Innovations in Pedagogy and Technology
https://journals.niepublish.com/ipt

ARTICLE

"I Don't Know How to Help Them": Teaching Reading Comprehension in a Teacher Education Programme in South Africa

Karan Vickers-Hulse [1*] **, *Jane Carter*** [1] **, *Tessa Podpadec*** [1] **, *Ben Knight*** [1] **, *Paul Matthews*** [1]**, *Pravina Pillay*** [2]**, *Jethro Gina*** [2] **, *Lindiwe Mthethwa*** [2]

[1] *School of Education and Childhood, University of the West of England, Bristol BS16 1QY, UK*

[2] *Department of Educational Foundations, University of Zululand, KwaDlangezwa 3886, South Africa*

ABSTRACT

Global data indicate that South Africa faces challenges in improving reading levels, including teacher shortages and outdated teacher education. This is especially prevalent in rural and township schools where teachers face the additional challenges of isolation, limited resources, and access to professional development. This research study piloted a simple, handheld mobile phone app developed by teams from two universities, one in KwaZulu-Natal, South Africa and the other in England. This collaborative project aimed to support in-service and pre-service teachers in rural and township settings to use the app to assess and match books to a learner's stage of reading development to facilitate their independent reading. The app also provides teachers with a range of strategies for teaching comprehension that could supplement other professional development available. Participants in their final year of a four-year teacher training course at a KwaZulu-Natal university engaged in questionnaires and focus groups as part of this mixed methods study. While pre-service teachers responded positively to the mobile app, results indicated that they lacked foundational knowledge in teaching reading, limiting the app's impact. The paper emphasises the need to strengthen reading instruction in teacher education and recommends ways educators can support pre-service teachers to effectively use digital resources.

Keywords: Reading Comprehension; Literacy; Teaching and Learning; Teacher Education

*CORRESPONDING AUTHOR:

Karan Vickers-Hulse, School of Education and Childhood, University of the West of England, Bristol BS16 1QY, UK; Email: karan.vickers-hulse@uwe.ac.uk

ARTICLE INFO

Received: 25 December 2025 | Revised: 1 July 2026 | Accepted: 8 July 2026 | Published Online: 15 July 2026
DOI: https://doi.org/10.63385/ipt.v2i3.100989

CITATION

Vickers-Hulse, K., Carter, J., Podpadec, T., et al., 2026. "I Don't Know How to Help Them": Teaching Reading Comprehension in a Teacher Education Programme in South Africa. Innovations in Pedagogy and Technology. 2(3): 100–110. DOI: https://doi.org/10.63385/ipt.v2i3.100989

COPYRIGHT

Copyright © 2026 by the author(s). Published by Nature and Information Engineering Publishing Sdn. Bhd. This is an open access article under the Creative Commons Attribution 4.0 International (CC BY 4.0) License (https://creativecommons.org/licenses/by/4.0).

1. Introduction

The goal of reading is to construct meaning, enabling individuals to read for both pleasure and purpose [1]. The ability to read with understanding is linked to academic achievement and wider social and economic opportunities [2]. In South Africa, persistent concerns about reading attainment highlight the scale of this challenge. Data from the Progress in International Reading Literacy Study (PIRLS) 2016, an international large-scale assessment that evaluates reading comprehension among primary school learners, indicate that 78% of learners are unable to read for comprehension in any language, including their home language, by the end of Grade 4 [3]. In South Africa, the study included a nationally representative sample of approximately 18,000 Grade 4 learners from a wide range of schools and linguistic contexts. Learners were assessed in the language used for instruction in the first three years of schooling, meaning that most learners completed the assessment in their home language where this aligned with the language of learning and teaching. Results indicated that 78% of Grade 4 learners did not reach this minimum benchmark by the end of the fourth year of schooling. This finding is particularly significant because South African curriculum policy expects learners to transition from "learning to read" in Grades 1–3 to "reading to learn" from Grade 4 onwards, making comprehension at this stage a critical foundation for subsequent learning across the curriculum. Without foundational comprehension skills, learners are significantly more likely to disengage from schooling and experience long-term educational disadvantage. Taylor et al. [4] note that language and literacy difficulties can have often-detrimental consequences, including lower educational attainment, reduced employment opportunities, social exclusion, and poorer health and quality-of-life outcomes.

