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Curriculum Implementation: A Systematic Literature Review of Practices and Challenges of Using Pacesetters in South African Rural Primary Schools

Nokwazi Princess Zikalala  and Thembela Comfort Ntshangase* 
University of Zululand,
South Africa

Abstract The study explored the practices and challenges of using curriculum pacesetters in South African primary schools. The Constructivist learning theory was employed as the theoretical framework to guide the study. The study followed the Systematic Literature Review (SLR) as a method to access materials for data synthesis and analysis. The theoretical framework guided the study to implications and conclusions. The findings indicated that a pacesetter is valued for guiding, monitoring, and managing curriculum implementation. However, the practice is steering towards the use of a pacesetter as a document to check done and to be done teaching and learning activities, which leads to a teacher-centred instructional process. Additionally, this study found that challenges such as lack of resources, pressure to cover content as per the pacesetter and prescriptiveness of the pacesetter led to undifferentiated curriculum implementation. Accordingly, this study concludes that the ineffective practice of using a pacesetter can compromise learners' meaningful and constructive learning.

Keywords: pacesetters; curriculum implementation; rural; curriculum monitoring; curriculum coverage

1. Introduction

The Department of Basic Education (DBE) runs the South African basic education system, which aims to provide quality education through curriculum coverage. Hence, the pacesetter was introduced as a strategy to cover the curriculum content in all subjects taught in school. Kibirige and Maponya (2021) define a pacesetter as a scheme of work. In this study, the pacesetter is an official document provided to teachers by the Department of Basic Education to ensure that the curriculum is covered within the academic period. Similarly, Eytayo (2022) defines a pacesetter as a document that guides and supports the sequencing of the curriculum.

*Corresponding author: Thembela Comfort Ntshangase; NtshangaseT@unizulu.ac.za

Moreover, Mavuso (2016) indicates that a pacesetter is used by subject advisors to check if teachers are covering the content, which will align with assessments and tasks as expected so that they can provide needful support. Nevertheless, Damoah and Adu (2020) assert that a pacesetter is ideal for guiding teachers in implementing the curriculum prescribed by the DBE. However, drawing on Constructivist learning theory, Andrietti and Su (2019) posit that learners prefer pacing that aligns with their preparation level, which consists of individual background knowledge, as Constructivism emphasises that learning is an active, personal process. Thus, learners cannot construct understanding effectively when forced to progress at a uniform pace.

Most significantly, the Department of Basic Education (DBE) launched a programme called *Jika Imfundo* in King Cetshwayo and Pinetown districts in response to the issue of curriculum coverage between 2015 to 2017 (Bansilal, Mkhwanazi, Ndlovu & Ngema, 2021). As part of the *Jika Imfundo* programme, a curriculum pacesetter was incorporated to improve curriculum coverage quality. The DBE provided all teachers with guidelines on where, when and what to teach the learners (Pillay, 2020). The DBE was positive that an enhancement in curriculum coverage would result in improved learning outcomes obtained by learners over a long period. *Jika Imfundo* used the curriculum pacesetter as a tool to deliver the content and keep pace (Christie & Monyokolo, 2018).

Despite the widespread use of pacesetters to guide curriculum implementation in South African schools, there is a notable gap in understanding how these tools function within rural primary school contexts. Existing research tends to focus on urban and well-resourced schools. The challenges faced by rural educators, such as large class sizes, limited infrastructure, multigrade teaching and insufficient support, are overlooked (Mncube, Ajani, Ngema & Mkhasibe, 2023). Additionally, Ngema and Maphalala (2021) posit that there is limited exploration of how the rigid structure of pacesetters aligns with the realities of rural teaching environments. The teaching realities include language barriers, learner absenteeism, and societal economic constraints that influence pacing.

While pacesetters aim to standardise curriculum delivery, their effectiveness in rural primary schools must be critically examined through a Constructivist lens (Bariham, Yirbekyaa & Bordoh, 2022). The researchers hold that a more context-responsive and learner-centred pacing model may be needed to support meaningful learning in under-resourced rural primary schools. Regardless, flexibility, reflection, and learner agency are crucial for effective curriculum implementation. Thus, the curriculum pacesetter seems to harm curriculum delivery. Teachers experience challenges working with the fast pace required by the pacesetter to mitigate diverse abilities of learning. Teachers also suspect that accelerating pacing to cover the curriculum obstructs the quality of learning in primary schools (Bansilal et al., 2021).

Should the challenges that come with the use of the curriculum pacesetter continue, the quality of learning will deteriorate. Hence, exploring the practices

and challenges of using curriculum pacesetters in South African primary schools and how they influence curriculum coverage is crucial.

2. Research Questions

- 2.1 What are the practices of using pacesetters for curriculum implementation in SA rural primary schools?
- 2.2 What are the challenges of using pacesetters for curriculum content coverage in South African rural primary schools?
- 2.3 What are the possible implications of the challenges of using pacesetters for curriculum implementation in SA rural primary schools?

3. Theoretical Framework

This study is anchored in the constructivist learning theory, which provides a valuable lens through which to explore the challenges and implications of using pacesetters in rural primary schools. Constructivist learning theory also emphasises that learners actively construct knowledge based on their prior experiences, cognitive readiness, and social context. Additionally, Piaget (1995) posits that Constructivism underscores that knowledge is acquired in developmental stages, while philosophers like Vygotsky (1978) and Glasersfeld (1995) stress the role of social interaction and personal construction of meaning in learning. Collectively, these perspectives oppose uniform approaches to learning, such as pacesetters, which require teachers to follow a strict timeline for curriculum delivery.

Most significantly, by applying Constructivist learning theory, this study critiques the gap between curriculum policy and classroom practice (Barani & Seyyedrezaie, 2017). Subsequently, Band and Olusegun (2015) argue that rigid pacing tools do not accommodate learners' diverse needs and hinder meaningful learning. Furthermore, Lin (2022) avers that Constructivism supports a more adaptable and facilitated teaching model, aligning better with the realities of rural classroom contexts. Thus, this theory is relevant to the study as it highlights the need for learner-centred and flexible teaching approaches. Constructivism is especially important in rural primary schools where learners vary significantly in background and learning pace.

