. Cultural Relativism was used to theorise the study within qualitative critical phenomenology as a methodology for the study. The*

study comprises 12 mathematics learners from a rural Acornhoek region in Mpumalanga Province, and data were collected using individual semi-structured interviews while the collected data were analysed using Critical Discourse Analysis. Findings from this study illuminated that local beliefs and knowledge such as witchcraft exert significant influence on schools and learners' learning, including learners' not demonstrating their optimum understanding of mathematics.

Keywords: Mathematics, mathematics learning, rural, witchcraft, witchcraft beliefs, cultural relativism.

1. Introduction

In a country of cultural diversity such as South Africa, there are various beliefs and cultural practices that exist, which includes acts of witchcraft and the possible influences it may have in causing misfortunes for individuals. The existence of witchcraft as a personalised experience is to many people, such as those who were born and reside in urban and township areas, the illusion of a wild imagination (Mbiti, 1969; Greenwood, 2020). Belief in witchcraft is still highly present in many parts of the world today, especially in developing countries. Although mysterious, as real as it possibly can be in many people's eyes and daily lives. People find themselves in a context where modernity and globalisation rapidly expand and coexists with tradition and culture, creating a complex situation where choices are constantly balanced and affected in either direction. Furthermore, poverty and a sense of exploitation often lie as luring shadows over all this, making it even harder to fully understand these societies in the same way we understand our own. In this sense, belief in witchcraft may not be as irrational as it may appear to outsiders.

According to Lehmann (1993, p. 187), witchcraft refers to "a web of beliefs and practices whose purpose is to manipulate nature for the benefit of the witch or the witch's client". Thus, individuals' belief in witchcraft, as posited by Cimpric (2010, p. 10) can be taken to refer to "... a set of beliefs, structured and shared by a given population, that addresses the origin of misfortune, illness and death, and the set of practices for detection, treatment and punishment that corresponds to these beliefs". In this study, the learners communicated beliefs that the witches in the community and their fellow learners whom they believe are witches could make them perform poorly in their academic work by using spells and/or curses should they exude their full learning potential in mathematics. This is an area that is left unexplored in the sparse research focusing on rural education within the South African context. The paper addresses two research questions:

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- a) What are the Grade 10 learners' experiences of learning mathematics within rural classrooms?
- b) How do learners' beliefs in witchcraft influence their learning of mathematics?

This paper takes a position that learning does not take place in a vacuum. It is a product of many multi-faceted environments such as family, community and peers, and learners' beliefs, which emanates from the community's ways of thinking and ways of being shapes their learning of mathematics and academic performance (Bronfenbrenner, 1979; Epstein & Connors, 1995). Literature suggests that there is a limited comprehensive research that has been conducted on community and family factors regarding the quality of rural education in South Africa, even though these factors are consistently posited to be attributable to the quality of teaching and learning at school (Mbhiza, 2017; Nkambule and Mukeredzi, 2017; Omodan, Dube & Tsotetsi, 2019; Omodan, 2020). I, therefore, lay the foundation for improving rural mathematics education research by focusing on the silenced phenomenon, such as the influence of beliefs in witchcraft on learners' learning in general and mathematics in particular. Yet, it remains one of the marginalised bodies of knowledge in research. The reader is prompted to consider from the beginning of this paper a much-neglected aspect of how individuals communicate in specific contexts, that language is context-specific. Thus the way learners talk about the possible influence of witchcraft in their academics is inextricably linked to the community's discourse about the notion of witchcraft.

1.1 The dearth of Rural Research

In South Africa since 1994, the discourses of improving the standards of education, encouraging learners to take mathematics and science at school, as well as enticing teachers to use teaching strategies that foster critical thinking have been predominant to redress the distortions of the apartheid education system (Masinire, 2015; Nkambule & Mukeredzi, 2017). However, "rural development and rural education have remained on the margins of progress made in improving people's lives" (Nkambule, Balfour, Pillay & Moletsane, 2011, p. 342). This is also notable in the paucity of rural research, especially mathematics education research seeking to identify and describe social issues embedded within rural areas and schools that influence teaching and learning processes in those regions (Spolaore & Wacziarg, 2013). The influence of local cultures within rural schools in South Africa remains a major question. However, the dearth of rural research in South Africa has not offered insights into rural constituencies' lived experiences due to biased research locale which favours urban and township constituencies. In this regard, it is timely to explore various factors affecting rural education quality related to the family and community within rural local contexts.

