Measuring Teacher Resilience in the Global South

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Abstract

This study explores how a social connectedness intervention can inform knowledge on teacher resilience within the Global South, using the case of South African primary school teachers working in under-resourced settings. The primary objective of our research was to examine how an arts-based social connectedness intervention can inform knowledge on teacher resilience, particularly in contexts characterised by systemic inequality and adversity. The intervention, known as the *Isithebe* intervention, is grounded in the Relationship-Resourced Resilience (RRR) theory, which posits that resilience is enabled through interpersonal relationships and communal support. A quantitative approach was employed, using two structured questionnaires administered at two distinct time points: pre-intervention and post-intervention. Quantitative measurement included culturally adapted versions of the ENTRÉE teacher resilience and REPSSI social connectedness subscales, selected to capture shifts in key domains of teacher resilience and social connectedness while respecting local linguistic and literacy contexts. Results demonstrated significant improvements in both *teacher resilience* and *social connectedness*, particularly in trust and emotional regulation, suggesting that context-sensitive, culturally grounded interventions can effectively support teacher well-being. Rather than focusing on scale validation, the study contributes to the emerging body of research on relational resilience strategies in low- and middle-income countries and illustrates the utility of arts-based, community-centred interventions in strengthening teacher support systems.

Keywords

measurement, teacher resilience, social connectedness, Global South education, relationship-resourced resilience (RRR) theory

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The socio-economic landscape of South Africa presents complex and enduring challenges that directly impact teachers' motivation, well-being, and resilience. Although South Africa is classified as an upper-middle-income country, it remains one of the most unequal societies in the world, with a high Gini index and entrenched disparities that reflect structural inequality[1] [World Bank, 2018]. Education is a critical vehicle for addressing these inequities by equipping learners with the skills necessary to poverty. However, the education system remains under-resourced, shaped by the enduring legacy of apartheid and widespread socio-economic hardship [Francis, Webster, 2019]. Teachers in public schools, particularly in impoverished, peri-urban communities, contend with multiple systemic challenges, including overcrowded classrooms, poor infrastructure, disciplinary difficulties, extended workloads, and low learner achievement [Ebersöhn, Loots, 2017; OECD, 2019].

These circumstances necessitate contextually grounded interventions that are responsive to the lived realities of teachers in the Global South. Much of the research on *teacher resilience* has been generated in high-income contexts, such as Australia, Canada, Europe, and the United States [Beltman, Mansfield, Price, 2011; Gu, Day, 2013; Wosnitza et al., 2018]. Early studies in these regions focused on individual coping mechanisms to manage occupational stress, yet contemporary research increasingly conceptualises resilience as a dynamic, relational, and systemic process [Day, Gu, 2013; Ungar, 2012]. This evolving view is particularly salient in resource-constrained environments, where external support structures, such as collegial networks, effective leadership, and community engagement, play a vital role in enabling teachers to adapt positively [Coetzee, 2013; Mansfield, Beltman, Price, 2018; Ebersöhn, 2012; 2013; 2015; 2019].

Consequently, this study aims not simply to adapt measurement tools, but to respond to a broader research question: How can a social connectedness intervention with teachers in peri-urban primary schools in a challenged educational context inform knowledge on teacher resilience? In addressing this question, the study contributes to the body of knowledge on how social support mechanisms, particularly those rooted in local cultural values, can foster resilience among educators in the Global South. While adapted measurement tools were used to track changes, they served primarily as instruments to explore and capture contextually situated insights, not as standalone contributions to psychometric scale development.

[1] OECD: Income inequality: https://data.oecd.org/inequality/income-inequality.htm (accessed 07.09.2025).

The *Isithebe* social connectedness intervention

This study introduces the *Isithebe* social connectedness intervention as a culturally grounded response to the relational dimensions of teacher resilience, in alignment with the Relationship-Resourced Resilience (RRR) theory [Ebersöhn, 2013; 2019; 2021]. Rooted in Afrocentric epistemologies and the African philosophy of Ubuntu, which prioritise communal support and collective well-being [Koopman, Koopman, 2023], the intervention centres on strengthening interpersonal relationships among teachers. Informed by systemic models of resilience [Ungar, 2012], the intervention supports the idea that resilience is enabled not only by individual traits but also by social ecologies, including peer support and shared problem-solving [Ebersöhn, Loots, 2017].

Rather than aiming to validate new instruments, the primary goal of the study was to explore how a low-cost, culturally embedded intervention could enhance social connectedness, thereby advancing understanding of teacher resilience in a high-adversity context. The measurement tools common for this type of exploration — the *teacher resilience* questionnaire and the REPSSI *social connectedness* questionnaire — were adapted for cultural relevance. The *teacher resilience* questionnaire focuses on motivation, emotional regulation, and contextual competence, while the *social connectedness* questionnaire draws on OPHI's framework to assess internal indicators of belonging, trust, and relatedness [Bandeira, Mazibuko, 2017; Zavaleta, Samuel, Mills, 2014]. These tools were used not as the focal point of the study, but as means of generating empirical insight into how relational interventions impact resilience in the Global South.

The *Isithebe* intervention is symbolically named after the *isiZulu* word for a woven mat used in communal gatherings, reinforcing its focus on connection, mutual support, and community building. It is structured around a practical manual guiding monthly teacher gatherings, incorporating arts-based reflective activities designed to facilitate trust, empathy, and shared experience. A preparatory six-hour training session was conducted to introduce participants to the intervention toolkit and create a baseline of relational rapport [Ebersöhn et al., 2020]. These sessions established a safe and collaborative space for teachers to reflect on their lived experiences and co-create strategies for managing adversity.

