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Multi-grade teaching and learning in rural South Africa

Ensino e aprendizagem multisseriados na zona rural da África do Sul

Gawie Schlebusch¹ , Myameko Pele¹ 

¹ Central University of Technology, Faculty of Humanities, Department of Post Graduate Studies Education. Welkom, South Africa. Correspondence to: G. Schlebusch. E-mail: <gsclebu@cut.ac.za>.

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Abstract

This article aims to delve into the distinctive teaching and learning strategies utilised in multi-grade classrooms situated in rural areas of the Free State Province, South Africa. Through an exploration of the intricacies inherent in these environments, the article aims to pinpoint effective teaching strategies tailored to meet the unique requirements of learners within this context. This qualitative study engaged 14 Intermediate Phase educators and 6 principals from multi-grade schools in the Lejweleputswa and Fezile Dabi education districts. Purposive sampling was utilised to select participants. Data collection involved semi-structured interviews, while qualitative thematic analysis, employing an interpretive qualitative approach, was utilised for data analysis. Teaching strategies in multi-grade classrooms exhibit notable diversity, shaped by factors such as teacher personality, subject matter, and classroom dynamics. The strategies employed in these settings reflect the teacher's skills, lesson objectives, and the physical arrangement and space available in the classroom. However, both teachers and principals lack sufficient orientation or training in the specific strategies essential for effective multi-grade teaching.

Keywords: Multi-grade teaching. Rural areas. Teaching and learning.

Resumo

Este artigo tem como objetivo explorar as estratégias de ensino e aprendizagem distintas utilizadas em salas de aula multisseriadas situadas em áreas rurais da Província do Estado Livre, na África do Sul. Através de uma análise das complexidades inerentes a esses ambientes, o artigo busca identificar estratégias de ensino eficazes adaptadas para atender às necessidades únicas dos alunos nesse contexto. Este estudo qualitativo envolveu 14 educadores da Fase Intermediária e 6 diretores de escolas multisseriadas nos distritos educacionais de Lejweleputswa e Fezile Dabi. A amostragem intencional foi utilizada para selecionar os participantes. A coleta de dados envolveu entrevistas semiestruturadas, enquanto a análise temática qualitativa, empregando uma abordagem qualitativa interpretativa, foi utilizada para a análise dos dados. As estratégias de ensino em salas de aula multisseriadas exibem uma diversidade notável, moldada por fatores como a personalidade do professor, a matéria ensinada e a dinâmica da sala de aula. As estratégias utilizadas nesses ambientes refletem as habilidades do professor, os objetivos das aulas e a disposição física e o espaço disponível na sala de aula. No entanto, tanto os professores quanto os diretores carecem de orientação ou treinamento suficientes nas estratégias específicas essenciais para o ensino multisseriado eficaz.

Palavras-chave: Ensino multisseriado. Áreas rurais. Ensino e aprendizagem.



Introduction

Hyry-Beihammer and Hascher (2015) propose that teaching strategies exhibit significant variability within multi-grade classes and are influenced by factors such as the teacher's personality, the subjects they teach, and the specific classroom situations they encounter. Consequently, the teaching methods employed in multi-grade classrooms are contingent upon the teacher's competencies, the lesson's objectives, and the class's composition. Therefore, teaching strategies in multi-grade teaching can be viewed as a consistent set of measures adopted by the teacher to guide activities towards the attainment of teaching goals within the multi-grade teaching context. Bouslog (2022) emphasises that teachers employ a diverse range of teaching strategies, which are continually evolving in response to the emergence of new ideas. Below are some of the teaching strategies to be considered for implementation in multi-grade classrooms.