According to the Schools that Work report, "... the school that an individual learner attends has a strong predictive effect on results, both in terms of social position and in terms of schools' effectiveness" (Christie, Butter & Potterton, 2007, p.55). This statement highlights the role of local influences and the influences of the schools' nature on the learning and teaching processes, thereby learners' academic achievements, as also argued by Mbhiza (2020). While various education legislation in South Africa stipulates the role that the school's social position has on learners' learning, since the transition to the democratic education system, insubstantial rural research has been conducted to identify and describe issues embedded within rural areas. Also, the schools that facilitate and/or constrain teaching and learning effectiveness in those contexts (Masinire, 2015; Mbhiza, 2019) and on the standard of education in those regions.

1.2 Understanding Witchcraft Beliefs

Although most legislation, politics and economics in South Africa generally views witchcraft and beliefs in it as nothing of value, a wild imagination embedded in people's backwardness and obliviousness, the existence of witchcraft as lived experiences remains a reality for many Africans (Schnoebelen, 2009; Brooke & Ojo, 2020). Belief in witchcraft enables some individuals to explain their misfortunes by linking it to acts of evil

(Agyapong, 2020). While this is the case, many people in other contexts such as urban and townships may be in "disbelief in the reality of witchcraft" (Murray, 1970, p. 28). That is, the belief in witchcraft in the modern societies is viewed as both ancient and mysterious (Niehaus, 2012; Kroesbergen-Kamps, 2020). While this is the case, in many parts of the world, especially within rural communities, beliefs in witchcraft is still prominent today, and this is evidenced by statements uttered by some learners in the current study about their fears to excel in mathematics because they are afraid of being bewitched. Of concern for this paper is that, as far as it can be determined, past mathematics education studies have not illuminated learners' beliefs in witchcraft and how it shapes their learning of the subject. This can be attributed to the dearth of mathematics education research located within rural areas and schools within the South African context.

According to Golooba-Mutebi, "fear of witchcraft is almost universal, but few people readily discuss the subject in detail" (2005, p. 944) especially how it shapes learners' experiences and attitudes towards schooling and learning in general, and mathematics learning in particular. From the information provided by the learners in this study, it can be argued that the beliefs about the possible effects of witchcraft on learners' learning may be greater among learners who are academically talented, resulting in learners demonstrating disengaged attitudes during learning in the classroom. The information provided by some learners in this study suggest that should they exhibit their full mathematics learning potentials during learning, their peers who are less capable of attaining good achievements in mathematics may become jealous. The learners believe their active participation in learning might result in learners who are less capable of understanding the contents using supernatural powers to do harm to them. Hence, they do not show that they understand the contents during learning in the classroom for the purpose of self-protection.

1.3 Cultural relativism as a Theoretical Framework

An attempt to convince people who consider witchcraft as primitive may be as difficult as trying to convince a person who holds strong convictions about God being the sole creator of all things on earth that the theory of evolution has currency in explaining the origins of life. In this paper, I suggest that local influences, such as beliefs about the existence of witchcraft in rural mathematics classrooms, can be understood as discourse practices. Thus, to explore and understand learners' beliefs about witchcraft's potential influence in their learning of mathematics, I use cultural relativism as a theoretical frame (Griswold, 2004; Johnson, 2012). Cultural relativism provides me with a reflexive and critical tool to understand learners' views and experiences of learning mathematics within rural classrooms. Central to cultural relativism is the stance that an individual's sense of reality is constructed through inherent cultural frameworks as well as how these are socially expressed. This means that language plays a significant role within cultural relativism, considering that language is viewed as a tool for social categorisation, constructing people's experiences, and actively shaping what is considered reality and knowledge within a particular society.