By grounding the intervention in local culture and relational theory and using culturally relevant measurement tools to capture change, the study offers a novel contribution to resilience research in the Global South. The intervention serves as a prototype for future scalable approaches aimed at building supportive educational ecosystems in resource-constrained settings.

Sampling

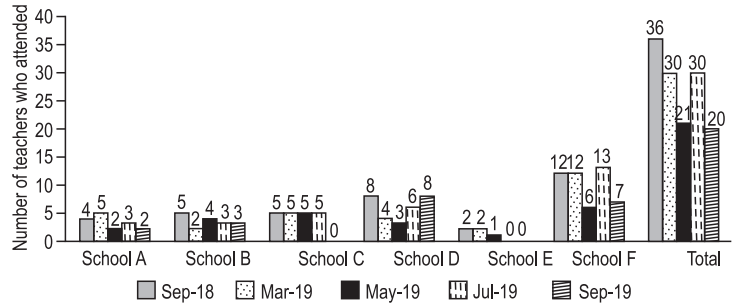
The study employed purposive sampling to select six public primary schools in the Nelson Mandela Metropole, chosen based on their so-

cio-economic challenges, and convenience sampling to recruit participating teachers from these schools. The schools were selected to reflect resource constraints typical of the Global South, characterised by high learner-to-teacher ratios and limited access to basic services. The teachers were recruited based on availability and willingness to participate, with selection criteria focusing on their ability to commit to the intervention. This approach ensured the inclusion of teachers who could engage meaningfully in the intervention, aligning with our research objectives[2].

Teacher participation and demographics

Thirty-six teachers participated in the initial pre-intervention data collection, with varying attendance throughout the intervention phases. A total of 22 teachers completed both pre- and post-intervention questionnaires, providing a robust sample for analysis. The average participant age was 49.46, mirroring national and international trends of an ageing teaching workforce [Versfeld, 2022]. The educational qualifications in the sample were consistent with national patterns, with most teachers holding a Diploma in Education and the rest having a Bachelor of Education degree.

Fig. 1. **Teacher attendance: Intervention implementation**



Out of the 36 teachers at the pre-intervention data collection, 30 participated in the intervention training, 21 did in the first teacher-researcher meeting, and 30 in the second. For the post-intervention, "20 teachers attended, of which 15 had been present at the pre-intervention. Seven teachers sent post-test questionnaires via email, constituting 22 completed pre- and post-test questionnaires.

[2] The studies involving humans were approved by the Faculty Committee for Research and Ethics at UP. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individuals for the publication of any potentially identifiable images or data included in this article.
The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Two teachers who were present at the pre-intervention data collection did not participate in the intervention, and five teachers who participated in the intervention were not present at the pre-intervention" [Versfeld, 2022. P. 100]. Figure 1 provides an overview of teacher attendance throughout the intervention.

Methodology

A quantitative approach was employed, using two structured questionnaires administered at two distinct time points: pre-intervention and post-intervention. Each questionnaire was designed to measure two key constructs, namely *teacher resilience* and *social connectedness*, using standardised scales to capture changes over time. This approach enabled a clear comparison of data collected before and after the intervention to assess its impact on these constructs.

The *teacher resilience* questionnaire included items drawn from several established scales, such as the FIT-Choice scale [Watt, Richardson, 2007], the ENTRÉE project [Peixoto et al., 2018], the BriTE (Building Resilience in Teacher Education) project [Mansfield, Beltman, Price, 2018], the FIRE (First-year Initial Teacher Education Resilience) project at the University of Pretoria [Coetzee, 2013], and an asset-based framework developed by Morgan [2011]. The second instrument used to assess *social connectedness* incorporated items from the Oxford Poverty and Human Development Initiative (OPHI) [Zavaleta, Samuel, Mills, 2017] and the REPSSI (Regional Psychosocial Support Initiative) scales [REPSSI, 2016]. While several scales defined the overall instrument design, the study focused specifically on the ENTRÉE and REPSSI scales due to their relevance to the intervention objectives and their established reliability in measuring *teacher resilience* and *social connectedness* within the context of the study.

Although a mixed-methods approach was used to produce the overall research design, this article focuses exclusively on the quantitative dimension, specifically to explore how existing measurement instruments can be adapted and applied in culturally and contextually diverse Global South settings. The aim was not to present the qualitative findings but rather to investigate how quantitative measurement tools, such as the ENTRÉE *teacher resilience* and REPSSI *social connectedness* subscales, can be sensitively adjusted and implemented in under-resourced educational environments.

The ENTRÉE teacher resilience questionnaire

The ENTRÉE instrument comprises eight scales that measure various domains of *teacher resilience* (TR). In this study, the *teacher resilience* questionnaire included items from seven of these scales: teacher professionalism (TR-Prof), teacher emotion (TR-Emot), teacher motivation (TR-Mot), sense of coherence (TR-Soc), self-efficacy (Resilience), teacher efficacy (TeachEff), and contextual factors [Ebersöhn

et al., 2020]. The participants completed this questionnaire both pre- and post-intervention to capture changes in these domains over the course of the intervention. The responses were recorded using the 7-point Likert scale: (i) Level of agreement, ranging from "Do not agree at all" (1) to "Strongly agree" (7), and (ii) Confidence levels, from "Absolutely Not Confident" (1) to "Strongly Confident" (7).

