International Journal of Educational Management and Development Studies
Volume 5 Issue 4 December 2024
DOI: https://doi.org/10.53378/ijemds.353111

"*There isn't much support given*": Rural teachers' perception of curriculum implementation

[1]Kevin L. Teise & [2]Redouane Y. Februarie

Abstract

The schools in rural areas of the Northern Cape province in South Africa face many challenges that hamper the effective implementation of the mathematics curriculum and, as such, the quality of mathematics education and its learning outcome. To improve the situation, rural teachers should be supported to ensure the successful implementation of the grade 9 mathematics curriculum, in particular. Such support would enable teachers to, despite the challenges, create an effective teaching and learning environment that will positively impact learner success. In this article, we report on rural teachers' perceptions of the nature and extent of support they need and receive to implement the grade 9 mathematics curriculum effectively. We followed a qualitative approach guided by a case study design. Data were collected through semi-structured interviews with six grade 9 mathematics teachers from the Northern Cape province and were analysed thematically. Findings revealed that whilst some level of support is provided to the teachers, this is insufficient and often irrelevant to the rural education context. Some recommendations are made to enhance the extent and nature of support to the teachers to implement the mathematics curriculum effectively.

Keywords: *teacher support, rural education, curriculum implementation, grade 9 mathematics education, Northern Cape province*

Article History:

***Received**: June 11, 2024* ***Revised**: August 5, 2024*
***Accepted**: August 8, 2024* ***Published online**: October 4, 2024*

Suggested Citation:
Teise, K.L. & Februarie, R.Y. (2024). "*There isn't much support given*": Rural teachers' perception of curriculum implementation. *International Journal of Educational Management and Development Studies*, 5(4), 23-40. https://doi.org/10.53378/ijemds.353111

About the authors:
[1]Corresponding author. Sol Plaatje University, Kimberley, South Africa. Email: kevin.teise@spu.ac.za

[2]Sol Plaatje University, Kimberley, South Africa. Email: redouanefebruarie@gmail.com

1. Introduction

The education system in general, and the national education curriculum in particular, plays a pivotal role in the development of any country. It is for this reason that educational aims and objectives as well as the content of the curriculum are constantly under scrutiny. To be effective, curricula need to be implemented. Various parties are responsible for the effective implementation of a curriculum. At the coalface of curriculum implementation are teachers, who need to plan, execute, and evaluate the curriculum (Rusman, 2014 as cited in Madondo, 2021). However, effective curriculum implementation cannot take place without teacher support, which can take up various forms, but in essence, it is about updating teachers' knowledge concerning the subject they teach, updating their ability to integrate technology in the teaching of the subject, and updating their understanding of the changes that take place (Huizinga et al., 2014).

Curriculum implementation in South Africa is a challenge. For instance, Taole (2015) notes that in South Africa, curriculum implementation has been seriously hampered by various problems, which have negatively influenced the realisation of a transformed education system and the provision of quality education. For Maphalala (2006 as cited in Maharajh et al., 2016), curriculum changes since 1994 have been disastrous because various curricula were adopted and implemented but dismally failed, to the extent that teachers are still struggling to effectively implement the current national curriculum, called the Curriculum and Assessment Policy Framework (2011) (CAPS) (Govender, 2018). For Mitchell (2016), the problem of curriculum implementation failure lies in the absence of sufficient support, which accordingly hampers effective curriculum implementation. Govender (2018) confirms that South African teachers are dissatisfied with the quality and quantity of professional development and support they receive from within their schools and from the Department of Basic Education.

Challenges with teacher support is more pronounced in South African rural schools that are isolated and characterised by poverty. In these schools, teachers often have less access to support services and fewer opportunities to attend in-service training, and this generally results in a poorer quality of education (Du Plessis & Mestry, 2019). This reality is demonstrated in the 2019 Trend in International Mathematics and Science Study (TIMSS) results that brought to the fore the achievement gaps between various learners in South Africa that are linked to the spatial location of the school (Reddy et al., 2022). In this regard, the TIMSS 2019 report shows a significant difference in test results between grade 9 learners in urban and rural areas,

with learners from urban schools scoring significantly higher than learners from rural South African schools. What rural teachers know and can do in the classroom will significantly impact the success of curriculum implementation. Hence, effective and successful curriculum implementation largely depends on strengthening teacher capacity through support.