Reading comprehension is a complex cognitive process that requires readers to draw on multiple strategies and adjust their thinking while reading [5–7]. The development of these skills depends in part on teachers' pedagogical knowledge and their ability to support learners in applying effective comprehension strategies [8]. However, research suggests that pre-service teacher education in South Africa does not always sufficiently prepare teachers for the realities of classroom practice, particularly in relation to teaching reading, and despite reading being a priority in the country since 2008, there has been little measurable impact on reading achievement [9]. This theory–practice gap is especially pronounced in rural and township schools where teachers often face limited access to structured reading resources. In response, a collaborative research team from the University of Zululand in KwaZulu-Natal (KZN) and the University of the West of England, United Kingdom (UK) developed a mobile phone application designed to support both in-service and pre-service teachers in teaching reading comprehension. The app aims to provide practical, accessible guidance for organising classroom reading materials and implementing evidence-informed pedagogical strategies. The app includes four key features.

1. A photo-text recognition tool analyses a photographed page and estimates its readability level by identifying words and applying a simple algorithm to approximate reading age.
2. Supports teachers in matching books to learners' reading development, combining reading level information with teachers' professional judgment about learners' needs and interests.
3. Provides guidance on pedagogical strategies for teaching comprehension, including activating prior knowledge, building vocabulary, questioning, visualising, making connections, summarising and monitoring comprehension during reading [1, 7], alongside approaches for developing fluency [10] and decoding.
4. Suggests 'next steps' for addressing common reading difficulties, supporting teachers in adapting instruction to learners' needs.

This paper presents initial findings from the evaluation of the app and examines how pre-service teachers at one university in KwaZulu-Natal are prepared to teach reading comprehension. The study contributes to existing research by exploring the potential of a low-cost digital tool to bridge the gap between theory and practice in teacher education within resource-constrained contexts.

1.1. Contextual Overview: Teacher Education in KwaZulu-Natal, South Africa

Learning to read plays a critical role in the development of learners, and the quality of the teaching of reading can significantly impact learners' reading abilities. In South Africa (SA) literacy rates are an enduring concern, with PIRLS

data in both 2016 and 2021 placing SA at the bottom out of 50 countries for levels of reading ability. Aitchison [11] challenges the notion that poverty is at the root of poor test results by stating that 25% of SA's people live in poverty yet 78% of learners cannot read. Research indicates that phonics instruction enhances reading outcomes, especially for struggling readers [12]. However, as revealed by the PIRLs data, SA has a reading crisis, suggesting pedagogic failures in the teaching of reading, both in the home language, and reading English as a Second Language (ESL) with understanding. In their training, pre-service teachers are introduced to the concept of multilingual education, which recognises the value of mother tongue instruction in reading acquisition [4]; however, the language of instruction in SA is English. Placement experience aims to allow pre-service teachers to observe effective teaching practices and gain insights into implementing reading strategies and is listed in curriculum documentation as a requisite skill [13]; however, due to the gaps in teacher training, there is no guarantee that the teaching they observe is high quality. Incorporating learners' home languages in reading instruction creates a positive attitude toward reading [14]; however, this is not always fostered during practical placements. In KZN, the teaching of reading is carried out using phonics-based and whole language approaches that are implemented through structured reading programmes, such as the South African Curriculum and Assessment Policy Statement (CAPS), which provides guidelines for literacy instruction [15]. Phonics-based approaches have proven to be effective in developing decoding skills and facilitating early reading proficiency [16]. However, syllabic instruction is seen to be more appropriate when learning to read in African languages. Most learners in SA learn to read in two languages simultaneously and can become confused by the two sets of letter-sounds [17] so while phonics instruction plays a role in developing foundational reading skills, it is important to develop comprehension at the same time. Immersion in print-rich environments alongside whole language approaches promotes the integration of decoding skills with meaning-making processes. However, limited access to high-quality reading resources and a lack of teacher education delay effective implementation of reading programmes. Furthermore, the presence of multiple languages creates additional complexities, as children must navigate different orthographic systems and language structures. Madikiza et al. [18] propose that to enhance reading instruction in KZN, a multifaceted approach is necessary. Providing pre-service teachers with evidence-based instructional strategies and investing in high-quality reading materials, including culturally relevant texts can foster a love for reading in pre-service teachers and their students to support the development of literacy skills. Meiklejohn et al. [19] assert that implementing collaborative programmes between schools, communities, and families can lead to an environment that values and promotes reading. Taylor et al. [4] state that weak language competence among pre-service teachers is attributed to the legacy of apartheid and teacher education during this era. This lack of foundational knowledge is compounded by inadequate training to teach reading. Pre-service teachers need to be taught how students learn to read and how this contributes to comprehension abilities; they also need pedagogical knowledge and the ability to apply comprehension strategies. Teaching reading for meaning is neglected in South African education systems and little formal comprehension instruction is taught in schools [20–22], implying that it has not been embedded in teacher education programmes. Nel [20] and Klapwijk [23] explored pre-service teachers' knowledge of the reading process and understanding of reading strategy instruction in SA and identified that few training programmes contained rigorous teaching of reading.

