Measuring South African novice teacher resilience in coping with teaching challenges: a Rasch model framework

Melanie Moen
Department of Educational Psychology, University of Stellenbosch, Matieland, Stellenbosch, South Africa

Hai Thi Thanh Pham
Faculty of Education, Hanoi University of Science and Technology, Hanoi, Viet Nam, and

Mohd Ali Samsudin and Tiew Chia Chun
School of Educational Studies, Universiti Sains Malaysia, Minden, Malaysia

Abstract

Purpose – The aim of this study was to measure the level of challenges faced by novice teachers in South Africa. Findings suggest a need for professional development courses to upskill teachers with effective pedagogies that can incorporate the social and emotional components into teaching and learning.

Design/methodology/approach – This study applied a descriptive research methodology by administering a questionnaire to 143 novice teachers. The data analysis technique was the Rasch model.

Findings – The findings indicated high item and person reliability, with a good item fit and polarity values that are compatible with the Rasch model. The three major challenges identified are uninvolved parents, discipline problems and a lack of guidance and counselling. These challenges can be related to social and emotional learning (SEL) components.

Research limitations/implications – The study used quantitative methods and discovered the challenges that novice teachers face. If the research uses a combination of qualitative methods, it will be possible to better identify the specific causes of the above three challenges of novice teachers.

Practical implications – Due to the complex nature of South African society, many novice teachers are overwhelmed by the challenges they face when entering the profession. These challenges are often embedded in societal risk factors, which complicate the transition from student teacher to novice teacher. The major challenges identified in this study can be related to SEL components, as the challenges are closely linked to the psychological and social backgrounds of the students. Teachers in this study indicated that they found it difficult to deal with these challenges at the beginning of their careers.

Social implications – By identifying the challenges facing new teachers in South Africa, they will be better prepared for their work in schools. Therefore, they will improve the above situation to continue developing professionally.

Originality/value – The findings indicated high item and person reliability, with a good item fit and polarity values that are compatible with the Rasch model. Teachers in this study indicated that they found it difficult to deal with these challenges in the beginning of their careers. Professional development courses are suggested to help teachers deal with issues such as discipline, uninvolved parents and guidance and counselling effectively.

© Melanie Moen, Hai Thi Thanh Pham, Mohd Ali Samsudin and Tiew Chia Chun. Published in Journal of Research in Innovative Teaching & Learning. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licenses/by/4.0/legalcode

Declaration of conflicting interests: The authors declared no potential conflicts of interest concerning the research, authorship and/or publication of this article.
Higher education programmes should also include these topics in their curricula for student teachers. A greater emphasis on training teachers in their pastoral roles is suggested.

**Keywords** Teacher resilience, Teaching challenges, Rasch model, Discipline problems, Uninvolved parents, Socio-emotional support

**Paper type** Research paper

**Introduction**

The primary focus of this study was to measure the intensity with which South African novice teachers experience typical challenges in a school environment. By completing a questionnaire novice teachers indicated how aspects such as parental involvement, discipline, communication, technology, infrastructure, salary and other administrative challenges influenced their teaching.

Cross and Ndofirepi (2013, p. 95) indicate that “Attractors that previously motivated South Africans to choose teaching as a profession are increasingly superseded by concerns about low pay, inadequate resources, subordinate status and limited career opportunities.” Choosing teaching as a career is further exacerbated by challenges such as poverty, unemployment, violence and HIV/AIDS (HSRC, 2023). More than 7.1 million South African people live with HIV/AIDS (Hall and Sambu, 2016, p. 108). Poverty is also widespread, with more than half of the population living in poverty (World Bank, 2020; Pauw, 2005) and a third of the population depends on social grants (Rossouw, 2017). More than 45% of Black Africans are unemployed in comparison to 5% of Whites (Breetske, 2018).

Significant differences in achievement tests and examinations in schools reflect South Africa’s divided past. Unfortunately, the emerging picture is one of significant backlogs relating to literacy and numeracy milestones. National averages of 30–35% in numeracy and literacy tests are the norm rather than the exception (Spaull, 2013). The South African education system has been described by experts as functioning poorly, with sources indicating that 80% of all schools are regarded as dysfunctional (Pretorius, 2014). The country’s education system also performs below average compared to poorer countries, which spend less on education. Consequently, children exposed to substandard education do not develop the skills and attributes necessary to master reading and mathematics. In a study of 40 countries, South Africa achieved the lowest scores, with 80% of children unable to reach the Low International Benchmark, which indicates that they could not master basic reading skills (Pretorius, 2014). The 2021 Progress in International Reading Literature Study (PIRLS) revealed that 81% of Grade 4 children in South Africa cannot read for meaning in any language, including their home language (Department of Basic Education, 2023). Access to learning materials is another challenge often faced by South African schools. It is estimated that only 38% of learners in South Africa have access to language textbooks, an essential element of effective teaching (Letseka, 2014). Although one of the accomplishments in South Africa over the past decades has been universal access to schooling for all learners – it is estimated that close to 100% of children aged 7 to 14 are enrolled in schools – the primary problem is that despite the high enrolment rate and investment in education, adequate quality education in most schools is lacking (Frempong et al., 2013). These and other challenges complicate the demanding teaching job and ultimately affect teachers’ well-being.