Insight into the support that grade 9 rural mathematics teachers need and receive to ensure effective curriculum implementation is important to improve the quality and outcomes of rural education. With this study, we therefore explore grade 9 mathematics teachers' perceptions of the nature and extent of support they need and receive to ensure the effective implementation of the curriculum within a rural context. Whilst research has been done on the quality of education in South African rural areas (Mutambara & Bayaga, 2020; Muremela, Kutame, Kapueja & Adigun, 2021), and on teacher support for curriculum implementation (Huizinga et al., 2014; Govender 2018; Du Plessis 2014; Du Plessis & Mestry 2019), we could find no research on teacher support for grade 9 mathematics curriculum implementation in rural areas of the Northern Cape province. This study, therefore, fills that gap. In doing so, we first reflect on the concept of rural education. Thereafter we report on teacher support and curriculum implementation, after which we present our findings. Our discussion of the data is followed by recommendations aimed at enhancing rural grade 9 mathematic teachers' support for effective curriculum implementation.

2. Literature review

2.1. Rural education

Rural schools are located in areas characterised by high poverty, a lack of essential infrastructure, resources and communication technology, high illiteracy among parents, and a lack of qualified and experienced teachers (Modisaotsile, 2012; Nel, 2021). Because of this, rural schools find it extremely difficult to recruit and retain qualified and experienced mathematics teachers (Muremela et al., 2021), and they often fill the positions with teachers who have no experience in mathematics teaching or who did not study mathematics during their teacher training (Dlamini et al., 2023). In addition, multigrade teaching and overcrowded classrooms are also typical of rural schools (Hlalele, 2014). These unique conditions pose a great threat to the effective implementation of the curriculum (Madondo, 2021), and they directly and negatively influence the quality of education in rural schools (Du Plessis, 2014; Gardiner, 2017). In addition, these conditions also result in inequality in education provision

and outcomes when compared to schools in urban areas (Muremela et al., 2021). A focus on grade 9 mathematics teachers and the support they need to ensure effective curriculum implementation within a rural context, compared with what they actually receive, is therefore warranted.

2.2. Curriculum implementation

Nevenglosky (2018) defines curriculum implementation as the way that teachers interact with learners, subject content, and the knowledge or skills that learners need to acquire, as well as evaluating that knowledge and skills. Curriculum implementation also refers to the working out of a given plan or already developed syllabus into practice. For Fullan (2015), curriculum implementation is about accomplishing desired objectives. To achieve these objectives, the curriculum must be implemented and such implementation supposes a translation of curriculum pronouncements and expectations into practice.

Various factors have a bearing on the successful implementation of a curriculum. Amongst these are the social structure of schools, material and human resources, skills development and motivation of learners, and provision of support by school administrators regarding curriculum change and innovation (Yan, 2014). More so, the extent to which curriculum implementation will be successful also depends largely on the environment where a school is situated (Mandukwini, 2016). As such, a lack of resources can hamper the implementation of the curriculum (Roehrig & Kern, 2007). One could therefore expect that a rural school context would pose challenges to the effective implementation of the grade 9 mathematics curriculum and that it would warrant continuous teacher support. Mitchell (2016) confirms that the success of curriculum implementation depends on the ongoing support that teachers receive throughout the implementation process.

2.3. Teacher support

Defining the concept ‘teacher support’ can be challenging because it is context-specific and differs from teacher to teacher. The Oxford Dictionary (2010) defines ‘support’ as assistance or aid given to achieve success. Teacher support is, therefore, about aiding teachers to achieve success and it is therefore paramount for effective teaching and learning. For Nkambule (2022) and Smith et al. (2013), the ability to produce the desired results is enhanced in conditions where teachers receive sufficient curriculum implementation support. The

opposite is also true: teachers who receive insufficient support struggle, producing poor quality teaching (Greenberg & Domitrovich, 2009).

The kind of support teachers need varies and is highly dependent on the context in which mathematics teaching and learning occur (Huizinga et al., 2014). One can, therefore, argue that teachers in a rural context would need context-specific support to ensure the effective implementation of the curriculum. Govender (2018) is of the view that support be given to teachers by providing "permanent and locally available in-service training; effective systems for teacher support, guidance, supervision, and monitoring; adjustment of the content of teacher training to the teachers' level of knowledge and experience; and encouragement of teachers' motivation and commitment". Therefore, teachers in rural areas must be supported to ensure the successful implementation of the curriculum.