1.2. Contextual Overview: Using Technology to Support Reading Comprehension

The digital divide remains a concern in SA, as many schools lack access to technology and internet connectivity, limiting opportunities for blended or online learning. Research has provided evidence of the potential impact of technology and the role of technology in literacy acquisition and instruction, especially for primary grade learners. Klapwijk [23] refers to the notion of 'paired' literacy and proposes that through implementing blended learning for teaching learners how to use reading strategies, it will be possible to improve learners' general reading comprehension levels. This research involved developing a mobile phone application (app) to support the teaching of reading comprehension in rural schools that have limited resources. Teaching reading comprehension is a skilled activity and although data from the research demonstrate that the app, in its current form, does not impact on pre-service teachers' pedagogical

and subject knowledge for teaching reading comprehension, it does provide evidence of the foundations that need to be laid before the app can have an impact.

2. Materials and Methods

This study employed a mixed-methods design to examine pre-service teachers' knowledge of reading pedagogy and evaluate the usefulness of a mobile application to support the teaching of reading comprehension. The design combined quantitative questionnaire data with qualitative focus group data to provide an overview of participants' knowledge as well as insight into their experiences of using the app during professional placements in schools. The study was guided by a socio-cognitive perspective on reading, which conceptualises reading as both a cognitive and socially situated practice [6]. Participants were final-year pre-service teachers studying at the University of Zululand in KwaZulu-Natal, South Africa, who undertake professional placements in rural and township schools as part of their course, where resources to support reading instruction are often limited. The mobile application was developed to support in-service and pre-service teachers in organising classroom reading materials and implementing strategies for teaching reading comprehension. The pedagogical content of the app was informed by a systematic literature review of effective reading comprehension interventions in South Africa [24] and the technical development of the app was undertaken collaboratively by computer science students in the UK and SA, supported by an industry consultant.

Data were collected in stages:

1. A pre-intervention questionnaire was administered to establish participants' existing knowledge and confidence in teaching reading comprehension strategies. The questionnaire included closed-response items relating to familiarity with reading pedagogy and perceived preparedness for teaching reading.
2. The mobile application was introduced within a final-year professional practice module lecture. Participants were encouraged to use the app during their school placements to support planning and delivery of reading instruction.
3. A post-intervention questionnaire gathered feedback on participants' experiences of using the app, including its usability, perceived effectiveness, and the usefulness of specific features. To complement the survey data, semi-structured focus group discussions were conducted on campus to explore participants' experiences in greater depth, particularly how the app influenced their pedagogical understanding and classroom practice.

Quantitative questionnaire data were analysed using descriptive statistical analysis in SPSS and qualitative data from the focus group discussions were transcribed and analysed thematically using NVivo. The integration of quantitative and qualitative findings enabled triangulation, allowing patterns identified in the questionnaire responses to be explored further through qualitative focus group discussions. Steps were taken to strengthen the validity and trustworthiness of the data for example: questionnaires were developed based on existing literature on reading pedagogy and teacher knowledge and were reviewed by members of the research team in both South Africa and the United Kingdom to ensure clarity and contextual relevance. For the qualitative component, focus group discussions followed a semi-structured approach designed to ensure consistency across groups while allowing participants to give details of their experiences in schools and teaching reading. Participants in the focus group were provided with a range of children's literature as prompts for discussions on how easy they would be for children in their classes to read. Thematic analysis was conducted systematically, with transcripts reviewed by multiple members of the research team to further support reliability and validity. The mixed methods design also enabled triangulation between quantitative questionnaire findings and qualitative focus group data with patterns identified in the survey responses explored and contextualised through focus group accounts of experiences during professional placement.

Ethical Considerations

Ethical approval was obtained from both the University of the West of England and the University of Zululand. The study also recognised the importance of equitable international research partnerships and the potential power dynamics between Global North and Global South institutions. The project was therefore designed as a collaborative partnership led by the contextual expertise of the South African research team, to avoid what Cook (p. 16) [25] describes as

"contemporary forms of imperialism" in research practice.

3. Results

3.1. Questionnaire Findings

A total of 213 pre-app and 124 post-app questionnaires were completed by pre-service and in-service teachers. However, only 50 participants (30 in-service and 20 pre-service teachers) completed both questionnaires in a way that allowed responses to be matched for comparative analysis. The analysis of change in confidence over time therefore draws on the matched responses from these participants.

Table 1 presents the confidence levels reported by pre-service teachers (n = 20) before and after using the mobile application.

Table 1. Confidence level.

