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**Impact of In-Service Teacher Training (INSET)  
on Navigating Opportunities and Challenges  
in Contemporary Classrooms: A Systematic  
Literature Review**

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## **Impact of In-Service Teacher Training (INSET) on Navigating Opportunities and Challenges in Contemporary Classrooms: A Systematic Literature Review**

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## Abstract

This systematic literature review addresses the pivotal role of in-service teacher training (INSET) in empowering educators to navigate the complexities of modern classrooms effectively. As educational landscapes continually evolve, teachers encounter diverse challenges necessitating ongoing professional development. The study aims to systematically analyse the existing literature to assess the efficacy of INSET programmes in equipping teachers with essential skills and strategies. By scrutinising a range of scholarly sources, including research articles and academic journals, the research synthesises insights into how INSET initiatives enhance teachers' pedagogical practice and their ability to address contemporary educational challenges. Notably, it examines factors such as technological advancements and diverse learner populations, underscoring the imperative for teachers to adapt continually. Through this review, the study aims to offer a comprehensive understanding of both the strengths and limitations of current INSET practices. The findings hold potential implications for policymakers, educational institutions, and practitioners, informing the development of more tailored and effective INSET programmes. In conclusion, this systematic exploration seeks to elevate the quality of teacher training initiatives, thereby enriching students' educational experience in today's dynamic classrooms.

**Keywords:** Contemporary classrooms; educational challenges; In-service teacher training; inset programmes; pedagogical enhancement; policy implications; professional development; teacher adaptation.



## Introduction

In contemporary education, in-service teacher training (INSET) has become increasingly vital in addressing the evolving needs of teachers and learners alike. As educational landscapes continue to shift, teachers face myriad challenges ranging from technological advancements to diverse learner populations (Govender et al., 2023). INSET programmes serve as a cornerstone for professional development, providing teachers with the tools, strategies, and support to navigate these challenges effectively (Darling-Hammond et al., 2017; Guskey & Yoon, 2009). Moreover, the significance of INSET extends beyond individual teacher growth; it directly impacts the quality of education and learner outcomes in contemporary classrooms (Mjobo et al., 2025). One prominent theme in the discourse on INSET is the concept of inclusive classrooms for epistemic access. Inclusive education aims to create learning environments that cater to the diverse needs of all learners, regardless of their backgrounds, abilities or learning styles. Epistemic access, in this context, refers to learners' ability to access and engage with knowledge in meaningful ways that empower them as learners (Ajani, 2020; Harris & Sass, 2011; Villegas-Reimers, 2003). Therefore, exploring the intersection of INSET and inclusive classrooms is crucial for understanding how teacher training initiatives can promote equitable access to education and foster inclusive practices.

The current study aims to examine the impact of INSET on navigating opportunities and challenges in contemporary classrooms, with a specific focus on inclusive classrooms for epistemic access. By synthesising existing literature and drawing on empirical evidence, this study aims to shed light on the effectiveness of INSET programmes in addressing learners' diverse needs and promoting inclusive practices among teachers (Darling-Hammond, 2017; Kyndt et al., 2016). Additionally, the current study aims to identify the critical challenges and barriers practitioners encounter when implementing inclusive pedagogies and to highlight opportunities to enhance INSET initiatives to better support inclusive education efforts. The problem statement underlying this study concerns the persistent gaps and disparities in educational access and outcomes experienced by marginalised learner populations, particularly in Africa and other developing regions (Ajani, 2023; Garet et al., 2001; Smith & Gillespie, 2007). Despite widespread recognition of the importance of inclusive education, many teachers need additional training, resources, and support to effectively implement inclusive practices in their classrooms. The current study seeks to address this gap by critically examining the role of INSET in promoting

inclusive classrooms for epistemic access and providing practical recommendations for enhancing teacher training programmes to better meet the needs of diverse learners.