4. Literature Review

4.1. Practices of using a pacesetter for curriculum implementation

4.1.1. Curriculum implementation in rural primary schools

Curriculum implementation is a carefully designed process intended to drive educational development by placing the learner at the centre of knowledge acquisition (Chaudhary, 2015; Calvin, 2019). Curriculum implementation success depends on adequate resources, a clear understanding of policy, and sensitivity to the teaching context (Mabunda, 2023).

However, in rural primary schools, the rigid use of pacesetters that prescribe uniform pacing of curriculum delivery undermines the success of curriculum implementation. Pacesetters often neglect contextual challenges such as overcrowded classrooms, diverse learner needs, and resource shortages. This

approach limits teachers' ability to adapt content and pace to their learners. It also contradicts the learner-centred approach and professional judgement required in the curriculum implementation (McGinity & Hall, 2015). As a result, pacesetting may lead to superficial coverage of content and learner disengagement in under-resourced rural contexts.

Additionally, curriculum implementation in South Africa transitioned from a teacher-centred approach after apartheid (Myende & Maifala). Yet, rural schools continue to face distinct challenges that widen the gap between the quality of education in rural and urban contexts (Nubia & Blignaut, 2024). Despite these disparities, DBE often treat curriculum implementation with a one-size-fits-all-approach. The COVID-19 pandemic further exposed these inequalities, as rural schools struggled with remote learning and were still expected to meet standard curriculum demands (Jansen, 2020; Ngobeni et al., 2023). Within this context, the rigid application of pacesetters exacerbates the problem by ignoring localised challenges, while placing unrealistic expectations on teachers and learners.

Furthermore, curriculum implementation is influenced by multiple interrelated factors such as teacher expertise, pedagogical content, language and time, technology, textbooks, and official documents (Maharaj et al., 2016). In many rural primary schools, the absence and delay of basic resources continue to hinder effective learning and teaching (Mafukata & Musitha, 2018). Compounding these challenges, the use of pacesetters restricts teachers' ability to design flexible instructional strategies tailored to their learners' diverse needs (Kunene, 2022). This top-down position not only disregards the contextual limitations of rural primary schools but also undermines teacher agency. As a result, a superficial curriculum that fails to support equitable and meaningful learning is implemented.

Moreover, CAPS outlines the topics, assessment, and recommended learning materials to be covered and used within a specific timeframe (Khoza, 2015). Hence, pacesetters derived from CAPS imposed rigid timelines that restrict teacher creativity and limit opportunities for learners to construct their understanding of content (Nkealah & Simango, 2023). This rigidity undermines the Constructivist principles of learning and teaching, where learners are expected to build knowledge through exploration and prior experiences (Mafukata & Musitha, 2018). As a result, even when the curriculum is fully covered, meaningful learning is compromised, since learners are not given the space to engage to develop deeper conceptual understanding.

Consequently, effective curriculum implementation is often hindered by limited parental involvement. Many parents are either unaware of or do not fully understand the curriculum process, its influencing factors, and their role within it (Maharajh et al., 2016; Munje & Mncube, 2018). This disconnection is further exacerbated by the top-down nature of the CAPS, which marginalises both parents and teachers in curriculum design and decision-making (Maharajh et al., 2016). Regrettably, teachers are expected to implement prescribed content and methods without having a say in shaping them. As a result, there is a lack of

ownership and reduced capacity to adapt the curriculum to local needs. In rural primary schools, such rigidity is reinforced using pacesetters, which contributes to ineffective curriculum implementation and diminishes learner outcomes.

4.1.2 Pacesetters in Curriculum Implementation

The CAPS outlines what should be taught, the content to be covered and the time allocated for completing the curriculum (Bertram et al., 2021). To support this, the DBE introduced pacesetters with structured timelines designed to help teachers remain on schedule and promote consistency in curriculum delivery. These pacesetters, as Hoadley (2023) explains, provide highly detailed weekly, monthly, and term-based plans derived from CAPS. It is applied uniformly across subjects and phases in public rural primary schools. However, while intended to guide teaching, these stiff pacing tools often fail to account for contextual challenges in rural schools.

Interestingly, the DBE asserts that the South African education system supports learners in progressing at their own pace and learning style (De Jager, 2017). However, this claim is contradicted by the structure and intent of pacesetters, which, according to Sriawadi (2021), are primarily designed to monitor teacher compliance and prepare learners for examinations, rather than to support differentiated and meaningful learning. As a result, many teachers treat pacesetters as a checklist to be completed, rather than as a flexible guide for thoughtful lesson planning and curriculum adaptation (Mkhwanazi et al., 2021).

Additionally, Qwabe (2023) highlights that the pressure to adhere strictly to pacesetter timelines forces teachers to rush through content, compromising the depth and quality of curriculum implementation, particularly in rural schools where learners may require more time and support to engage with the material effectively. While pacesetters are often critiqued for their rigidity, some scholars acknowledge their potential benefits in supporting curriculum implementation.

Mkhwanazi et al. (2018) argue that pacesetters help teachers plan and pace their lessons more effectively and contribute to logical assessment practices. Similarly, Maphala et al. (2015) contend that pacesetters enhance the alignment between curriculum content and assessment, allowing teachers to identify both learner achievements and areas needing improvement.

Ralebese (2018) supports this by emphasising that the structured format of pacesetters enables comprehensive assessment planning that reflects curriculum goals. Wolhuter and Botha (2019) also highlight that pacesetters serve as a useful framework for assessment design. However, while these advantages are acknowledged, their benefit is often diminished in rural primary schools. Contextual constraints limit teachers' ability to follow prescribed pacing without sacrificing the depth and relevance of teaching.

4.1.3 Monitoring and management of curriculum implementation

Monitoring curriculum implementation has a crucial role in evaluating how effectively the curriculum is being delivered in primary schools (Ajani, 2021). Mouton and Malumbete (2023) note that curriculum advisors typically assess this

by reviewing teachers recorded work, focusing on the quality of assessment and projects to determine whether intended learning outcomes have been met. Similarly, Maringa (2016) defines curriculum management as an ongoing process of reviewing, evaluating, and monitoring the curriculum to ensure its alignment with expected outcomes and to facilitate the appropriate distribution of learner-teacher support materials. While these monitoring practices aim to enhance accountability and improve implementation, their effectiveness may be undermined in rural primary schools when pacesetters are used as rigid methods for compliance.