2.4. Theoretical framework

To achieve the aim of this study, a theoretical framework developed by John Rogan and Diane Grayson in 2003 was used. Rogan and Grayston (2003) based their theory for curriculum implementation on three major constructs: *profile of implementation*, *capacity to support innovation*, and *support from outside agencies*. Only the latter two constructs are relevant to this article.

The construct 'capacity to support innovation' attempts to gain insight into the factors that can support or hinder curriculum implementation (Rogan & Grayston, 2003), and it recognises that not all schools have the capacity to implement a curriculum to the same extent because of factors such as physical resources, teacher factors, learner factors, and the school ecology and management (Rogan & Grayston, 2003). In this regard, poor resources and poor teaching and learning conditions, the teachers' background, training, level of confidence and commitment, and subject matter knowledge are important factors. In addition, the learners' backgrounds, strengths, and constraints they bring to the teaching and learning situation, such as no support at home, no place or opportunity to do homework, the language of teaching and learning, and support from parents, also influence curriculum. Finally, the general ecology and management of the school focuses on the school culture and functionality, school vision, the role of the principal, and teacher support. All of these factors are relevant for implementing grade 9 mathematics in a rural context.

The second construct, support from outside agencies, deals with sources of support from outside the school, such as the national and provincial departments of education, donors (both local and international), NGOs and unions, and the nature and extent of their support. These agencies influence curriculum implementation either through assistance or sanction. The support they give could be material or non-material. The former deals with support in terms of physical resources such as buildings and books, and direct support to learners such as safe, quiet places to study after school. Non-material support is about professional development through training workshops and monitoring by departmental officials. Of interest to this study is the extent, nature and frequency of support given by the Department of Education. With this theory, we can gain insight into rural grade 9 mathematics curriculum teachers' perceptions of the support they need, and should get, for curriculum implementation.

3. Research Methodology

In this study, we have adopted a qualitative approach, and we used a case study design. The case study design is adopted to gain contextual insight into the phenomenon of rural teacher support with curriculum implementation. The case study design enabled us to focus on rural education, and it allowed rural teachers to express their perceptions of the support they get in the implementation of the grade 9 mathematics curriculum. This design made it possible for us to look at people in their social situations where interaction occurs (Maree, 2019) and to understand and explain the complexity of the nature and the extent of teacher support within the rural context.

Data were collected from six purposively selected participants in the John Taolo Gaetsewe (JTG) municipal district. This district was purposefully selected because it is one of the rural districts of the Northern Cape. JTG comprises 186 towns and settlements, of which the majority (80%) are villages (JTG Municipality, 2022). Participants comprised grade 9 mathematics teachers who are currently teaching mathematics at rural schools. Participants were selected from three secondary schools within the JTG district. Two grade 9 mathematics teachers were selected from each school.

Individual semi-structured interviews were conducted. The semi-structured questions offered participants flexibility and allowed them to express their views regarding support for curriculum implementation within a rural context. The interviews were audio recorded and transcribed. The interviews were conducted at the participants' respective schools, and they

lasted approximately 30 minutes. Interviews were also conducted after school so as not to interfere with normal teaching and learning. Data were stored on a password-protected flash drive that only the authors had access to.

Recorded interviews were transcribed and analysed using thematic data analysis. In analysing the data, we first transcribed all the interviews on a Microsoft Word document, ensuring that all possible references to participants are excluded to ensure anonymity and confidentiality. Secondly, we searched for codes (words, phrases, or sentences). Thirdly, we converted these into different categories, and lastly, we developed themes from these different categories or codes.

The Sol Plaatje University granted ethical clearance for the study. Approval to visit schools in the JTG district was sought from the Northern Cape Department of Education. Access to schools was also sought from and granted by principals, and participants consented to the interviews. Participation in this study was voluntary, and participants could withdraw at any time during the interviews. Participant anonymity was ensured using pseudonyms. Reflexivity enabled the first author to continuously reflect on his position as colleague of the participants and to be mindful of any biases. We did not plagiarise, falsify or fabricate any information or data.

4. Results

In reporting our results, we focus on the following themes: *teacher experiences of teaching grade 9 mathematics in a rural context; challenges with implementing the grade 9 mathematics curriculum; support needed to ensure effective implementation; support given to implement the curriculum; nature of support; and frequency of support.*

4.1. Teacher experiences of teaching in a rural context

Teachers were asked about their experiences teaching grade 9 mathematics in a rural context. For participant 1, "*It is a very challenging experience, … because of many different contextual issues.*" For participant 5, the implementation of the Grade 9 Mathematics CAPS in the rural school is "*challenging…".* Participant 4 also opined that "*I wouldn't say I am managing …".* Participant 4 continued saying, "*The bad part about teaching Mathematics is that our [rural] learners … struggle."*

From the responses, it appears that the participants experience teaching Grade 9 Mathematics within their rural schools as challenging and that some are not coping well. Contextual factors that participants are exposed to in the rural area are the biggest contributors to these experiences.