Considering the outlined objectives, this study will systematically review existing literature on INSET and inclusive education, synthesising findings from empirical studies, theoretical frameworks, and best practices in teacher training. By critically analysing the strengths and limitations of current INSET practices and identifying areas for improvement, this study aims to contribute to ongoing efforts to enhance the quality and inclusivity of education in contemporary classrooms. Ultimately, the insights gleaned from this study may inform the design and implementation of more effective INSET programmes tailored to the diverse needs of teachers and learners in Africa and other developing contexts.

## Problem statement

Although it is generally implemented across the world as an in-service teacher-training programme, many educators, especially in Africa and other developing regions, remain ill-prepared to foster inclusive classrooms that guarantee epistemic access for all learners. Some challenges that warring teachers experience include insufficient training in inclusive pedagogies, limited resources, and inequalities that make supporting diverse learner populations exceedingly difficult (Ajani, 2020; Govender et al., 2023; Smith & Gillespie, 2007). Inclusive education involves teaching that is differentiated, culturally responsive, and flexible, with the use of technology (Gay, 2010; Makgato et al., 2020; Tomlinson, 2014), whereas INSET programmes rarely offer these multifaceted offerings and are largely content-driven (Fullan, 2007; Harris & Sass, 2011). The gap between policy aspirations and reality in the classroom perpetuates inequalities in educational access and outcomes, especially for marginalised learners (Chigona & Chigona, 2011). There is thus an urgent need to re-examine INSET to better support the teaching body in facing the realities of modern-day classrooms and nurturing order-inclusive learning environments (Ajani & Govender, 2025; Kyndt et al., 2016; Villegas-Reimers, 2003).



## Research questions

The current study intends to resolve the problem through the investigation of the following research questions:

- How do current INSET programmes affect the ability of teachers to implement inclusive pedagogical practices within contemporary classrooms?
- What are the main opportunities and challenges teachers face in fostering an inclusive classroom for epistemic access through INSET?
- How can INSET programmes be restructured to better support teachers in delivering inclusive learning environments to the diverse needs of learners?

## The evolution of INSET

The evolution of INSET reflects a dynamic response to the changing landscape of education, marked by shifting pedagogical paradigms, emerging technologies, and evolving learner demographics. Over the years, INSET programmes have undergone significant transformations in response to emerging challenges and opportunities in contemporary classrooms, mainly promoting inclusive epistemic access practices. Historically, INSET programmes were primarily focused on transmitting subject knowledge and basic pedagogical skills to teachers (Fullan, 2007). However, as educational research and policy frameworks evolved, there was a growing recognition of the need for INSET programmes to address broader pedagogical issues and challenges teachers face in diverse classroom contexts (Govender & Ajani, 2021; Harris & Sass, 2011). This shift towards a more comprehensive approach to teacher training laid the foundation for developing INSET initiatives that prioritise the acquisition of advanced pedagogical strategies, reflective practices, and culturally responsive teaching methods (Villegas-Reimers, 2003).

The emergence of inclusive education as a guiding principle further influenced the evolution of INSET programmes, emphasising the need to cater to the diverse learning needs of all learners, including those with disabilities, language barriers, or socio-economic disadvantages (Adu & Zondo, 2024; Tomlinson, 2014). INSET initiatives began to incorporate modules and workshops to equip teachers with the knowledge and skills needed to create inclusive classroom environments, differentiate instruction, and support diverse learners effectively (Gay, 2010). Technological advancements have played a pivotal role in shaping the evolution of INSET programmes, offering new

opportunities for personalised learning, collaboration, and professional development (Borko, 2004). Online platforms, virtual learning environments, and digital resources have become integral components of modern INSET initiatives, enabling teachers to access training materials, participate in collaborative learning communities, and engage in self-directed professional development activities (Artino, 2007; Bush, 2020).

Furthermore, the globalisation of education has contributed to the internationalisation of INSET programmes, with teachers increasingly seeking opportunities for cross-cultural exchange, collaboration, and professional networking (Khoza et al., 2025). International partnerships, exchange programmes, and collaborative research projects have become standard features of INSET initiatives, allowing teachers to gain insights into diverse educational systems, practices, and perspectives (Kim, 2025). Therefore, the evolution of INSET reflects a dynamic and multifaceted response to the changing demands and complexities of contemporary classrooms. By adapting to emerging pedagogical trends, technological innovations, and inclusive education principles, INSET programmes have evolved into comprehensive initiatives that prioritise teachers' continuous professional growth and development. Moving forward, it is essential for INSET programmes to continue evolving in response to new challenges and opportunities, ensuring that teachers are equipped with the knowledge, skills, and resources needed to navigate the diverse and ever-changing landscape of modern education (Darling-Hammond, 2017).

