

TEACHERS AND TEACHING

Research article

Time to flock: time together strengthens relationships and enhances trust to teach despite challenges

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ABSTRACT

This study applies an Afrocentric theory (Relationship-Resourced Resilience [RRR]) to analyze teacher resilience in a less-researched context in the Global South. The Isithebe-

intervention study in South African schools investigated how time together to strengthen relationships promotes teacher resilience despite structural disparities. Teachers were conveniently sampled, and South African schools were purposively sampled in this concurrent mixed-methods triangulation study. Based on Ubuntu social-connectedness principles, the intervention gave teachers monthly art-based time to communicate and build relationships. Pre- and post-intervention measurements included teacher-reported surveys (ENTREE and REPSSI SC subscales) and participatory reflection and action conversations (verbatim transcriptions and visual data). Inferential statistics were used to analyze quantitative data and showed that time together increases resilience, social connectedness, and trust. Qualitative results show how time spent together promoted a sense of belonging, safety, and trust to support one another, whether by sharing ideas for informal professional development or caring for children, families, and friends who depend on such help to withstand ongoing challenges. Few teacher resilience studies exist in Global South and South Africa. Structured time to build relationships capitalizes on dominant but marginalized Afrocentric belief systems that favor interdependent, collective resilience values, beliefs, and practices and encourage instructors to teach countering deficit notions of structurally disparate contexts

KEYWORDS: Teacher resilience, trust, South African primary schools, collaboration, Afrocentric values, beliefs and practices, Relationship-Resourced Resilience (RRR) teacher professional development

Introduction: teaching in a context of challenge

Although many studies have been done on teacher resilience (Boakye & Ampiah, 2017; Gu, 2018; Gu & Day, 2013; Wosnitza et al., 2018), few have been conducted in the Global South and South Africa (Mansfield et al., 2018). Understanding why and how teachers teach cannot be separated from the South African context. The Global South represents a symbolic designation, a collective name applied to low-income and marginalised societies (Dados & Connell, 2012; Trefzer et al., 2014) and, although South Africa is an upper-middle-income country (World Bank, 2018) it is one of the world's most unequal countries, as measured by the Gini coefficient (OECD, n.d.). Economic growth has stagnated, and unemployment rates continue to rise (Francis & Webster, 2019; World Bank, 2018). In this country, as in other post-colonial nations, education is a fundamental tool to provide a continuous flow of the necessary skills, knowledge, and attitudes for development (Martin et al., 2017).

Although the worldwide trend of teacher shortages is apparent in South Africa (Msosa, 2020) this society, though, is plagued by a continued legacy of Apartheid which is evident in schooling. High demand for a short supply of teachers—and especially well-qualified teachers—is a consequence of, amongst others, teachers with some of the longest working hours worldwide, one of the highest rates of discipline problems, and low pass rates (Ebersöhn, 2014; Ebersöhn & Loots, 2017; Organisation for Economic Co-operation and Development, 2019; Spaul, 2013). Limited opportunities for structured professional development make in-service teacher development problematic.

The communities in which most South African public schools are positioned struggle with extreme poverty (Spaull, 2013). Inequality due to structural disparity means health- and welfare services are limited and not easily accessible; public transport is minimal; water, sanitation and electricity supply to homes and schools are limited. Families have limited incomes as job opportunities are limited and unemployment rife. Parents and caregivers are often unable to assist students with homework given low levels of literacy, long working hours or working away from home for those families where employment is available. Students and their families are often hungry and struggle with life-threatening illnesses such as HIV & AIDS and tuberculosis (Ebersöhn & Loots, 2017).

Large classes mean students share books, desks, chairs and stationery. School buildings often require repair to broken windows, leaking roofs, and worn floors. Schools mostly do not have staff rooms or under-cover assembly spaces where staff and students can meet. The OECD ('Organisation for Economic Co-operation and Development') (OECD, n.d., para. 1) has identified limited access to digital technology for instruction as another significant problem South African teachers face (Organisation for Economic Co-operation and Development, 2019). Institutionalised racism means that indigenous knowledge systems are marginalised in the curriculum and school practices, with a high percentage of learners whose home language is not the language of instruction (Organisation for Economic Co-operation and Development, 2019).

The purpose of this study was to investigate teacher resilience in a less-researched context through the impact of an intervention study (Isithebe) in South Africa. The intent was to show how teachers operate in a structurally disparate context by making the most of dominant, yet marginalised, Afrocentric values, beliefs and practices. The theory underpinning the Isithebe-intervention is the Relationship-Resourced Resilience theory (Ebersöhn, 2019). The question guiding this study is: how can marginalised Afrocentric, socio-cultural knowledge be used to strengthen relationships between teachers in order to support them to teach despite a challenged context?

Teacher resilience

The current study challenges deficit views by showing how teachers operate in a structurally disparate context. Despite the constancy of extreme challenges, many South African teachers, like their counterparts across the globe (Gu, 2014; Hong, 2010), continue to teach (Ebersöhn et al., 2020). A socio-ecological process view of resilience (Masten, 2009; Theron, 2016; Ungar, 2012) is helpful in understanding the phenomenon of teacher resilience. From this perspective, the burden is not solely on teachers to harness their own inherent ability to be resilient. Instead, the systems and communities surrounding the teachers function in bi-directional processes to support teacher resilience by considering individual qualities and contextual circumstances (Gu, 2018; Wosnitza et al., 2018). Teacher resilience becomes relevant when chronic, systemic challenges disrupt 'business as usual' in education (Ebersöhn, 2014). In the presence of challenge, negative education outcomes are predicted with teachers not being able to teach effectively, students not able to learn in quality ways, and the well-being of teachers and students alike placed in jeopardy. Challenge triggers the need for responses to counter such negative outcomes—at the very least buffering against the effects of the challenge,

and at most promoting positive education outcomes despite the challenge. Responses that are resilience-enabling will access available protective resources from various socio-ecological systems (Ebersöhn, 2019; Gu, 2018; Mansfield et al., 2018; Wosnitza et al., 2018) to protect against expected negative outcomes and support positive outcomes—including teacher well-being and job satisfaction (Ebersöhn, 2014; Gu & Day, 2013). A premise of the current study is that dominant, yet marginalised Afrocentric belief-systems, constitute—from a resilience lens—a protective resource to mobilise in order to build relationships and support teachers to teach despite challenges.

Flocking: Relationship-Resourced Resilience

Social-connectedness is fundamental to an Afrocentric worldview (Ubuntu; De Gouveia & Ebersöhn, 2019; Theron, 2016), which, although dominant in South Africa, remains marginalised. People who are socially connected have significant interactions with their peers, family, and communities (Delle Fave & Soosai-Nathan, 2014; Fishbane, 2007; Seppala et al., 2013; Stavrova & Luhmann, 2016). The absence of social-connectedness denotes social isolation and exclusion (Salimi & Bozorgpour, 2012; Zavaleta et al., 2014, 2017). Social-connectedness can generate shared emotional and intellectual capital, driving teacher professional development, and as a result, allowing teachers to support teachers to resile (Brunetti, 2006; Fritz & Smit, 2008; Gu, 2014; Theron, 2016). Teacher resilience evidence stresses the importance of relationships to strengthen resilience and, more specifically, how these relationships need to be characterised by support and reciprocity to reinforce people's innate personal networks that involve self-efficacy, positive emotions and adaptive problem solving (Cornu, 2008; Ebersöhn & Loots, 2017; Gu, 2014; Luthar & Brown, 2007).

The Relationship-Resourced Resilience Theory (RRR; Ebersöhn, 2019) posits that South Africans draw on Ubuntu values, beliefs and practices to flock in response to challenge (Ebersöhn, 2012, 2013). Salient Ubuntu values, beliefs and practices inherent in flocking include *interconnectedness* (strong social networks, rituals and practices embedded into daily life); *interdependence* (accountability is rewarded, not chronic dependence, prolonged helplessness and dependence); *collectivism* (being isolated from others is inconceivable; being other-focused rather than self-focused); *communality* (shared resources, aspirations, needs, benefits); *conforming* (conform to in-group behaviour, and harmony-seeking as an aim of end-point adaptation); and *reciprocity* (conform in order to be included in benefits of a group; Ebersöhn, 2019).

Similar to other collectives- (Drury et al., 2009) and community resilience (Norris et al., 2008) responses, flocking is triggered by collective distress. Different to fight, flight, freeze, faint or swarm (Ebersöhn, 2019) responses, flocking aims at collective well-being. Flocking shows social-connectedness values and beliefs in action. Flocking is a resilience-enabling practice: people use what they have collected to support each other in times of crisis. This social support buffers against collective distress and promote collective well-being outcomes (better than expected outcomes despite severely strained conditions; Ebersöhn, 2012, 2014, 2019).