Furthermore, the curriculum is a shared responsibility that extends beyond the school principal to include the entire school management team (SMT) and teachers (Maphalala et al., 2023). However, McLennan and Orkin (2018) note that some principals mistakenly view curriculum management as separate from their core duties, focusing instead on general school administration. In practice, departmental heads (DH) play a key role in overseeing curriculum implementation by inspecting teachers' files to ensure content coverage aligns with the prescribed pacesetters.

Also, verifying that learners' workbooks reflect the planned instruction (Mthiyane et al., 2019). While such oversight aims to ensure curriculum compliance, relying heavily on pacesetters for monitoring can narrow the focus to pace and documentation rather than teaching quality and learner engagement. In rural schools, this may lead to administrative compliance taking precedence over context-sensitive teaching.

Despite the significance of monitoring curriculum implementation, many teachers express dissatisfaction with how it is conducted by district officials and curriculum advisors (Ajani, 2021). Nkambule and Amsterdam (2018) argue that these officials often focus solely on checking whether curriculum outcomes have been met, rather than offering meaningful support or guidance to improve teaching practices and promote effective learning. Similarly, Muedi et al. (2021) attest that monitoring tends to centre on whether teachers are keeping up with the pacing and coverage outlined in the pacesetters and to see if teachers can cover the curriculum according to the pacesetter. As a result, teachers may feel pressured to rush through content to meet deadlines, potentially compromising the depth and quality of learner engagement and creativity.

4.1.4 Pacesetters' influence on assessment

Pacesetters are intended to support the pacing and sequencing of curriculum content while also shaping the timing and structure of assessments (Gobingca et al., 2017). Brijlall (2017) attests that pacesetters promote uniformity across schools by ensuring that assessments align with curriculum progression to allow consistent evaluation of learners based on shared expectations. Similarly, Kulasegaram and Rangachari (2018) argue that pacesetters help teachers track learner progress toward predetermined goals to enable timely feedback and instructional adjustments. Dube (2019) also highlights the value of pacesetters in facilitating continuous assessment and consistent monitoring of learner

achievement. However, in rural primary schools, these benefits are frequently weakened by contextual limitations.

Additionally, pacesetters are designed to assist teachers in aligning content taught to promote consistency and accountability in instructional delivery (Dube, 2019). Pacesetters provide regular checkpoints that allow teachers to track progress, identify learning gaps early, and implement timely interventions before formal assessments. Muedi et al. (2021) emphasise that this structure supports teachers in addressing knowledge gaps and promotes uniform learner progression, while Brijlall (2017) reveals that pacesetters assist in organising lesson plans to ensure all required topics are covered within the set timeframe.

However, in rural primary schools, the effectiveness of pacesetters is regularly compromised by external challenges such as limited teacher training and insufficient resources. These factors hinder consistent implementation and may reduce following a pacesetter to a mere compliance technique rather than a tool that supports meaningful learning and teaching.

Furthermore, teachers are regularly expected to balance the demands of the curriculum with the complex realities of diverse classroom environments, which can hinder effective learning and the construction of knowledge (Turk, 2021). In response to the pressure to complete the curriculum within prescribed timelines, many teachers conduct assessments primarily to produce marks and align with the pacesetters, rather than evaluate learners' understanding or identify learning gaps (Mncube, Ngema & Maphalala, 2023).

As a result, assessment practices tend to prioritise summative approaches focused on progression, while neglecting formative assessments that support learning during instruction (Gobingca et al., 2017). In public rural schools, this issue is compounded by the requirement for learners to participate in DBE common tests, forcing strict adherence to the pacesetter schedule regardless of classroom realities (Ndlovu, Khumalo & Mokoena, 2023). This destabilises meaningful assessment and limits opportunities for responsive and learner-centred teaching.

4.2 Challenges of using pacesetters for curriculum content coverage

4.2.1 Content coverage in South African rural primary schools

Taylor and Fintel (2016) identify inadequate curriculum content coverage as a key factor contributing to low achievement, highlighting the need for focused intervention. In response, Bertram et al. (2021) note that the ongoing monitoring through pacesetters has been introduced as a strategy to improve curriculum coverage. Likewise, Mthiyane et al. (2019) explain that curriculum leaders use pacesetters as benchmarks to track and support the coverage of prescribed content. While this approach aims to promote accountability and consistency, in rural primary schools it can have adverse consequences, albeit unintended. The rigid use of pacesetters may pressure teachers to rush through content to meet coverage targets at the expense of learner understanding and engagement.

Subsequently, teachers are required to cover lesson according to the timelines set by pacesetters to ensure that curriculum content is fully delivered (Mthiyane,

Naidoo, and Bertram, 2019). Christie and Monyoko (2018) similarly emphasise that teachers must adhere to pacesetters in order to complete the curriculum within the constraints of the school calendar. However, Mthiyane et al. (2019) caution that if lessons are missed or progress is slow, teachers rarely omit content. Instead, they tend to accelerate their teaching pace to catch up. Thus, this pressure to keep up with the pacesetter can compromise the quality of instruction and hinder learners' ability to fully engage with and understand the content.

Arguably, curriculum in rural primary schools is driven by strict adherence to pacesetters which is a shift in teaching towards a teacher-centred approach that limits learner engagement (Poti, 2020). Most teachers perceive allowing learners time to actively construct knowledge as insufficient. They are fearing that it may prevent them from completing the prescribed content within the set timelines (Mokgohloa, 2018). Although teachers recognise the importance of differentiating instruction to meet diverse learner needs, the rigid structure of pacesetters constrains their ability to adapt lessons effectively (Govender, 2020). Hence, pacesetters negatively impact rural classrooms by promoting rushed and uniform teaching that undermines learner-centred approaches. Whilst teachers are aware that they need to differentiate the curriculum to accommodate learners, keeping up with the pacesetters make it difficult.

Consequently, effective content coverage in teaching and learning depends on thorough lesson planning (Dlova, 2019). Hence, planning is a crucial aspect of teaching that reflects a teacher's competency and preparedness (Seherrie & Mawela, 2021). In practice, teachers often align their lesson objectives and plans closely with the timelines and content outlined in pacesetters to ensure curriculum coverage (Zuma, 2023; Poti, 2019). As much as pacesetters guide the pacing of lessons, effective lesson planning should also involve selecting diverse teaching strategies that address the varied needs of learners to promote meaningful learning (Walk, 2019). In rural primary schools, the strong emphasis on following pacesetters may limit teachers' flexibility to implement varied instructional approaches and potentially reduce lesson effectiveness and learner engagement.