Confidence Level	Pre-App Questionnaire	Post-App Questionnaire
Very confident teaching reading comprehension	8	7
Confident teaching reading comprehension	11	13
A little confident teaching reading comprehension	1	0
Not confident teaching reading comprehension	0	—

The matched data did not demonstrate a clear increase in confidence in teaching reading comprehension following use of the app. However, the wider questionnaire dataset provided insight into pre-service teachers' perceived confidence and baseline knowledge of reading instruction. In the pre-app questionnaire, 35% of pre-service teachers reported that they themselves had learned to read primarily through copying teachers and using repetition. These approaches were reflected in their reported classroom practice, with 95% stating that they used similar techniques when teaching reading. While 59% of respondents reported that their experience of learning how to teach reading in English during teacher education had been good, the questionnaire responses also indicated variation in the range of strategies pre-service teachers reported using to support reading comprehension.

3.2. Focus Group Findings

Focus group discussions were held with final-year students from the University of Zululand and provided insight into pre-service teachers' experiences of teaching reading during their school placements. Five themes were identified through thematic analysis: confidence, visualisation and code-switching, lack of resources, vocabulary breadth and knowledge of learners, and teacher training.

- **Theme 1: Confidence**

While questionnaire data suggested relatively high levels of confidence, participants in the focus groups described uncertainty about their ability to support learners with reading difficulties. Some participants linked confidence to the use of visual supports and code-switching between English and isiZulu during comprehension lessons.

> "I feel very confident because whenever I do the comprehension there'll be pictures so they can be able to visualise everything that I teach them. And sometimes, since it's a Zulu school, I will teach them in English and then translate in Zulu for their better understanding".

Other participants expressed concerns about their preparedness to support learners who struggle with reading.

> "I don't feel confident, because maybe let's say in Grade 6, I have more than ten children who cannot read well, so it's hard for me to cater to each one of them. So, I don't know how I can help them. I can try but I know it will be not enough".

- **Theme 2: Visualisation and Code-Switching**

Participants described a range of challenges associated with teaching reading in contexts where English is not learners' home language. Code-switching between English and isiZulu was frequently reported as a strategy used to support comprehension. Participants also described the use of visual supports to aid understanding.

"Kids like visualising things, looking at pic-

> tures and creating a scene in their head. So, this one will be much easier for them."

Participants reported that visual cues were particularly helpful for learners who did not speak English at home.

> "I've experienced some challenges while teaching the learners comprehension because some of them, they were from families whereby they don't speak English at home, so you find that whenever you are reading them a text, some kids experience a lot of challenges. So, you must use visualisation or use pictures for them to have the clue or knowledge about what you are teaching them."

Code-switching was commonly described as a strategy to support learners' understanding of English texts.

> "I did code switch because I saw that if I didn't code switch many of them would be left behind because some of them, English to them is new ... but I tried to code switch whereby I made them understand."
>
> "So, we have to translate it into isiZulu because they need it in isiZulu, so I have to convert it into isiZulu, that can be hard."

One participant described teaching in a school where instruction was restricted to English, which limited the ability to translate.

> "Teachers only used one language as the medium of instruction. So, I had a problem, I had to spend a lot of time and use a lot of examples to explain it to them."

- **Theme 3: Lack of Resources**

Participants frequently described limited access to learning resources in schools, particularly in rural placements. These included shortages of books, dictionaries and internet access.

> "I was in the deep rural areas, so there was a lack of resources there ... even if I can say they must carry dictionaries, they don't have one ... so I must write on the chalkboard every definition that I come across. So, it was very difficult for me."

Participants also described how the absence of resources affected their ability to support learner progress.

> " ... if we don't have enough resources, ... then you may end up not doing anything. If I don't have the resource, I'll just stop and leave everything."

- **Theme 4: Vocabulary Breadth and Knowledge of Learners**

Participants identified vocabulary knowledge and learners' language exposure as factors influencing comprehension.

> "Some of them can't read and they can't spell."

Participants noted that exposure to reading outside school environments could influence vocabulary development.

> " … that child maybe is exposed to the library, he is using a dictionary, maybe while watching those soapies he or she practices reading the subtitles."
>
> "On words like that you will normally use dictionaries because you find that some learners, when they are familiar with that word, they don't know even how to pronounce it."

Participants also described challenges when texts included culturally unfamiliar concepts.

> "The way it was written, there were two sisters and these two sisters, they had children, and when these children addressed each other as cousins. When I teach them in our context, we are the Zulu people, we don't use that. So, the way it is written, it brings confusion to our South African learners, because it is written as if we are living overseas … it is not in our context as the African people."

Participants also described how culturally familiar concepts could support comprehension.

> "I was doing the one that's called the shepherd ... some of them grow up in rural areas, some of them grow up in churches, they've heard

> stories about Christmas, so they understand about the shepherd man. So ... they were able to participate more in that one."