Flocking constitutes collaboration to give and receive social support by distributing social resources. These social resources (Owusu-Ansah & Mji, 2013) may be financial (money and employment opportunities), material (housing, transport and food), emotional (comfort and counsel), communal (networks and cooperatives), cultural (rituals, beliefs and values), knowledge (readings, information and training).

The Isithebe intervention

It follows that, from an Ubuntu perspective, Afrocentric teachers in South Africa may plausibly feel proud, and impelled, to respond to need where they observe it. From a Relationship-Resourced Resilience stance, in order to act on this valued belief, teachers will likely be accustomed to flock—teachers will be accustomed to use what they have collectively to support each other to promote positive outcomes for the majority. A premise of the Isithebe-intervention was to make the most of this worldview. ‘Time to flock’ opportunities were created where teachers spent time together to strengthen relationships in order to help them to continue teaching.

The Isithebe-study takes its name from an isiZulu word and practice. An Isithebe is a woven mat or wooden tray (isithebe) on which people place dishes of food to share while they gather on and around the isithebe. The Isithebe manual (Ebersöhn et al., 2020) provides guidelines to teachers for meeting monthly to talk and strengthen relationships over art-activities.

Before implementation (Month 0), teachers participated in one 6 hour face-to-face Isithebe training session. Trainers were researchers in the project and were registered psychologists (educational and counselling). Facilitators used an Isithebe Kit (see Table 2) with an Isithebe manual (Ebersöhn et al., 2020) for the training. Each school received one kit, and every teacher received a printed manual. The training topics included a meet and greet activity, introductory notes and discussion on teacher resilience and social-connectedness, explaining how to use the kit and manual by modelling a meeting. A clay modelling activity was used in the demonstration to model specified procedures for meetings (see Table 3). Teachers and researchers had two breaks where they talked and relaxed over refreshments. Table 1 outlines the monthly objectives, activities and hours of the Isithebe intervention.

Table 1. The Isithebe intervention.

Month & Objective	Activities	Hours
Pre-Intervention Session	Study introduction Consultation with officials, principals and teachers on participation	5
Month 0 Intervention Training First Collective Meeting	Intervention training: (i) Isithebe Manual & Kit: orientation on teacher resilience, social-connectedness; (ii) model an Isithebe meeting by means of the Clay Modelling activity; (iii) consultation and consensus on meeting dates and venues; and (iv) schools task teachers with Isithebe roles and tasks.	5
Month 1 First Separate Meeting	Art-Activity: Relationship Voucher Box	2
Month 2 Second Collective Meeting	PRA-questions Art-Activity: Growing Together	3
Month 3 Second Separate Meeting	Art-Activity: Teacher Circle Recipe Book	2
Month 4 Third Collective Meeting	Art-Activity: Teacher Journey Bracelets	3
Month 5 Third Separate Art-Meeting	Art-Activity: Framing Important Teacher Relationships	2
Month 6 Closure	Full Circle Teacher Social-Connectedness. Closing off and reflection	5

Table 2. Content of an Isithebe kit.

Organisational Elements
<ol style="list-style-type: none"> 1. Isithebe Manual (each educator also receives their own manual); 2. Laminated sheet with dates for monthly Isithebe meetings; 3. 3 × R200.00 vouchers (total value of R600.00 per school) to buy refreshments and snacks for three monthly meetings; 4. Activity packs with instructions attached; 5. A laminated sheet with three discussion questions for each meeting: <p>How do these gatherings help you to be a teacher? How do these gatherings help you with school projects? How do these gatherings help you to be involved with other role players in the school community?</p> <ol style="list-style-type: none"> 1. A school journal to write down each teacher's answers to the three respective questions (this is used during every Isithebe gathering)
Art-Activity Elements
<ol style="list-style-type: none"> 1. Art-activity packages for every school-separate meeting (clay modelling, relationship box, sharing of recipes, making bracelets and decorating photo frames); 2. Instructions attached to the activity pack; 3. Reusable craft materials for the duration of the Isithebe gatherings (stickers, glitter, feathers and stones, koki pens and pencils, paint and brushes, craft variety pack).

Table 3. Procedure for Isithebe meetings (as in the Isithebe manual).

Procedure for Separate Meetings
<p><i>Before the session:</i></p> <ol style="list-style-type: none"> 1. decide on a time and place to gather bi-monthly; 2. use the voucher to buy refreshments and snacks for the school-based Isithebe gathering. <p><i>During the session:</i></p> <ol style="list-style-type: none"> 1. take the particular art-activity for that month from the Isithebe Kit, 2. read the instructions, and 3. do the activity; 4. take turns to ask and answer the three questions on the laminated document; 5. write the answers in your school journal; and 6. take a photograph of your school's Isithebe gathering to share with teachers from other schools on the Imbumba Yabefundisintsapho WhatsApp group. <p><i>After the session:</i></p> <ol style="list-style-type: none"> 1. teachers take photographs of their school's Isithebe gathering and post them on the IsithebeWhatsApp group; and 2. teachers bring the completed art-activity products and school journals with answers from each educator to the three questions to the next month's joint Isithebe gathering.
Procedure for Collective Meetings
<p><i>Before the session:</i></p> <ol style="list-style-type: none"> 1. teachers and researchers decide on a time and place to gather bi-monthly; 2. researchers buy refreshments and snacks for the joint Isithebe meeting; and 3. teachers bring their completed art-activity products, as well as school journals with answers from each educator to the three questions to the next month's joint Isithebe gathering. <p><i>During the session:</i></p> <ol style="list-style-type: none"> 1. researchers provide materials and give instructions for an art-activity as an ice breaker to the joint session, 2. following the completion of the ice breaker, teachers from each school answer and present the three questions in Participatory Reflection and Action (PRA) sessions (teachers can refer back to and expand on what they wrote in their school journals).

Following the training, teachers conducted three separate monthly meetings per school (Months 1, 3 and 5), and participated in three collective monthly meetings (Months 2, 4

and 6) with teachers of other Isithebe-schools. The two trainers facilitated the collective meetings. The Eastern Cape (EC) Provincial Department of Education (PDE) provided a centrally located venue for the collective meetings. Teachers met at their individual schools for separate meetings.

The Isithebe Kits are premised on the therapeutic value of art-based activities (Malchiodi, 2012; Stepney, 2017) to strengthen well-being whilst simultaneously strengthening relationships. The assumption is that time together in Isithebe meetings strengthens teacher relationships within-, across and beyond the boundaries of schools and establishes a routine of deliberate time together—both of which are supportive pathways to help teachers resile. Table 4 outlines the Isithebe art-activities. Materials for the art-activities were sourced everyday stationary- and craft-stores.

Table 4. Isithebe art-activities.

Art-Activity	Teacher Art Materials Pack	Activity Instructions on Laminated Card
Clay Modelling Training Session Month 0	Multicoloured clay; Craft materials (letters, beads, glitter, feathers, etc.); Blank notes.	Use the clay and materials to make a visual display of what relationships mean to you as a teacher. Write a description of what relationships mean to you as a teacher on a note. Groups display their visual representation of what relationships mean to them as a teacher and answer the following questions: How do these gatherings help you to be a teacher? How do these gatherings help you with school projects? How do these gatherings help you to be involved with other role players in the school community? Take a photograph of each teacher’s clay model and cardboard description. Post the photographs on the Imbumba Yabefundisintsapho WhatsApp group.
Relationship Voucher Box First Separate School Meeting Month 1	A small box, craft materials (letters, beads, glitter, feathers, etc.) and glue; Envelope with ideas on how to build and maintain relationships (message a friend you haven’t spoken to in a long time, do something nice and unexpected for a family member, go for coffee with a friend); and Blank pieces of paper.	Use craft materials and glue to decorate the box. Write down any ideas on actions to strengthen relationships. Select six vouchers to put in their relationship box. Over the next month: select three of the vouchers and do one relationship-building idea in a week.