4.2. Challenges with the implementation of the grade 9 mathematics curriculum

Participants identified various challenges hampering the effective implementation of the grade 9 mathematics curriculum. Participant 4 stated that the rural learners *"... do not have that strong background of mathematics".* Participant 5 also indicated that rural grade 9 learners "*are not developed as they should be when they reach grade 9 [because] they are being pushed through the grades until they get to grade 9, and then they struggle with mathematics ...".* For participant 1, *"language is a barrier, [because] learners struggle with the language of instruction ... and learners are struggling to understand the language of instruction."* Participant 2 concurs that "*the main issue is language ... [it is only] once I translate the concepts that they understand."*

Participant 1 also stated that "*the other challenge is transporting... many of our learners come from neighbouring villages where they need to use transport to come to school, and sometimes they come late to school."* Participant 6 is never able to *"complete [his/her] ATP [Annual Teaching Plan], because at times the buses strike, and learners cannot come to school ... sometimes the buses break down, and then we must wait for the learners to come. When the learners are finally here, I have other classes to attend."* In addition, participant 2 indicated that he/she *"don't have electricity [in his/her class]."*

Participant 1 stated: *"I do not have enough time on my hands because I am also teaching grade 12. So, most of the time, my focus is on giving grade 12 extra time."* Participant 6 concurred: *"... my priority is grade 12, so I do not give the grade 9s extra classes because of my grade 12s."* Participant 6 expressed frustration pertaining to the number of learners they have in one class*: "I have 50-something learners in one class ... I cannot even reach learners at the back [of the class] because there is no space [for me to walk around in class] ... so, I spend much time on discipline instead of teaching ..."* Participant 2 also complained that *"...learners are ungovernable in school ... we cannot do anything ... discipline is a serious issue ...".* Although participant 2 wanted to do extra to ensure the effective implementation

of the curriculum, he/she could not because "*the issue of extra classes is difficult, especially during weekends because of transport".*

From their responses, it seems as if participants are faced with numerous challenges, which makes the implementation of the grade 9 mathematics curriculum a rather challenging and almost impossible exercise. These challenges include learners' prior subject knowledge, work overload, language barriers, learner transport problems, learner's lack of mathematical knowledge, learner discipline, lack of electricity in the class, and overcrowded classes.

4.3. Support needed

From the interviews, it appears that the participants need teaching support to enhance the effective implementation of the grade 9 mathematics curriculum. Participant 1 said, *"They [departmental officials] should come and give us demonstrations on what they are expecting [from us]. For example, this is how I expect you to teach Mathematics … let me observe you doing that."*

Participants also expected that parents would support them with implementing the curriculum. In this regard, participant 4 opined that *"parents [need] to be involved in the education of the learners. They only become involved once you call them, and not all of them respond."* Participant 2 also said, *"… I even give parents my cell phone number for them to communicate with me … they don't call."*

As can be expected, participants also seem to need support with resources. Participant 6 stated that *[he/she] needs "support … with calculators … [because] not all learners have calculators."* Participant 4 also wished for *"… devices such as calculators, [because there are] learners who don't have calculators at all."* In addition, participant 6 stated that he/she needs support with textbooks as *"[learners] don't have textbooks … [there is] only one textbook … it's with the teacher… [who] have to make copies every time … and the machine is now overworked …sometimes it breaks."* Since discipline appears to be a problem in the schools, Participant 2 expressed a need for support with *"discipline challenges in the Mathematics class".* Participant 5 equally expressed a need for support on how to teach in overcrowded classes: "… *you have 50-something or 40-something learners in a class. You have this amount of time in a class. We [departmental official] suggest that you can do this or do that. And with the type of learners that you have, we suggest you do this".*

From the participants' discourses, it appears that they need clarity and guidance on how to actually teach certain topics. They need parents to become more involved and support them with teaching and learning. They also need support with resources, such as calculators and textbooks for the learners, and with learner discipline.