## The role of INSET in the South African education system

In the South African education system, INSET is pivotal for addressing the multifaceted challenges and opportunities in contemporary classrooms. South Africa's education landscape is characterised by diversity in learner demographics and socio-economic backgrounds, necessitating tailored approaches to teacher development (Darling-Hammond et al., 2017; Makgato et al., 2020). INSET programmes equip teachers with the knowledge, skills, and strategies to navigate these complexities and promote inclusive practices that foster epistemic access for all learners. One of the primary roles of INSET in the South African context is to address historical inequalities and disparities in education by promoting equitable access to quality teaching and learning opportunities (Chigona & Chigona, 2011). Through targeted training initiatives, teachers can develop a deeper understanding of the socio-cultural context of education in South Africa and adopt pedagogical approaches responsive to diverse learners' needs (Khoza et al., 2025). INSET programmes focusing on culturally



relevant teaching practices and inclusive education principles contribute in creating more inclusive and equitable learning environments (Makgato et al., 2020).

Moreover, INSET plays a critical role in enhancing teachers' professional competencies and empowering them to address the unique challenges faced in South African classrooms (Khoza & Rikhotso, 2021). By providing opportunities for ongoing professional development, collaboration, and reflective practice, INSET programmes enable teachers to refine their instructional strategies, incorporate innovative teaching methods, and effectively utilise educational technology to enhance learner-learning outcomes (Sebolao & Makoelle, 2019). Furthermore, INSET initiatives in South Africa are instrumental in promoting learner-centred approaches to teaching and fostering active engagement in the learning process (Sithole & Nxumalo, 2018). By emphasising pedagogies that prioritise learner voice, agency, and participation, INSET programmes contribute in creating a more democratic and empowering educational environment where all learners can succeed (Kgobe & Maja, 2018).

In addition to enhancing classroom practice, INSET programmes in South Africa have broader implications for educational policy and systemic reform (Wium & Louw, 2018). By advocating for evidence-based practices and promoting collaboration between policymakers, teachers, and other stakeholders, INSET initiatives can drive positive changes in curriculum development, assessment practices, and teacher support systems (Bush, 2020). In conclusion, the role of INSET in the South African education system is multifaceted and critically important in addressing the challenges and opportunities present in contemporary classrooms. By focusing on equity, professional development, learner-centred pedagogies, and systemic reform (Ajani, 2023), INSET programmes create more inclusive and effective learning environments that enable all learners to thrive. However, continued investment in INSET, informed by research and best practices, is essential to ensure that South Africa's education system remains responsive to the evolving needs of teachers and learners.

## **Theoretical frameworks**

The theoretical frameworks of social cognitive theory (SCT) and experiential theory offer valuable insights into INSET dynamics and their impact on promoting inclusive education in contemporary classrooms. SCT, developed by Bandura (1986), emphasises the reciprocal interaction between cognitive processes, environmental factors, and individual behaviour. According to SCT, individuals learn by observing others

(modelling), reflecting on their own experiences, and receiving feedback from their environment (Desimone, 2009; Zimmerman, 2000). Experiential theory, on the other hand, posits that learning is a continuous process of knowledge construction through active engagement with real-world experiences (Kolb, 1984). Both theories underscore the importance of experiential learning, self-reflection, and social interaction in shaping teachers' pedagogical practices and beliefs (Artino, 2007). The relevance of SCT and experiential theory lies in their applicability to understand the complex nature of teacher professional development and classroom practice. SCT provides a framework for examining how teachers' beliefs, self-efficacy, and motivation influence their engagement in INSET activities and subsequent implementation of inclusive teaching strategies (Bandura, 1986). By fostering a supportive learning environment that encourages collaborative problem-solving and reflective practice, INSET programmes can enhance teachers' sense of efficacy and competence in addressing the diverse needs of learners (Artino, 2007). Experiential theory complements SCT by highlighting the role of active experimentation and reflection in deepening teachers' understanding of inclusive pedagogy (Kolb, 1984). Through hands-on experiences, peer collaboration, and action research projects, teachers can refine their instructional approaches and adapt them to meet the unique needs of their learners (Artino, 2007; Kolb, 1984).