Each domain in the ENTRÉE instrument measures a specific aspect of resilience. For instance, TR-Prof assesses teachers' professional goals, commitment, organisational skills, and teaching competencies. TR-Emot focuses on elements crucial for resilience, such as enjoyment, humour, and emotional regulation [Ibid.]. TR-Mot includes aspects like optimism and intrinsic motivation [Peixoto et al., 2018], while TR-Soc refers to coping mechanisms for navigating challenges [Ibid.]. Self-efficacy relates to the capacity to recover from adversity, while TeachEff addresses confidence in classroom behaviour and effectiveness [Ibid.]. The contextual factors section evaluates the external and internal protective resources teachers utilise to adapt and overcome job challenges, including heavy workload, staffing issues, and disciplinary problems [Ebersöhn et al., 2020; Coetzee, 2013].

The REPSSI social connectedness questionnaire

The REPSSI *social connectedness* questionnaire, guided by OPHI's operational definition of social connectedness, was used to assess both external and internal dimensions of *social connectedness* and social isolation [Bandeira, Mazibuko, 2017]. The participants completed the questionnaire pre- and post-intervention to measure changes in their levels of *social connectedness*. This instrument draws on OPHI's framework, which highlights the significance of healthy relationships, respect, and freedom from humiliation, particularly in resource-limited environments. The questionnaire includes items based on research into social capital, social cohesion, and social exclusion, alongside psychological theories of loneliness [Zavaleta et al., 2014]. For this study, the external indicators measured aspects such as the frequency of social interactions, support from social networks, reciprocity, and volunteerism. The internal indicators assessed contentment with social relationships, the need for relatedness, feelings of belonging, loneliness, and trust. Specific items were selected and adapted to measure internal *social connectedness*, categorised into sub-dimensions such as "Building Relationships", "Need for Relatedness", "Belonging vs Loneliness/Isolation", and "Trust".

While the conceptual foundation of the REPSSI *social connectedness* questionnaire is appropriate for use in Global South contexts [Versfeld, 2022], its technical psychometric properties are still under development, as the instrument lacks a published technical manual and does not yet provide formal reliability or validity coefficients. However, for the purposes of this exploratory study, internal consistency of the

adapted internal *social connectedness* subscales was tested and found to be acceptable, with Cronbach's alpha values ranging from 0.683 to 0.710. This level of reliability aligns with thresholds considered acceptable for exploratory social science research [Daud et al., 2018], and justifies using the tool within this specific intervention context.

The quantitative analysis focused on the 22 teachers who completed the ENTRÉE *teacher resilience* scale at both pre- and post-intervention time points, allowing for matched comparisons of change over time. 14 responses were excluded from the analysis due to missing post-intervention data, thereby ensuring consistency and accuracy in the statistical comparisons. As is common in school-based intervention research, participant retention was affected by systemic and logistical constraints [Zimmerman, 2018]. Although 36 teachers completed baseline measures, only 22 submitted post-intervention assessments, with attrition likely due to professional demands, transport difficulties, or scheduling conflicts—barriers frequently reported in similar studies [Ebersöhn, 2019].

To assess the reliability of both instruments, Cronbach's alpha was used, and values above 0.6 were considered acceptable [Daud et al., 2018]. Construct validity was evaluated through Spearman correlation coefficients. Convergent validity was supported where items within the same subscale showed stronger inter-item correlations, while discriminant validity was indicated by weaker correlations between items across different subscales. Although detailed correlation matrices are not shown due to space constraints, the observed pattern supported construct validity for both the ENTRÉE and REPSSI instruments, with Cronbach's alpha ranging from 0.636 to 0.893 (ENTRÉE) and from 0.683 to 0.710 (REPSSI).

Table 1 Provides a description and example items for both quantitative measures used in the current study.

Table 1. **Description and example items for the quantitative instruments**

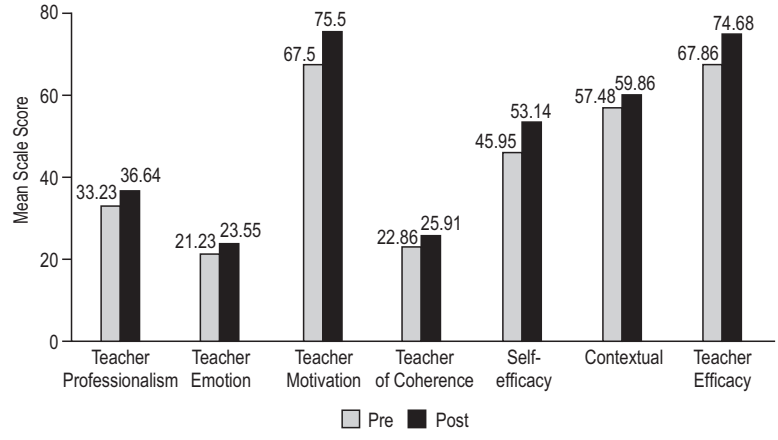
Subscale	Description	Example item
Adapted ENTRÉE measure		
TR-Prof	Comprises organisational and teaching abilities, professional objectives and dedication	"I am well organised in my school work"
TR-Emot	Encompasses key elements essential for resilience, such as emotional regulation, humour and enjoyment	"After reflection, I can usually find the funny side of challenging school situations"
TR-Mot	Merges optimism and intrinsic motivation	"It's important to me that I put in effort to do my job well"
TR-Soc	Describes the coping strategies teachers utilise to understand and navigate challenging circumstances	"In my work, I can look at a situation in a number of ways to find a solution"