In this paper, I pay attention to the ways learners' talk about witchcraft and mathematics learning since their choice of words reveal the embedded ways of thinking and talking about the beliefs in witchcraft within their social context. Cultural relativism is espoused in this article based on the standpoint that there is no reality, social world or knowledge independent of an individual's beliefs about it (Yousif, 2020). It is essential to note that the learners' ways of talking about the possible influences of witchcraft in their mathematics learning intricately links with how their social contexts talk about it, which resonates with the cultural relativist premise that whatever counts as social or reality varies according to context. The learners' beliefs on witchcraft and the influence it may have on their full learning potential in mathematics are context-dependent. Thus, I consider "the whole process of social interaction of which text is just part of it; and include language forms (written and spoken), patterns of interactions among the participants, as well as values embedded in the use of language and power relations and attitudes to knowledge" to

understand learners' verbalisation about their mathematics learning (Fairclough, 1989, p. 24). Learners' beliefs about witchcraft and fears that when they exhibit their full potential in learning mathematics, they may get bewitched are embedded within the broader narratives of the community in which they live.

2. Research Methodology

In this study, qualitative critical phenomenology was used as the research methodology because the purpose was to reveal and understand the meanings learners make in rural contexts and associated relations with the broader society's beliefs and ideological structures (Van Dijk, 2009). This methodology is relevant for this paper considering that learners' utterances about witchcraft and mathematics learning emanate from "their imbrication in systems of historically contingent meanings communicated by institutionalised patterns of behaving, thinking and speaking" about witchcraft within their communities (Tenorio, 2011, p. 192). According to Fairclough and Wodak (1997), an individual's thoughts and actions are manifestations of dynamic and complex constructs termed social representations, which means that social structures in discursive interactions are "enacted, instituted, legitimated, confirmed or challenged by text and talk" within specific social contexts (Fairclough & Wodak, 1997, p. 266).

Merriam (2002) suggests that the use of critical phenomenology enables researchers to understand "how the social and political aspects of the situation ... affect the ways in which individuals construct reality" (p. 4). In view of this and the notion of cultural relativism discussed earlier, I positioned my understanding of learners' experiences of learning mathematics and beliefs in the possible influences witchcraft may have in their learning of mathematics as being embodied and contingent on their personal as well as cultural webs of the signification of what mathematics and witchcraft entail. Critical phenomenology allowed me to determine different understandings of learning mathematics as experienced by rural Grade 10 learners, explore the influence of social interactions through language on their construction of witchcraft's discourse, and the fears that they have about the possible influences it may have in their learning.

2.1 Participants in the Study

This study's participants comprised twelve Grade, ten mathematics learners from the rural Acornhoek region in Mpumalanga Province of South Africa. The selection of the learners was based on the criteria depicted in Table 1 below.

Table 1: *Learner selection criteria for the study*

Current Subjects:	Mathematics as one of the subjects
School:	Rural secondary school
Province:	Mpumalanga
Region:	Acornhoek
Grade:	10
Additional information:	In order to get varied accounts of learners' experiences and attitudes towards learning mathematics, with the help from the teachers and based on the learners' current performance, I selected two average learners, two above average and two below-average learners in each school, making a total of six learners from two different school sites.

Creswell (2003) suggests that the appropriate sample size for phenomenological research should range between 5-25 individuals, especially individuals who are informative about the subject under scrutiny. Thus, in the current study, the sample met this requirement for phenomenological studies. Having a sample of 12 learners in this study maximised the variety of information during the data analysis process.

2.2 Data Collection Methods

Considering the focus of the study, I used individual semi-structured interviews to attempt to answer the predetermined research question (Walliman, 2011). The use of semi-structured individual face-to-face interviews allowed me to have some flexible conversations with the learners about their experiences of learning mathematics within rural classrooms, which in turn enabled them to recall their experiences of learning mathematics and provided thick descriptions about such experiences. While the study's primary purpose was not on learners' experiences and/or beliefs about witchcraft and the influence it has on their learning of mathematics, the information provided by the learners demonstrated that beliefs in witchcraft is a key attribute on how they learn the subject.