These theories inform the discussion on INSET and inclusive classrooms by emphasising the importance of providing teachers with authentic learning experiences that bridge theory and practice (Kolb, 1984; Zimmerman, 2000). INSET programmes that integrate SCT and experiential learning principles offer opportunities for teachers to engage in meaningful professional development activities relevant to their instructional context (Artino, 2007; Bandura, 1986). By incorporating real-world examples, case studies and classroom simulations, INSET initiatives can help teachers better understand inclusive teaching principles and strategies (Zimmerman, 2000). Moreover, by fostering a supportive learning community where teachers can share best practices, seek feedback, and engage in reflective dialogue, INSET programmes can promote collective efficacy and collaboration among teachers (Bandura, 1986; Kolb, 1984). Therefore, SCT and experiential theory offer valuable frameworks for understanding the role of INSET in promoting inclusive education in contemporary classrooms. By emphasising the importance of social interaction, self-efficacy, and experiential learning, these theories offer insights into how INSET programmes can effectively support teachers' professional growth and help them navigate the

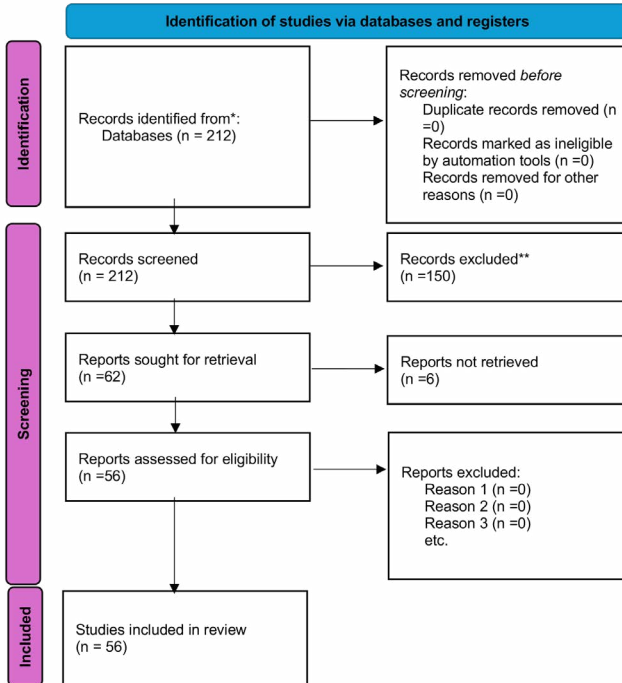


opportunities and challenges of inclusive teaching. Integrating SCT and experiential learning principles into INSET initiatives can help cultivate a culture of continuous improvement and innovation in teacher education, ultimately leading to more equitable and inclusive educational practices.

## **Methodology**

The research methodology employed to investigate the impact of INSET on navigating opportunities and challenges in contemporary classrooms, especially in promoting inclusive classrooms for epistemic access, was rigorous and systematic (Day et al., 2009; Donohoo, 2017). This methodology was essential for ensuring the reliability, validity and credibility of the findings.

A total of 212 publications were accessed from Scopus and Google Scholar databases, following the PRISMA review flow procedure (Page et al., 2021). These databases consist of scholarly publications that are robust for scholarship engagements like this study. These publications were further screened and reduced to 56 articles, focusing on those published in English and in peer-reviewed journals (as shown in Figure 1).