Teachers’ occupational well-being is an essential component of education, as it relates to student motivation and achievement, teacher attrition and teachers’ mental and physical health. Student misbehaviour has also been linked to teachers’ poor well-being, causing anger and anxiety and reducing job satisfaction and work engagement (Aldrup et al., 2018). Discipline among schoolchildren is a universal challenge, and South Africa is no exception. A study by Masingi (2017) revealed that learners misbehave at school because of factors such as lack of parental support, peer pressure, poverty, lack of motivation to succeed and more. She thinks the school environment is vital in promoting discipline or ill-discipline.
Another factor that contributes to successful teaching is teachers’ perceptions of their roles in school and the broader society. Teachers learn to internalise the roles assigned to them by school culture and through their own experiences. Teacher’s roles are closely linked to their professional identity. Identity refers to who or what someone is, and a teacher’s identity plays a significant role in his or her development. Identity constantly changes as various external and internal experiences, such as emotions and personal factors, influence it. “Teacher identity provides a framework for teachers to construct their ideas on how to be, how to act and how to understand their work and their place in society” (Gonzalez-Calvo and Arias-Carballal, 2017, p. 1694).

It is often suggested that teachers’ professional development is part of the solution to the education crisis (Frempong et al., 2013). Becoming a teacher involves several essential aspects, and identity is one of them. Novice teachers should incorporate at least three teaching identities: the identity they bring into teacher education, the identity they develop whilst doing university coursework and the one they develop during student teaching practicums (Cross and Ndofirepi, 2013).

Unfortunately, South African teachers struggle to stay motivated and continuously develop their professional identities. Their motivation to develop as teachers is complicated by low salaries, an overemphasis on administrative duties and extracurricular activities that take more time than actual teaching activities (Letseka, 2013). It is reported that many South African teachers leave the profession because of low salaries and poor working conditions. On average, a South African primary school teacher receives a salary of $1,133 per month (payscale.com). Many teachers have lost interest in their work in recent years because of a lack of resources and teaching in overcrowded classrooms (Miya, 2017).

Polidore’s resilience theory guided the theoretical framework in this study. This theory advocates eight characteristics to form resilience, which may influence teachers’ teaching experiences and retention in education (Polidore, 2004). The eight characteristics comprise religion, flexible locus of control, an individual’s ability to view adverse situations positively or optimistic bias, autonomy, commitment, change, relationships and education viewed as necessary. To connect Polidore’s resilience theory with the challenges African teachers face in the classroom, African teachers can utilise the eight resilience themes to enhance their capacity and longevity in education. For instance, teachers can establish a sense of purpose by setting objectives and goals for themselves and their students. They can also foster social support by building relationships with colleagues and mentors who can provide guidance and support. Additionally, teachers can develop problem-solving skills by seeking professional development opportunities and learning new strategies to tackle classroom challenges. Bobek (2002) argued that the challenging conditions of the teaching profession necessitate teacher resilience. Additionally, Bobek (2002) stated that resilient teachers are better equipped to evaluate adverse situations, identify coping mechanisms and implement appropriate solutions. By measuring African novice teacher resilience in facing their teaching challenges, this study will identify which challenges can be adapted and coped with African challenges, indicating their resilience. This study is done to identify in which challenging context African novice teachers can be more or less resilient to gain an understanding of South African novice teachers’ perspectives on their teaching challenges at schools.

**Review of past studies**
In the context of South Africa, multiple case studies were carried out by Mofokeng (2023) to explore the challenges faced by novice teachers during the pandemic period. The findings indicated that inexperienced educators experienced a deficiency in psychological and emotional assistance amid the COVID-19 pandemic. They found themselves susceptible to the unpredictability of the future, along with stress, depression, isolation, anxiety, the abrupt
shift to online learning and the necessity to acclimate to advanced technology. Additionally, the results suggested that the challenges posed by COVID-19 and associated ramifications would worsen as novice teachers gradually adapt to the new normal in their professional practices (Mofokeng, 2023). Other researchers have also found that teachers are withdrawing themselves from the teaching field due to inadequate salaries, insufficient administrative support and a tendency to place blame on teachers (Curtis, 2012).

Disruptive conduct within South African schools has been extensively documented, encompassing incidents such as students equipping themselves with weapons, violence between students, violence directed at educators, acts of vandalism, theft and the possession of restricted substances like drugs and alcohol (Mestry and Khumalo, 2012). Researchers have highlighted that disciplinary violations are still prevalent despite the efforts to implement disciplinary policies (Schoonover, 2009; Ehiane, 2014). The eradication of disruptive conduct in students is contingent upon effective discipline within the school environment. Therefore, adopting well-devised disciplinary measures is crucial for every learner as they progress towards adulthood (Ehiane, 2014).