2.3 Data Analysis Technique

After transcribing the interviews verbatim, I used Fairclough's (1995) Critical Discourse Analysis (CDA), which is appropriate for a critical phenomenological study to analyse the participants' information. Fairclough's CDA consists of three closely interrelated processes, which are tied to three associated dimensions of discourse: the object of analysis, the human processes by which the object is produced, and the socio-historical conditions which shape these processes (Janks, 2010). To Fairclough, these dimensions respectively require a special kind of analysis: description (text analysis), interpretation (processing analysis), and explanation (social analysis). This approach was espoused because of its promise to focus on the "signifiers that make up the text, the specific linguistic selections, their *juxtapositioning*, their sequencing, their layout" (Janks, 2010, p. 1). Learners' comments about their learning of mathematics and beliefs in witchcraft may provide more information than simply conveying what they said at surface value. Thus, using CDA helps me to illuminate social information about witchcraft and learning that they "conveyed inexplicitly" during interviews (Rahimi & Riasati, 2011, p. 107). This is considering that learners' choice of words and prioritised meanings and understandings are never neutral, but owe their meanings "in a particular historical, social, and political condition and the meaning we convey with those words is identified by our immediate social, political, and historical conditions" (Fiske, 1994, p. 11). CDA links very closely with cultural relativism because they both focus on 'worlding', thinking, acting, and speaking within particular social contexts. Of interest to note is that the learners report being strong in mathematics who shared narratives of possible bewitchment should they exude their full learning potential in mathematics. The following section presents the major findings and discusses learners' fears of witchcraft and the assumed potential it may have on their learning, especially when exhibiting their full learning potential of the subject matter contents.

2.4 Ethical Consideration

Researchers' ethical conduct has increased and broadened in response to institutions' expectation of greater accountability and protection of research participants (Zegwaard, Campbell, & Pretti, 2017). Ethical clearance for the current study was granted by the University of the Witwatersrand (protocol number 2016ECE018M) and Mpumalanga Department of Education. Before the data collection process commenced, all learners were informed of the purpose, confidentiality, and voluntary nature of participation in the study. Considering that the learners are Grade 10 learners and the majority were minors, preamble letters were sent to their parents detailing the study's purpose and sought their consent. I also considered the importance of ensuring that the identity of participants is kept confidential or anonymous. This study's assurances extended beyond protecting the learners' names and those of their schools to include avoiding using self-identifying information and statements. The names I gave the participants and their schools in the following sections are all pseudonyms to ensure that their true identities are concealed.

3. Findings and Discussions

The data collected were presented to answer the two research questions formulated to guide the study. The questions are: What are the Grade 10 learners' experiences of learning

mathematics within rural classrooms? How do learners' beliefs in witchcraft influence their learning of mathematics?. The data is presented below.

3.1 " ... people in this school, there are a lot of witches ... "

While people in other contexts may be in "disbelief in the reality of witchcraft" (Murray, 1970, p.28), some of the rural learners involved in this study hold strong convictions that witchcraft has the power to block their potential in mathematics. Some of the learners are of a belief that when they perform very well in mathematics, they might get bewitched, so they have to ensure that they don't "outsmart others" during mathematics learning and assessments. Consider Brilliant's statement, for example:

I don't know the background, some people are jealous when you become jealous you can do something for me, not to know mathematics ... something like (he giggles), they will want to use my mind. They will just do the witchcraft things ... when I came here, they told me in this school if you think you are better than others, they will just do something to you, so I have to cool myself down

This statement illustrates the association between witchcraft and the "... ability to manipulate supernatural powers ..." (Witchcraft Suppression Act, 2016, p.37) *to make him "not to know mathematics" or "to use his mind"*. What does it mean to use someone's mind? Using his mind, the way it is referred to in Brilliant's response can be taken to discern that because he has potential in learning the contents of mathematics, he seems to believe that "witches" can ultimately use their supernatural powers and ability to enchant him by casting a spell against him. Possibly to make him not understand mathematics or one whereby one of his fellow learners cast a spell on him that makes him "learn for them". I am also drawing this from my own personal experiences, the stories I grew up being told about keeping my books safe and always being on the lookout of my peers at school because some could do wicked things by casting a spell that could make me to study and whilst I think I understand the contents, it is the other student (the spell caster) that has mastered the contents. As reflected in his response above, the WSA (2014) states that "people are believed to engage in witchcraft because of jealousy and envy" (p.37). Thus, Brilliant believes that other learners will get jealous and "do the witchcraft things" to him when he performs very well in mathematics assessments. Further, Brilliant's response suggests that if he were to unleash his full potential in mathematics learning and assessments, his classmates who are less capable could start being envious, which ultimately leads to hatred or jealousy.