Art-Activity	Teacher Art Materials Pack	Activity Instructions on Laminated Card
Growing Together First Collective Meeting Month 2	Pot and craft materials (letters, beads, glitter, feathers, glue); Succulent plant; and Potting-soil.	Use symbols of unity, togetherness, and friendship to decorate pots. Plant in their decorated pot in their designs. Discuss in school group: symbols of connectedness used in designs; symbolism of perseverance through unity in their own lives. Optional: Teachers may choose to give the pot plant to a close friend or colleague.
Teacher Circle Recipe book Second Separate School Meeting Month 3	Blank notebook; Craft materials to decorate the outside of the book (alphabet letters, beads, glitter, feathers).	Use materials to decorate the covers of the books. Write down a favourite recipe of a dish that you enjoy making for friends and family. Pass the book to the person on your left so that they can write down their favourite recipe. Keep passing around books until each teacher has written down their favourite recipe in every group member's recipe book. You will write down the same recipe you wrote in your book in each of your group member's books. Optional: at the end of the activity, group members pick a date and a recipe where they can come together to make the meal at someone's house. They can all decide on an ingredient to bring and then come together to make the meal and have dinner together
Teacher Journey Bracelets Second Collective Meeting Month 4	Bag with: assortment of beads, string, pair of scissors, and a small piece of cardboard.	Use the materials to make a bracelet that represents your journey of becoming a teacher (including highs and lows—success and disappointments); Write a brief description of your teacher journey on the piece of cardboard provided. Optional: teachers may swap bracelets with a group member to whom they feel they had a similar journey, or a journey that inspired them.
Framing Important Educator Relationships Second Separate School	Blank photo frame; Craft materials to decorate the outside of the frame	Decorate a photo frame. Place a photo of an important person in

Art-Activity	Teacher Art Materials Pack	Activity Instructions on Laminated Card
Meeting Month 5	(letters, beads, glitter, feathers, etc.).	your life in the frame. Teachers share in the group: <ol style="list-style-type: none"> 1. How this relationship developed? 2. What are the highs and lows of this relationship? 3. What are the challenges they have overcome? 4. Why does this person help them be a good teacher?
Full Circle Social-Connectedness Third Collective Meeting Month 6	Teachers each bring all art-activity products from previous separate and collective Isithebe meetings.	Teachers sit in circles with colleagues from their school. Each teacher picks one Isithebe product that symbolises to them how strong relationships (social-connectedness) support them to be happy as teachers, and/or remain in the profession, and/or provide education.

Methodology

Mixed method design

Table 5 provides an overview of how quantitative and qualitative data were generated concurrently for triangulation in the mixed method Isithebe-study. Mixed method studies have the advantage of providing stronger interpretations of research issues by allowing for more depth and breadth in solving complex social phenomena and allowing for the expression of different points of view (Johnson et al., 2014). The study followed a pragmatic epistemology (Barnes, 2012) to simultaneously collect quantitative and qualitative data (Creswell & Plano Clark, 2011; Povee & Roberts, 2015). To address the research question, data collection and analysis methods were used in each phase of the study to generate both qualitative and quantitative data on social connectedness and teacher resilience. By seeking corroboration between quantitative and qualitative data, triangulation improves a study's validity and trustworthiness (Doyle et al., 2016).

Table 5. Concurrent mixed method Isithebe intervention study.

Month & Objective	Activities	Participants	Hours	Mixed Method Data Collection
Pre-intervention session (21 September 2018)	Study introduction. Teacher consent (including demographic questionnaires). Pre-intervention baseline data collection.	36	5	QUAN: ENTRÉE scale, and REPSSI Social-Connectedness (REPSSI SC) subscales; QUAL: PRA school-group discussions (verbatim transcriptions, visual data).
Month 0: Intervention training First collective meeting (15 March 2019)	Intervention training: (i) Isithebe manual & kit: orientation on teacher resilience, social-connectedness; (ii) model an Isithebe meeting by means of the clay modelling activity; (iii) consultation and consensus on meeting dates and venues; and (iv) schools task teachers with Isithebe roles and tasks.	30	5	QUAL process-data: PRA school-group discussions (verbatim transcriptions, visual data). Observation data: Field notes and researcher journal on PRA-process.
Month 1: First separate meeting (15 April 2019)	Art-activity: Relationship voucher box.	27	2	Images and text individual teachers shared per school of this session in a joint Isithebe-WhatsApp group.
Month 2: Second collective meeting (27 May 2019)	PRA-questions. Art-activity: Growing together.	21	3	QUAL process-data: PRA school-group discussions (verbatim transcriptions, visual data). Observation data: Field notes and researcher journal on PRA-process.
Month 3: Second separate meeting (10 June 2019)	Art-activity: Teacher circle recipe book	24	2	Images and text individual teachers shared per school of this session in a joint

Month & Objective	Activities	Participants	Hours	Mixed Method Data Collection
				Isithebe-WhatsApp group.
Month 4: Third collective meeting (29 July 2019)	Art-activity: Teacher journey bracelets	30	3	QUAL process-data: RPA school-group discussions (verbatim transcriptions, visual data). Observation data: Field notes and researcher journal on PRA-process.
Month 5: Third separate art meeting: 18 August 2019	Art-activity: Framing important teacher relationships	25	2	Images and text individual teachers shared per school of this session in a joint Isithebe-WhatsApp group.
Month 6: Post-intervention data collection (21 September 2019)	Full circle teacher social-connectedness. End-line measurement: Quantitative and qualitative measures. Closing off and reflection.	15	5	QUAN: ENTRÉE scale, and REPSSI SC subscales; QUAL: PRA school-group discussions (verbatim transcriptions, visual data).

School-based interventions are a set of deliberate and well-thought-out techniques for modifying or introducing evidence-based methodologies, practices, approaches, programmes, or policies to improve social and emotional outcomes (Century & Cassata, 2016). Following a PRA process (Chambers, 2004; Ebersöhn, 2014), researchers and teachers co-constructed a school-based intervention, Isithebe. Effective school-based implementation requires considerable resources that entail time, money, and human resources (Murphy, 2015). Additionally, intervention research in schools has become increasingly more difficult and important as teachers struggle with fewer resources and researchers struggle with how to intervene effectively in a given context (Greene, 2015).

The researchers, experienced in working with schools in challenged spaces, favour PRA as an approach to forge close relationships between researchers and participants. Common to PRA study, the research process had frequent consultation sessions. The first of these was in the pre-intervention phase with PDE officials, principals and teachers. During this consultation key, joint decisions were made.

Permission for access to do research in schools required a significant modification to the planned design. Officials and principals did not agree to the planned design of dividing

schools into experimental and control groups, and all six schools thus received the intervention simultaneously. Another key decision related to an appropriate time in the academic year to collaborate with teachers (April to September of a year in order not to conflict with the first and last quarters of the academic year). A last key decision was establishing a joint WhatsApp group between teachers and researchers for easy communication. The teachers opted to call this joint project social network *Imbumba Yabefundisintsapho*, an isiXhosa phrase signifying 'strong teacher relationships'. This decision proved to be a valuable strategy for fidelity, as well as data collection during the course of the study—as discussed in later sections.

Planned intervention and actual fidelity strategies

Whereas some intervention adherence strategies are built into PRA methods—and therefore the Isithebe study—other strategies (as discussed in sections on design and qualitative data collection) came about during the course of the study. For separate meetings, the planning was that teachers would note down school responses to process-data prompts in a notebook provided in the kit. However, none of the schools complied. Thus, a modification was required to this planned strategy, which, amongst others, also served as a strategy to monitor adherence to implementation. Teachers spontaneously opted to use the joint WhatsApp group to send photographs and text responses to the three post-session prompts.

It was, therefore, possible to systematically observe from teacher self-reports on the WhatsApp-group how schools adhered to the implementation of the intervention. One effective strategy was the sequence of separate and collective meetings that provided a structure to systematically follow up on implementation. The combination of collective meeting school-reporting in response to the three prompts and the WhatsApp content provided evidence on implementation activities and experiences per school.

The taxonomy of categories on mixed method research legitimation (Onwuegbuzie & Johnson, 2006) provides a framework to consider the quality of the design. Sample integration legitimation (Onwuegbuzie et al., 2011) is high as the same teachers participated in quantitative and qualitative. Inside-outside legitimation (Onwuegbuzie & Johnson, 2006) was possible based on multiple researcher reflexivity (Phillippi & Lauderdale, 2018) and member checking by participants of transcriptions and thematic analysis results (Smit & Onwuegbuzie, 2018). For weakness minimisation legitimation (Onwuegbuzie & Johnson, 2006), the study included internationally recognised research constructs to operationalise and measure teacher resilience and social-connectedness and used qualitative research methods to account for the contextual nuances of research in a South African context. For commensurability legitimation (Onwuegbuzie & Johnson, 2006), the study combined both action and reflection techniques (researcher journal and field notes; member checking; multiple researcher coding). Using a PRA approach strengthened the possibility of political legitimation (Onwuegbuzie & Johnson, 2006), shifting from the researcher as an outsider who has the expert knowledge to a non-expert whose role is to mobilise the expertise of others (Chambers, 2004).