In South Africa, parental involvement in schools has been predominantly constrained to the payment of school fees and participation in school meetings (Lemmer, 2007). As proposed by Gutman and McLoyd (2000), parents of high-achieving students are inclined to show greater interest in their children’s school activities and maintain more communication with teachers and the school compared to parents of low achievers. Munje and Mncube’s (2018) examination of parental engagement in chosen public primary schools in South Africa revealed a disparity between policy and actual practices regarding school-parent relationships. Consequently, the lack of cooperation between parents and teachers in the learning process might cause specific school programmes or low achievement among students (Sibanda, 2021). A qualitative study by Plessis and Letshwene (2020) also uncovered some significant challenges. The results showed changes in curriculum, overcrowded classrooms, medium of instruction, discipline and lack of resources (Plessis and Letshwene, 2020). It was challenging for teachers to attend to every learner’s needs in overcrowded classes. The study discovered that most participants complained that the learners did not have good disciplinary practices, such as disrespecting teachers, leaving homework undone, etc. Some questions remain regarding the extent of challenges encountered by South African novice teachers. To address this knowledge gap, the current study was conducted to measure the teacher’s resilience faced by South African novice teachers.

Research methodology

Instrument

This study used survey methodology to measure South African novice teacher resilience in facing teaching challenges. All ethical guidelines were adhered to as set out by the Faculty of Education at the University of Pretoria. The data collection was done on a voluntary basis in which the respondents had expressed their willingness to participate by signing the consent form. Hence, the respondents understood the ethical procedures of participating in the current study. To produce the item-person map, a survey was conducted to measure the teacher resilience in teaching facing by South African novice teachers. The questionnaire consists of 18 items, all of which carry 5-point responses such as “not true at all about me”, “rarely true about me”, “sometimes true about me”, “often true about me”, “true nearly all of the time about me”; to measure South African novice teacher resilience in teaching at schools. The items were guided by the comprehensive explanation by Gu and Day (2013), which characterising teacher resilience as the capability of teachers to navigate an inevitable degree of uncertainty in the educational environment whilst sustaining balance, a sense of responsibility and concentration (Gu and Day, 2013) as well as the concept of resilience postulated in Connor-Davidson Resilience Scale (Connor and Davidson, 2003).
Sample
The sample involved 143 South African novice teachers. Most respondents were female (97.2%) whereas male respondents occupied 2.8%. In terms of educational qualification, 36.2% of respondents had diploma, followed by 29.7% who obtained degree, 18.1% of respondents had a degree with diploma or certificate. The respondents who obtained postgraduate qualification (Masters/PhD) occupied 12.3%. Notably, there was 50.5% of female respondents had postgraduate qualifications. Respondents who had teaching experience of 21 years and above recorded 44.3%, followed by 19.8% of teachers who had 6–10 years of teaching experience, 9.9% of teachers who had 16–20 years of teaching experience, 9.2% of teachers who had 11–15 years of teaching experience. Lastly, both groups of respondents who had 4–5 years of teaching experience and less than 3 years of teaching experience recorded 8.4% respectively. Meanwhile, 45.5% of South African novice teachers were teaching at inner-city schools, 22.7% in township schools and 22.7% in rural schools. A small minority (9.1%) taught at private schools.

Data collection and analysis
The respondents were asked to respond to each item in the questionnaire as “not true at all about me”, “rarely true about me”, “sometimes true about me”, “often true about me” and “true nearly all of the time about me”. The Rasch analysis technique was used to overcome the weakness of classical test theory (CTT), which can only compute the total score of South African novice teacher resilience. Based on CTT, it is assumed that the value of an attribute is represented by an observed score, which is the sum of an actual (error-free) score and the measuring error. Although CTT can provide substantial evidence of the accuracy of a measuring questionnaire, several new psychometric tools might complement or even replace this approach and collect more accurate evidence to support the inferences made about the meaning and interpretation of questionnaire scores. One of the fundamental shortcomings of CTT is that it does not allow for descriptive interpretations of the meaning of each item in a questionnaire. According to Wilson (2004), the CTT approach does not address the possibility of attaching specific meanings to each item in the questionnaire regarding the measured construct.