**Figure 1: PRISMA flow of review**

*Source: Adopted from Page et al. (2021)*

As illustrated in Figure 1, a systematic literature review approach was adopted to gather, analyse, and synthesise relevant literature. This approach involved formulating clear research questions and objectives to guide the review process, ensuring a focused and comprehensive exploration of the subject matter (Ferguson, 2011; Govender & Ajani, 2021; Grant & Booth, 2009; Fullan & Hargreaves, 2012).

A comprehensive search strategy was developed to identify relevant literature from electronic databases, academic journals, conference proceedings and grey literature sources. Keywords and search terms related to INSET, inclusive education, pedagogical practices and contemporary classrooms were systematically applied to retrieve pertinent literature (Tranfield et al., 2003). The use of Boolean operators such as “AND”, “OR” and “NOT” facilitated the refinement of search queries, ensuring a thorough literature search (Zimmerman, 2000).



Screening criteria were established to select studies based on relevance, quality and alignment with the research objectives. Inclusion criteria encompassed studies published within the specified timeframe (2000–2025), peer-reviewed articles, empirical research studies and theoretical frameworks relevant to the study's focus areas (Higgins & Green, 2011)—exclusion criteria included non-peer-reviewed publications, dissertations, conference abstracts, and studies unrelated to the research topic. The screening process involved multiple stages, including title screening, abstract screening and full-text assessment, conducted independently by two reviewers to ensure consistency and reliability.

Once the final set of studies was identified, data extraction was performed to systematically collect and organise relevant information. A standardised data extraction form was developed to capture critical details, including study objectives, research methods, participant characteristics, key findings, and theoretical frameworks (Kitchenham & Charters, 2007).

The findings from the selected studies were analysed, interpreted and synthesised to identify common themes, patterns and trends across the literature. Thematic analysis techniques, such as coding, categorisation, and thematic mapping, were employed to distil key insights and generate new knowledge in the field (Braun & Clarke, 2006). The synthesised findings were then presented in a coherent, structured manner, supported by evidence from the reviewed literature, to provide a comprehensive overview of the current state of knowledge on the impact of INSET on inclusive classrooms that promote epistemic access.

Therefore, the research methodology employed in the current study was robust, transparent and systematic, ensuring the reliability, validity and credibility of the findings. By adhering to established guidelines and best practices in systematic review methodology, the research methodology facilitated a comprehensive exploration of the impact of INSET on navigating opportunities and challenges in contemporary classrooms, particularly in promoting inclusive classrooms for epistemic access (Gumede & Mkhize, 2020).

## **Results/findings**

The research methodology adopted for the current study was meticulously designed to explore the impact of INSET on addressing opportunities and challenges within contemporary classrooms, with a specific focus on promoting inclusive classrooms for

epistemic access. Recognising the complexity and multifaceted nature of this topic, a systematic literature review was employed to ensure a comprehensive analysis of existing scholarly work. This methodological approach was chosen to guarantee the reliability, validity and credibility of the findings by adhering to rigorous screening and data extraction processes. By systematically reviewing 212 publications sourced from Scopus and Google Scholar and narrowing them down to 56 peer-reviewed articles published in English, thematic analysis was employed to synthesise diverse perspectives and empirical evidence (see Table 1)

**Table 1: Summary of studies**

Theme	Focus	Key Findings
<b>INSET and Teachers' Pedagogical Practices</b>	How in-service training shapes teaching practices	<ul style="list-style-type: none"> <li>Enhances lesson planning, content mastery, and classroom delivery (Guskey &amp; Yoon, 2009; Harris &amp; Sass, 2011).</li> <li>Encourages reflective practice and collaborative learning (Desimone et al., 2002; Timperley et al., 2007).</li> <li>Aligns teaching with institutional and policy goals, especially in rural contexts (Darling-Hammond et al., 2017).</li> <li>Builds teacher self-efficacy and confidence to innovate (Bandura, 1986).</li> <li>Sustained, context-specific INSET is more effective than short workshops.</li> </ul>
<b>Adoption of Evidence-Based Instructional Strategies</b>	Use of proven pedagogical methods through training	<ul style="list-style-type: none"> <li>INSET enables adoption of strategies with high learner impact, for example, feedback and formative assessment (Hattie, 2009).</li> <li>Promotes learner-centred and differentiated instruction (Ferguson, 2011; Tomlinson, 2014).</li> <li>Supports culturally responsive pedagogy (Gay, 2010).</li> <li>Encourages implementation of Universal Design for Learning (UDL) (Tibane et al., 2024).</li> <li>Serves as a bridge between theoretical frameworks and classroom application.</li> </ul>