The extract *"so I have to cool myself down"* seem to suggest that he is not in a position to exhibit his full capabilities in learning mathematics because he has been "warned" when he arrived at the school that *"... if you think you are better than others, they will just do something to you"* (Brilliant). Therefore, Brilliant's fear of witchcraft seems to inhibit him from displaying his full mathematics potential. This could possibly be a reason why Brilliant did not raise his hand to ask clarity seeking questions, as stated earlier on his being an independent learner. It could be that he avoids asking the teacher questions in class because of the "fear" that other learners would think he is trying to be better than them when he asks questions, and consequently *"do the witchcraft things"* to him. Regarding this belief about witchcraft, Nyabwari (2014, p. 9) states that "most Africans believe that witchcraft causes unusual phenomenon like accidents, conflicts, death, domestic and public aggression, loss of poverty, sickness and failure".

The belief on witchcraft seems to have given rise to a particular attitude in Brilliant's learning of mathematics. His belief about the reality of the practice of witchcraft in his context seems to shape the extent to which he learns the contents of mathematics, since his fear of being bewitched seems to limit his performance in the subject. In addition, other two learners, Bridget and James, hold similar sentiments as they stated that in mathematics assessments do not want to get higher marks because they are fearful that they might get bewitched, as verified by the following statements:

if it's over fifty, I get thirty-nine, ... forty? Hay, I am not a memorandum, when you get forty, they will accuse you, hay this girl, where did she get forty! ... some people here, people in this school, there are lot of witches ... I am afraid of people, so I can't get forty or fifty ... when I am writing an assignment, I write knowing that here I am writing for a pass mark, not forty ... I just want to pass (Bridget).

This place is well-known for witchcraft, you will get bewitched if you get distinctions in mathematics, I know I am good at mathematics, but to protect myself I always play a bit dumb you see, sometimes I write wrong answers even when I know the answer (James).

While Brilliant speaks about being afraid of becoming a victim of witchcraft when he performs very well in mathematics, Bridget's and James' responses above go beyond the way Brilliant speaks about the construct of witchcraft, theirs represent two sides of witchcraft beliefs. Firstly, it can be uncovered that Bridget does not want to get higher marks in mathematics because she is afraid that her peers will accuse her of being a witch, as supported by the extract "*they will accuse you, hay this girl, where did she get forty!*" in her response above. In her view or experience, performing well in mathematics is linked to Secondly, Both Bridget's and James' responses also suggest that they do not want to get higher marks or total marks in mathematics assessment merely because they are afraid of being bewitched. The choice of words "*I can't*" in Bridget's statement and "... but to protect myself I always play a bit dumb ..." in James' statement signify that these learners have since positioned themselves to attain just the pass mark and making sure that they do not obtain higher marks. The learners' utterances resonate with Kombo's (2003) argument that "witchcraft reinforces social norms and structures. Fear of being accused of witchcraft can make people adhere to social sanctions due to the perceived misfortunes that may befall those who ignore them" (p. 82). To these learners, not getting higher marks is a mechanism they use to avoid attracting attention, resulting in them being bewitched by others who would get jealous of their performance. This is concerning because these learners will always limit their learning potentials and, consequently, constrain their academic performance in mathematics. While the above discussion addresses the learners' sense of reality about witchcraft's potential influence in their lives and academics, the following section presents findings relating to learners' beliefs about witchcraft based on how witchcraft is socially expressed within their communities.

3.2 "... they will bewitch you because mathematics is not easy."