To overcome the limitation of CTT, the Rasch model was proposed by Danish mathematician Georg Rasch, who, in the 1960s, described the unique properties that only this model possesses (Olsen, 2003). The Rasch model describes the respondents’ behaviour based on their answers to each item. Its mathematical formula relates the probability of the outcome (response) to the level of the respondents’ inclination in the construct under measurement and the item endorsability in the context of a questionnaire, which has a Likert-based response type. Due to the probability of a specified response being modelled in the Rasch model as a function of person and item parameters, the Rasch model can arrange items and persons on a single scale (Bond and Fox, 2001). The item-person map produced by the Rasch Model analysis has a unique psychometric property called conjoint measurement. It can generate criterion-referenced interpretations in terms of qualitative descriptions of what the respondent agrees or does not agree to do (Figure 1). Thus, the interpretation of scores in the Rasch model is not based on group norms (as is typically done in CTT). However, it can be interpreted in terms of item content and processes that the respondent has a low or high probability of endorsing. This characteristic endows the Rasch model with great diagnostic power for South African novice teachers’ resilience in facing teaching challenges.

Using the Rasch measurement model, this study wants to reveal which items are more likely to be endorsed by participants to different degrees, enhancing knowledge of the meaning of low and high scores in the survey measurement. By measuring South African novice teachers’ resilience in facing their teaching challenges, this study will identify which
challenges can be adapted and coped with by South African novice teachers, indicating their resilience. This study chooses the Rasch model as a measurement model to identify in which challenging context Africans can be more resilient. On the other hand, using the same measurement model analysis, this study would recognise that African novice teachers are considered less resilient in certain challenging situations. Figure 2 illustrates an item-person map to measure South African novice teachers’ resilience in facing the teaching challenge.

Results
In this section, the results of the questionnaire are outlined and discussed. The researchers began with the analysis of the psychometric properties of the questionnaire prior to the
interpretation of the item-person map. Several psychometric properties are examined based on the Rasch model framework’s elements, including item fit and polarity, category fit and item and person reliability (Bond, 2015).

**Item fit and polarity of the teacher resilience questionnaire**

Based on the results in Table 1, the item mean squared infit is recorded between 0.72 and 1.46, whereas the item mean squared outfit is between 0.72 and 1.74. Thus, one item, item C1, exceeds the recommended value. However, according to Samsudin et al. (2019), the construct can be recognised as functional when there is a positive Point Measure Correlation (PTMEA Corr) value. In this analysis, all the items had positive PTMEA Corr values, indicating that
they function well in measuring the developed construct (Linacre, 2006) and do not distort the measurement. Therefore, item C1 can be retained to measure South African novice teachers’ resilience in facing teaching challenges.

Category fit of the teacher resilience questionnaire
The findings in Table 2 show that the category mean squared infits lie between 0.97 and 1.03, and the category mean squared outfits are in the range of 0.97–1.09. The category measurements also displayed a pattern that fits the Rasch model assumption of ranging from easy to difficult. This can be observed when category label 1 has a category measurement of −2.03 logit, followed by category label 2 with a measure of −0.54 logit, category label 3 has a measure of 0.56 logit and finally, category label 4 has a measure of 1.99 logit. The assumption of the Rasch model is fulfilled because the category measures can follow a pattern of difficulty from easy to difficult. Hence, this indicates that the four response scales for each item in the instrument function properly.