Sample of schools and participants

Six primary schools in socio-economically challenged neighbourhoods were purposively sampled in the Eastern Cape province in South Africa. This province has the second-highest poverty level of all nine provinces in South Africa (Department of Basic Education, 2018). The EC province is largely characterised by a lack of formal housing, restricted access to drinking water, limited or no access to electricity, high levels of orphanhood (especially due to HIV/AIDS), crime, inadequate education, and poverty (Statistics South Africa, 2018).

An indicator for purposive selection of 'schools in a challenged context' was schools that met the South African DBE Quintile 3 categorisation requirements—indicating that no school fees may be charged (Dass & Rinquest, 2017). A primary school in this study refers to a school that accommodates children from Grade 1 up to Grade 7 (Department of Basic Education, 2018). The primary schools included in the Isithebe dataset are public government schools situated in an urban space (Nelson Mandela Bay Municipality).

In this study, 'teachers in primary schools' refers to 36 teachers at the six sampled primary schools ($n = 36$, $M = 2$, $F = 34$).

The sample size for pre- and post-test was 36 and 22 teachers, respectively. Convenience sampling criteria to select teachers for the Isithebe study included the willingness of teachers in purposively sampled schools to participate (as participation was voluntary and informed consent was required) and the availability of teachers in each of the schools. Exclusion criteria included teachers who lacked English proficiency or were unavailable or unwilling to participate. Table 6 provides an overview of participants from each school, areas taught and years of experience.

Table 6. Sample.

School	Teacher	Subjects Teaching						Teaching Duration		
		English	isiXhosa	Life Sciences	Mathematics	Life Skills	Social Science and Technology	Less than 15 years	Y15–24 years	More than 24 Years
A	1 ^a	✓					✓			✓
	2 ^a		✓						✓	
	3	✓	✓		✓	✓				✓
	4	✓	✓		✓	✓			✓	
B	5 ^a	✓	✓		✓	✓			✓	
	6									
	7 ^a	✓					✓			✓
	8							✓		
	9 ^a	✓	✓	✓	✓				✓	
C	10		✓		✓	✓		✓		
	11								✓	
	12			✓	✓					✓
	13	✓	✓		✓	✓			✓	
	14		✓					✓		
D	15 ^a		✓	✓				✓		
	16 ^a	✓	✓		✓	✓		✓		
	17 ^a	✓	✓		✓	✓				✓
	18									✓
	19 ^a					✓	✓			✓
	20 ^a	✓	✓		✓	✓		✓		
	21 ^a									✓
	22					✓	✓			✓
E	23							✓		
	24	✓	✓	✓	✓	✓	✓		✓	

School	Teacher	Subjects Teaching						Teaching Duration		
		English	isiXhosa	Life Sciences	Mathematics	Life Skills	Social Science and Technology	Less than 15 years	Y15–24 years	More than 24 Years
F	25 ^a	✓						✓		
	26					✓		✓		
	27	✓								✓
	28	✓	✓	✓	✓	✓	✓	✓		
	29 ^a		✓		✓	✓			✓	
	30							✓		
	31 ^a							✓		
	32 ^a							✓		
	33 ^a						✓	✓		
	34							✓		
	35 ^a	✓				✓	✓	✓		
	36 ^a	✓				✓	✓	✓		
Total	36	16	15	5	15	16	7	17	8	10

^aTeachers who were present at both pre- and post-intervention.

Mixed method data collection and analysis

Table 7 presents an overview of concurrent quantitative and qualitative data collection and analysis in the Isithebe-intervention study. Baseline and end-line measurements occurred one calendar year apart.

Table 7. Mixed method data collection and analysis per phase.

Data Collection Method	Measure	Data Source	Data Analysis
QUANTITATIVE DATA			
Pre-intervention Post-intervention			
Survey data	ENTRÉE scale REPSSI SCsubscales	Capturing of individual-teacher pen-and-paper completed questionnaire.	All statistical analyses were conducted using the Statistical Package for Social Sciences (IBM Corp, 2020). The statistics included descriptive statistics (such as means and standard deviations), inferential statistics (such as the Wilcoxon signed-rank (WSR) test for testing differences between related groups, the Shapiro-Wilk (S-W) test for testing normality, Cronbach's alpha for establishing reliability and Spearman correlations for establishing validity.
QUALITATIVE DATA			
Pre-Intervention Implementation-Process Post-Intervention			
Pre-and post intervention PRA discussion	School-group discussions in response to three prompts: 'What does it mean to be a good teacher?' 'What helps you continue being a teacher?' - asked at pre- and post-intervention.	School-level reporting. -Verbatim transcriptions of audio-recorded Collective Meeting school-presentations (three/school). -Photographs (visual data) of school posters with responses to prompts.	Multiple coder inductive thematic analysis of verbatim transcriptions.

Data Collection Method	Measure	Data Source	Data Analysis
	<p>'Write down the relationships you have as a teacher in your school community.'</p> <p>'Which relationships help you to be a good teacher?'</p> <p>(due to time constraints, only asked at post-intervention).</p>		
Implementation process PRA discussion	<p>School-group discussions at separate and collective meetings in response to three prompts:</p> <ul style="list-style-type: none"> - 'How do these gatherings help you to be a teacher?' - 'How do these gatherings help you with school projects?' - 'How do these gatherings help you to be involved with other role-players in the school community?' 	<p>School-level reporting.</p> <p>Collective Meetings:</p> <ul style="list-style-type: none"> - Verbatim transcriptions of audio-recorded Collective Meeting school-presentations (three/school). - Photographs (visual data) of school posters with responses to prompts. <p>Separate Meetings:</p> <p>WhatsApp group photographs (art-products) and text (response to three prompts).</p>	Multiple coder inductive thematic analysis of verbatim transcriptions.
Observation data on context of interaction.	Researcher journals and visual data.	<p>Multiple researcher field notes and reflective notes in journals.</p> <p>Photographs (visual data) by multiple researchers of context and processes of implementation.</p> <p>Observation data:</p> <p>Field notes and researcher journal on PRA-process.</p>	n/a Trustworthiness strategy.

Quantitative data collection and analysis

Quantitative data collection of teacher resilience and social-connectedness occurred pre- and post-intervention (refer to Tables 5 and 7). To measure teacher resilience, subscales of an adapted Enhancing Teacher Resilience in Europe (ENTREE) scale (Beltman & Mansfield, 2018; Mansfield et al., 2018; Peixoto et al., 2018) were included. To specifically monitor for perceptions of challenge in a context, the ENTREE scale (Beltman & Mansfield, 2018) was adapted by including a subscale on contextual factors (Ebersöhn

et al., 2020), making a total of seven subscales: teacher professionalism, teacher emotion, teacher motivation, teacher sense of coherence, self-efficacy, contextual, and teacher efficacy, which all consisted of ordinal Likert-type items where participants had to indicate their level of agreement with items or their level of confidence. Subscales of the Regional Psychosocial Support Initiative (REPSSI) measure (Zavaleta et al., 2014) were selected. Four subscales were used in the REPSSI SC measure: Building Relationships, Need for Relatedness (social support), Belonging vs Loneliness/Isolation (social isolation) and Trust (trust), which all consisted of Likert-type items where participants had to indicate their level of agreement. Teachers completed pen-and-paper questionnaires which were captured electronically on the Statistical Package of Social Science (SPSS; IBM Corp, 2020) by a coder and validated by a second coder. Table 8 provides descriptions and examples of the items in the quantitative instruments.

Table 8. Description and example items for the quantitative instruments.