- **Theme 5: Teacher Training**

Participants described limited preparation for teaching reading during their teacher education programmes. While they reported learning about reading, they indicated that they had received limited guidance on specific strategies to support learner development. Participants described relying on textbooks and dictionaries to support reading instruction.

> "In my school when we were doing comprehension, we always have a dictionary."

Participants also expressed concerns about entering the profession without sufficient preparation.

> "We have concerns as teachers. You can't go to the field with a lack of knowledge of some things that you're supposed to teach the children, so we have concerns."

Participants reported needing to develop teaching strategies independently during their placements.

4. Discussion

This study explored how teacher education prepares pre-service teachers to teach reading comprehension and whether a mobile application could support the development of their pedagogical knowledge. The discussion addresses the three research questions under thematic headings:

4.1. Teacher Education and Preparation to Teach Reading

The findings indicate that pre-service teachers reported relatively high levels of confidence in teaching reading in the questionnaire data yet focus group discussions revealed concerns about their ability to support learners who struggle with reading. This discrepancy may reflect the difference between perceived confidence and pedagogical knowledge. The focus group data suggest that teacher education programmes emphasised theoretical knowledge of reading but provided limited preparation in the practical strategies required to support reading comprehension. So, pre-service teachers were taught about phonology, for example, but not *how* to use phonics as a tool to support reading. Similar concerns have been identified in South African teacher education research; for example, Phillips and Condy [26] argue that teacher education programmes in South Africa often struggle to bridge the gap between theory and practice and pre-service teachers may be "learning about" teaching without sufficient opportunities to learn "how to" enact these practices in classrooms. Developing professional competence requires opportunities for practical engagement and identity formation as teachers. Teacher education should incorporate opportunities for pre-service teachers to apply theoretical knowledge in real classroom contexts through a process of developing practical wisdom.

4.2. The Role of the Mobile Application

Mobile learning technologies have been identified as tools that can support flexible and contextually responsive learning environments [27]. In this study, the app was introduced during professional placements to support pre-service teachers in organising texts and applying comprehension strategies. While some participants reported that the app had potential as a classroom resource, the data suggest that limited knowledge of reading pedagogy hindered its use. In the post-app questionnaire, 50% of respondents indicated that additional training would be needed to use the app effectively. This finding aligns with research suggesting that pre-service teachers require appropriate pedagogical and technological knowledge to integrate mobile technologies into their teaching practice [28]. Although mobile technologies have the potential to support collaborative and active learning environments for teachers [29], the findings indicate that such benefits are unlikely to be seen if teachers lack foundational pedagogical knowledge. Research on mobile learning integration in higher education suggests that further study is required to understand how such technologies can be effectively embedded in teacher education programmes [30].

4.3. Barriers to Teaching Reading

The study identified several contextual barriers affecting pre-service teachers' ability to support reading development. These included large class sizes, limited access to reading resources, and the challenges associated with teach-

ing in English when it is not the learners'home language. The findings also suggest that pre-service teachers relied heavily on strategies such as repetition, copying and dictionary use. Meeks et al.[31] found that many pre-service teachers report confidence in teaching reading despite limited metalinguistic knowledge, which is essential for effective teaching of reading. Evidence-based reading instruction is often insufficiently addressed within teacher education programmes[32] and teacher training programmes can fail to equip teachers with the knowledge required to teach reading effectively[33].

4.4. Limitations and Contribution

There were several limitations to this study, for example, only a subset of participants completed both pre- and post-questionnaires, limiting the ability to measure changes in confidence following use of the app. The study focused on pre-service teachers from a single institution, which may limit the generalisability of the findings, and, due to logistical and time constraints, there was no opportunity to observe sustained use of the app during classroom practice. However, despite these limitations, the study contributes to understanding the challenges faced by pre-service teachers teaching reading in rural and township schools in South Africa. The findings highlight the need for stronger integration of practical reading pedagogy within teacher education programmes and suggest that digital tools may support teacher development when embedded within broader pedagogical training.