<table>
<thead>
<tr>
<th>Entry number</th>
<th>Total score</th>
<th>Total count</th>
<th>Measure</th>
<th>Model S.E.</th>
<th>Infit MNSQ</th>
<th>ZSTD</th>
<th>Outfit MNSQ</th>
<th>ZSTD</th>
<th>PT-measure</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>278</td>
<td>384</td>
<td>0.58</td>
<td>0.11</td>
<td>1.46</td>
<td>3.60</td>
<td>1.74</td>
<td>4.3</td>
<td>0.37</td>
<td>C1</td>
</tr>
<tr>
<td>2</td>
<td>301</td>
<td>138</td>
<td>0.33</td>
<td>0.10</td>
<td>1.36</td>
<td>3.00</td>
<td>1.54</td>
<td>3.5</td>
<td>0.43</td>
<td>C2</td>
</tr>
<tr>
<td>6</td>
<td>317</td>
<td>136</td>
<td>0.12</td>
<td>0.10</td>
<td>1.12</td>
<td>1.10</td>
<td>1.17</td>
<td>1.3</td>
<td>0.50</td>
<td>C6</td>
</tr>
<tr>
<td>16</td>
<td>305</td>
<td>137</td>
<td>0.23</td>
<td>0.10</td>
<td>1.27</td>
<td>2.40</td>
<td>1.29</td>
<td>2.1</td>
<td>0.52</td>
<td>C16</td>
</tr>
<tr>
<td>17</td>
<td>272</td>
<td>136</td>
<td>0.58</td>
<td>0.11</td>
<td>1.05</td>
<td>0.50</td>
<td>1.00</td>
<td>0.1</td>
<td>0.53</td>
<td>C17</td>
</tr>
<tr>
<td>5</td>
<td>280</td>
<td>140</td>
<td>0.61</td>
<td>0.11</td>
<td>1.09</td>
<td>0.80</td>
<td>1.07</td>
<td>0.5</td>
<td>0.55</td>
<td>C5</td>
</tr>
<tr>
<td>3</td>
<td>335</td>
<td>132</td>
<td>−0.18</td>
<td>0.10</td>
<td>1.04</td>
<td>0.40</td>
<td>1.09</td>
<td>0.8</td>
<td>0.56</td>
<td>C3</td>
</tr>
<tr>
<td>15</td>
<td>228</td>
<td>139</td>
<td>1.23</td>
<td>0.12</td>
<td>0.76</td>
<td>−1.90</td>
<td>0.83</td>
<td>−0.9</td>
<td>0.58</td>
<td>C15</td>
</tr>
<tr>
<td>10</td>
<td>417</td>
<td>138</td>
<td>−0.89</td>
<td>0.11</td>
<td>1.13</td>
<td>1.20</td>
<td>1.09</td>
<td>0.7</td>
<td>0.59</td>
<td>C10</td>
</tr>
<tr>
<td>7</td>
<td>420</td>
<td>139</td>
<td>−0.87</td>
<td>0.11</td>
<td>0.85</td>
<td>−1.30</td>
<td>0.83</td>
<td>−1.2</td>
<td>0.60</td>
<td>C7</td>
</tr>
<tr>
<td>13</td>
<td>357</td>
<td>133</td>
<td>−0.40</td>
<td>0.10</td>
<td>0.72</td>
<td>−2.80</td>
<td>0.77</td>
<td>−1.9</td>
<td>0.60</td>
<td>C13</td>
</tr>
<tr>
<td>14</td>
<td>221</td>
<td>137</td>
<td>1.28</td>
<td>0.12</td>
<td>0.96</td>
<td>−0.30</td>
<td>0.83</td>
<td>−0.9</td>
<td>0.61</td>
<td>C14</td>
</tr>
<tr>
<td>8</td>
<td>425</td>
<td>137</td>
<td>−1.02</td>
<td>0.11</td>
<td>0.92</td>
<td>−0.60</td>
<td>0.86</td>
<td>−0.9</td>
<td>0.61</td>
<td>C8</td>
</tr>
<tr>
<td>4</td>
<td>374</td>
<td>136</td>
<td>−0.49</td>
<td>0.10</td>
<td>0.97</td>
<td>−0.30</td>
<td>0.90</td>
<td>−0.8</td>
<td>0.62</td>
<td>C4</td>
</tr>
<tr>
<td>18</td>
<td>266</td>
<td>137</td>
<td>0.67</td>
<td>0.11</td>
<td>0.71</td>
<td>−2.70</td>
<td>0.74</td>
<td>−1.9</td>
<td>0.63</td>
<td>C18</td>
</tr>
<tr>
<td>12</td>
<td>374</td>
<td>136</td>
<td>−0.48</td>
<td>0.10</td>
<td>0.86</td>
<td>−1.30</td>
<td>0.85</td>
<td>−1.2</td>
<td>0.63</td>
<td>C12</td>
</tr>
<tr>
<td>9</td>
<td>411</td>
<td>137</td>
<td>−0.85</td>
<td>0.11</td>
<td>1.02</td>
<td>0.20</td>
<td>0.90</td>
<td>−0.7</td>
<td>0.64</td>
<td>C9</td>
</tr>
<tr>
<td>11</td>
<td>366</td>
<td>134</td>
<td>−0.44</td>
<td>0.10</td>
<td>0.72</td>
<td>−2.90</td>
<td>0.72</td>
<td>−2.3</td>
<td>0.67</td>
<td>C11</td>
</tr>
</tbody>
</table>

Mean 330.6 136.7 0.00 0.11 1.00 −0.1 1.01 0.0
S.D. 64.2 2.0 0.71 0.01 0.21 1.9 0.27 1.8

Source(s): Table by Samsudin

Table 1.
Item fit and polarity of the teacher resilience questionnaire

<table>
<thead>
<tr>
<th>Category Label Score</th>
<th>Observed Count</th>
<th>OBSVD AVERAGE</th>
<th>Sample expect</th>
<th>Infit MNSQ</th>
<th>Outfit MNSQ</th>
<th>Andrich threshold</th>
<th>Category measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>430</td>
<td>23</td>
<td>−0.99</td>
<td>−0.95</td>
<td>0.97</td>
<td>NONE (−2.03)</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>448</td>
<td>24</td>
<td>−0.18</td>
<td>−0.24</td>
<td>1.02</td>
<td>−0.66 (−0.54)</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>438</td>
<td>23</td>
<td>0.41</td>
<td>0.40</td>
<td>1.00</td>
<td>0.10 (0.56)</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>551</td>
<td>30</td>
<td>1.14</td>
<td>1.14</td>
<td>1.03</td>
<td>0.56 (1.99)</td>
</tr>
</tbody>
</table>

MISSING 59 3 −0.36

Note(s): OBSERVED AVERAGE is the mean of measures in the category. It is not a parameter estimate.
Source(s): Table by Samsudin
**Item and person reliability of the teacher resilience questionnaire**

Based on the guideline given by Bond (2015), person and item reliability values above 0.8 are acceptable, values between 0.6 and 0.8 are considered less acceptable and values below 0.6 are unacceptable. Table 3 displays that the item reliability of the questionnaire is 0.97, supporting the evidence that the questionnaire achieves excellent item reliability. This explains that the instrument is expected to appropriately measure the teacher’s resilience. Besides, the results also show an item separation index of 5.91, which explains the ability to discriminate the questionnaire items into six levels of seriousness. It also means that the items provide a good spread in determining the teacher’s resilience in the responses. Thus, the item difficulty of the construct is supported.