Subscale	Description	Example Item
Adapted ENTREE measure		
Teacher professionalism	Includes aspects such as commitment, professional goals, organisational and teaching skills.	'I am well organised in my school work'
Teacher emotion	Includes aspects essential to resilience, including humour, enjoyment, and emotional regulation.	'After reflection, I can usually find the funny side of challenged school situations'
Teacher motivation	Combines factors such as optimism and intrinsic motivation.	'It's important to me that I put in effort to do my job well'
Teacher sense of coherence	Indicates the coping techniques teachers use to understand and manage difficult situations.	'In my work, I can look at a situation in a number of ways to find a solution'
Teacher efficacy	Assesses teachers' beliefs concerning their behaviour and ability in the teaching profession.	'Helping children focus on learning tasks and avoid distractions'
Self efficacy	Teachers potential to bounce back when confronted with difficulties and a collection of skills used to cope with adversity	'Not getting disheartened even when children's circumstances make it difficult'
Contextual factors	Measures factors that sustain teachers in their profession, such as showing empathy to or instilling hope in learners, a positive attitude, and drawing from their spirituality.	'I want to be a teacher who instils hope in learners even in the face of many obstacles'
REPSSI SC measure		
Building relationships	Measures the perceived ability to build relationships with others.	'Skilled in building relationships for the community'

Subscale	Description	Example Item
Social support	Relatedness with various members of one's community.	'I get along well with people I come into contact with'
Social isolation	Questions about issues of loneliness as opposed to a sense of belonging.	'I feel that no one really knows me'
Trust	Perceived degree of trust of other people in the community.	'Are there people in your community that you trust?'

Quantitative quality criteria: reliability and validity

To establish the reliability of both instruments, Cronbach's alpha was used, and literature advocates Cronbach's alpha above 0.6 to be acceptable (Daud et al., 2018; Van Griethuijsen et al., 2015). To establish the validity of both instruments, construct validity was considered using Spearman correlation coefficients. Construct validity consists of convergent validity (items belonging to the same subscale should correlate highly), and discriminant validity (items belonging to different subscales should not correlate as strongly as those belonging to the same subscale). Reliability of the ENTRÉE and RESSPI subscales was established since the Cronbach's alpha values ranged from 0.636 to 0.893 (ENTRÉE) and from 0.683 to 0.710 (RESSPI). Regarding construct validity, the correlations are not shown here since the number of correlations is too many; however, the pattern of items belonging to the same subscale correlating more strongly than items belonging to different subscales was evident; thus, construct validity was established for both instruments.

Qualitative data collection and analysis

Qualitative measurement of teacher resilience and social-connectedness occurred pre- and post-intervention (refer to Tables 5 and 7). Qualitative data was generated through PRA group discussions. Researchers facilitated the process. All schools were present for the sessions. Teachers sat together per school. For each question, the process was as follows: researchers verbally prompted the relevant question per phase (see Table 7). Given linguistic diversity, South Africans pronounce English terms differently. Therefore, for clarity, each prompt was written on either a poster or blackboard, and each school group received a printed copy of the prompts. Teachers then consulted on a collective response to the prompt per school group in isiXhosa, their home language. Each school wrote their school's answer on a poster, usually in English. Schools then took turns to present their answers. Each school presentation was followed by a question-and-answer session with teachers from other schools and researchers—all audio-recorded for verbatim transcription and thematic analysis. Researchers photographed posters as visual data.

Following separate meetings, teachers generated qualitative process-data on the implementation of the intervention. Teachers discussed process-data prompts (How do these gatherings help you to be a teacher?; How do these gatherings help you with school

projects?; How do these gatherings help you to be involved with other role-players in the school-community?). As noted, as a modified strategy, teachers posted textual and visual data on separate meetings per school on the joint WhatsApp group.

Another modification occurred during the baseline measurement phase. Public transport is famously unreliable and limited in South Africa. Due to taxi unrest, time was limited to complete all measures. The last prompt-series (Write down the relationships you have as a teacher in your school community. Which relationships help you to be a good teacher?) was therefore not measured at baseline.

Given the close relationship between researchers and teachers, and as is customary in PRA, researcher observations during the intervention also provided valuable data. Observation data were generated by multiple researchers who documented textual (researcher journals with field notes and reflective notes), as well as visual data (context photographs of the intervention).

Qualitative rigour: trustworthiness strategies

The study included strategies to account for trustworthiness quality criteria (Cohen et al., 2018). Strategies to enhance the credibility of qualitative data included multiple data sources (visual data of school-group posters; verbatim transcriptions of audio-recorded school presentations during collective meetings; visual and textual WhatsApp posts on separate meetings; and research journal of field notes taken during intervention sessions). Dependability was strengthened by multiple-researcher reflexivity (documented in researcher journals), as well as multiple data sources. Confirmability of data was made possible by using researcher reflexivity and an audit trail of research visits. To ensure transferability, the context of schools in the study is explained, and findings may be transferable to experiences of (mostly) female, tertiary-trained teachers, around 50 years of age with roughly 19 years of teaching experience teaching in primary schools with similar structural disparity challenges.

Data analysis

Concurrent mixed method data analysis

The concurrent mixed method design means that data analysis results were integrated and aligned with the research purpose (Plano Clark & Ivankova, 2016). Separately collected data types (qualitative and quantitative) were also analysed separately. The quantitative and qualitative data analysis did not build on one another.

Quantitative data analysis

All statistical analyses were conducted using SPSS. The statistics included descriptive statistics (such as means and standard deviations), inferential statistics (such as the WSR test for testing differences between related groups, the S-W test for testing normality, Cronbach's alpha for establishing reliability and Spearman correlations for establishing validity).

Qualitative data analysis

The qualitative data analysis involved within-school-case thematic analysis of verbatim transcriptions of school presentations together with visual data of PRA-posters to compare textual and visual data sources. The verbatim transcripts were augmented by observations (recorded in research journals and visual methodology). Analysis based on the 6-step thematic analysis (Braun & Clarke, 2006) was used to find reoccurring themes or phrases on teacher resilience and social-connectedness. Researchers transcribed the data, familiarising themselves with the transcriptions. Next, researchers jotted down preliminary codes. Based on multiple-coder consultation, a consensus was reached on codes. These codes were then classified into themes, which multiple coders reviewed and refined to name themes. The resulting report includes extracts of the transcriptions as evidence of the identified themes. Table 9 provides an example of themes, codes, definitions and extracts.

Table 9. Examples of thematic analysis results.

Example	Social-Connectedness	Teacher Resilience
Theme	Strengthening SC competence	Enablers of occupational well-being in challenged contexts
Subtheme	Teachers bonding within and across school social networks	Experiencing occupational purpose enables occupational well-being
Definition	Bonding within social networks refers to an increased connection between teachers within and across schools	Instances where teachers share that when they could make a difference in the lives of students whom they teach, they experience occupational well-being.
Inclusion criteria	Instances where teachers spoke about fostering affiliation and association between teachers within and across schools. This served as a platform to access social networks between schools and stakeholders	Instances where teachers mention positive well-being because, as part of their work, they are able to make a difference to others.
Exclusion criteria	Instances where teachers spoke about social support without acknowledging affiliation and association between teachers within and across schools.	Data that refers to positive well-being experiences of the teaching profession, without indicating purpose via career as important for occupational well-being.
Extract example	We have learnt to build relationships with other stakeholders as we believe you cannot operate as an island. (School C, May meeting)	We teach because we see change in the learners and experiencing that learning process and experiencing the learning progress of a learner ... I think that is payment enough. (School D, pre-intervention)

Integrated mixed-method data analysis

Integration was done thematically. Tables 10 and 11 reflect how quantitative and qualitative results were compared for integration separately for social-connectedness and then for teacher resilience. Finally, quantitative and qualitative results for social-connectedness and teacher resilience were merged to explore how structured time for teachers to talk and strengthen relationship links with their resilience and social-connectedness at the data interpretation step. This meta-inference (Gravetter & Forzano, 2018) constitutes the conclusions reached from the integrated quantitative and qualitative results.

Table 10. Examples of quantitative social-connectedness subscales and integration with corresponding qualitative sub-themes.

REPSSI SC questionnaire scale and definition: Truste '[F]ocuses on the presence of trusted individuals in a person's life' (Ebersöhn et al., 2020, p. 26).			
Sub-theme 2.1: 'Receiving implicit social support from co-workers and the school-community, and friends and family'. Instances where teachers reported examples of receiving <i>implicit</i> social support that include: 'tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague' (Ebersöhn et al., 2020, p. 32).	Missing data	Reported	Silent

Table 11. Examples of quantitative teacher resilience subscales and integration with corresponding qualitative sub-themes.

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme	
TR questionnaire scale and definition: Teacher professionalism '[T]eachers' ability to set and define professional goals, as well as aspects such as commitment, organisational and teaching skills' (Ebersöhn et al., 2020, p. 9)				
Sub-theme 1.1: 'Teacher Professionalism Enables Education' Instances where teachers indicated that their teacher professionalism is 'characterised by positive affect, motivation and commitment to teaching' (Ebersöhn et al., 2020, p. 50)		Reported	Reported	Silent

Results

Quantitative results

Figure 1 presents the mean scale scores for teacher resilience pre- and post-intervention and indicate initial high pre-intervention TR levels for in-service teachers from the six primary schools challenged by severe deprivation. Thus, the pre-intervention scores for TR of the teachers in the sample were high across all seven scales.