Subscale	Description	Example item
TeachEff	Evaluates the beliefs of educators regarding their behaviour and capabilities in the field of education	"My objective is to help children focus on learning tasks and avoid distractions"
Resilience	Describes teachers' capacity to bounce back when confronted with difficulties and a set of skills that are employed to manage adversity	"Not getting disheartened is essential for me even when children's circumstances make it difficult"
Contextual factors	Assesses the factors that maintain teachers in their profession, including the ability to instill hope in learners, demonstrate empathy, maintain a positive attitude, and take inspiration from their spirituality	"I want to be a teacher who instils hope in learners even in the face of many obstacles"
Adapted REPSSI SC measure		
Building relationships	Evaluates the perceived ability to form and maintain connections with others	"I am skilled in building relationships for the community"
Social support	Relatedness with a variety of members of one's community	"I get along well with people I come into contact with"
Social isolation	Questions regarding loneliness as opposed to a sense of belonging	"I feel that no one really knows me"
Trust	Measures the extent to which others in the community are perceived to be trustworthy	"Are there people in your community worth trusting"

Quantitative results

Figure 2 presents the mean scale scores for *teacher resilience* pre- and post-intervention and indicates initial high pre-intervention *teacher resilience* levels for in-service teachers from the six primary schools challenged by severe deprivation[3]. Thus, the pre-intervention scores for *teacher resilience* of the teachers in the sample were high across all seven scales.

Fig. 2. **Teacher resilience pre- and post-intervention: mean scale score comparison**



[3] The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

The pre- and post-intervention *teacher resilience* responses were compared using the Wilcoxon Signed-Rank Test (WSR) test for the 22 participants who completed the questionnaire at both time points (see Table 2).

Table 2. **Results of WSR tests for teacher resilience**

n = 22	Mean (SD)	WSR test		
Scale	Pre	Post	Test statistic	*p*-Value
Teacher professionalism	33.23 (3.518)	36.65 (3.619)	−3.510	.001*
Teacher emotion	21.23 (2.581)	23.55 (3.622)	−2.136	.033*
Teacher motivation	67.50 (6.906)	75.50 (6.731)	−3.281	.001*
Teacher sense of cohesion	22.86 (2.678)	25.91 (1.659)	−3.699	.001*
Self-efficacy	55.95 (5.925)	53.15 (7.778)	−3.056	.002*
Contextual	57.58 (10.352)	59.86 (6.552)	−1.165	.255
Teacher efficacy	67.86 (7.530)	75.68 (12.255)	−2.777	.005*

* Statistically significant ($p < 0.05$).

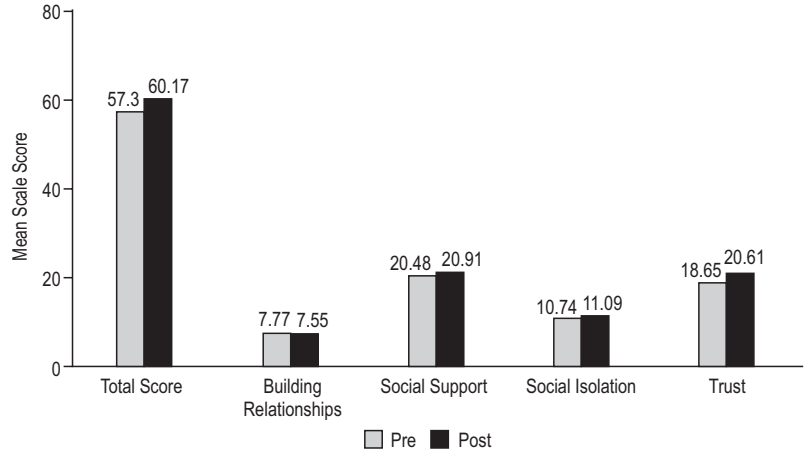
From Table 2, the *p*-values of the WSR test for all scales except for the contextual one are less than 0.05, indicating a significant difference between the pre- and post-test scores for these scales. To investigate which score (the pre- or post-test) was higher, the means are considered, and for all scales with a significant difference, the scores of the post-test score are higher, except for the self-efficacy scale, where it is lower.

Figure 3, presenting the composite scale scores for social connectedness pre- and post-intervention scores, indicated initial high pre-intervention *social connectedness* levels for in-service teachers from the six primary schools challenged by severe deprivation. Thus, the pre-intervention scores for *social connectedness* of the teachers in the sample were high across all four scales: building relationships, social support, social isolation, and trust.

The pre- and post-intervention *social connectedness* responses were compared using the WSR test for the 22 participants who completed the questionnaire at both time points (see Table 3).

Table 3 shows significant differences between the SC pre- and the post-test for the overall score as well as the Trust scale, where both scores are significantly higher for post-intervention. The significant differences between the social connectedness pre- and the post-test for the overall score and total Scale 4 (Trust) are apparent in figure 3, showing the mean scores. This confirms the findings from the WSR test that for total Scales 1, 2 and 3, there are no significant diffe-

Fig. 3. **Social connectedness pre- and post-intervention: mean scale scores comparison**



rences in pre- and post-test SC results. The pre- and post-test mean scores are the total scores of the items they comprise for the *social connectedness* measure. Figure 3 displays the mean scores of pre- and post-test *social connectedness* scale scores.

Table 3. **Results of WSR tests for social connectedness**

	Mean (SD)		WSR test	
n = 22	Pre	Post	Test statistic	*p*-Value
Total score	57.30 (3.350)	60.17 (3.243)	−3.377	.001*
Building Relationships	7.77 (0.528)	7.55 (1.405)	−0.425	.671
Need for Relatedness	20.48 (1.275)	20.91 (1.443)	−1.092	.275
Belonging vs Loneliness (social isolation)	10.74 (1.096)	11.09 (1.125)	−1.248	.212
Trust	18.65 (1.748)	20.61 (1.971)	−3.137	.002*

* Statistically significant ($p < 0.05$)

Discussion: Measuring teacher resilience and social connectedness in Africa

The current study significantly advances the understanding of quantitative measurement within the African context, focusing particularly on *teacher resilience*. The integration of the *Isithebe* intervention, which is rooted in Afrocentric principles, effectively addresses the socio-cultural, economic, and infrastructural challenges that are prevalent in the Global South [De Gouveia, Ebersöhn, 2019]. Such challenges have historically constrained the applicability and efficacy of conventional research tools (often designed in the Global North) in capturing the nuanced realities of African settings [Ebersöhn,

2019; Theron, 2016]. This highlights a critical need for culturally sensitive methodologies that incorporate local knowledge systems and community practices, ensuring that data collection methods resonate with participants' lived experiences and contextual realities [Gu, Day, 2013; Mansfield, Beltman, Price, 2018; Ungar, 2012].