In addition, the findings in Table 4 show the person reliability for the teacher resilience questionnaire. This analysis indicates an individual’s good person reliability index at 0.87 whilst the individual separation index at 2.60. The results show that the respondents demonstrated three levels of ability in the questionnaire.

**The item-person map**

According to Black et al. (2011), an item-person map is a visual representation which recognises the existence of items and respondents in one dimension of measurement to ensure a more accessible interpretation. As mentioned previously, the conjoint measurement property of the Rasch analysis is deemed a very valuable feature. It means that measurement of the means of respondent and item scores (i.e. endorsabilities) are calculated on an equal interval logit scale. Figure 3 depicts this useful property of Rasch

---

<table>
<thead>
<tr>
<th>Total</th>
<th>Count</th>
<th>Measure</th>
<th>Model error</th>
<th>Infit</th>
<th>Outfit</th>
</tr>
</thead>
<tbody>
<tr>
<td>score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>269.1</td>
<td>103.7</td>
<td>0.00</td>
<td>0.12</td>
<td>1.00</td>
</tr>
<tr>
<td>S.D.</td>
<td>52.4</td>
<td>1.6</td>
<td>0.73</td>
<td>0.01</td>
<td>0.23</td>
</tr>
<tr>
<td>Max.</td>
<td>359.0</td>
<td>107.0</td>
<td>1.11</td>
<td>0.15</td>
<td>1.50</td>
</tr>
<tr>
<td>Min.</td>
<td>192.0</td>
<td>101.0</td>
<td>-1.38</td>
<td>0.11</td>
<td>0.62</td>
</tr>
<tr>
<td>Real RMSE</td>
<td>0.13</td>
<td>True</td>
<td>Separation</td>
<td>5.67</td>
<td>Item reliability</td>
</tr>
<tr>
<td>Model RMSE</td>
<td>0.12</td>
<td>True</td>
<td>Separation</td>
<td>5.91</td>
<td>Item reliability</td>
</tr>
</tbody>
</table>

**Note(s):** S.E. of item mean = 0.18

**Source(s):** Table by Samsudin

---

<table>
<thead>
<tr>
<th>Total</th>
<th>Count</th>
<th>Measure</th>
<th>Model error</th>
<th>Infit</th>
<th>Outfit</th>
</tr>
</thead>
<tbody>
<tr>
<td>score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAN</td>
<td>45.3</td>
<td>17.40</td>
<td>0.14</td>
<td>0.31</td>
<td>1.00</td>
</tr>
<tr>
<td>S.D.</td>
<td>11.1</td>
<td>1.80</td>
<td>0.94</td>
<td>0.12</td>
<td>0.47</td>
</tr>
<tr>
<td>Max.</td>
<td>71.0</td>
<td>18.0</td>
<td>3.71</td>
<td>1.02</td>
<td>2.75</td>
</tr>
<tr>
<td>Min.</td>
<td>5.0</td>
<td>4.00</td>
<td>-3.59</td>
<td>0.27</td>
<td>0.18</td>
</tr>
<tr>
<td>Real RMSE</td>
<td>0.36</td>
<td>True</td>
<td>Separation</td>
<td>2.41</td>
<td>Person reliability</td>
</tr>
<tr>
<td>Model RMSE</td>
<td>0.34</td>
<td>True</td>
<td>Separation</td>
<td>2.60</td>
<td>Person reliability</td>
</tr>
</tbody>
</table>

**Note(s):** S.E. of item mean = 0.09

**Source(s):** Table by Samsudin

Table 3. Item reliability of the teacher resilience questionnaire

Table 4. Person reliability in the teacher resilience questionnaire

---

South African novice teacher resilience
analysis in the form of an item-person map that portrays the measurement descriptions based on each item in the teacher resilience questionnaire. The distribution of the item measurements is shown on the right side of the logit line, whereas the distribution of the person measurements is on the left side. It is also observed that the measurements of South African novice teacher’s resilience are distributed equally along the left side of the logit line. For example, some teachers are on top, in the middle and at the bottom of the line. This pattern indicates the variation of person measurements along the logit line. The group on top represents the respondents with high resilience and are more likely to consider the listed teaching challenges easier to adapt. In contrast, the respondents at the bottom have low resilience and are more likely to perceive all the challenges as difficult to adapt. In this study, items above the mean value represent teaching challenges that are more difficult for teachers to adapt. In contrast, items below the mean value represent teaching challenges that are easier to adapt. Based on the interpretation of the Rasch model framework, challenges at the lower end of item measures are perceived as significant professional challenges experienced by the respondents. According to the observation on the item...
measure map, the South African novice teachers rated their resilience at the lowest levels in the following items:

1. Students who have uninvolved parents
2. Students who have poor discipline
3. Students who receive inadequate guidance and counselling

The common theme that can be distilled from these top three challenges is the combination of students’ problematic behaviour and a lack of involvement and guidance by adults.