Also, the inflexible nature of a pacesetter often limits teachers' ability to apply their pedagogical skills effectively and reduce opportunities for engaging learners in active learning (Tryon, 2023). In South Africa, teachers have little influence over the selection and delivery of CAPS curriculum content, which is largely predetermined by policy (Du Plessis & Marais, 2015). This top-down approach, including prescribed content, assessment, and lesson plans, leads to teacher frustration as it restricts their professional autonomy (Mokgohloa, 2018). So, teachers are unable to adjust the pace of instruction to meet the diverse needs of their learners, which weakens the potential differentiated instructions (Chapman & Elbaum, 2021). In rural primary schools, this inflexibility aggravates challenges in providing quality education that is responsive to the unique context and learner profiles.

4.2.2 Curriculum differentiation

Curriculum differentiation is defined as a strategy that promotes active learner engagement while ensuring curriculum content is covered (Onyishi & Sefotho, 2020). It enables teachers to address the mixed needs and learning styles of learners to foster inclusive education (Taole, 2020). Teachers generally view differentiation as a valuable approach that involves adapting instruction and learning activities to suit diverse learners (Reis & Renzulli, 2018; Ndlovu, 2020).

Effective curriculum differentiation relies on thoughtful lesson planning that incorporates a variety of teaching methods to encourage active learning (Walk, 2019; Taole, 2020). However, in practice, the strict timelines imposed by a pacesetter hinder the implementation of differentiation of instruction since accommodating diverse learner needs requires additional time and flexibility (Maphumulo & Biccard, 2024). Hence, with the scarce resources in rural primary schools, teachers' abilities to provide suitable and learner-centred education are compromised.

Teachers in rural areas are often provided with predetermined content, assessment, and lesson plans intended to reduce their workload (Mokgohloa, 2018). However, this approach has led to frustration among teachers who feel their professional autonomy is reduced to limit their ability to design teaching activities according to the specific learners' needs (Phaiphai, 2017; Mokgohloa, 2018). While some provinces have moved away from standardised lesson plans due to criticism, others continue relying on them (Shalem et al., 2018). Despite this, many teachers still base their lesson plans directly on the prescribed pacesetters, which may constrain flexibility and responsiveness in rural schools (Poti, 2019). This dependence on inflexible frameworks can undermine suitable and context-sensitive teaching and learning.

Conversely, lesson planning is critical component of curriculum implementation to guide the teaching and learning process (Seherrie & Mawela, 2021). It enables teachers to use diverse methods and approaches tailored to meet learners' diverse needs (Walk, 2019). However, due to the strict timeframes imposed by pacesetters and the strong emphasis on covering prescribed content, most teachers tend to rely on standardised lesson plans provided by the DBE. This preference for pre-made plans often limits teachers' creativity and flexibility; potentially reducing their ability to acclimatise instruction to the unique needs of their learners and contexts.

Consequently, teachers often resort to one-size-fits-all approaches to meet the strict content coverage demands imposed by pacesetters timelines (Zenda, 2020). This pressure leads many teachers to bank predominantly on direct instruction, thus neglecting differentiated teaching methods that could better address diverse learner needs (Maphumulo & Biccard, 2024). As Govender (2020) notes, the emphasis on completing the prearranged content takes precedence over scaffolding learners' understanding, which result in superficial learning rather than deep engagement with the material.

Equally, ineffective curriculum differentiation undermines inclusive education practices, which aim to address the diverse needs of learners in South African classrooms. This includes variations in socio-economic backgrounds, learning needs, interest, and identities (Mahlo, 2017; Oyishi & Sefotho, 2020). Despite the DBE's efforts to promote inclusive education and encourage differentiated instruction, teachers continue to face significant challenges in implementing these approaches effectively (Mhlolo, 2017). Scholars like Engelbrecht, Nel, Nel and Tlale (2015) and Sirero (2021) identify limited instruction time, increased administrative burdens, and the pressure to adhere to inflexible pacing schedules as major obstacles that incapacitate teachers and prohibit them from fully embracing differentiated learning and inclusive education in their classrooms.

4.2.3 Lack of resources in rural primary schools

The availability of learning and teaching support materials (LTSMs) is crucial for effective curriculum implementation and comprehensive content coverage (Ajani, 2023). Without adequate resources, schools struggle to deliver the curriculum successfully (Du Plessis & Metry, 2019). These necessary resources include human elements such as skilled teachers and relevant pedagogical content, cultural factors like language and time, as well as material resources such as technology, textbooks, and curriculum documents (Maharaj et al., 2016; Zenda, 2020).

However, rural primary schools frequently face persistent challenges in accessing these resources, which significantly hampers their ability to implement pacesetters effectively (Phaiphai, 2017; Mafukata & Musitha, 2018). The reliance on rigid pacesetters in under-resourced rural settings aggravates educational inequalities, as teachers are pressured to cover content without the necessary materials or support. This results in superficial teaching and compromised learning outcomes.

Hence, inadequate resources in rural primary schools significantly impact learners' ability to complete schoolwork proficiently (Ojo & Mathabathe, 2021). For instance, Mafukata and Musitha (2018) report that textbook shortages force learners to share materials which makes timely completion of learning activities difficult. Coupled with a shortage of teachers, which results in large class sizes, rural teachers become overburdened and struggle to complete the curriculum within the timelines set by the pacesetter. Although the DBE, through CAPS, aims to standardise education across the county, rural primary schools receive less funding and fewer resources from the DBE compared to their urban counterparts (Du Plessis & Mestry, 2019). Consequently, the expectation to cover content as prescribed by pacesetters becomes unrealistic in under-resourced rural settings, which destructively affect teaching quality and learning outcomes.

Additionally, poverty in rural areas severely undermines the provision of quality education due to limited access to essential physical resources and inadequate infrastructure, including sanitation facilities (Du Plessis & Mestry, 2019). These remote communities grapple with unemployment and the issue of retaining teachers. This results in multigrade classrooms where a single teacher manages multiple grades simultaneously, again adding to the burden on the teacher.

Furthermore, many learners on rural farms frequently miss schoolwork, which also hinders their ability to keep pace with curriculum demands. Overcrowded classrooms that are impaired by resource shortages multiply these challenges and limit actual learning and teaching (West & Meier, 2020). The rigid imperative to apply the pacesetter in such context's places unrealistic expectations on teachers and learners.