4.4. Support given to participants

Regarding the support given to them, participant 1 said: *"…we are in a way receiving support ... we do get invitations to attend workshops … [and] we are requested to bring along the curriculum."* Participant 2 stated that *"... the subject advisor also does try to make some resources available to us."* In addition, participant 3 indicated that *"there is a WhatsApp group. They [subject advisors] always ask what they can assist us with [and] usually they send anything to help..."*. Teachers furthermore seem to support each other. Participant 4 stated: "*yes, we [Mathematics teachers] collaborate and support each other. We try to assist each other where we can."* However, for Participant 6, *"there is not much support … from the DH [Departmental Head]"*. Participant 2 also indicated that the support they get from the Department of Education is *"not enough."* For Participant 1, *"to say we get support really is just overstating it. It is merely just checking in … [because] …when the [departmental officials] come here, they just check my file, and they check my book."* Participant 6 similarly states that *"support [from the district] is not given",* and participant 5 responded with*: "absolutely not. Do we even have subject advisors?"*

Regarding support from the parents, participant 4 stated: *"the bad part is that we don't have parental support."* Participant 3 reiterates the lack of parents' support when saying, *"I think I have only one parent in grade 9 who normally signs the learners' exercise book."* Lack of parental support is confirmed by participant 2, who said: "*I talk to the parents, but it seems like there's no effect"*. Participant 4 concurs by saying we "*call the parents … they don't show up".* Participant 6 expressed similar experiences: *"...our parents are not involved … even if you call [a] parents meeting, they never show up".*

It appears that whilst some participants do get some form of support, others do not get support at all. It further seems that some participants receive support from the Department of Education and that teachers support each other. However, it also seems that other participants do not get any support from the departmental head (SMT), departmental officials or the parents of learners.

4.5. Relevance of the support

What also transpired from the interviews is that support seems not to be relevant. For participant 1, *"... support is not well directed...because ... we are not really addressing the real issue. The support is always on how to teach this topic… we know how to teach the topics. However, give us something that we can actually use in our schools."* Against this backdrop, participant 6 suggested that: "*the subject advisors must come to class because the moment they come to class, they will see what we need because they will be exposed to our context"*. Participant 1 also advised that subject advisors must *"come to the class to experience what [rural teachers] are experiencing, and from there they can then support".*

Participant 4 complaint about the ill-directed support when he/she said: *"When they [departmental officials] are here, they just take the learners' books, [to check] how far are we in terms of implementing ATP, ... [they] just encourage us to do the correct thing if we didn't do the correct thing".* According to participant 6, *"subject advisors just come and check if you are following the annual teaching plan. ... They don't come to class and check [what we are doing in class]… they don't even observe me".* Participant 6 continued saying that subject advisors *are "only concerned about how [they] have covered the curriculum".*

From the responses, it seems that participants' support is irrelevant to their context and is of no help. Participants seem to experience officials as not very supportive and not interested in the challenges that rural teachers face in class. They are experienced as being concerned only with covering the curriculum. How teachers are doing it is up to them.

4.6. Value of support given to teachers

Participant 1 feels that teacher support is important because it will: *"improve teachers' understanding of the subject and make sure that they have the basics in order to move on. And if we can get that, ... it's going to go a long way in improving the quality of the mathematics results, and it's going to make life easier for the grades coming up."* Despite this, participant 6 believes that *"the support isn't really helping much."* According to Participant 6, the only good thing they get from departmental officials' support visits to school is that they are *"always on their toes."* Participant 5 similarly states that for a visit from departmental officials: *"I always make sure that my file is up to date. But the visits are not so much of value to me because it's more about me completing the file than actually doing the job ... sometimes I'll find myself ... rushing to complete the ATP ... whether learners understand or not, it's just to*

complete the ATP … because if I spend a lot of time on learners who are not understanding, I won't be able to complete the ATP".

For Participant 3, *"support received during workshops and cluster meetings, [are] not effective … I feel like even if I did not go to that, I will not feel like I've missed out on it … so, its value for me, is very little to none".* Rather, Participant 5 experiences the support he/she gets from colleagues and peers as very valuable because some *"teachers did not do mathematics, and they have no idea how to teach mathematics … so for them, it is very valuable to go and ask how do you do this? What do you suggest? That actually helps…".*

From these excerpts, it appears that some participants experience the support they get as valuable, while others do not experience it as such. Participants feel that the support they received from officials does not help them with the specific challenges they experience with implementing the curriculum. Officials come to the school not to support them but to check on them and monitor their progress with the completion of the teaching plan. Some participants experience the assistance from peers and colleagues as more valuable than what they receive from officials.