Theme	Focus	Key Findings
<b>Instructional Innovation and Flexibility</b>	Teachers' willingness to experiment and adapt	<ul style="list-style-type: none"> <li>• Empowers teachers to trial new approaches like problem-based and digital learning (Haßler et al., 2021; Leithwood et al., 2004).</li> <li>• Reduces resistance to change and builds a reform orientation (Fullan, 2007).</li> <li>• Strengthens capacity for ICT integration and digital innovation.</li> <li>• Enhances contextual adaptability of curricula (Makhmetova et al., 2025).</li> <li>• Innovation flourishes when institutional support structures are in place.</li> </ul>
<b>Creating Inclusive Classrooms for Epistemic Access</b>	Role of INSET in supporting inclusion and equity	<ul style="list-style-type: none"> <li>• Improves teachers' competence in inclusive education and differentiation (Kim, 2025).</li> <li>• Translates policy on inclusion into practice (UNESCO, 2017).</li> <li>• Strengthens culturally relevant pedagogy and humanising practices (Ajani, 2021, 2023; Khoza et al., 2025; Ladson-Billings, 1995; Ajani, 2021, 2023).</li> <li>• Promotes equitable participation and epistemic access for all learners (Rouse &amp; Florian, 2013; Tibane et al., 2024).</li> <li>• Inclusion emerges as a learned professional competence, not innate.</li> </ul>

Theme	Focus	Key Findings
<b>Opportunities and Challenges in INSET for Inclusivity</b>	Balancing benefits and barriers in practice	<ul style="list-style-type: none"> <li>• Collaborative INSET fosters professional empathy and shared strategies (Boyle &amp; Topping, 2012).</li> <li>• Supports professional learning communities (Khoza et al., 2025).</li> <li>• Barriers include attitudinal resistance and systemic resource constraints (Avramidis &amp; Norwich, 2002; Sebolao &amp; Makoelle, 2019).</li> <li>• Ongoing peer support reduces negative attitudes (Singh &amp; Mukeredzi, 2024).</li> <li>• Without systemic reform, INSET alone cannot achieve full inclusivity.</li> </ul>

The structured and transparent methodology facilitated the identification of relevant literature, the extraction of critical data, and the thematic analysis of key findings for this section, thereby providing a robust foundation for understanding the effectiveness of INSET in fostering inclusive educational environments.

### Theme I: INSET and Teachers' Pedagogical Practices

It has been universally established that, through INSET, teacher pedagogy is improved in line with the highest expectations in content, theory and methodology. Guskey and Yoon (2009) found that INSET initiatives with a practical focus allow teachers to make alterations in lesson planning and classroom delivery to engage learners actively. Harris and Sass (2011) further corroborated these conclusions, showing through quantitative studies that teaching effectiveness improved when INSET was long-term and curriculum-related. This confirms that INSET cultivates both content mastery and pedagogical agility.

Other research highlights INSET's role in developing teachers' reflection (Ajani & Govender, 2025). Timperley et al. (2007) contended that effective INSET challenges teachers to examine their practices critically and to instil this mentality within their culture, thereby keeping them engaged in active, lifelong professional learning. Desimone et al. (2002) noted that reflection, coupled with collaborative learning, leads to long-lasting improvement in teaching practice. It is especially potent in resource-constrained environments, offering adaptive teaching options. Studies also find that teachers gain the most when INSET is structured within the context of their current



classroom practice (Mjobo et al., 2025). Darling-Hammond et al. (2017) assert that context-specific INSET serves to build teachers' capabilities while aligning teachers' pedagogical practices with the practical intentions of institutions and policies. This is imperative in rural or low-resource schools, given that a disconnect between INSET content and classroom realities frequently undermines INSET's efficacy.