4.3 Possible Implications of Challenges of Using a Pacesetter for Content Coverage in Rural Primary Schools

Pacing in South African rural primary schools tends to be slow as teachers strive to accommodate learners who may progress at a slower pace (Naidoo, 2019). However, despite this adjustment, teachers still face challenges in completing the curriculum within the school year due to the dense and often misaligned content outlined in pacesetters (Bertram, 2019). This disconnect between curriculum demands and learners' abilities exacerbates the challenge of effective content coverage.

To address these challenges, Murshidi et al. (2023) recommend fostering early reading skills and increasing parental involvement to support learners' self-study, which can help them better manage the pace of curriculum delivery and improve overall learning outcomes. In rural contexts, without such support mechanisms, inflexible adherence to pacesetters may continue to hinder both teaching and learning effectiveness.

Additionally, parental involvement in learners' education plays a crucial role in supporting both learners and teachers by fostering focus and encouraging self-study (Nkambule & Amsterdam, 2018). This is especially true in rural areas where additional learning support is needed but most often not available. Engaged parents help cultivate positive attitudes toward learning, which in turn motivates learners to participate actively in class (Muje & Mncube, 2018; Sumanti & Mulijani, 2021).

Moreover, when parents and communities are actively involved in the educational process, they co-create a supportive environment that enhances learners' engagement and overall academic outcomes (Segoe & Bischoff, 2021). In rural primary schools where resources and instructional time are often limited, such involvement is essential to complement classroom learning and improve the effectiveness of curriculum implementation, which an inflexible compliance with the pacesetter alone cannot achieve.

Furthermore, effective pacing of curriculum content requires teachers to possess skills that actively engage learners and foster participation (Al-Bahrani & Hokroh, 2022). The reality is that many teachers in rural primary schools lack adequate training to meet these demands. Teachers often feel unprepared to teach in an under-resourced environment (Dlova, 2019). This fact further emphasises the need for targeted professional development to equip teachers with strategies for engaging learners effectively despite resource constraints. Mkhwanazi et al. (2021) argue that for pacesetters to be successful tools in curriculum implementation, they must be accompanied by ongoing teacher training that

helps teachers use them constructively and adaptively. Without such support, the implementation of pacesetters in rural schools' risks being ineffective by limiting teaching quality and learner outcomes alike.

Pillay (2020) notes that ongoing professional development and collaborative learning among teachers are essential to address the challenges posed by rigid pacing in curriculum delivery. Pillay (2020) further argues that involving teachers in the development of pacesetters would make these tools more practical and better aligned with the realities of classroom teaching. Kunene (2022) advocates for a flexible pacing approach that accommodates learners' diverse rates of learning by enabling teachers to better meet their learners' needs. Similarly, Umugiraneza et al. (2018) stress the importance of designing pacesetters that align with various pedagogical strategies by allowing teachers to implement a range of instructional approaches. Without such flexibility and teacher input, pacesetters risk becoming rigid mandates that hinder effective learning and teaching, especially in the complex contexts of rural primary schools.

Thus, some teachers resort to offering extra classes to assist learners to fully grasp the content due to the insufficient time allocated by pacesetters for covering and mastering content (Ndlovu et al., 2023). It is often found that while pacesetters may schedule only two days for certain content the practical classroom experience requires more time to ensure suitable learning and teaching. As a result, some teachers let go of the official pacesetter and develop their pacing plans tailored to their learners' needs (Ndlovu et al., 2023). It is suggested by Ndlovu (2020) that they participate more regularly in professional development workshops, which can enhance their skills in balancing curriculum demands with learner-centred approaches.

5. Materials And Methods

The systematic literature review (SLR) was conducted following the guidelines proposed by Kitchenham and Charters (2007). This comprehensive process for systematic reviews in software engineering and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) were used. The process started by defining the scope of the review; to this end, relevant questions were formulated. Additionally, a comprehensive search strategy was employed to retrieve relevant studies, where primary sources of literature were selected based on credibility. Thereafter, a combination of Boolean operators and keywords was used to maximise the retrieval of relevant studies.

Furthermore, a two-stage process of inclusion criteria and exclusion criteria was used in this study. Most significantly, a standardised data extraction form was used to extract relevant information from each study. The extraction process involved the following indicators: study title, authors, and duplication; research objectives and methodologies; key findings and contribution; and identifying research gaps. To ensure consistency and mitigate data extraction errors, the process was independently verified by multiple reviewers. Potential limitations of the SLR, such as publication bias and the exclusion of grey literature, were acknowledged and considered during the synthesis of findings. Subsequently, a

thematic analysis approach was applied to synthesise the findings, grouping similar studies under common themes.

5.1 Database selection stage

The researchers utilised four search databases that were available at the university library to search for literature: Directory of Open Access Journals (DOAJ), ProQuest, Scopus and Web of Science, spanning the years from 2014 to 2024. These databases were chosen as they are accessible in institutions, cover a wide range of literature and are accredited by the South African Department of Higher Education and Training. This study used the following key phrases: curriculum implementation in rural primary schools, pacesetter in curriculum implementation, monitoring and management of curriculum implementation, pacesetter's influence on assessment, challenges of using the pacesetter for curriculum content coverage, curriculum differentiation, lack of resources in rural primary schools, implications to challenges of using the pacesetter to identify relevant articles.

5.2 Inclusion criteria

- Peer-reviewed journal articles and externally marked dissertations and theses
- Studies published in the last 10 years
- Studies explicitly focusing on the research domain
- Full-text availability in the English language

5.3 Exclusion criteria

- Duplicate records
- Non-peer-reviewed journal articles
- Studies with insufficient methodological details
- Journal articles not addressing the research questions

5.4 Process of conducting the review

The inclusion criteria included literature related to the research questions and a timeline of publication from the year 2014 to 2024 for articles found on databases. Exclusion criteria comprised outdated articles published before 2014 and irrelevant content. The underlying search produced 512 pieces of literature. Then, 344 items of literature were excluded, looking at the relevance of the title and uncommon search terms. The remaining literature was scanned for relevance to research objectives, which led to the exclusion of 109 literature as they were composed of irrelevant content. Thus, 59 units of literature were left to be analysed and synthesised. Table 1 indicates details of the selected articles.