4.7. Frequency of support

When it comes to how often support is given, participant 6 said: *"only maybe once a term when the subject advisor comes."* Participant 1 concurred that *"support from the department is once a quarter or so"*. Contrary to this, participant 2 stated: *"… the frequency of support is there … it is just that I don't think it's helping"*. Participant 5 also stated, *"Whenever I need support from the teacher teaching Grade 9 Mathematics with me".*

Some participants indicated that officials are supporting them once a term. Although support is given to some participants, it seems not to be effective. Participants also indicated that they get frequent support from peers and colleagues.

5. Discussion

Teachers need and should variously be assisted with curriculum implementation (Rogan & Grayson, 2003). This is confirmed in this study where teachers expressed the desire and need to be variously assisted and supported with curriculum implementation. Such support is important especially within a rural context with its many diverse challenges, where it will

ensure effective curriculum implementation and the enhancement of the quality of education (Mandukwini, 2016).

The conditions in which the teaching and learning of mathematics take place play a pivotal role in the implementation of the curriculum and the delivery of quality education. Previous research confirms that the South African rural context poses various challenges to effective and quality education (Du Plessis & Mestry, 2019; Nkambule, 2022). Research done by Shikalepo (2020) and Chakanika et al. (2012), as well as Mukeredzi (2013), found that a lack of teaching resources, challenging working conditions, isolation from peer educators, poor quality of classrooms, and underdevelopment in rural areas creates unfavourable and challenging curriculum implementation conditions. Madondo (2021) also opines that in Zimbabwe, rural teachers lack sufficient resources to spearhead the successful implementation of the framework. Implementation of a curriculum without the relevant resources to teach it causes stress and strain, leading to dire consequences and impacting the teachers' morale to implement the curriculum (Mandukwini, 2016). This study confirms the findings from previous studies as participants indicated that they experience teaching and learning and thus the implementation of the grade 9 mathematics curriculum in rural schools as very challenging. In this case, participants cited various contextual factors such as a lack of resources, learner ill-discipline, work overload, language barriers, and learners' lack of prior mathematical knowledge, as factors that negatively impact on the effective implementation of the curriculum.

Whilst teacher support is important to ensure effective implementation of the grade 9 mathematics curriculum, some participants indicated that the SMT and or the department does not give much support. This finding corresponds with research done by Mestry (2017) where he found that SMT members focus on managing the school and often neglect the implementation of the curriculum. This is despite the duty of the SMT to support teachers with curriculum implementation. This they should do by planning and managing implementation, providing suitable resources and ongoing professional development, by supporting teachers, creating a conducive teaching and learning context and, by evaluating curriculum implementation (Mafora & Phorabatho, 2013; DoE, 1998). The literature further confirms that there is a lack of adequate empowerment (support) by departmental officials to enhance teachers' skills to effectively implement the curriculum in their respective contexts (Nel, 2021). Taole (2015) also contends that the capacity of the South African education system to

provide appropriate support to teachers has a poor track record, and that a well-coordinated support system at the national, provincial, district and school levels could help teachers face the difficulties in the classroom.

Departmental officials, such as subject and curriculum advisors, have an equal responsibility to support teachers with the interpretation and implementation of the curriculum (DBE, 2013). Such support should be ongoing and continuous in the form of workshops, regular meetings and discussions, and it should provide sufficient support materials (Mbanjwa, 2014; Maharajh et al., 2016; Govender, 2018). In addition, support should also include class visits to assess the needs of educators and to provide them with relevant support that is unique to their context (Tatana, 2014). However, in this study, participants not only complained about the frequency of support they get but also regarded the support as insufficient and of little to no value and relevance to their rural context, or not addressing the challenges they experience. As such, findings from this study confirm existing research on the lack of support to teachers in rural areas. More so, it also attests to the fact that both SMTs and departmental officials relinquish their responsibilities to give effective, relevant and continuous curriculum implementation support to rural teachers.

According to participants, attempts to effectively implement the grade 9 mathematics curriculum is further hampered by parents who are not actively involved in the education of their children. This finding is in line with previous research that bemoans the absence of rural parents in the education of their children, a factor which contributes to poor curriculum implementation and a poor quality of education. For Maharajh (2016), parental involvement is crucial and it assists teachers in successfully implementing the curriculum. Nel (2021) and Burns (2019) also argue that the sharing of best practices among mathematics teachers in areas with the same contextual challenges can potentially improve teachers' skills, content knowledge, and pedagogy. In this study, teachers were found to collaborate in communities of practice where they share best practices and variously assist each other. Whilst these communities of practice appear to be ad hoc formations, they seem to be valued by the participants.