4.5. Summary and Recommendations

The findings highlight a significant disparity between pre-service teachers' perceived confidence in teaching reading comprehension and their actual ability to do so. This mismatch suggests that pre-service teachers may lack awareness of the limitations of their own pedagogical knowledge, a finding that aligns with Meeks et al.[31]. These findings reinforce the need for teacher education models that more effectively integrate theory and practice and that support the development of "practical wisdom." These findings suggest that teacher education programmes should critically review whether their curricula sufficiently support pre-service teachers in 'learning to be (come)' teachers of reading. Wolfe[34] highlights the expertise required to weave together these multidimensional aspects of reading instruction and teacher education programmes must consider whether they are adequately equipping pre-service teachers with the pedagogical knowledge required, and where gaps do exist, this knowledge should be more explicitly embedded within programme design. Code-switching was frequently used as a strategy to bridge linguistic gaps, particularly in classrooms where learners' home languages differed from the language of instruction. As Bloch et al.[14] argue, integrating learners' home languages can contribute to more inclusive and effective learning environments; however, these findings highlight the need to explicitly prepare pre-service teachers for the linguistic and cultural complexity of the classrooms they will work in. The beneficial role of "culturally relevant pedagogy" is also clear: without the appropriate resources and knowledge to develop the home language in SA, the resulting benefits will not be forthcoming[35, 36]. The study also explored the potential of a mobile application designed to support reading comprehension instruction in rural and under-resourced classrooms. The app was developed to provide contextualised tools for text analysis, comprehension strategy instruction, and learner support. While pre-service teachers responded positively to the concept of the app, their limited pedagogical knowledge of reading constrained its potential classroom use. The findings therefore suggest that digital tools alone cannot compensate for gaps in foundational literacy pedagogy. Instead, mobile technologies should be integrated into teacher education as part of a broader, structured pedagogical framework. If embedded within programmes that explicitly teach decoding, fluency, and comprehension strategies across multilingual contexts, digital tools such as mobile apps may provide valuable support for pre-service teachers during professional practice. However, a solid foundation in comprehension is essential[37]. Without this pedagogical foundation, however, technological innovations risk remaining underutilised. Our findings point to two key priorities for future work:

1. Teacher education programmes must strengthen explicit instruction in how to teach reading and model strategies that support learners' reading comprehension.
2. Consider how mobile technologies can be integrated into teacher education programmes.

Participants reported limited exposure to mobile learn-

ing within their training, which constrained their ability to consider how such technologies might support teaching practice. Supporting teacher educators to integrate mobile learning into programmes, particularly in ways that respond to the realities of rural and township schools, represents an important area for further development.

5. Conclusions

This study examined pre-service teachers' preparedness to teach reading comprehension within the context of KwaZulu-Natal, South Africa. Reading instruction in this context typically draws on a combination of phonics-based approaches and whole language perspectives. While phonics instruction supports the development of decoding skills, whole language approaches emphasise meaning-making and comprehension. However, the effectiveness of these approaches is constrained by contextual challenges including limited teaching resources, linguistic diversity, and uneven teacher preparation.

The findings suggest that teacher education programmes do not consistently equip pre-service teachers with the pedagogical knowledge required to teach reading comprehension effectively. Consistent with Klapwijk's[23] findings, limited attention to explicit reading pedagogy within teacher education programmes contributes to gaps in teachers' instructional practice. As a result, pre-service teachers may complete their training without sufficient preparation to support learners in developing reading fluency and comprehension. These challenges have wider social implications. Reading competence is closely linked to educational attainment, employment opportunities, and broader patterns of social mobility in South Africa[38]. Strengthening the preparation of teachers to teach reading is therefore not only an educational priority but also a matter of social equity. Future research should examine the impact of structured reading pedagogy within teacher education programmes, particularly programmes that explicitly integrate theoretical knowledge, classroom practice, and the use of digital tools to support instruction. Longitudinal research that tracks the development of pre-service teachers' (confidence and competence in reading instruction, as well as the outcomes for the learners they subsequently teach, would provide valuable evidence to inform policy and programme design within teacher education in South Africa.

Author Contributions

Conceptualization, J.C., K.V.-H., B.K. and P.P.; methodology, J.C. and K.V.-H.; software, P.M.; validation, L.M., J.G. and P.P.; formal analysis, J.C., K.V.-H., B.K. and T.P.; investigation, J.C., K.V.-H. and J.G.; writing—original draft preparation, K.V.-H.; writing—review and editing, K.V.-H., J.C., P.P., T.P., J.G., B.K., P.M. and L.M.; project administration, J.C.; funding acquisition, J.C. All authors have read and agreed to the published version of the manuscript.

Funding

This work was supported by the British Academy Tackling Global Challenges award under grant TGC\6416658.

Institutional Review Board Statement

The study was conducted in accordance with the Declaration of Helsinki, and approved by the Research Ethics Committee of the University of the West of England (Approval code Ace:21-04-031 July 2021) and the University of Zululand (Approval code UZREC171110).

Informed Consent Statement

Informed consent was obtained from all subjects involved in the study.

Data Availability Statement

Data is unavailable due to privacy and ethical restrictions, whereby the identity of participants could be exposed.

Acknowledgments

Thank you to our participants for their time and support.

Conflicts of Interest

The authors declare no conflict of interest.

AI Use Statement

Microsoft Co-Pilot was used in the development of the reference list. The authors subsequently reviewed and edited the content as necessary and take full responsibility for the final content of the published article.