Table 1: Articles included and excluded from the study

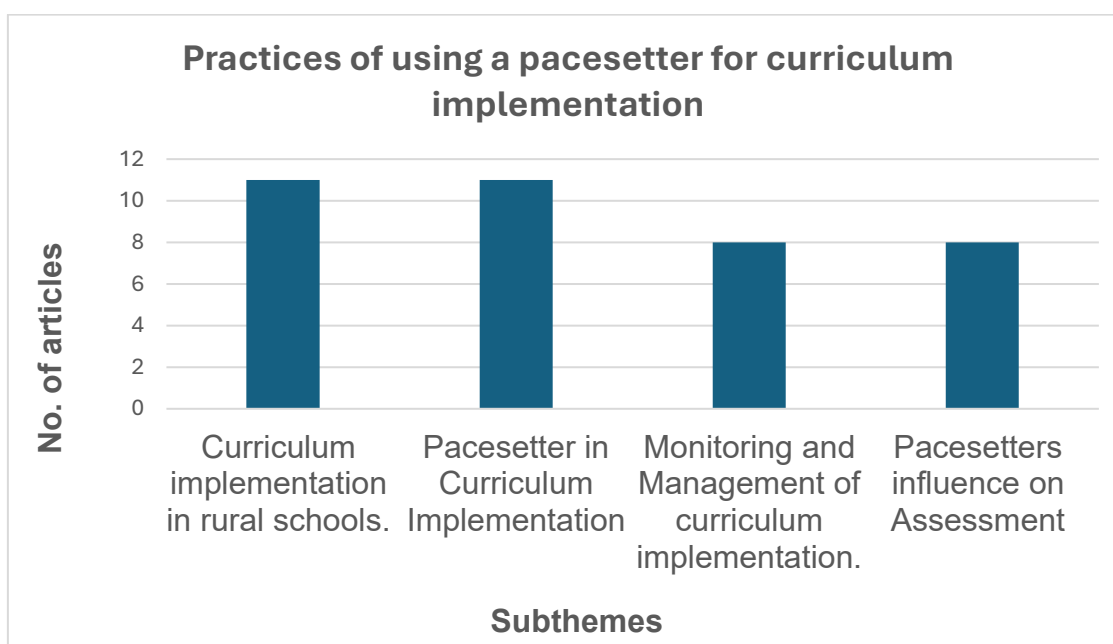
Database	Included	First exclusion	Second exclusion	Total
DOAJ	14	29	19	62
ProQuest	6	26	13	45
WoS	21	112	45	178
Scopus	18	177	32	227
Total	59	344	109	512

6. Findings And Discussion

This section presents the findings of the study, organised into three main themes according to the objectives of the study. Firstly, this study aimed to explore the practices of using a pacesetter in curriculum implementation in South African rural primary schools. Secondly, the study investigated the challenges of using a pacesetter for content coverage, and lastly, the study explored the implications of these challenges. The findings are presented in charts and discussed thematically as below.

6.1 Theme 1: Practices of using a pacesetter for curriculum implementation

This study's main aim was to explore the practices of using a pacesetter in curriculum implementation, by delving into the use of pacesetters and their influence on curriculum implementation. The results are categorised into four subthemes. Firstly, the study focused on curriculum implementation in schools, which is supported by eleven studies. Secondly, the study focused on the use of a pacesetter in curriculum implementation. Thirdly, the study focused on the use of a pacesetter to monitor and manage curriculum implementation, which is covered by eight articles. Lastly, the influence of the pacesetter on assessment, supported by eight studies, was explored. Figure 1 indicates details of the number of articles used in each subtheme.

**Figure 1: Articles used in theme 1**

6.1.1 Subtheme 1: Curriculum implementation in rural schools

The findings corroborate that curriculum implementation is a complex process that intends to bring change and development, but is often neglected (Calvin, 2019). Curriculum implementation should concern the process of helping a learner acquire knowledge in which the learner is a central figure (Chaudhary, 2015). Findings revealed that curriculum implementation is influenced by cultural, material and human resources (Maharaj et al., 2016). It is agreed that curriculum implementation in rural schools is a struggle as schools lack the required resources. Results indicate that the lack of resources in rural schools makes it difficult to implement the curriculum in the prescribed manner, which results in ineffective curriculum implementation.

Additionally, findings highlighted that curriculum implementation is regarded to be not merely about delivering the prescribed content but should assist learners in constructing knowledge and meaning from the prescribed curriculum and content to achieve learning outcomes (McGinty & Hall, 2015). Nubia and Blignaut (2024) warn that the Department of Basic Education is failing to consider the contextual differences that influence curriculum implementation. Curriculum implementation may be effective in urban schools as they have enough required resources and needs for curriculum implementation, while rural schools struggle to keep up with the prescriptions from the DBE.

6.1.2 Subtheme 2: The pacesetter in curriculum implementation

The Department of Basic Education (DBE) provides teachers with a pacesetter to ensure that the curriculum is implemented as per the standards of the DBE and that content is covered within the academic year. The pacesetter derived from CAPS provides precise details of the content to be taught each week, month and term used across subjects and phases in public rural primary schools in South Africa (Hoadley, 2023). Findings confirmed that the pacesetter is used to assist teachers in planning and sequencing lessons to maintain coherent curriculum implementation (Mkhwanazi et al., 2018).

According to findings, the use of a pacesetter in curriculum implementation means teachers are expected to teach at the same pace in South Africa. However, rural schools struggle to keep up with the pacesetter while effectively implementing the curriculum. Teachers in rural schools use the pacesetter as a tool to indicate completed activities, as they come with lots of activities. Thus, the findings suggested that the pacesetter increases teachers' workload due to the prescripts of common assessments and marking (Mihai & Nieuwenhuis, 2015; Ntshangase & Mabusela, 2023).

6.1.3 Subtheme 3: The pacesetter's influence on assessment

Findings showed that pacesetters provide guidelines for assessment which require and ensure that assessment activities align with the content taught. Maphala et al. (2015) agree that the pacesetter enhances alignment of curriculum with assessment, which thus gives a clear picture of what learners have achieved and of gaps for improvement. Thus, the pacesetters assist teachers in planning assessment comprehensively and reflectively of the curriculum (Ralebese, 2018). Findings showed that there is a common understanding that the pacesetter

focuses on standardisation and alignment of the curriculum. Thus, pressure to adhere to the pacesetter leads to superficial assessment practice, which prioritises summative assessment over formative assessment (Mncube et al., 2023).