Whole class teaching/Curriculum rotation

This approach aimed to reduce the number of teaching groups within the classroom. Under this method, the entire class focuses on one grade's curriculum for a year, followed by the syllabus of the other grade the subsequent school year, resulting in both grades being instructed together. This organisational system, however, may pose challenges for learners who start studying a subject like geography or history using materials designed for a higher grade. As Tyk (2014) suggests, the most effective teaching approach often referred to as whole-class teaching involves the teacher teaching all learners simultaneously. The teacher selects appropriate lessons or units that can be taught to all learners collectively. The teacher then delivers the same content using consistent teaching and learning methods, expecting identical outcomes from all learners, regardless of their formally assigned grade (e.g., learners in the multi-grade teaching setting spanning grades 4-6 sharing the same classroom). The teacher has the flexibility to choose which lessons or units are suitable for teaching to all grades within the multi-grade teaching classroom.

To group learners for teaching, including whole-class teaching, teachers must identify subjects or topics that share sufficient similarities, enabling them to be taught to the entire class simultaneously. This necessitates teachers' engagement in curriculum mapping, which involves identifying overarching areas of similarity or themes that are revisited and expanded upon as part of the curriculum throughout the primary schooling years (Taole; Cornish, 2017). Curriculum mapping, when applied across the entire school, facilitates the instruction of many topics to the entire class, rather than separately to different grade levels. The sequence in which certain topics are studied becomes less important for specific subjects. For instance, numerous topics within the domains of social studies or science can be organised in a three-year cycle for a class encompassing three grade levels. The curriculum rotates in such a way that by the time a learner transitions out of the class, they will have been exposed to all the topics.

Differentiated curriculum

In multi-grade classrooms where learners exhibit diverse needs, this type of teaching is crucial for effectiveness. While most learners in multi-grade schools can benefit from initial learner-centred teaching and learning, some may not (Darsih, 2018). It helps uncover variations in interests, prior knowledge, or individual needs, allowing for the identification of learning challenges. Subsequently, the teacher seeks alternative ways to tailor instruction through differentiation (Pozas *et al.*, 2021).

For instance, in multi-grade classrooms, teachers can form groups of two or three learners based on their grade level and their ability to collaborate effectively. They can inform the learners that not all activities need to be completed during a single lesson. Grade five learners can use the simpler activities as a review before moving on to more challenging tasks, while grade four learners can continue with the simpler activities. In each group, learners should engage in collaborative activities and peer-based learning. During these group activities, the teacher can visit each group to assess progress, evaluate their understanding, and provide direct instruction as necessary to support slower learners or challenge faster learners in grade six. However, it is essential to note that Bondie, Dahnke and Zusho (2019) caution against misconstruing differentiation to mean that teachers should lower expectations for struggling learners and consistently assign them easier tasks, as this can lead to these learners falling further behind.

When learners participate in collaborative group work and peer learning, this strategy can facilitate meaningful interaction between curriculum content, objectives, and processes, enabling the teacher to cover the curriculum within the allotted time while providing exceptional attention to the learning process. Consequently, this approach applies curriculum construction theories in practice by drawing upon both the objectives and process models. Deunk *et al.* (2018) further identify two strategies that can be employed in differentiation. The first strategy involves reconfiguring the curriculum for various grades into a unified curriculum by identifying common learning objectives or topics. The teacher then focuses on these shared elements and instructs the entire group as one, while providing differentiated tasks and activities. The second strategy involves using graded learning materials, which is a learner-centred and material-based approach. In this strategy, the curriculum is not sequenced traditionally, but the materials are designed to support learners.

Peer instruction

Kulkarni (2015) emphasises that peer interactions foster a sense of belonging among learners, and positive collaborations with peers are associated with increased motivation to engage in learning and academic activities. Additionally, interactions among peers can lead to the development of metacognitive skills, transforming learners' perceived negative motivation for classroom activities. For example, grade four learners who perceive that their peers prioritise learning and participation in academic activities due to their importance may become motivated to engage in these activities for the sake of learning rather than merely fulfilling requirements. It is important to note that effective peer interactions often require supervision and guidance from teachers. For instance, when learners in a multi-grade school informally teach each other, they may unintentionally dominate their peers (*i.e.*, grade five learners may dominate grade four learners), offering minimal elaboration on their explanations or opportunities for their peers to engage actively, which can reduce the effectiveness of peer interaction.