In this section, I present and discuss the social dimension of learners' beliefs that should they perform outstandingly in mathematics; they will get bewitched. That is, I focus on how learners' construct their beliefs and experiences from how the notion of witchcraft is expressed by the community member, particularly their family members. Three students had this to say:

"let's say we are in the same class, I am perfect at maths, and perfect in physical science, so you stole my book, when you come I will tell you, you took my book because you want to go and do your things on my book. So, I am afraid of those things because they steal some people's books and go do something somewhere, so I am afraid ... last year they stole my book, so when they took that book back to me, I didn't accept the book, I decided to start on another book, because I did not want to write on top of that book ... I don't know where they took that book, so I can't use it. And my grandmother said don't use that book, she took that book with a reason" (Bridget).

The thing is in this place va loya (they are witches), so you will never show in class that you know mathematics, my parents always say do not show people that you are clever, do not show them that you know mathematics, they will bewitch you because mathematics is not easy (Tiny).

In the community, there are people who are crazy, and our parents always tell us that it is because they were too clever in mathematics, they were bewitched. In class, you

cannot act like you are Mr know-it-all. You see, you don't know the other learners' family backgrounds, they might bewitch you (Tsan'wisi).

my father used to say, and sometimes you just have to cool down, because sometimes in class we don't know one another well, you can't get full marks in mathematics, they will bewitch you, that's why sometimes they make me to cool down... (Brilliant)

Although from my observations, learners in the two schools within which this research was constantly conducted exchange greetings and appears to work together to learn the contents of mathematics, beneath these seemingly good relationships, Bridget's, Tiny's, Tsan'wisi's and Brilliant's responses above suggest that, there are hints of mistrust and suspicion, which appears to emanates from the community's discourses and beliefs. This is supported by the extracts "*my grandmother said don't use that book, she took that book with a reason*" (Bridget); "*my parents always say do not show people that you are clever ...*" (Tiny) and "*our parents always tell us that it is because they were too clever in mathematics*". It seems from the learners' utterances that there is a constant awareness of the reality of the effect of witchcraft in their day to day lives generally, and specifically the learning of mathematics. As illustrated by the above statements, the belief that when one performs well in mathematics, they stand a risk of bewitchment seems to come from their primary socialisation at home. Of concern is that this has implications for learning in the classroom, especially for collaboration between learners since learners like Bridget may not actively participate or share ideas with their peers because they are afraid of being cursed (Killen, 2015). From the learners' responses, it is worthy to note that they have been socialised into accepting that they will get bewitched if they perform very well in mathematics. As a result of this, it seems the learners have been warned at home that if they perform very well in mathematics, those who may be jealous or envious might harm or undermine their progress (Tinga, 1998). This means the local influences cannot be overlooked if researchers aim to gain insight into aspects that are attributable to learners' mathematics learning.

The cases presented in the above discussions provide a broader horizon of understanding of the family microsystem in relation to the cultural beliefs of the community in general (i.e. witchcraft), which Bronfenbrenner located within the broader level of social interaction, which he called the macrosystem and the influence on learners' mathematics learning. Thus, the earlier mentioned learners' excerpts seem to illustrate that their socio-cultural context has an influence on their learning of mathematics. The beliefs in witchcraft discerned in the learners' statements can be linked to "... local, community-based systems of knowledge which are unique to a given culture or society and have developed as the culture has evolved over many generations of inhabiting a particular ecosystem" (Onwu & Mosimege, 2004, p. 2). As noted from the learners' statements that their elders socialise the learners into believing that others may inflict harm if they do very well in mathematics through witchcraft practices, this witchcraft beliefs is the "totality of socially transmitted behaviour patterns, arts, beliefs, institutions ... and thought" (Hoppers, 2009, p.604) and limits learners' learning participation and academic performance in mathematics.

4. Conclusion

The analysis and discussion of learners' information about their learning of mathematics in this study revealed that the learners have engendered undesirable attitudes towards learning mathematics, that they cannot exhibit particular levels of understanding in the subject because of fear of witchcraft. The research findings offer some meaningful implications to learning in rural areas in general, where beliefs such as those represented in the learners' statements about witchcraft are strongly held. As such, these findings suggest that when we consider learners' experiences and attitudes towards learning mathematics in contexts such as Acornhoek, it is essential to consider both the cultural context of the society as a whole and the subcultures of the families of the children. What becomes important to mention is that the learners' views about witchcraft are thus like mirrors: they show us how they view themselves, they provide pictures of their attitudes towards learning mathematics. With regard to their attitude towards learning mathematics, I deduced these learners often have to display a "nonchalant attitude" just