One of the most pressing issues when conducting research in the Global South is making sure that measurement tools are both culturally sensitive and contextually relevant. Standardised instruments, typically developed within Western contexts, may fail to resonate with African participants due to substantial differences in cultural norms, languages, and socio-economic conditions [De Gouveia, Ebersöhn, 2019]. This inconsistency can lead to misinterpretations, potentially resulting in inaccurate data and undermining the validity of research findings. In Africa, the diversity of languages and dialects, alongside varying literacy levels, makes the translation and adaptation of survey instruments essential for accurate data collection [Cohen, Manion, Morrison, 2018; Salimi, Bozorgpour, 2012]. Additionally, socio-economic realities, such as limited access to technology and infrastructure, further complicate the implementation of conventional research methodologies, necessitating innovative, contextually appropriate solutions [Francis, Webster, 2019].

The current study effectively overcame these challenges by adopting a culturally sensitive and contextually relevant approach to measuring TR. The *Isithebe* intervention illustrates how integrating local cultural practices and values, such as the Ubuntu philosophy, can enhance the relevance and effectiveness of research tools. By adapting the ENTRÉE and REPSSI subscales to reflect local literacy levels and incorporating Afrocentric concepts of community and interconnectedness, the study ensured that the instruments were both accessible and meaningful to the participants [Ebersöhn et al., 2020; Bandeira, Mazibuko, 2017]. This approach underscores the importance of collaboration with local researchers and stakeholders, which is crucial for developing culturally appropriate terminologies and concepts, thereby fostering a sense of ownership and trust among participants [Theron, 2016; Ebersöhn, 2019].

The inclusion of local educators in the design and implementation phases of the *Isithebe* intervention was a critical factor in its success as it built rapport and trust essential for meaningful data collection and effective intervention outcomes [Gu, Day, 2013].This aligns with broader insights that emphasise the value of participatory research methods, which not only enhance the accuracy and relevance of the findings but also empower local communities by involving them directly in the research process [Busza, 2004; Plano Clark, Ivankova, 2016].

Due to the small of the study sample, methodological flexibility was essential, leading to the adoption of non-parametric statistical methods, such as the WSR test. These methods are particularly appro-

priate for handling the non-normal distribution of data typically present in small, heterogeneous samples, as is often the case in African educational contexts [Gravetter, Forzano, 2018]. By employing statistical techniques that accommodate the inherent variability and unique characteristics of the data, the study avoids the risks associated with assuming a normal distribution, which may not be applicable in diverse and complex settings, such as those found in South African schools. This methodological adaptability is crucial for guaranteeing the accuracy and reliability of research findings in the Global South [Ebersöhn et al., 2020].

Findings from the current study underscore the need for ongoing innovation in the development and application of quantitative research methods in Africa. Future research should continue to refine measurement tools to reflect the continent's diverse cultural, linguistic, and socio-economic contexts. Culturally sensitive and contextually relevant methodologies not only generate more accurate and meaningful data but also inform policy and practice, ultimately supporting educators and improving educational outcomes in Africa [Theron, 2016; Mansfield, Beltman, Price, 2018].

Moreover, this study highlights the potential of low-cost, scalable interventions that utilise existing social and cultural resources to foster resilience. In resource-constrained settings, leveraging local cultural values and community networks can be a powerful strategy for supporting educators and, by extension, the entire educational system [Mlachila, Moeletsi, 2019]. The success of the *Isithebe* intervention demonstrates that meaningful teacher support and development can be achieved without the need for extensive external resources, which are often limited in the Global South.

By adapting existing tools and incorporating local cultural practices, this research has successfully navigated many of the challenges associated with quantitative research in Africa. The study provides a robust model for future research, illustrating that when local cultural and contextual realities are integrated into research design, it is possible to gather meaningful, actionable data that can shapepolicy and practice to support TR and enhance educational quality in challenging environments [Ebersöhn et al., 2020; De Gouveia, Ebersöhn, 2019; Theron, 2016]. This research not only contributes to the academic understanding of teacher resilience but also offers practical insights into designing educational interventions that meet the specific needs of teachers in the Global South, thereby supporting sustainable development and improving educational outcomes

Limitations

The limitations of this study include several methodological and contextual issues, such as the reliability concerns associated with the REPSSI *social connectedness* questionnaire, a small sample size,

the absence of a control group, demographic constraints, the potential for overly optimistic reporting, and possible language comprehension challenges.

Although both questionnaires used in the current research showed acceptable reliability ($\alpha > 0.6$), the REPSSI questionnaire presented some challenges concerning reliability. Notably, Scale 6 of the REPSSI questionnaire contained only a single item, which precluded meaningful statistical analysis. Furthermore, numerous responses to the external *social connectedness* items in the REPSSI questionnaire were invalid, as participants provided qualitative descriptions (e.g., "More than one" or "More than I can count") rather than numerical values. These inconsistencies prevented statistical analysis of these questions, thus excluding a discussion on external *social connectedness* domains from the study [Bandeira, Mazibuko, 2017].