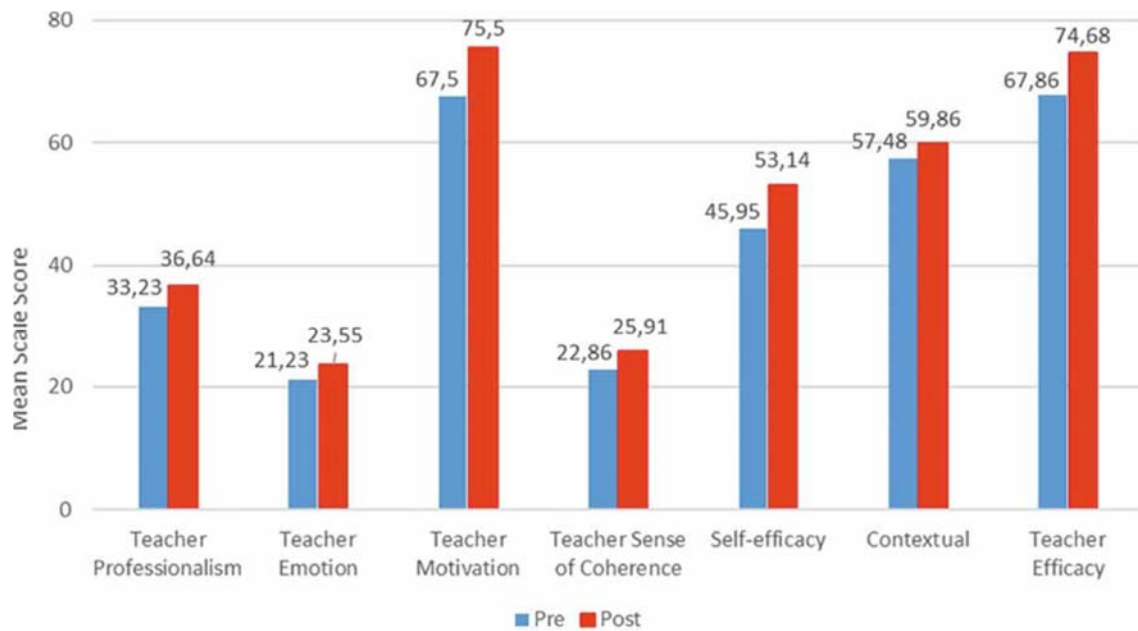


Figure 1. TR pre- and post-intervention mean scale score comparison.

The pre- and post-intervention **teacher resilience** responses were compared using the WSR test for the 22 participants who completed the questionnaire at both time points (see Table 12).

Table 12. Results of WSR tests for teacher resilience.

n =22	(SD)	WSR test		
		Pre	Post	Test statistic
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 12, the p -values of the WSR test for all scales except for the contextual scale are less than 0.05, indicating a significant difference between the pre- and post-test scores for these scales. To investigate which score (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 2, presenting the composite scale scores for social connectedness pre- and post-intervention scores, indicated initial high pre-intervention SC levels for in-service teachers from the six primary schools challenged by severe deprivation. Thus, the pre-intervention scores for SC of the teachers in the sample were high across all four scales: building relationships, social support, social isolation and trust.

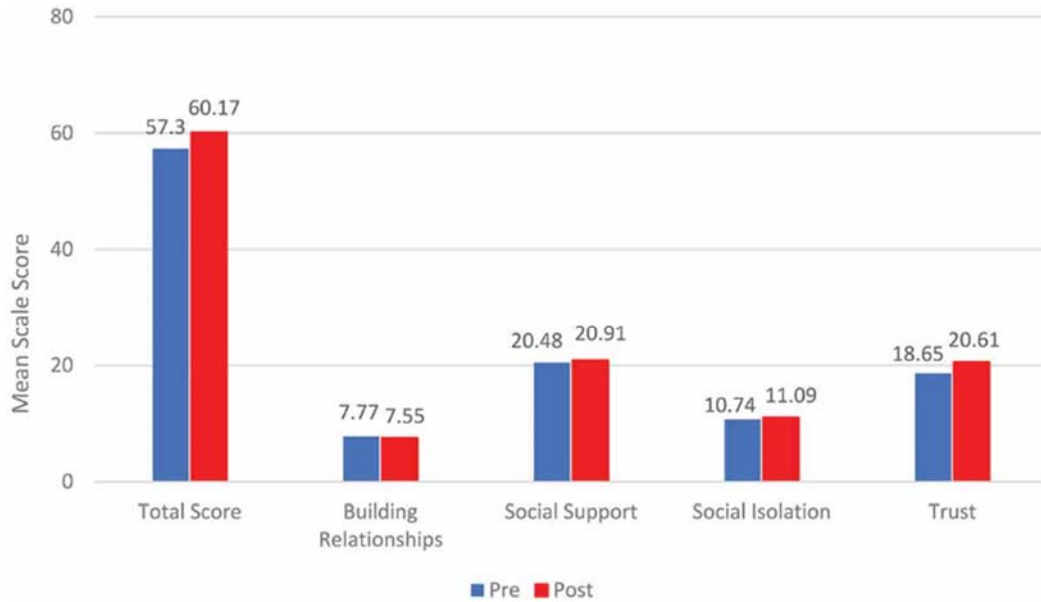


Figure 2. Social connectedness pre- and post-intervention mean scale scores comparison.

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 12).

Table 13 shows significant differences between the SC pre- and the post-test for the total score as well as the Trust scale, where both scores are significantly higher post-intervention. The significant differences between the social connectedness pre- and the post-test for the total score and total Scale 4 (Trust) are apparent in Figure 1, showing the mean scores. This confirms the findings from the WSR test that for total Scales 1, 2 and 3, there are no significant differences 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 teacher social connectedness measure. Figure 1 displays the mean scores of pre- and post-test SC scale scores.

Table 13. Results of WSR tests for social connectedness.

	(SD)		WSR test	
	Pre	Post	Test statistic	p-Value
n = 22				
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
e	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 ($p < 0.05$)

Qualitative results

Whereas the quantitative results speak to a repertoire of intrapersonal competences per teacher, the qualitative data provide some insight into why teacher resilience, social connectedness and trust may all be significantly higher after systematically setting time aside to strengthen relationships in a coordinated way. The group-level narratives provide a window of contextual and cultural salient pathways teachers use to continue teaching.

Table 14 shows qualitative themes, sub-themes and categories describing how time spent together enabled teacher resilience in a challenged context. The table depicts where in the process of the intervention a particular subtheme was evident (pre-, process or post-intervention). Besides indicating illustrative extracts per subtheme, the table also provides definition, inclusion and exclusion criteria used for analysis.

Table 14. Qualitative TR themes per intervention phase.

Theme	Pre, process and post-intervention	Category	Definition	Verbatim Extracts	Inclusion criteria	Exclusion criteria
1. 'Time together provided opportunities for informal teacher professional development which enables education'.	Pre- and post-intervention		Refers to Isithebe functioning as a space where teachers have access to strengthen "essential aspects of teachers' professional lives such as their career decision making, motivation, job satisfaction, emotion, and commitment" (Hong, 2010, p. 1531)			
		1.1 'A space for informal, teacher-to-teacher professional development'	Participation in Isithebe enabled informal, teacher-to-teacher professional development	'And keen to learn. And also learn from your colleagues, you learn even from your learners, you can learn something' (School B, pre-intervention). 'And you also are a lifelong learner yourself; you're also continuously upgrading your teaching practice and understand	"Instances where teachers mention Isithebe-gatherings as a space for professional development.	This sub-theme excludes data that refers to PD opportunities other than Isithebe-gatherings.

Theme	Pre, process and post-intervention	Category	Definition	Verbatim Extracts	Inclusion criteria	Exclusion criteria
				that it comes with great responsibility' (School D, pre-intervention).		
	Process and Post-intervention	1.2 'An opportunity to learn from each other across expanded social networks'.	Participation in Isithebe helped teachers learn from peers, other schools and researchers and enabled education.	'As teachers, they promote healthy relationships between ourselves, because now we can do all sort of network. And also they help us to share information , it develops you as a teacher' (School B, May meeting). 'We are also getting feedback from the other groups ... if they are presenting, we also get those ideas' (School A, May meeting). 'You don't	Instances where teachers indicated that participation in Isithebe helped them learn from peers, schools and researchers , which enabled education.	Data that refers to teacher experiences of enablers of education without actively acknowledging how Isithebe increased opportunities for further learning and development .