Consequently, the practice of using a pacesetter to guide assessment limits teachers to comprehensively identify gaps in knowledge constructed by learners if they teach to test, which leads to memorisation of information. Ndlovu et al. (2023) remarks that teachers are compelled to adhere to the pacesetter since learners are expected to write common tests set by the DBE. Nkealah and Simango (2023) lament that the pacesetter is not flexible enough for teachers to implement different teaching strategies that would allow learners to actively construct their knowledge and meaning.

6.1.4 Subtheme 4: Monitoring and management of curriculum implementation

The pacesetter is used by district officials to monitor and manage curriculum implementation (Mouton & Malumbete, 2023). District officials assess teachers' work and alignment with the prescribed curriculum using a pacesetter. Findings showed that monitoring of curriculum implementation using a pacesetter is regarded as central to checking if teachers are completing the curriculum as per the departmental requirements, rather than to monitor learning gaps, which need district and department intervention. Nkambule and Amsterdam (2018) and Muedi et al. (2021) share the sentiment that monitoring curriculum implementation using a pacesetter is more appropriate to monitor if teachers cover content than to establish learner content uptake. Thus, teachers use the pacesetter to identify activities to be covered rather than to inform meaningful curriculum implementation (Mkhwanazi et al., 2021).

Consequently, the quality of learning is compromised as teachers teach to cover the pacesetter rather than to assist and guide learners through creating their own knowledge. Results revealed that the district officials or monitors of curriculum implementation are more concerned with how well a teacher can comply with completing learning activities in a set timeframe than with how well learners learn and construct knowledge. Teachers are dissatisfied with monitoring practice since the district officials mainly focus on learning outcomes rather than providing meaningful support (Ajani, 2021; Nkambule & Amsterdam, 2018).

6.2 Theme 2: Challenges in using the pacesetter for curriculum content coverage

Under this theme, the study presents results on the challenges of using the pacesetter for content coverage in rural primary schools. The study looked at content coverage as a challenge faced by rural primary schools. Nine studies were used in this subtheme. Subsequently, the study delves into curriculum differentiation as a challenge in using a pacesetter for content coverage. Twelve articles served as sources of information under the curriculum differentiation subtheme. Additionally, the study found that a lack of resources contributes to the hindrances of using a pacesetter for content coverage in rural primary schools. Ten studies were selected under the subtheme of lack of resources. Figure 2 below indicates the number of articles used in each subtheme.

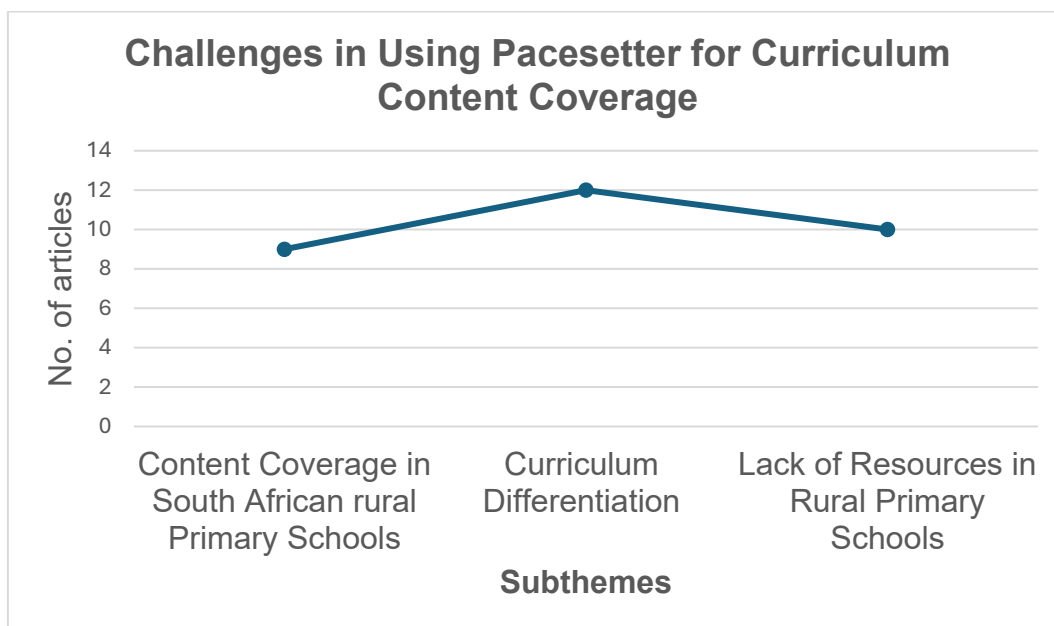


Figure 2: Articles used in theme 2

6.2.1 Subtheme 1: Content coverage in South African rural schools

Results highlighted that content coverage has persisted as a challenge in rural schools, informing consistently low academic performance. The pacesetter was incorporated into the *Jika Imfundo* programme as a tool to assist teachers to cover content within the timeframe of the academic year (Christie & Monyoko, 2018; Mthiyane et al., 2019; Bertram et al., 2021). Thus, teachers are expected to cover all lessons as per the pacesetter. Findings indicated that teachers are instructed not to skip lessons to keep up with the pacesetter should they be falling behind for any reason, and rather to pace up lessons to meet the sequence of the pacesetter (Mthiyane et al., 2019). The teaching and learning process becomes teacher centred as teachers use direct instruction methods to teach in a desperate attempt to save time to keep up with the pacesetter.

Findings further revealed that teachers believe that allowing time for learners to actively participate in the learning and teaching process will slow down their progress, as learners are trying to grasp content and create their knowledge at their own pace (Mokgohloa, 2018). Moreover, findings reveal that lesson planning is affected when using a pacesetter; teachers sometimes fail to plan different teaching strategies and methods. According to Vygotsky, learners learn more if they interact with other learners and share ideas and knowledge, but results suggest that collaboration is not often practised in rural schools.

It seems there is hardly time to allow learners to collaborate in learning, which thus limits their learning Tryon (2023) posits that the inflexibility of the pacesetter discourages teachers from competently using pedagogical skills in engaging learners for active learning. The pacesetter is used to ensure that teachers cover content so that learners have learnt what is tested in common tests. Not surprisingly, the findings showed that this compels teachers to teach for tests.