The REPSSI questionnaire lacks a published technical manual, nor does it include documented reliability or validity coefficients. However, it was piloted in 2017 as part of a SC study involving care workers in challenging environments in Swaziland, establishing a foundational framework for future research [Ibid.]. Since the above study and ours were conducted in similarly resource-constrained settings, there is a degree of transferability between the two, offering opportunities for comparative analysis to assess the reliability and validity of the SC scale. Nonetheless, the lack of established reliability and validity for the REPSSI questionnaire requires careful interpretation of the findings to ensure the rigour of the research is upheld.

The sample size ($n = 22$) is also a significant limitation, as it is inadequate for robust internal validity analysis; meaningful factor analysis typically requires a sample of at least 100 participants [Gravetter, Forzano, 2018]. Additionally, logistical challenges and personal or professional responsibilities resulted in fluctuating attendance at various stages of data collection. While 36 teachers participated in the pre-intervention phase, attendance varied significantly during subsequent phases, with only 22 teachers completing both pre- and post-intervention questionnaires. This variation in attendance could be attributed to such factors as personal commitments, the demanding nature of teachers' professional responsibilities, logistical difficulties in reaching *Isithebe* meetings, and health-related absences [Zimmerman, 2018].

The lack of a control group further limits the findings. While intervention design principles initially proposed that at least one school opt out of the intervention phase to serve as a control group, all schools participated in the intervention, resulting in a lack of comparison group. This absence restricts the ability to draw causal inferences regarding the impact of the intervention, limiting both in-case analysis and the generalisability of the findings [Gravetter, Forzano, 2018]. Consequently, the external validity of the study is constrained. This point, combined with the fact that non-probability purposive and

convenience sampling were used, limits the generalisability of the results to public, peri-urban primary school teachers from Quintile 3 schools in resource-constrained urban areas of the Nelson Mandela Municipality, EC, South Africa. The demographic profile, predominantly female and over the age of 40, further limits the applicability of findings to other contexts and populations.

While the generalisability of the study is restricted, the transferability of its insights is valuable for understanding, measuring, and describing the impact of social connectedness on teacher resilience in primary schools within highly specific challenging contexts. The results can be compared to similar settings, such as peri-urban primary schools in resource-constrained environments, but are not applicable to male teachers, high school or pre-primary teachers, or those working in well-resourced schools or different cultural and ethnic backgrounds.

The high baseline scores for *teacher resilience* and *social connectedness* observed in both pre- and post-intervention assessments may be indicative of culturally salient epistemologies aligned with interdependent worldviews, such as those rooted in Afrocentric Indigenous Knowledge Systems. However, these high scores may also be influenced by the Dunning-Kruger effect, a cognitive bias where individuals with limited ability overestimate their competence [Dunning, 2011]. Previous studies have highlighted challenges in working with teacher questionnaire data, citing evidence of overly optimistic reporting and statistically implausible responses [Zimmerman, 2018]. Such responses could reflect misunderstandings of questionnaire items or a tendency towards social desirability, where teachers aim to present themselves positively.

Recommendations

This study highlights the essential role that social connectedness and supportive relationships play in enhancing teacher resilience across various domains. Contemporary research on resilience underscores the dynamic relationship between individual traits and external ecological factors that contribute to resilience-building. While personal characteristics, such as motivation and emotional regulation, are crucial, they are significantly strengthened by interpersonal protective resources within broader ecological contexts. Interventions like *Isithebe* offer a vital opportunity to bring attention to and enhance these interpersonal protective resources, especially in high-risk, resource-constrained environments. Social connectedness, in particular, emerged as a pivotal protective resource, enabling teachers to cope with the severe chronic challenges they face regarding their well-being and job performance in such deprived settings. Consequently, it is recommended that similar interventions be introduced in other challenging environments to bolster teacher well-being and resilience.

Moreover, fostering school communities that nurture trust, connection, and a sense of belonging among teachers and students is likely to improve teacher resilience. Creating an environment where teachers feel valued and supported can mitigate the negative impact of stressors, enhancing their ability to cope with adversity. Therefore, developing social cohesion within schools can be instrumental in reinforcing teachers' capacity to handle the demands of their profession effectively.

The limited sample size of 36 (pre-intervention) and 22 (post-intervention) is a constraint of the current study. Future research should aim to involve larger samples, so that more robust evidence of the benefits of social connectedness interventions in resource-challenged environments could be provided. Expanding the participant pool would improve the generalisability of the findings and offer a clearer understanding of intervention effectiveness. Additionally, as the current research predominantly included female participants, future studies should seek to include more male teachers to achieve a more comprehensive and balanced perspective on teacher resilience across genders.

Furthermore, it is recommended that future research involve schools from various socio-economic quintiles to explore the potential influence of socio-economic status on social connectedness and resilience among teachers. A comparative analysis of schools from different socio-economic backgrounds could provide valuable insights into how resource availability impacts teacher well-being and coping strategies. Replicating this study in diverse geographic locations, such as other provinces in South Africa or rural schools, would also be beneficial. This would help establish the external validity of the findings and deepen the understanding of how contextual factors, such as rural versus urban settings, affect outcomes.

In terms of the REPSSI questionnaire, there is a need for further refinement and validation. It is recommended that future studies conduct factor analyses using larger samples to better establish the construct validity of the questionnaire and guide its future revisions. This would increase potential accuracy of measurement when assessing social connectedness across different contexts. Additionally, the inclusion of questions on external social connectedness, which were excluded from this study due to inconsistent responses, should be revisited. Revising these questions and incorporating them into future research would offer a more comprehensive understanding of social connectedness as it pertains to teacher resilience.