Discussion
This section discusses the significant challenges identified in the study under three headings: uninvolved parents, poor discipline and lack of guidance and counselling for students.

Uninvolved parents
The findings show that item 15, “I believe I can teach even if students’ parents are unwilling to be involved in their child’s learning process, garnered much disagreement from South African novice teachers. In other words, the respondents showed low resilience towards the issues related to uninvolved parents.

Student misbehaviour has been linked to teachers’ poor well-being, which includes anger, anxiety and reduced job satisfaction. Students often misbehave in school due to lack of parental support, poverty and peer pressure (Moen, 2021). The positive impact of parental involvement on student academic achievement has been recognised widely. The relationship between parental involvement and positive academic achievement has been established (Wilder, 2014). Research emphasises the importance of family involvement for academic achievement, student engagement and social-emotional well-being (Wilder, 2014). Previous research studies have indicated that if teachers firmly believe in parents’ ability to support their children, they are likelier to behave in ways that will contribute to parental involvement than teachers with less positive beliefs about parents (Hoover-Dempsey et al., 2002; Bandura, 1997). It has been established that family support is imperative for optimal development. Warm, supportive parenting and family cohesion increase student motivation, autonomy, engagement and overall well-being (Reschly and Christenson, 2019). It is established that it is the authoritative parenting style that improves child competence (Steinberg, 2001), which underscores the importance of the role of parenting practices on student outcomes.

On the other hand, teachers will have difficulty with students with uninvolved parents (Reschly and Christenson, 2019). Despite the challenges experienced in ensuring parental engagement, schools must seek to engage parents actively. Reaching out to parents produces positive outcomes. School personnel can assist parents in navigating the political, educational and social systems and are empowered to get the best services for their children (Prater, 2010).

Poor discipline
The respondents also highlighted poor discipline. Item 14, “I believe I can handle student disciplinary problems at my school,” obtained strong disagreement from South African novice teachers. The results indicated that the respondents showed low resilience towards the issues related to students’ poor discipline. Such a result is supported by Sezer (2017, p. 1), who states that disruptive behaviour is seen as the most pervasive challenge and widely affects the teaching experiences of novice teachers. The types of disciplinary problems teachers encounter in South African schools are disruptive behaviour, rudeness, dishonesty, obscene
language, cheekiness, untidy/wrong clothing, neglect of duty, telling lies and absenteeism (Wolhuter and van Staden, 2008).

The initial years of service (generally considered the first three years of teaching) are often difficult for many teachers. Two of the reasons why teachers experience this period as challenging are inadequate classroom management training at the beginning of their professional careers and lack of experience. Many novice teachers struggle to use effective disciplinary practices in their classes. Three factors that influence novice teachers’ disciplinary problems are false expectations about classroom situations, personal concerns about teaching and a general lack of responsibility for their own decisions and actions (Fernandez-Balboa, 1990).

Challenges novice teachers encounter in managing discipline problems are not new in education settings. In the first years of teaching, novice teachers settle in and try to determine formal and informal teaching rules. However, they are often confronted with poorly disciplined students, negatively impacting teaching and learning (Memela, 2013). Current research shows that cases of undisciplined students are increasing in South African schools.

Cooperative disciplinary measures are suggested, as they offer corrective, supportive and preventative strategies for dealing with ill-discipline. It is suggested that preventative measures for dealing with student indiscipline are more proactive and valuable than reactive measures. Cooperative discipline is a collaborative effort between students, teachers, administrators and parents (Maphosa and Shumba, 2010).

Lack of student guidance
Based on the findings, South African novice teachers rated Item 18, “I believe I can teach even if there is a lack of guidance and counselling for students at my school,” as one of the most severe challenges. It indicated that South African novice teachers had a low level of resilience towards the problem of students receiving inadequate student guidance at school. Hence, lack of student guidance was highlighted as a significant factor in the study. The history of South Africa is one of adversity, poverty, violence, abuse and neglect. Poverty is widespread, with a third of the population (of which 11 million are younger than 18 years) living on social grants (Moen, 2019). Stress hurts parenting, especially in poverty situations, where parents are less likely to have the support to reinforce good behaviour and are less nurturing. This leads to increased levels of physically punishing the child, limited communication and less expression of affection (Seepamore, 2016). Low and middle-income countries, such as South Africa, have high rates of child trauma exposure and limited access to psychological services (Moen, 2019). A growing phenomenon is child-headed households, where many children carry the burden of care but lack adequate skills and knowledge to perform these duties (Moen, 2021). Many families in South Africa do not live together in order to survive the harsh socio-economic conditions they are exposed to. As is parenting from a distance, labour migration is common in South Africa. Children are often left in the care of relatives, such as grandparents, uncles and aunts, when parents have to leave home to pursue job opportunities (Seepamore, 2016). These factors lead to limited opportunities for guidance and support from parents.