so that they do not intimidate other learners with their knowledge of mathematics to ensure that they do not become victims of witchcraft. Nkambule, Balfour, Pillay and Moletsane (2011) argue that in-depth research into rural teaching and learning will contribute to greater awareness about rurality and its influence on teaching and learning processes. There is a need to research with rural constituencies to diversify the research locale and understand the lived experiences of individuals in those regions and how such experiences influence the nature of teaching and learning in light of the fact that there are unexplored factors such as beliefs in witchcraft that are at play in shaping learners' learning in those contexts.

Reference

- Agyapong, K. A. (2020). Beliefs in the Activities of Witchcraft in Ghana. *E-Journal of Religious and Theological Studies-5th Anniversary Special Edition*, 6, 281-89.
- Boudon, R. (2003). Social science and the two types of relativism. *Comparative Sociology*, 2 (3), 423-440.
- Bronfenbrenner, U. (1979). *The ecology of human development*. London: Harvard university press.
- Brooke, J. & Ojo, O. (2020). Contemporary views on dementia as witchcraft in sub-Saharan Africa: A systematic literature review. *Journal of clinical nursing*, 29(1-2), 20-30.
- Bush, W. S. (2005). Improving research on mathematics learning and teaching in rural contexts. *Journal of Research in Rural Education*, 20(8), 1-11.
- Christie, P., Butler, D., & Potterton, M. (2007). Schools that work. *Report of the Ministerial Committee*, Pretoria: Government Printer.
- Cimpric, A. (2010). *Children accused of witchcraft: An anthropological study of contemporary practices in Africa*. UNICEF WCARO.
- Creswell, J. (2003). *Research design: qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Epstein, J. L., & Connors, L. J. (1995). School and family partnerships in the middle grades. *Creating school/family partnerships*, 1, 137-166.
- Fairclough, N. (1989). *Language and Power*. London: Longman.
- Fairclough, N. (1995). Critical discourse analysis. The critical study of language. Language in social life series. (Vol 81). Harlow, UK: Longman.
- Fairclough, N., & Wodak, R. (1997). Critical discourse analysis. *Discourse studies: A multidisciplinary introduction*, 2,357-378.
- Golooba-Mutebi, F. (2005). Witchcraft, social cohesion and participation in a South African village. *Development and Change*, 36(5), 937-958.
- Greenwood, S. (2020). *Magic, witchcraft and the otherworld: An anthropology*. Routledge.
- Griswold, W. (2012). *Cultures and societies in a changing world*. Sage, Washington DC.
- Griswold, W. (2004). *Cultures and Societies in a Changing World*. Thousand Oaks, CA: Pine Forge Press
- Hoppers, C.A. (2009). Engaging Critically with Tradition, Culture, and Patriarchy through Lifelong Learning: What would Julius Nyerere say? 6th Julius Nyerere Annual Lecture on Lifelong Learning University of the Western Cape 3rd September 2009.
- Janks, H. (2010). Language, power and pedagogies. *Sociolinguistics and language education*, 1(3), 40-61.
- Johnson, T. H. (2007). Cultural relativism: Interpretations of a concept. *Anthropological Quarterly*. 80(3),791-802.
- Killen, R. (2015). *Teaching strategies for quality teaching and learning*. Juta and Company Ltd, Claremont, South Africa.
- Kombo, K. (2003). Witchcraft: a living vice in Africa. *African Journal of Evangelical Theology*, 22, 73-85.
- Kroesbergen-Kamps, J. (2020). Witchcraft after modernity: Old and new directions in the study of witchcraft in Africa. *HAU: Journal of Ethnographic Theory*, 10(3), 860-873.
- Masinire, A. (2015). Recruiting and retaining teachers in rural schools in South Africa: Insights from a rural teaching experience programme. *Australian and International Journal of Rural Education*, 25(1), 1.
- Mbhiza, H. W. (2017). *A critical exploring of grade 10 rural learners' experiences and attitudes towards learning mathematics in Acornhoek classrooms, Mpumalanga province*, Doctoral dissertation, University of the Witwatersrand, South Africa.
- Mbhiza, H. W. (2019). Using video-stimulated recall interviews: teachers' reflections on the teaching of algebraic functions in rural classrooms. *The Independent Journal of Teaching and Learning*, 14(2), 92-107.