Therefore, peer teaching enables teachers in multi-grade classrooms to focus on other grades while learners teach their peers. It also helps learners gain a better understanding of concepts that they may find challenging when taught solely by the teacher. Learners' comprehension is enhanced when teachers provide opportunities for peer teaching, as peers use language and examples that are familiar to them. Peer tutors become proficient in the content because they understand their responsibility toward their peers (Guido, 2017). Teachers should rotate learners in the role of peer tutors to prevent overburdening any single learner. For instance, grade five learners can assist grade four learners during class activities that require them to apply core concepts and then explain these concepts to their fellow learners, while the teacher focuses on grade six learners. This

fosters knowledge sharing and meaningful engagement among learners in the classroom. From the perspective of social learning, the cognitive process of peer learning in multi-grade classes is based on learners co-constructing knowledge collaboratively with their peers (AbdulRaheem; Yusuf; Odutayo, 2017). In essence, peer instruction enhances learners' social skills and promotes learner-centred teaching.

Methodological Procedures

The research question is: What are the distinctive teaching and learning strategies utilised in multi-grade classrooms situated in rural areas?

This study utilised multiple data collection methods, including individual interviews, observations, and questionnaires, in line with the qualitative approach. The qualitative approach was deemed suitable for this study, given the relatively small sample and the aim of obtaining in-depth insights from participants. This study, by its nature, seeks to comprehend the social world of the participants and, therefore, aligns with the interpretive paradigm. To ensure that the sampling represents the population it is drawn from, participants were purposefully selected from each of the two educational districts. Consequently, three principals per district were selected from seven multi-grade schools in each district. In addition, two Intermediate Phase (Grade 4-6) teachers per school were purposefully selected. Thus, the sample for this study comprised 14 Intermediate Phase teachers and 6 principals from multi-grade schools in the Lejweleputswa and Fezile Dabi education districts in the Free State province.

Data were gathered through a questionnaire, individual semi-structured interviews, and classroom observations. The questionnaire utilised open-ended questions for teachers, while individual semi-structured interviews were conducted with principals. To ensure the clarity and comprehensibility of the questionnaire and interview questions, they were pilot tested with two teachers and a principal in a multi-grade school not included in the study. The researchers carefully reviewed the wording of certain questions based on the feedback received during the pilot study. Participants were assured of anonymity when completing the questionnaire. Each questionnaire was accompanied by a cover letter addressed to the teacher participants, as well as a letter to the principal of these teachers. The cover letter provided an explanation of the purpose of the research and contained essential instructions for completing the questionnaire. The questionnaire sought responses related to participants' views and experiences within the context of multi-grade schools.

An interview schedule was developed well in time. To arrange the interviews with the principals, the researchers prepared a permission letter for them to complete. The researchers commenced by introducing the study and emphasising the confidentiality of the interview, assuring the participant that their identity would be safeguarded to create a comfortable environment. Participants were also informed of their right to withdraw from the interview at any stage. Audio recording was employed to ensure accurate record-keeping of the data gathered during the interviews. This method enabled the researchers to maintain comprehensive records for subsequent data analysis.

The distinctive benefit of classroom observation in this study was that it offered the authors the opportunity to construct 'live' data from naturally occurring social situations. During the observation process the researchers recorded, through notetaking, the behavioural patterns and interaction between teachers and learners during the multi-grade teaching and learning process without questioning and communicating with teachers and learners during the lessons. The researchers used a classroom observation schedule as instrument for observation.

This research employed thematic content analysis to analyse the data. Data analysis requires validating the data collected, coding responses to questions, entering the data into a data file, and cleaning the data. This involved the careful coding of questionnaire and interview data obtained from the selected sample. The next critical step for the researchers was to classify data into themes or categories. Transcripts from the questionnaires and interviews were analysed, and codes and categories were identified and then organised into themes and sub-themes. Topics related to the same theme in the interviews and questionnaires were consolidated. As a result, four distinct themes emerged from the interview and questionnaire data. The themes compiled from the data obtained are reported under the findings section. In addition, verbatim quotations are provided. Ethical clearance has been provided by the Faculty Research and Innovation Committee in view of the CUT Research Ethics and Integrity Framework, with reference number [FRC 2017/09M].