By addressing these recommendations, future research could provide more nuanced insights into the impact of social connectedness interventions and help refine tools like the REPSSI questionnaire for broader application. This would ultimately contribute to the development of more effective interventions aimed at enhancing teacher

resilience in challenging environments [Bandeira, Mazibuko, 2017]. To improve the sustainability of the *Isithebe* intervention, teachers should be empowered to implement social connectedness initiatives independently, making them champions of these projects without the need for external researcher intervention. Establishing a routine of deliberate social connectedness activities among teachers, beyond formal school meetings, can enhance relationship-building and support structures. The *Isithebe* intervention should continue to integrate Indigenous Knowledge Systems, recognising the value of relationships and social connectedness for well-being, particularly in challenged environments.

Conclusion

The current study highlights the importance of culturally sensitive and contextually relevant quantitative methodologies in understanding teacher resilience in the Global South. By implementing the *Isithebe* intervention, which leverages Afrocentric principles and arts-based activities, the research successfully enhanced teacher resilience and social connectedness among South African primary school educators. The significant improvements in resilience and trust underscore the potential of integrating local cultural practices into educational interventions to support teacher well-being. The findings demonstrate the effectiveness of non-parametric statistical methods, such as the WSR test, in handling the complexities of data from heterogeneous, small-sample educational settings.

The current study advocates for ongoing innovation in developing research tools that reflect the diverse cultural, linguistic, and socio-economic contexts found across the Global South. By addressing the socio-cultural and economic disparities inherent in such regions, future research can continue to build on these findings, ultimately contributing to improved educational outcomes and sustainable development.

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References

Bandeira M., Mazibuko M. (2017) *Report on the Impact of the Social Connectedness Project: Swaziland*. Regional Psychosocial Support Initiative.

Beltman S., Mansfield C.F., Price A. (2011) Thriving Not Just Surviving: A Review of Research on Teacher Resilience. *Educational Research Review,* vol. 6, no 3, pp. 185–207. https://doi.org/10.1016/j.edurev.2011.09.001

Busza J. (2004) Participatory Research in Constrained Settings: Sharing Challenges from Cambodia. *Action Research,* vol. 2, no 2, pp. 191–208. https://doi.org/10.1177/1476750304043724

Coetzee S. (2013) *Sustaining Teacher Career Resilience in a Resource-Constrained Rural Education Setting: A retrospective Study* (PhD Thesis), Pretoria: University of Pretoria.

Cohen L., Manion L., Morrison K. (2018) *Research Methods in Education*. New York, NY: Routledge.

De Gouveia J., Ebersöhn L. (2019) Well-Being as Positive Outcome of a Social Connectedness Pathway to Resilience: An Indigenous Psychology Perspective. *Handbook of Quality of Life in African Societies* (ed. I. Eloff), Cham: Springer, pp. 71–95. https://doi.org/10.1007/978-3-030-15367-0

Daud K.A.M., Khidzir N.Z., Ismail A.R., Abdullah F.A. (2018) Validity and Reliability of Instrument to Measure Social Media Skills among Small and Medium Entrepreneurs at Pengkalan Datu River. *International Journal of Development and sustainability*, vol. 7, no 3, pp. 1026–1037.

Day C., Gu Q. (2013) *Resilient Teachers, Resilient Schools: Building and Sustaining Quality in Testing Times.* London: Routledge. https://doi.org/10.4324/9780203578490

Dunning D. (2011) The Dunning — Kruger Effect: On Being Ignorant of One's Own Ignorance. *Advances in Experimental Social Psychology,* vol. 44, pp. 247–296. https://doi.org/10.1016/B978-0-12-385522-0.00005-6

Ebersöhn L. (2021) *Disaster Triggers Solidarity Rather Than Disruption among South Africans.* Available at: https://www.up.ac.za/research-matters/news/post_3019187-disaster-triggers-solidarity-rather-than-disruption-among-south-africans (accessed 15.09.2025).

Ebersöhn L. (2019) *Resilience as an Indigenous Theory of Change in South African Schools*. Springer. https://doi.org/10.1007/978-3-030-16340-2

Ebersöhn L. (2015) School-Based Resilience Interventions: Addressing the Needs of At-Risk Children in South Africa. *Youth Resilience and Culture: Commonalities and Complexities* (eds L.C. Theron, L. Liebenberg, M. Ungar), Dordrecht: Springer, pp. 231–242.

Ebersöhn L. (2013) *Flocking Together: An Indigenous Psychology Theory of Resilience in Southern Africa*. Cham: Springer. https://doi.org/10.1007/978-3-030-16435-5

Ebersöhn L. (2012) Adding 'Flock' to 'Fight and Flight': A Honeycomb of Resilience Where Supply of Relationships Meets Demand for Support. *Journal of Psychology in Africa,* vol. 22, no 1, pp. 29–42. http://dx.doi.org/10.1080/14330237.2012.10874518

Ebersöhn L., Ferreira R., Graham M.A., Versfeld J., Bosch Z., Seaworyeh I., Tomlinson J. (2020) *The Isithebe Social Connectedness Intervention Study. Report Prepared for the Synergos Institute.* Pretoria: Centre for the Study of Resilience, University of Pretoria.