- Mbhiza, H. (2020). Reclaiming Hope: De-normalising Rural Parents and Learners. In *Rurality, Social Justice and Education in Sub-Saharan Africa Volume I* (pp. 177-190). Palgrave Macmillan, Cham.
- Mbiti, J. 1969. *African religions and philosophy*. King's Lynn, UK: Biddles.
- Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis*. Jossey-Bass Inc Pub
- Murray, M. A. (1970). *The god of the witches* (Vol. 332). Oxford University Press on Demand.
- Niehaus, I. (2012). *Witchcraft and a life in the new South Africa* (Vol. 43). Cambridge University Press.
- Nkambule, T., Balfour, R. J., Pillay, G., & Moletsane, R. (2011). Rurality and rural education: Discourses underpinning rurality and rural education research in South African postgraduate education research 1994-2004. *South African Journal of Higher Education*, 25(2), 341-357.
- Nkambule, T., & Mukeredzi, T. G. (2017). Pre-service teachers' professional learning experiences during rural teaching practice in Acornhoek, Mpumalanga Province. *South African Journal of Education*, 37(3).
- Nyabwari, B.G. 2014. The impact of magic and witchcraft in the social, economic, political and spiritual life of African communities! *International Journal of Humanities Social Sciences and Education*, 1(5), 9-18.
- Omodan, B. I. (2020). Managing the Psycho-Social Vacuum of COVID-19 among Rural Learners through Ubuntu. *Journal of Educational and Social Research*, 10(6), 266-278. <https://doi.org/10.36941/jesr-2020-0125>
- Omodan, B. I., Dube, B., & Tsoetsi, C. T. (2019). Decolonising the rural-urban dichotomy in South Africa: an asset-based approach. *Progressio*, 41(1), 1-17.
- Onwu, G., & Mosimege, M. (2004). Indigenous knowledge systems and science and technology education: A dialogue. *African Journal of Research in Mathematics, Science and Technology Education*, 8(1), 1-12.
- Rahimi, F., & Riasati, M. J. (2011). Critical discourse analysis: Scrutinising ideologically-driven discourses. *International Journal of Humanities and Social Science*, 1(16), 107-112.
- Rosa, H. (1996). Cultural relativism and social criticism from a Taylorian perspective. *Constellations: An International Journal of Critical & Democratic Theory*, 3, 39-51.
- Schnoebelen, J. (2009). *Witchcraft allegations, refugee protection and human rights: a review of the evidence*. Geneva, Switzerland: UNHCR, Policy Development and Evaluation Service.
- South African Law Reform Commission. (2016). *The review of the witchcraft suppression: act 3 of 1957*. South African Law Commission. Retrieved May 29, 2020 www.doj.gov.za/salrc//index.htm
- Spolaore, E., Wacziarg, R., 2013. How deep are the roots of economic development? *Journal of Economic Literature*, 51 (2), 325-369.
- Tenorio, E. H. (2011). Critical discourse analysis, an overview. *Nordic journal of English studies*, 10(1), 183-210.
- Tinga, K. L. (1998). Cultural practice of the Midzichenda at crossroads: Divination, healing, witchcraft and the statutory Law. In *APP* (Vol. 55, pp. 173-184).
- Van Dijk, T. A. (2009). Critical discourse studies: A sociocognitive approach. *Methods of critical discourse analysis*, 2(1), 62-86.
- Walliman, N. (2011). *Your research project: Designing and planning your work*. Sage Publications.
- Yousif, A. (2020). In Defence of Moral Realism: Examining Harry J. Gensler's Critique of Cultural Relativism and Subjectivism. *Aristos*, 5(1), 1-7.
- Zegwaard, K. E., Campbell, M., & Pretti, T. J. (2017). Professional identities and ethics: The role of work-integrated learning in developing agentic professionals. In *Work-integrated learning in the 21st Century*. Emerald Publishing Limited.