Theme	Pre, process and post-intervention	Category	Definition	Verbatim Extracts	Inclusion criteria	Exclusion criteria
				<p>have the necessary skills; that is why you need to consult with other professionals. These gathering help us to problem solve and how to connect with other schools' (School E, May meeting).</p>		
	Process	1.3: 'Acquiring new knowledge to use as a teacher'	Participation in 'Isithebe' activities foregrounded instructional practices to use with learners.	<p>'We also take what we do here and do the ideas with our children, and it helps them a lot' (School B, July meeting). 'It also gives us ideas because you can do this with the learners and teach them to make things and also helps little one develop</p>	<p>Instances where teachers indicated that participation in 'Isithebe' activities enabled acquisition of competences to strengthen instructional practices.</p>	<p>Data that refers to teacher experiences of enablers of education without actively acknowledging how 'Isithebe' enabled acquisition of instructional practices.</p>

Theme	Pre, process and post-intervention	Category	Definition	Verbatim Extracts	Inclusion criteria	Exclusion criteria
				fine motor skills' (School A, May meeting).		
2. 'Time together strengthened a sense of belonging and trust which promotes continued teaching.'	Process	Teachers reported instances a high sense of belonging with accompanying experiences of trust, safety, support and teacher efficacy.		'We can feel that we have got people at our backs that are pushing us to make our schools where we wish it to be' (School A, May meeting). 'Also, what makes it more helpful is that we as teachers can be relaxed and more comfortable around each other, and I think you are also really boosting our confidence as teachers as well' (School B, May meeting). 'They help us to cope with stressful	Instances where teachers spoke about experiencing positive emotions during Isithebe gatherings that contributed to their occupational well-being.	Instances where teachers did not refer to positive emotions during Isithebe gatherings contributed to their occupational well-being.

Theme	Pre, process and post-intervention	Category	Definition	Verbatim Extracts	Inclusion criteria	Exclusion criteria
				<p>situations and also to help with the challenging situations because that is where you get help and guidance' (School E, July meeting).</p> <p>'So it keeps us helping each other, and I know that I have my Isithebe group of mine, so you feel secure; security is very important in these times' (School A, post-intervention).</p> <p>'Now you don't have that kind of fear that you can't expose yourself that you don't know anything, because you know</p>		

Theme	Pre, process and post-intervention	Category	Definition	Verbatim Extracts	Inclusion criteria	Exclusion criteria
				now that you have a strong support around you' (School D, post-intervention).		

Qualitative teacher resilience results indicate pathways made possible by spending time together that support teachers to continue teaching. Specifically, teachers used the time together as a space for informal, teacher professional development to strengthen teacher self-efficacy beliefs and add to knowledge on instructional practices. In addition, a strong sense of belonging ensued from time spent together—with concomitant experiences of safety, trust and reciprocal support.

Table 15 shows qualitative themes, sub-themes and categories describing enablers of social connectedness amongst teachers after spending time with one another on a routine basis. As is the case with the previous table, Table 15 also shows where in the process of the intervention a particular subtheme was evident (pre-, process or post-intervention), shares illustrative extracts per subtheme, and provides definition, inclusion and exclusion criteria used for analysis.

Table 15. Qualitative SC themes per intervention phase.

Theme	Process and Post-intervention	Sub-theme & Definition	Verbatim Extracts	Inclusion Criteria	Exclusion criteria
1. 'Strengthening SC competence'	Process and post-intervention	1.1: 'Strengthening personal relationships' Time together with other teachers also strengthened relationships with family and friends.	'Isithebe also showed how important my family relationships are. I like to share what happened in Isithebe with my family because it brings us	Instances where teachers spoke about the "advantages of social inclusion rather than isolation" (Ebersöhn et al., 2020, p. 36)	Instances where teachers spoke about social support without acknowledging the advantages and benefits of social inclusion

Theme	Process and Post-intervention	Sub-theme & Definition	Verbatim Extracts	Inclusion Criteria	Exclusion criteria
			<p>closer' (School B, May meeting). 'It also helps us have a bond with family relationships; it gives us that bond' (School C, July meeting). 'Isithebe has created that platform ... instead of having dynamics within ourselves Now we are having that kind of friendship and connection where we can share struggles and hardship' (School D, July meeting);</p>		
		<p>1.2: 'Strengthening professional relationships' Time together with other teachers also strengthened relationships with family and friends.</p>	<p>'We have learnt to build relationships with other stakeholders as we believe you cannot operate as an island.' (School C, May meeting); and 'You don't have the necessary skills, that is why you need to consult with other professionals. These gatherings</p>	<p>Instances where teachers spoke about fostering affiliation and association between teachers within and across schools, and this serving as a platform to access social networks between schools and stakeholders</p>	<p>Instances where teachers spoke about social support without acknowledging affiliation and association between teachers within and across schools as a platform to access social networks between schools and stakeholders</p>

Theme	Process and Post-intervention	Sub-theme & Definition	Verbatim Extracts	Inclusion Criteria	Exclusion criteria
			<p>help us to problem solve and how to connect with other stakeholders.' (School E, May meeting).</p> <p>'When we are doing the Isithebe activities, we are able to be ourselves so we are able to understand each other and we are able to improve relationships because now we have a better understanding of each other.' (School D, post-intervention)</p>		
		<p>1.3: 'Collaborating within school-community networks'</p> <p>Time together increased collaboration with individuals and organisations to provide psychosocial support to learners and school-communities.</p>	<p>'These gatherings promote unity and give us a better insight of each other's strengths and weaknesses.' (School C, May meeting)</p> <p>'They share ideas, learning from each other, getting advice over challenges that we come across' (School</p>	<p>Instances where teachers spoke about leveraging networking capacity (collaborating with individuals and organisations to provide psychosocial support to learners and the community)</p>	<p>Instances where teachers did <i>not</i> speak about leveraging networking capacity (collaborating with individuals and organisations to provide psychosocial support to learners and the community)</p>

Theme	Process and Post-intervention	Sub-theme & Definition	Verbatim Extracts	Inclusion Criteria	Exclusion criteria
			D, May meeting);		
2. 'Providing social support as resilience-enabling resource for teachers'	Post-intervention	2.1. "Providing <i>implicit</i> social support to learners, co-workers and school-community members" "Implicit social support denotes that people benefit from social-connectedness by receiving or giving emotional comfort to others in their lives" (Ebersöhn et al., 2020, p. 32).	"Some of them come to school with hungry stomachs; then you have to be there to give a shoulder to cry on, to help support the learner so that they feel comfortable to be able to work with their peers." (School F, post-intervention).	Instances where teachers reported examples of <i>providing</i> implicit social support with "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32)	Instances where teachers did <i>not</i> report examples of <i>providing</i> implicit social support that include: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32)
		2.2. "Providing <i>explicit</i> social support to learners and school-community members" "Explicit social support signifies instances where people actively draw on social networks for support to provide concrete services to others facing challenges" (Ebersöhn et al., 2020, p. 32).	"The Department of Education does not adequately address all the challenges, we have a lot of infrastructure problems that never get fixed. So, then we have to go out and get the sources for ourselves" (School D, post-intervention).	Instances where teachers reported examples of <i>providing</i> explicit social support that included: "explicit reciprocal donations, borrowing and lending" (Ebersöhn, 2019, p. 1)	Instances where teachers did <i>not</i> report examples of <i>giving</i> explicit social support that included: explicit reciprocal donations, borrowing and lending
3. 'Receiving social support as resilience-enabling resource for teachers'		3.1: "Receiving <i>implicit</i> social support from co-workers, the school community, and friends and	"Sometimes you feel like you don't want to go to school because of some certain	Instances where teachers reported examples of <i>receiving</i> implicit social	Instances where teachers did <i>not</i> report examples of <i>receiving</i> implicit social

Theme	Process and Post-intervention	Sub-theme & Definition	Verbatim Extracts	Inclusion Criteria	Exclusion criteria
		family" "Implicit social support denotes that people benefit from social-connectedness by receiving or giving emotional comfort to others in their lives" (Ebersöhn et al., 2020, p. 32)	things, but what keeps you going is that support. Sometimes you get that support from your family, from your co-workers and from your friends" (School D, post-intervention).	support that included: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).	support that included: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32)
		3.2: "Receiving <i>explicit</i> social support from co-workers and the school-community" "Explicit social support signifies instances where people actively draw on social networks for support to provide concrete services to others facing challenges" (Ebersöhn et al., 2020, p. 32).	"As a teacher, it is very important to have relationships with stakeholders. We have volunteers that come to school to help us clean up the school grounds. We were struggling with the water, and then we got help from the community." (School B, post-intervention)	Instances where teachers reported examples of <i>receiving explicit</i> social support that included: "explicit reciprocal donations, borrowing and lending" (Ebersöhn, 2019, p. 1)	Instances where teachers did <i>not</i> report examples of <i>receiving explicit</i> social support that included: explicit reciprocal donations, borrowing and lending

Qualitative social connectedness results indicate how teachers are able to continue teaching when they spend time together as they strengthen a host of personal and professional relationships, which support collaboration and widen a resource-base for social support to each other and to learners and their families who experience hardship.