References

[1] Tennent, W., 2015. Understanding Reading Comprehension: Processes and Practices. Sage: London, UK. DOI: https://doi.org/10.4135/9781036235383

[2] Castles, A., Rastle, K., Nation, K., 2018. Ending the Reading Wars: Reading Acquisition from Novice to Expert. Psychological Science in the Public Interest. 19(1), 5–51. DOI: https://doi.org/10.1177/1529100618772271

[3] Howie, S.J., Combrinck, C., Roux, K., et al., 2017. PIRLS Literacy 2016: South African Highlights Report. Centre for Evaluation and Assessment: Pretoria, South Africa.

[4] Taylor, N., Fleisch, B., Shindler, J., 2008. Changes in Education Since 1994. Higher Education. 32, 3–5.

[5] Fatyela, V., Condy, J., Meda, L., et al., 2021. Improving Higher-Order Comprehension Skills of Grade 3 Learners in a Second Language at a Quintile 2 School in Cape Town, South Africa. Reading & Writing. 12(1). DOI: https://doi.org/10.4102/rw.v12i1.312

[6] Pretorius, E., Lephalala, M., 2011. Reading Comprehension in High-Poverty Schools: How Should It Be Taught, and How Well Does It Work? Per Linguam. 27(2), 1–24. DOI: https://doi.org/10.5785/27-2-105

[7] Duke, N., Cartwright, K., 2021. The Science of Reading Progresses: Communicating Advances beyond the Simple View of Reading. Reading Research Quarterly. 56(S1), S25–S44. DOI: https://doi.org/10.1002/rrq.411

[8] Cilliers, J., Fleisch, B., Kotze, J., et al., 2022. The Challenge of Sustaining Effective Teaching: Spillovers, Fade-Out, and the Cost-Effectiveness of Teacher Development Programs. Economics of Education Review. 87, 102215. DOI: https://doi.org/10.1016/j.econedurev.2021.102215

[9] Spaull, N., Taylor, S., 2022. Early Grade Reading and Mathematics Interventions in South Africa. Oxford University Press Southern Africa: Cape Town, South Africa.

[10] Kuhn, M., Schwanenflugel, P., Meisinger, E., 2010. Aligning Theory and Assessment of Reading Fluency: Automaticity, Prosody, and Definitions of Fluency. Reading Research Quarterly. 45(2), 230–251. DOI: https://doi.org/10.1598/RRQ.45.2.4

[11] Aitchison, G., 2018. Rights, Citizenship, and Political Struggle. European Journal of Political Theory. 17(1), 23–43. DOI: https://doi.org/10.1177/1474885115578052

[12] National Reading Panel, 2000. Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction. National Reading Panel: Bethesda, MD, USA. Available from: https://www.nichd.nih.gov/sites/default/files/publications/pubs/nrp/Documents/report.pdf

[13] Mahlomaholo, S., Makgato, M., 2018. Pre-service teachers' reflections on their reading instruction practices. South African Journal of Education. 38(3), 1–11.

[14] Bloch, C., Guzula, X., Nkence, N., 2012. Literacy learning in multilingual contexts: Engaging and transformative pedagogies in South Africa. In: Skutnabb-Kangas, T., Heugh, K. (Eds.). Multilingual Education and Sustainable Diversity Work: From Periphery to Center. Routledge: New York, NY, USA. pp. 97–118.

[15] Department of Basic Education, 2011. Curriculum and Assessment Policy Statement (CAPS). Department of Basic Education: Pretoria, South Africa. Available from: https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS).aspx

[16] Snow, C.E., Burns, M.S., Griffin, P., 1998. Preventing Reading Difficulties in Young Children. National Academies Press: Washington, DC, USA.

[17] Cronje, J., 1997. Interactive Internet: Using the Internet to Facilitate Co-Operative Distance Learning. South African Journal of Higher Education. 11(2). Available from: https://hdl.handle.net/10520/AJA10113487_624

[18] Madikiza, N., Cekiso, M.P., Tshotsho, B.P., et al., 2018. Analysing English First Additional Language Teachers' Understanding and Implementation of Reading Strategies. Reading & Writing: Journal of the Reading Association of South Africa. 9(1). Available from: https://rw.org.za/index.php/rw/article/view/170/416

[19] Meiklejohn, C., Westaway, L., Westawat, A., et al., 2021. A review of South African primary school literacy interventions from 2005 to 2020. South African Journal of Childhood Education. 11(1), a919. DOI: https://doi.org/10.4102/sajce.v11i1.919

[20] Nel, C., 2012. Classroom Assessment of Reading Comprehension: How Are Preservice Foundation Phase Teachers Being Prepared? Per Linguam. 27(2), 41–66. DOI: https://doi.org/10.5785/27-2-107