6. Conclusion

This paper aimed to reflect participants' views on the extent and nature of support to grade 9 mathematics teachers to implement the curriculum in a rural context. Support given to

the teachers in the rural context contributes to the effective implementation of the curriculum and improves the quality of rural education. To enhance support of rural teachers in ensuring the effective implementation of the curriculum, this study recommends that the NCDoE and SMT provide on-going and context-specific support to teachers. Such support should focus on the context-specific challenges that rural teachers are faced with during the implementation of the curriculum. To ensure that the support is context-specific, departmental officials should conduct class visits to become aware of the specific needs. SMTs should also enhance their support to teachers by identifying teachers' needs and inviting departmental officials to conduct training workshops and by creating a supportive work environment amongst teachers in rural areas. Rural teachers in general and mathematics teachers in particular might experience isolation; it is therefore recommended that the creation of a community of practice among Mathematics teachers not only be encouraged, but that future research be done that focuses on the viability and practical implications of such communities for the rural context.

Disclosure statement
No potential conflict of interest was reported by the author(s).

Funding
This work was not supported by any funding.

ORCID
Kevin L. Teise – https://orcid.org/0000-0002-5861-1969
Redouane Y. Februarie – https://orcid.org/0009-0003-7557-5095

References

Burns, K. (2019). *Rural teachers' perceptions of collaboration and professional growth in mathematics* (Unpublished PhD dissertation). California: University of the Pacific.

Chakanika, W., Sumbwa, P., and Sichula, N. (2012). The challenges of rural education in Africa. *South Africa Rural Educator,* 2(1): 6-17.

DBE Department of Basic Education (2013). *Policy on the organisation, roles and responsibilities of education districts*. Government Gazette No. 36324. Pretoria: Government Printers.

DoE Department of Education. (1998). Terms and conditions of employment of teachers determined in terms of section 4 of the Employment of Teachers Act, 1998 *(Personnel Administrative Measures (PAM).* Pretoria: Department of Education.

Du Plessis, P. (2014). Problems and complexities in rural schools: Challenges of education and social development. *Mediterranean Journal of Social Sciences,* 5(20): 1109-1116. https://doi.org/10.5901/mjss.2014.v5n20p1109

Du Plessis, P. & Mestry, R. (2019). Teachers for rural schools – a challenge for South Africa. *South African Journal of Education,* 39(1), 1774-1783. https://doi.org/10.15700/saje.v39ns1a1774

Fullan, M. (2015). *The new meaning of educational change, fifth edition*. Teachers College Press.

Govender, S. (2018). South African teachers' perspectives on support received in implementing curriculum changes. *South African Journal of Education*, 38(2), 1484-1496. https://doi.org/10.15700/saje.v38ns2a1484

Huizinga, T., Handelzalts A., Nieveen, N. & Voogt, J. (2014). Teacher involvement in curriculum design: need for support to enhance teachers' design expertise. *Journal of Curriculum Studies*, 46(1), 33-57. https://doi.org/10.1080/00220272.2013.834077

John Taolo Gaetsewe (JTG) (2022). Annual Report, 2021/2022. Vol. 1. Kuruman: John Taolo Gaetsewe District Municipality.

Madondo, F. (2021). Perceptions on curriculum implementation: A case for rural Zimbabwean early childhood development teachers as agents of change, *Journal of Research in Childhood Education*, 35(3), 399-416. https://doi.org/10.1080/02568543.2020.1731024

Mafora, P. & Phorabatho, T. (2013). Curriculum change implementation: Do secondary schools principals manage the process? *The Anthropologist,* 15(2), 117–124. https://doi.org/10.1080/09720073.2013.11891298

Maharajh, L., Nkosi, T. & Mkhize, M. (2016). Teachers' experiences of the implementation of the Curriculum and Assessment Policy Statement (CAPS) in three primary schools in KwaZulu Natal. *Africa's Public Service Delivery & Performance Review*, 4(3): 371-388. https://doi.org/10.4102/apsdpr.v4i3.120

Mandukwini, N. (2016). *Challenges towards curriculum implementation in high schools in Mount Fletcher District, Eastern Cape* (Masters dissertation). Johannesburg: University of South Africa.