6.2.2 Subtheme 2: Curriculum differentiation

Results indicated that with a pacesetter, teachers have limited flexibility to alter strategies and methods customised to their learners' needs. Thus, curriculum differentiation is less practised. The prescriptiveness of the pacesetter makes it difficult for teachers to plan lessons incorporating different teaching strategies and methods to accommodate learners' diverse learning styles and needs. Thus, teachers are discouraged from using their diverse pedagogical skills to meaningfully cover content (Tryon, 2023). Maphumulo and Biccard (2024) report that implementing differentiated learning contradicts pacesetting as it takes time to accommodate learners with diverse learning needs.

Consequently, teachers resort to just teaching and delivering content prescribed in the curriculum rather than teaching learners to construct meaningful knowledge. Teachers feel themselves compelled to cover content rather than to be facilitators of learning that involves guiding and supporting learners to reach their full potential (Govender, 2020). It is clear that the lack of curriculum differentiation compromises inclusivity (Oyishi & Sefotho, 2020).

6.2.3 Subtheme 3: Lack of resources

Another prominent challenge in using the pacesetter for content coverage in rural primary schools as evident in the findings is a lack of resources. In rural areas, there is limited provision of resources, which negatively impacts teachers' ability to align the teaching and learning methods prescribed by the pacesetter with the realtime learning situation. Thus, learners are compromised in rural areas because there is a lack of resource provision (Ojo & Mathabathe, 2021). Mafukata and Musitha (2018) found that learners often have to share textbooks, which results in the incompleteness of homework activities given by the teacher. Moreover, the lack of resources also spills over to overcrowded classrooms.

Hence, curriculum implementation needs attention to contextual factors in order to be effective and successful (Mabunda, 2023). The pacesetter has a stipulated time with content that needs to be covered using suggested methods and strategies of teaching and learning. It becomes nearly impossible to actively use the pacesetters if the school does not have the required resources. Du Plessis and Mestry (2019) reach a unanimous conclusion that the lack of resource provision in South African rural primary schools affects effective curriculum implementation and content coverage.

6.3 Theme 3: Implications of challenges in using a pacesetter for content coverage

Under this theme, fourteen items of literature were identified that suggest implications for challenges in using a pacesetter.

Table 2: Articles used in theme 3

THEME	No. of articles
Implications of challenges in using pacesetters for content coverage	14

The findings suggest that improving early reading could help learners to cope with the fast pace of learning, thus, potentially assist teachers to adhere to the pacesetter while allowing time for learning to be constructed from their teaching. As mentioned earlier, results hinted at a conviction that the involvement of parents in education assists teachers and learners in achieving learning outcomes. Parental involvement can enhance learners' active learning as parents assist learners at home (Nkambule & Amsterdam, 2018; Paul, 2016). It remains a challenge that parents in rural schools may not be educated well enough to assist with school activities. Nonetheless, if parents assist with encouraging learners and actively engage at school events, that could still contribute to the establishment of a culture of learning.

Additionally, the need for professional development is identified as an implication of the challenges in using the pacesetter for content coverage. The results suggest that teachers should be engaged in the development of the pacesetter and receive training on how to use the pacesetter before its implementation. One challenge identified in this study is that teachers use the pacesetter as a tick box exercise of activities that need to be done, rather than a tool to guide meaningful curriculum implementation. This is confirmed by the fact that district officials use the pacesetter as a monitor of activities that need to be done by the teacher, rather than a guide to assist in monitoring gaps for intervention in learning. Sriawadi (2021) and Muedi et al. (2021) note that district officials come to schools to check the activities done by the teacher against the pacesetter to conclude if teachers can cover content within the timeframe.

To summarise, Paul (2016) proposes promoting early reading and parental involvement as a solution to support learners in self-study, which will assist learners in coping with the pacing of content coverage and curriculum acquisition. Additionally, Nkambule and Amsterdam (2018) assert that parental involvement in learners' learning will assist learners and teachers to perform better. Dlova (2019), Pillay (2020) and Mkhwanazi et al. (2021) suggest that teachers should be well-equipped and trained to use the pacesetter sensitively to their learners' needs. Furthermore, the pacesetter should be able to accommodate and cater for diverse learners' needs. Accordingly, Kunene (2022) suggests that a pacesetter should be flexible enough to assist teachers in implementing teaching strategies suitable for diverse learners.

7. Implications of the Study

The following implications emanate from the findings of the study:

- ✓ The DBE should review the rigid use of a pacesetter in alignment with realities in rural schools. Considering factors like a lack of resources in teachers' training to use the pacesetter and limited time to cover wider content would assist in developing a plan to cover content without compromising learners' learning. The development of a pacesetter overlooking the inequalities of learning and teaching resources provision in schools increases the gap in equality of learning received in rural and urban schools.

- ✓ The DBE should include teachers and other stakeholders in rural schools when developing and reviewing pacesetters. The top-down approach in designing a pacesetter must be relaxed to allow teachers to design customised pacesetters based on their learners' learning needs.
- ✓ Teachers in rural schools should be upskilled to a point where they can participate in the processes of developing learning and teaching pacesetters and other learning tools.

8. Conclusion

This study, guided by the Constructivist learning theory, explored the practices of using curriculum pacesetters for curriculum implementation in South African rural primary schools. The literature review was drawn from sources published between 2014 and 2024. The major findings indicated that a pacesetter is perceived to be useful in guiding, monitoring, and managing curriculum implementation. However, the practice is steering towards the use of a pacesetter as a document to tick the checkboxes of teaching and learning activities, which leads to a teacher-centred instructional process.

Additionally, this study found that challenges such as a lack of resources, pressure to cover content as per the pacesetter, and prescriptiveness of the pacesetter lead to undifferentiated curriculum implementation. Thus, this study concludes that the ineffective practice of using a pacesetter can compromise learners' meaningful and constructive learning. Learning is compromised when teachers rush through topics without ensuring learners' comprehension. Furthermore, the lack of adaptation to learners' needs and contexts prevents the development of critical thinking and problem-solving skills. These findings call for a policy review to make pacesetters more flexible and responsive to local school contexts. Thus, future research should investigate alternative models of curriculum pacing that promote learner-centred approaches and support differentiated instruction in under-resourced schools

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