Discussion

Quantitative results indicate that, pre-intervention, the participating group of teachers already had high social connectedness—and teacher resilience competences. It is not unexpected that teachers would report high social connectedness competences. Research with elders and young people in urban and rural spaces in South Africa similarly found instances of social support grounded in high socioemotional competence and strong relational ties (De Gouveia & Ebersöhn, 2019).

In the same way, it is not unexpected that teacher resilience may be stronger when teachers spend more time together. Research on relational resilience of teachers established that teachers' social interactions, both within and outside of the classroom, are crucial in providing them with the resources they need to prosper in their personal and professional lives (Frelin & Fransson, 2017; Gu, 2014, 2018; Mansfield et al., 2012). In addition, it is known that 'school settings that are conducive to teacher well-being are those that provide social support and a sense of collegiality to teachers' (Proeschold-Bell et al., 2021., p. 52).

In contrast to negative discourses on teacher lives in a severely challenged space, it is meaningful to consider findings regarding high teacher resilience (Ebersöhn, 2019). Day (2012) argues that the well-being of teachers has also been shown to affect the learners in their care since satisfied teachers are likely to create an effective learning environment with more productive classrooms. Participating teachers in this South African study share the 'strong self-regulation skills, social support, teaching self-efficacy, and compassion' (Proeschold-Bell et al., 2021., p. 52) of their counterparts in better resourced and less tumultuous regions globally—positioning them well to deliver quality education (Gu & Day, 2013; Mansfield et al., 2012; Proeschold-Bell et al., 2021).

Trust was significantly higher after the intervention. Others have found that building relational trust in schools results from building trust in day-to-day social exchanges (Brunetti, 2006; Castro et al., 2010). The intervention created monthly spaces of intentional SC over a year. Prolonged and regular teacher gathering facilitated relational trust in the day-to-day exchanges of teachers. It mobilised social support to enable teachers to give and receive implicit and explicit social support. It is clear from qualitative extracts that the time teachers spent together added to stronger personal and professional relationships. Given that others (Ainsworth & Oldfield, 2019; Papatraianou & Le Cornu, 2014; Proeschold-Bell et al., 2021) have established that personal and professional relationships with colleagues, learners, parents, communities, management and school leaders strengthen teacher resilience, one may conclude that the stronger personal and professional relationships of teachers in the Isithebe-study played a role in the observed significant increases in their teacher resilience scores.

Isithebe functioned to deliberately strengthen a web of SC between teachers' family members and friends, the teachers themselves and the broader school communities. Time together unified teachers into a closeknit community of professionals. Teachers felt comfortable to learn from one another. They also trusted each other to collaborate and be a safety net to people they encounter on a daily basis who are often the most in need

for additional support. This finding is consistent with studies that show teacher resilience is fundamentally a relational process (Le Cornu, 2013; Gu, 2018), and that teachers are most confident when they can sustain and be sustained by connections (Gu, 2014). The study's findings showed that an intervention such as Isithebe could boost teacher resilience by strengthening relationships and trusts inside and outside clusters of schools.

The time teachers spent together provided them with valuable opportunities for informal, teacher-to-teacher professional development. In this way, teachers were exposed to different instructional practices which they could add to their skill set and use to rejuvenate their teaching lives. Other intervention studies (Framke et al., 2019; Wu et al., 2020) have identified that constructive social networking between co-workers promotes teacher learning and professional development and help teachers deal with job-related stress. Similarly, Flores (2018) also found that high indices of professional values and teacher professionalism influence teachers' ability to resile. Access to services and infrastructure is limited in challenged educational contexts like South Africa, making unity and cooperation among the community's people and stakeholders crucial for resilience processes. South African teachers need to teach within the context of resource-constrained schools, with large class sizes, learners' poor discipline, and poor PD prospects (Ramos & Hughes, 2020; Sutchter et al., 2019). However, the need for teacher training and development to be enhanced, reorganised, and refocused to produce high-quality teachers (Buchanan et al., 2013; Thieman et al., 2014) is not exclusive to spaces with high challenge. Teachers worldwide are being asked to do more with less money as the demand for learner achievement rises, impacting teacher training and development (Lowe & Prout, 2019). However, Lowe and Prout (2019) argue that an additional constraint in the Global South is that teacher development is unnecessarily bureaucratic, under-resourced, and poorly executed, resulting in a drop in educational quality. In this regard, Mlachila and Moeletsi (2019) calls for strategies to support teacher professional development. This study shows the potential of institutionalising teacher time together at school-level, and across clusters of neighbourhood schools, as low threshold peer-learning opportunities—rather than sole dependence on scant official, policy-orchestrated opportunities for teacher professional development.

Teacher confidence to build relationships, as well as give and receive social support, aligns with salient Ubuntu, Afrocentric values, beliefs and practices. The time teachers spent together made it possible for this group of teachers of the South to make the most of the values, beliefs and practices of an Ubuntu-belief system to become stronger teachers. Time together assisted teachers to flock for collective professional gains: they shared their knowledge resources, they shared their network resources, they gave each other comfort and confidence, they provided learners, families and colleagues with material support—all of which assisted them to continue as teachers in a space which could make one feel defeated. Others (Cross & Hong, 2012) found that teachers remain committed to teaching when they have well-developed professional identities of being academic caregivers and nurturers.

Interestingly, self-efficacy was the only scale across the two measures that scored significantly lower following the intervention. Thus, even though teachers felt significantly more capable as professionals they felt less capable on a personal level. Qualitative data

did not provide insight into why this may be the case. This finding requires further investigation. One possibility could be that teachers feel overall helplessness in their daily lives as citizens in a complex society. Even though teachers have strong social ties and trust that they can support one another to continue teaching, they may feel less confident that they are able to be equally resourceful to face the daily presence of limited transport, high crime, irregular electricity supply, unreliable access to drinkable water, problematic health care for sick loved ones, and overall high unemployment which leave many families without dependable household incomes.

The intervention format to create intentional, non-formal spaces of social interaction between teachers fostered a sense of belonging and positively impacted teacher networking capacity. The intervention fostered affiliation and association between teachers within and across schools and served as a platform to access social networks between schools and stakeholders. This finding is consistent with earlier studies in high-risk settings, which found that relationships are important drivers of adaptive processes critical to transactional-ecological resilience (Ebersöhn, 2019; Synergos, 2017).

The main limitation of the MMR intervention design is the small sample size (pre-intervention n =

36 teachers, post-intervention n =

22 teachers; where n denotes 'sample size'), which hindered transferability. During the data collecting process, thorough reflection on the setting, the participants, and the data collection yielded insights that improved rigour. None of the schools opted for a delayed intervention model, and consequently, there was no control group. Therefore, there were no comparative findings on TR and SC in the absence of the intervention with teachers

Conclusion

This article counters deficit discourses on struggling teachers in the Global South. It shares evidence that teachers who spend time together forge strong relationships. The sense of belonging that results, increases trust. The trust makes it easier for teachers to support each other—whether by sharing ideas on how to teach or by collaborating to provide care to children, families and friends who depend on such help to withstand the onslaught of ongoing challenges. It is not the Isithebe-model per se that mattered to support teachers to continue teaching despite ongoing adversity. Any other institutionalised practice of teachers deliberately putting time aside to bond in a relaxed manner could equally strengthen relationships and provide a strong relational foundation from which teachers feel safe and confident to teach.

In a different context to that of the more commonly researched Global North, this study contributes evidence of an accessible, school-level intervention that, when implemented with teachers working under extreme challenges and with constrained structural support, connects them socially to forge trusting school communities.

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Data availability statement

Due to the nature of this research, the data cannot be shared publicly so supporting data is not available.

Data deposition

Not applicable as the data will not be made available to the public.

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