Findings

The themes are similar in both the principal interviews and teacher questionnaires and given that many principals also serve as teachers in multi-grade schools, it made sense to report the data together. This approach avoids repetition in the forthcoming reporting section. Teacher and principal participants are referred to as T1, T2 etc. and P1, P2 etc.

Theme 1: Teaching strategies by multi-grade teachers

Most participants stated that they are interested in whole class teaching as it allows for the provision of teaching to all learners. This instruction occurs when activities are given to learners after discussion of the content. **T2:** *"I teach both grade four and five simultaneously and give the grade four an activity and then continue to give instruction to grade 5 at a more advance level"*. The participants further emphasised that when employing whole class teaching in the multi-grade classroom they teach all learners of different grades at the same time and give them activities which differ according to their level of development.

Some participants maintain that they use differentiated instruction to demonstrate how teachers incorporate strategies in dealing with the needs, interests, and learning style of the multi-grade learners. **T8:** *"In my class I use differentiated teaching method, where learners are provided with tasks differently according to their abilities"*. Participants further said that they conduct the activities differently according to the capability and skills of the learners. They also commented that to maximise their time in teaching with multi-grade groups, academically stronger learners are given activities that they can perform individually. **T10:** *"In differentiated teaching, I allow those learners who are gifted academically to learn independently"*. The participants have affirmed that academically stronger learners typically require minimal explanation from the teacher. The teacher's role is limited to providing instructions to these learners, who take responsibility for the remaining activities themselves.

A few participants mentioned a preference for a differentiated teaching approach depending on the subject or theme to be covered. They explained that this method serves to assess the existing knowledge of learners with varying abilities across different grades. According to one participant, the question-and-answer method is employed to determine learners' critical thinking skills. Following this initial phase, participants indicated that they transition to the lecture method, where learners receive more detailed information. **P2:** *"I use a lecture method for comprehension in English and Sesotho and ask learners questions so as to test their understanding"*. The participants

stressed the point that the lecture method is also used in combination with charts and textbooks, as stated by **T3**: *“As a teacher in the multi-grade classroom I use charts to explain what I say and use the textbook to refer the learners to information discussed in class”*. Thus, learners are asked questions and provides answers based on what they see on charts and textbooks.

Theme 2: Equal opportunities in a multi-grade classroom

Most participants indicated that it is impossible to provide learners of different grades with an equal opportunity to learn. Participants further mentioned that teaching learners from different grades is not easy because these learners are not always taught the same topics with the same teaching strategies. For example, grade four and five learners cannot work together on many assignments because of their different ability levels. **T4**: *“It would probably not be helpful to the teacher to come-up with the same topic and different teaching strategies and yet the ability level and grade level of grades four and five learners are not the same”*.

Several participants pointed out that the amalgamation of topics delivered with the same or different teaching strategies is a valuable approach to ensure that all learners have an equitable learning opportunity during lesson presentations. They explained that they amalgamate topics and subsequently group learners based on their grade levels. This grouping approach allows teachers to address the unique learning needs of each grade through the use of various teaching strategies. The Department of Basic Education (2015) confirms that in multi-grade teaching, teachers cover the same topics simultaneously for all learners. However, they differentiate the conceptual complexity of the activities to align with the appropriate level for each grade and the developmental stage of the learners. **P5**: *“Teachers and the school management in the multi-grade schools should be familiar and conversant with curriculum differentiation. Different strategies can then be implemented at different times”*. These participants elaborated on curriculum differentiation, describing it as a method that effectively adapts the curriculum and content to cater to diverse learners, including those facing learning obstacles.