[21] Klapwijk, N.M., Van der Walt, C., 2011. Measuring Reading Strategy Knowledge Transfer: Motivation for Teachers to Implement Reading Strategy Instruction. Per Linguam. 27(2), 25–40. DOI: https://doi.org/10.5785/27-2-106

[22] Zimmerman, L., Smit, B., 2014. Profiling Classroom Reading Comprehension Development Practices from PIRLS 2006 in South Africa. South African Journal of Education. 34(3), 1–9. DOI: https://doi.org/10.15700/201409161101

[23] Klapwijk, N.M., 2012. Reading Strategy Instruction and Teacher Change: Implications for Teacher Training. South African Journal of Education. 32(2), 191–204. DOI: https://doi.org/10.15700/saje.v32n2a618

[24] Carter, J., Podpadec, T., Pillay, P., et al., 2023. A Systematic Review of the Effectiveness of Reading Comprehension Interventions in the South African Multilingual Context. Educational Research and Evaluation. 29(1–2), 69–103. DOI: https://doi.org/10.1080/13803611.2024.2314522

[25] Cook, B., 2008. Constructions and Experiences of International Volunteering: Blurred Boundaries and Unsettling Perspectives [PhD Thesis]. University of London: London, UK.

[26] Phillips, H.N., Condy, J., 2023. Pedagogical Dilemma in Teacher Education: Bridging the Theory–Practice Gap. South African Journal of Higher Education. 37(2), 201–217. DOI: https://doi.org/10.20853/37-2-4610

[27] Baran, E., Altan, T., Uygun, E., 2020. Usability Testing in Teacher Education: Exploring the Pedagogical Affordances of Mobile Apps with Pre-Service Teachers. In: Burden, K., Naylor, A. (Eds.). Transforming Teacher Education with Mobile Technologies. Bloomsbury Academic: London, UK. pp. 119–130. DOI: https://doi.org/10.5040/9781350095663.ch-006

[28] Baran, E., 2014. A Review of Research on Mobile Learning in Teacher Education. Journal of Educational Technology & Society. 17(4), 17–32.

[29] Townsend, B., 2015. Mob Learning: Digital Communities for Remote Aboriginal and Torres Strait Islander Tertiary Students. Journal of Economic and Social Policy. 17(2), 2.

[30] Krull, G., Duart, J., 2017. Research Trends in Mobile Learning in Higher Education: A Systematic Review of Articles (2011–2015). International Review of Research in Open and Distributed Learning. 18(7). DOI: https://doi.org/10.19173/irrodl.v18i7.2893

[31] Meeks, L., Stephenson, J., Kemp, C., et al., 2016. How Well Prepared Are Australian Preservice Teachers to Teach Early Reading Skills? A Systematic Review of the Literature. Australian Journal of Learning Difficulties. 21(2), 69–98. DOI: https://doi.org/10.1080/19404158.2017.1287103

[32] Greenberg, J., McKee, A., Walsh, K., 2014. Teacher Prep Review. National Council on Teacher Quality: Washington, DC, USA.

[33] Hanford, E., 2018. Hard Words: Why Aren't Kids Being Taught to Read? Available from: https://www.apmreports.org/episode/2018/09/10/hard-words-why-american-kids-arent-being-taught-to-read (cited 20 December 2025).

[34] Wolfe, S.C., 2015. Talking Policy into Practice: Probing the Debates around the Effective Teaching of Early Reading. Education. 43(5), 498–513. DOI: https://doi.org/10.1080/03004279.2013.828765

[35] Kelly, L.B., Wakefield, W., Caires-Hurley, J., et al., 2021. What is culturally informed literacy instruction? A review of research in P–5 contexts. Journal of Literacy Research. 53(1), 75–99. DOI: https://doi.org/10.1177/1086296X20986602

[36] Shelton, A., Hogan, E., Chow, J., et al., 2023. A synthesis of professional development targeting literacy instruction and intervention for English learners. Review of Educational Research. 93(1), 37–72. DOI: https://doi.org/10.3102/00346543221087718

[37] Elston, A., Tiba, C., Condy, J., 2022. The role of explicit teaching of reading comprehension strategies to an English as a second language learner. South African Journal of Childhood Education. 12(1), a1097. DOI: http://dx.doi.org/10.4102/sajce.v12i1.1097

[38] South African Human Rights Commission, 2021. The Right to Read and Write. South African Human Rights Commission: Cape Town, South Africa. Available from: https://www.sahrc.org.za/home/21/files/The%20Right%20To%20Read%20and%20Write%20Report%20(12%20Aug%202021).pdf