In other ways, professional learning opportunities enhance teachers' self-efficacy. According to Bandura (1986), when teachers believe they are given the tools and support needed to excel, they gain more confidence as they try new things. INSET instils such confidence by demonstrating effective teaching strategies, exemplifying them, and providing opportunities for guided practice. The findings thus far suggest some considerable and lasting effects that INSET has had on the teaching staff; however, over time, quality design and contextualised alignment, as well as sustained support, will carry the impact. Short, sporadic workshops may raise participants' awareness, yet participants rarely change their instructional pedagogy permanently.

## **Theme 2: Embracing Evidence-Based Instructional Strategies**

Substantial evidence supports the role of INSET in enabling teachers to adopt evidence-based instructional strategies. Hattie (2009) concluded that meta-analytic evidence identified professional development as one of the most significant influences on student achievement, particularly when focused on strategies such as formative assessment and feedback. Therefore, INSET informs educators' implementation of such strategies. According to Ferguson (2011), participation in INSET led teachers to increase their use of learner-centred approaches such as cooperative learning and inquiry-based teaching, which engage students and foster achievement. Complementing this perspective, Tomlinson (2014) demonstrated that INSET directly enables teachers to differentiate instruction for learner diversity.

Further evidence indicates that INSET is an enabling facet of culturally relevant pedagogy. Gay (2010) noted that training enables teachers to incorporate learners' cultural backgrounds into instructional practices in an inclusive and relevant manner. This is especially pertinent in diverse contexts such as South Africa, where classrooms are multilingual and multicultural. The ability to operate within the UDL framework is another objective INSET aims for. Florian and Black-Hawkins (2011) noted that teachers introduced to UDL principles through training were empowered to establish flexible learning environments that benefited all students. Together, these findings

stress that evidence-based strategies do not, on their own, diffuse into practice, but require continued professional support. The role of INSET in bridging theoretical knowledge and classroom practice is crucial.

### Theme 3: Instructional Innovation and Flexibility

INSET is said to promote instructional innovation and creativity. According to Leithwood et al. (2004), professional learning activations foster environments wherein teachers feel empowered to try out innovations in teaching, such as problem-based learning, technology integration, or project-based pedagogy. Fullan (2007) suggested that INSET is most important in cultivating orientation towards change amongst teachers, as professional development helps to lessen resistance by developing a shared understanding of how reforms should be implemented and why they are necessary. With sustained opportunities for professional development, teachers will become innovators by choice, not by force.

One recent development in the INSET landscape is digital innovation. Haßler et al. (2021) reported that digital-oriented INSET increased teachers' competencies in Information and Communication Technology (ICT)-empowered pedagogy, with flexibility and creativity at its core. This, in turn, equips learners for participation within a digitally oriented society. While innovation is context-specific, it is also a form of adaptation. Atienzo et al. (2018) suggested that teachers who participated in INSET were better able to modify curricula to suit local contexts, particularly in response to the diversity of learner needs. Such adaptability ensures that innovation is not imposed; instead, it is gradually embedded into the learning environment. These findings thus confirm the catalytic nature of INSET in creating teachers' disposition and ability to innovate. However, the picture of innovation will not be complete without institutional-level support packages that encourage risk-taking and experimentation.

### Theme 4: Developing Inclusive Epistemic Classrooms

According to Mjobo et al. (2025), INSET has been found to fundamentally improve teachers' competencies in creating inclusive classrooms that ensure epistemic access. Ainscow et al., (2012) and Florian and Black-Hawkins (2011) found that inclusion training heightened teachers' confidence in differentiating instruction and supporting learners with disabilities. Genuine inclusivity requires systems committed to teacher



training (UNESCO, 2017). INSET equips teachers with the translation of policy commitments into practice, so learners who would otherwise be marginalised gain full access to curriculum content.