A few participants highlighted the significance of social interaction in ensuring equal learning opportunities. They suggested that learning through interaction has the potential to enhance learners’ comprehension beyond what they can achieve when working independently. **T3**: *“The idea that leads me to consider ZPD is that learners learn best when working together with others during joint collaboration”*. The participant refers here to Vygotsky’s Zone of Proximal Development which denotes the range of tasks that a learner can perform with the guidance and support of a more knowledgeable other but cannot yet accomplish independently. The argument from participants is that social learning is that cognition and intelligence are not the property of individual learners but arise from interaction with other learners in the learning environment.

Theme 3: Learners’ focus in the multi-grade classroom

Most participants pointed out that maintaining focus is a challenging task for learners in a multi-grade classroom. One participant specifically noted that when given tasks from higher-grade levels, such as grade four learners working on grade five or six material, they often struggle to complete their tasks independently. Another participant explained that when the teacher is occupied with grade six learners, the grade five learners face difficulties in completing their assignments without the teacher’s guidance. **T13**: *“I am encountering a problem because grades four and five do not do their activities whilst I am busy with grade 6 because they struggle to complete work on my absentia. This strategy is therefore not always a success”*. Grade four and five

learners who are not engaged in activities, despite being given tasks to work on independently, often become disruptive by singing, fighting, and creating noise. In certain instances, when the teacher is teaching the grade four learners, grades five and six are requested to leave the classroom due to their disturbance.

Some participants mentioned that they utilise peer teaching as a method to maintain the learners' focus on their tasks. They also emphasised that peer teaching is the most effective teaching strategy to implement in a multi-grade classroom. **T7**: *"During peer teaching I choose leaders from each grade in order to facilitate learners' participation in class"*. One participant highlighted the importance of providing guidance to learners before they take on the role of peer leaders in teaching. As per the participants, in peer teaching, capable learners may assist the teacher by marking assignments and overseeing those learners who may require additional support. **P3**: *"During peer teaching learners who understand the work quickly are given a task to help the slow learners who struggle with their activities"*. Participants further elaborated that during peer teaching knowledge is shared by the learners who are on the same level by teaching other learners what they know.

Some participants noted that they employ classroom rules as a method to encourage learners to concentrate on their tasks. These participants recommended the importance of establishing classroom rules before proceeding with any teaching activity or strategy. **T14**: *"I regard classroom rules as fundamental in order to keep order in the classroom. For me this actually forms part of my teaching strategy to engage all learners"*. They further indicated that class rules should be adhered to daily to prevent possible disruptive behaviour during lessons and classwork activities.

Theme 4: Implementation of the multi-grade approach

Most participants emphasised that the success and appeal of implementation lie in the teacher teaching all grades within the same classroom. They believed that having multiple grades in a single classroom fosters a sense of competition among learners. Additionally, participants noted that younger learners benefit from exposure to the curriculum of older learners when they share a classroom and are exposed to various teaching strategies. Consequently, this arrangement enables younger learners to better assimilate the work of their older counterparts, given the collaborative learning environment. Learner collaboration through the strategy of peer teaching assist learners of all grades in the classroom. **P6**: *"In multi-grade teaching learners share ideas with fellow learners and that makes the activities easy. The older learners gain some revision when they explain to the younger learners and the younger ones benefit by explanations that are more on their thinking level"*.

One participant also mentioned that he is using different types of worksheets in the classroom to facilitate teaching for different grades. **T1**: *"The instructional materials I use in the classroom are teacher-guided activity sheets, group learning worksheets, and individual practice sheets"*. Furthermore, participants pointed out that when learners are required to share educational materials, their opportunities for individual learning are diminished in terms of both frequency and depth.

A participant indicated that she had to independently determine which teaching strategies would be most suitable for her situation, although she remained uncertain about whether these strategies were appropriate for multi-grade teaching. **T12**: *"I want to make sure that I use correct teaching strategies when in my multi-grade classes, but I feel that I must make those decisions myself. I do not always know which strategy will work"*.