Ebersöhn L., Loots T. (2017) Teacher Agency in Challenged Contexts as a Consequence of Social Support and Resource Management. *International Journal of Educational Development,* vol. 53, March, pp. 80–91. http://dx.doi.org/10.1016/j.ijedudev.2016.11.005

Francis D., Webster E. (2019) Poverty and Inequality in South Africa: Critical Reflections. *Development Southern Africa,* vol. 36, no 6, pp. 788–802. https://doi.org/10.1080/0376835X.2019.1666703

Gu Q., Day C. (2013) Challenges to Teacher Resilience: Conditions Count. *British Educational Research Journal,* vol. 39, no 1, pp. 22–44. http://dx.doi.org/10.1080/01411926.2011.623152

Gravetter F.J., Forzano L.B. (2018) *Research Methods for the Behavioral Sciences*. Belmont, CA: Wadsworth Cenage Learning.

Koopman O., Koopman K.J. (2023) Towards a Decolonising Philosophy for Pedagogy: The Ubuntu-Conscious Educator. *Decolonizing the South African University. Towards Curriculum as Self Authentication* (eds O. Koopman, K.J. Koopman), Cham: Palgrave Macmillan, pp. 107–138. https://doi.org/10.1007/978-3-031-31237-3_5

Mansfield C.F., Beltman S., Price A. (2018) Resilience and Motivation in Teacher Education: The Role of Personal Characteristics and Social Support. *Australian*

Journal of Teacher Education, vol. 43, no 6, pp. 55–71. https://doi.org/10.14221/ajte.2018v43n6.4

Mlachila M.M., Moeletsi T. (2019) *Struggling to Make the Grade: A Review of the Causes and Consequences of the Weak Outcomes of South Africa's Education System*. *IMF Working Paper no WP/2019/47*. https://doi.org/10.5089/9781498301374.001

Morgan M. (2011) Resilience and Recurring Adverse Events: Testing an Assets-Based Model of Beginning Teachers' Experiences. *The Irish Journal of Psychology*, vol. 32, no 3–4, pp. 92–104. https://doi.org/10.1080/03033910.2011.613189

OECD (2022) The OECD: Better Policies for Better Lives: Who We Are. Paris: OECD. Available at: https://www.oecd.org/about/?_ga=2.257599307.1503921876.1643532558-664198298.1643532558 (accessed 08.09.2025).

OECD (2019) *TALIS 2018 Results (vol. 1): Teachers and School Leaders as Lifelong Learners*. Paris: OECD. https://doi.org/10.1787/1d0bc92a-en

Peixoto F., Wosnitza M., Pipa J., Morgan M., Cefai C. (2018) A Multidimensional View on Pre-service Teacher Resilience in Germany, Ireland, Malta and Portugal. *Resilience in Education: Concepts, Contexts and Connections* (eds M. Wosnitza, F. Peixoto, S. Beltman, C.F. Mansfield), Cham: Springer, pp. 73–89. https://doi.org/10.1007/978-3-319-76690-4

Plano Clark V.L., Ivankova N.V. (2016) Mixed Methods Research: A Guide to the Field. Thousand Oaks, CA: Sage. https://docs.edtechhub.org/lib/VBAN9UA4

REPSSI (2016) *Social Connectedness Framework: Measuring Social Connectedness for Development and Well-Being*. Regional Psychosocial Support Initiative.

Salimi A., Bozorgpour F. (2012) Loneliness, Social Support and Internet Addiction in College Students. *World Applied Sciences Journal,* vol. 17, no 2, pp. 189–195.

Theron L.C. (2016) Enabling Teachers in South Africa to Resolve Social Challenges through Resilience. *South African Journal of Education,* vol. 36, no 3, pp. 1–9. https://doi.org/10.15700/saje.v36n3a1260

Ungar M. (2012) Social Ecologies and Their Contribution to Resilience. *The Social Ecology of Resilience: A Handbook of Theory and Practice* (ed. M. Ungar), New York, NY: Springer, pp. 13–31. https://doi.org/10.1007/978-1-4614-0586-3_2

Versfeld J. (2022) *A Social Connectedness Intervention as Pathway to Teacher Resilience in Primary Schools in Challenged Spaces* (PhD Thesis). Pretoria: University of Pretoria.

Watt H.M.G., Richardson P.W. (2007) Motivational Factors Influencing Teaching as a Career Choice: Development and Validation of the FIT-Choice Scale. *The Journal of Experimental Education,* vol. 75, no 3, pp. 167–202. http://dx.doi.org/10.3200/JEXE.75.3.167-202

World Bank (2018) *World Development Report 2018: Learning to Realize Education's Promise*. Washington, DC: World Bank. Available at: http://www.worldbank.org/en/publication/wdr2018 (accessed 07.09.2025).

Wosnitza M., Delzepich R., Schwarze J., O'Donnell M., Faust V., Camilleri V. (2018) Enhancing Teacher Resilience: From Self-Reflection to Professional Development. *Resilience in Education: Concepts, Contexts and Connections* (eds M. Wosnitza, F. Peixoto, S. Beltman, C.F. Mansfield), Cham: Springer, pp. 275–288. https://doi.org/10.1007/978-3-319-76690-4

Zavaleta D., Samuel K., Mills C.T. (2017) Measures of Social Isolation. *Social Indicators Research,* vol. 131, no 1, pp. 367–391. https://doi.org/10.1007/s11205-016-1252-2

Zavaleta D., Samuel K., Mills C. (2014) Social Isolation: A Conceptual and Measurement Proposal. *Oxford Development Studies*, vol. 42, no 2, pp. 139–154. https://doi.org/10.1080/13600818.2013.817819

Zimmerman L. (2018) Learning from the Best: Reading Literacy Development Practices at a High-Performing Primary School. *Per Linguam, a Journal of Language Learning / Per Linguam: Tydskrif vir Taalaanleer,* vol. 33, no 2, pp. 36–50. https://doi.org/10.5785/33-2-740