The reality of South Africa is that teachers cannot only focus on facilitating learning in schools but also need to respond to hunger, be equipped to assist with children’s bereavement due to HIV and AIDS deaths and be available for aftercare when illiterate parents cannot assist with homework. The teacher’s primary role is to create enabling environments for optimising learning and development (Ebersöhn et al., 2015). Teachers are uniquely positioned to create spaces of safety and security for children (Moen, 2021). The pastoral role of the teacher, which is gaining momentum because of the decline of parental involvement (Steyn and Moen, 2019), is one of seven roles outlined by the South African Department of Education Norms and Standards for Educators (Ogina, 2010). The pastoral role of the teacher...
includes promoting and supporting knowledge of the self, self-efficacy, negotiating, reflection and empowerment to provide optimal learning and development. Pastoral care focusses on assisting students to become confident and competent (Moen, 2021). Eloff (2019), who emphasises the child’s holistic development, thinks that teachers have an essential role in communication between school and family. The Department of Basic Education in South Africa has a policy on screening, identification, assessment and support (SIAS). This policy is intended to assess the level and extent of support required in schools and classrooms to maximise learner’s participation in the learning process. It outlines the process of identifying individual learner needs in the home and school context to establish the needed support (Department of Basic Education, 2014). However, Vance et al. (2015) state that the critical role of pastoral care in teaching is often layered onto teachers’ work and that little professional support is provided to develop this role to ensure optimal guidance and support to students.

Conclusion
Novice teachers often face many difficulties in the teaching process and relationships with colleagues or students’ parents. This study was conducted to measure the teacher resilience faced by novice teachers in South Africa. This study has found that teacher resilience in teaching can vary across the item-person map produced by Rasch model analysis, which shows that the top three significant challenges are students with uninvolved parents, undisciplined students and students lacking guidance and counselling.

Due to the complex nature of South African society, many novice teachers are overwhelmed by the challenges they face when entering the profession. These challenges are often embedded in societal risk factors, complicating the transition from student teacher to novice teacher. As mentioned, learners misbehave at school because of factors such as lack of parental support, peer pressure, poverty, lack of motivation to succeed and more. Faced with that reality, society places too high expectations on teachers, who have the role of creating a safe learning environment for students. Accordingly, teachers’ role is increasing whilst parents’ participation is decreasing. The school environment is vital in promoting discipline or causing ill-discipline (Masingi, 2017). The significant challenges identified in this study related to social and emotional learning (SEL) components, as the challenges are closely linked to the psychological and social backgrounds of the students. SEL is related to developing social and emotional competencies that enable individuals to understand and manage their emotions, establish positive relationships, make responsible decisions and exhibit empathy and respect for others. A SEL programme’s critical components should include self-awareness, self-management, relationship skills, social awareness and responsible decision-making (Amadori et al., 2023).

Teachers in this study indicated that they found it difficult to deal with these challenges at the beginning of their careers. Professional development courses are suggested to help teachers effectively deal with issues such as discipline and uninvolved parents, as well as guidance and counselling. Getting teachers involved in continuous professional development allows them to update their knowledge occasionally.

The findings suggest that professional development in SEL among teachers should be given greater emphasis. The recommendations for integrating SEL into current teacher professional development courses are crucial because they will enhance teachers’ social and emotional competence (Dung and Dsolnai, 2021). It is recommended that higher education programmes should aim at aspiring teachers by placing increased focus on providing teachers with training in their pastoral responsibilities. By possessing adequate social and emotional competence, teachers will be empowered to manage stress and anxiety, boost their motivation and equip them with the necessary skills to navigate challenging periods. Teachers will better understand how to tackle disciplinary problems among students at
school. In addition, teachers may also provide support and guidance for parents to promote their involvement in children’s learning. It is recommended that schools should increase parents’ exposure to the knowledge about the operating system at schools. The schools should encourage parents to participate actively in the events or activities organised by schools. Such participation can be fostered if schools educate parents on how to assist their children to learn. In order to enhance collaborations between parents and teachers, it is essential to conduct extensive research on ways to enhance the overall interaction between these parents and teachers.

References


Further reading
Average primary school teacher salary in South Africa (2021), available at: https://www.payscale.com/research/ZA/Job=Primary_School_Teacher/Salary


Corresponding author
Hai Thi Thanh Pham can be contacted at: hai.phamthithanh@hust.edu.vn

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com