Maphalala, M.C. (2006). *Educators' experiences in implementing the revised national curriculum statement in the Get Band*. Doctoral dissertation.

Maree, K. (Ed). (2019). *First steps in research*. 3rd ed. Pretoria: Van Schaick.

Mbanjwa, H. (2014). *The role of subject advisors in strengthening teacher instructional leadership practices: A case study of one education district office in Kwazulu-Natal* (Masters dissertation). Kwazulu-Natal: University of Kwazulu-Natal.

Mestry, R. (2017). Empowering principals to lead and manage public schools effectively in the 21st century. *South African Journal of Education*, 37(1), 1-16. https://doi.org/10.15700/saje.v37n1a1334

Mitchell, B. (2016). Curriculum construction and implementation. *International Journal of Liberal Arts and Social Science*, 4(4), 45-53.

Modisaotsile, B. (2012). *The failing standard of basic education in South Africa. Policy Brief, Africa Institute of South Africa, Briefing No. 72.* Africa Institute of South Africa.

Mukeredzi, T. (2013). Professional development through teacher roles: Conceptions of professionally unqualified teachers in rural South Africa and Zimbabwe. *Journal of Research in Rural Education*, 28(11), 1-16.

Muremela, G., Kutame, A., Kapueja, I. & Adigun, O., (2021). Retaining scarce skills teachers in a South African rural community: an exploration of associated issues. *African Identities*, 21(4): 743-759. https://doi.org/10.1080/14725843.2021.1965864

Mutambara, D. & Bayaga, A. (2020). Rural-based science, technology, engineering and mathematics teachers' and learners' acceptance of mobile learning. *South African Journal of Information Management*, 22(1), 1-10. https://doi.org/10.4102/sajim.v22i1.1200

Nel, B. (2021). Using a community of practice strategy to strengthen teaching and learning of mathematics in rural areas. *In Mathematics Teaching and Professional Learning in sub-Sahara Africa*,31-44. https://doi.org/10.1007/978-3-030-82723-6_3

Nevenglosky, E. (2018). *Barriers to effective curriculum implementation* (Unpublished PhD dissertation). Walden: Walden University.

Nkambule, T. (2022). Exploring working conditions in selected rural schools: teachers' experiences. *South African Journal of Education*, 42(1): 1-9. https://doi.org/10.15700/saje.v42n1a2013

Oxford English Dictionary (2010). Oxford: Clarendon.

Reddy, V., Winnaar, L., Arends, F., Juan, A., Harvey, J., Hannan, S. & Isdale, K. (2022). *The South African TIMSS 2019 grade 9 results*. HSRC Press.

Roehrig, G. & Kern, A. (2007). Teacher and school characteristic and their influence on curriculum implementation. *Journal of Research in Science Teaching*, 44(7): 883- 907. https://doi.org/10.1002/tea.20180

Rogan, J.M. & Grayson, D.J. (2003). Towards a theory of curriculum implementation with particular reference to science education in developing countries. *International Journal of Science Education*, 25(10), 1171–1204. https://doi.org/10.1080/09500690210145819

Rusman, M. (2015). Curriculum implementation at elementary schools: A study on "best practices" done by elementary school teachers in planning, implementing, and evaluating the curriculum. *Journal of Education and Practice*, 6(21), 106–112.

Shikalepo, E. (2020). Challenges facing teaching at rural schools: A review of related literature. *International Journal of Research and Innovation in Social Science*, 4(5), 211-218.

Smith, W., Lewis, W. & Heaton, R. (2013). Ensuring mathematical learning in rural schools. *Great Plains Research: A Journal of Natural and Social Sciences*, 23(3), 185-197. https://digitalcommons.unl.edu/greatplainsresearch/1274

Taole, M. (2015). Towards a meaningful curriculum implementation in South African schools: senior phase teachers' experiences. *Africa Education Review*, 12(2): 266-279. https://doi.org/10.1080/18146627.2015.1108005

Tatana, S. (2014). *The role of subject advisors in enhancing instructional leadership practices in schools: The case of one education district in Kwazulu-Natal* (Masters dissertation). Kwazulu-Natal: University of Kwazulu-Natal.

Yan, C. (2014). "We can't change much unless the exams change": Teachers' dilemmas in the curriculum reform in China. *Improving Schools*, 18(1), 5–19. https://doi.org/10.1177/1365480214553744