A few participants argued that the primary challenge in implementing the multi-grade approach is the scarcity of time. They contended that effective multi-grade teaching demands a substantial investment in time to adapt their teaching strategies during lessons and activities to meet the diverse needs of learners across various grade levels. **P1:** *“Time to cover all the work is always on my mind. Some teaching strategies take longer than others, so sometimes I must adapt my planning of a strategy for a certain grade”.*

Discussion

In the realm of multi-grade teaching, the participants demonstrated a clear preference for whole-class instruction, effectively guiding learners across different grade levels simultaneously. The challenges of managing diverse grades in a single classroom prompted multi-grade teachers to favour whole-class teaching, considering it the most effective approach for addressing the educational needs of multiple grade levels. This is in line with Tyk (2014) who stated that whole-class teaching is often the most effective teaching approach in multi-grade teaching. The practice of teaching identical topics to various grades emerges as particularly effective for these educators. A key reason cited for the augmented social development of learners in multi-grade classes is the diverse presence of maturity levels, perspectives, and experiences, contributing significantly to the learning process. This heterogeneous interaction not only fosters social and academic growth but also deepens understanding. According to Smucker and Nuss (2023), such interaction is crucial because it can help learners achieve higher levels of thinking and retain information longer compared to individual learning.

Teachers actively strive to create an optimal learning environment by encouraging collaboration among learners in peer groups, especially when occupied with other grade levels. In this context, İşler (2022) suggests that augmenting teaching strategies for multi-grade classrooms and aligning strategies such as differentiated curriculum instruction and peer-level collaboration, can significantly improve learners’ academic performance. These strategies help create an effective learning environment for teachers and support better educational outcomes for learners. Notably, teachers or principals engage grade four learners with activities while focusing on grades five and six, aiming to prevent a situation where attention is imbalanced across different grades. Effectively managing all three grade levels simultaneously is challenging, leading to the employment of various teaching strategies to ensure engagement in the classroom. Classroom rules play a crucial role in facilitating effective teaching and learning, recognised as a fundamental aspect of classroom management, emphasising the prevention of disruptive behaviours. Thobi (2022) agrees by stating that classroom management refers to activities necessary to create and maintain an organised learning environment in a multi-grade setting. Implementing these rules is relatively straightforward and can lead to a reduction in disruptive behaviour, contributing to a more disciplined learning environment.

A positive learning process is facilitated by efficient classroom management, where unity in the classroom is evident through collaborative learning. The appreciation of uniqueness is fostered when teachers utilise differentiated instruction. Despite these elements, learners remain at the centre of the learning process. Teachers find motivation in realising that their learners are actively learning and performing better in their classes.

Conclusion

The utilisation of teaching strategies in a multi-grade classroom plays a crucial role in addressing the distinct challenges associated with teaching multi-grade groups simultaneously.

Adding a dynamic dimension to the educational experience, an emphasis on collaborative learning and peer interaction is evident. The complexities inherent in multi-grade teaching necessitate a blend of effective classroom management, differentiated instruction, and periodic reorganisation of learner groups based on their abilities. Essentially, teaching strategies in a multi-grade classroom must embody flexibility, a focus on learners, and responsiveness to the diverse needs of learners, ultimately ensuring a successful and enriching educational experience for all.

Teachers in multi-grade classrooms need to be empowered to demonstrate their capacity to adapt teaching strategies based on the subject and inspire learners to consistently aim for high-quality work. The study underscores the importance of the teaching methods used in multi-grade teaching and learning, highlighting the need to diversify these methods to captivate and sustain the interest of the targeted learners. For instance, strategies like peer teaching, collaborative group work, and cooperative instruction can be utilised to prompt learners to collaborate and share solutions with their peers. Learners should be provided ample opportunities to engage actively in each lesson, including interactions with the teacher, peer discussions, and group work discussions. Lesson designs should prioritise and encourage learner participation.

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Contributors

Conceptualization, Funding Acquisition, Methodology, Project Administration, Supervision, Writing – Review & Editing: G. SCHLEBUSCH. Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Writing – Original Draft: M. PELE.