Furthermore, these studies testify to a culturally responsive inclusion (Chabongwa, 2025). Ladson-Billings (1995) found that when teachers were trained in culturally relevant pedagogy, learners increased their engagement and achievement levels. Ajani (2021, 2023) likewise reveals that in-service programmes in African contexts improved teachers' awareness of socio-cultural diversity, thereby enabling the cultivation of humanising and equitable classroom environments. Studies further point to inclusion not only as a question of disability or culture, but also as equitable participation (Ajani & Ntombela, 2025; Rivera et al., 2025). Rouse and Florian (2013) state that INSET prepares teachers to develop learning experiences that encourage all learners to contribute, thereby challenging exclusionary practices.

The results cumulatively show that inclusion is a learned skill, not an inborn one. INSET represents the opportunity for teachers to gain the knowledge, skills, and attitudes to make epistemic access a reality for all learners.

### **Theme 5: Opportunities and Challenges in INSET for Inclusivity**

Various studies emphasise the opportunities and challenges of INSET for inclusivity in dynamic classroom situations (Rivera et al., 2025). Mjobo et al. (2025) highlight both opportunities and obstacles to using INSET to promote inclusivity. On the upside, Boyle and Topping (2012) observed that collaborative INSET provided opportunities for teachers to share strategies and grow in empathy. Both factors are important for inclusion. Khoza et al. (2025) reinforced this by asserting that INSET fostered professional communities that supported teachers' inclusive endeavours over time.

However, challenges remain. Avramidis and Norwich (2002) and Tibane et al. (2024) brought forth an embedded attitude barrier among teachers who sometimes see inclusive practices as a burden. Sebolao and Makoelle (2019) argued that resource shortages and systemic inequities present in South Africa make even the best-crafted training programmes ineffective. More recent studies have proposed methods to overcome these barriers. Singh and Mukeredzi (2024) argued that the formation of continuous professional learning communities dismantled negative attitudes while fostering teacher confidence in inclusive practices. Rouse and Florian (2013) also

believed that prolonged engagement in reflection and peer support were critical in overcoming initial resistance. This somewhat paradoxical reality puts on display that, while INSET is a key opportunity for inclusive school-building processes, it faces obstacles in the form of underfunding, a lack of support structures, and ingrained attitudes. INSET cannot fulfil the promise of inclusion until these issues are tackled at the systemic level.

## Implications for practice and policy

The implications derived from synthesising key findings and insights from the preceding study on the impact of INSET on navigating opportunities and challenges in contemporary classrooms, particularly within inclusive education, are profound. This section delves into the implications for practice and policy, elucidating the significance of these findings for teacher education programmes, professional development initiatives, and educational policy (Govender & Ajani, 2021). First and foremost, synthesising key findings underscores the pivotal role of INSET programmes in fostering inclusive classrooms for epistemic access. By equipping teachers with the knowledge, skills, and strategies to address learners' diverse needs, INSET initiatives hold immense potential to promote equitable access to quality education for all learners (Kim, 2025). The discussion on the implications for teacher education programmes highlights the need for curriculum reform and pedagogical approaches that prioritise inclusivity and diversity. Teacher education programmes must incorporate modules on inclusive education, cultural responsiveness, and differentiated instruction to prepare teachers for the complexities of contemporary classrooms (Govender et al., 2023; Tibane et al., 2024).

Moreover, professional development initiatives must be tailored to meet the specific needs of teachers working in diverse contexts and serving diverse learner populations. This necessitates ongoing support, mentorship opportunities, and collaborative learning experiences that effectively empower teachers to implement inclusive practices (UNESCO, 2017). Furthermore, educational policy must prioritise the development and implementation of evidence-based INSET programmes that align with the broader goals of educational equity and social justice (Ainscow et al., 2012). Policymakers must allocate resources and establish frameworks to support the design, delivery, and evaluation of INSET initiatives that promote inclusive classrooms for epistemic access (UNESCO, 2017). Considering these implications, recommendations for designing and implementing effective INSET programmes



that promote inclusive classrooms for epistemic access are paramount. INSET programmes should adopt a multifaceted approach that combines face-to-face training, online modules, peer collaboration, and reflective practice to cater for diverse learning preferences and professional needs. Additionally, INSET programmes should prioritise the development of teachers' cultural competence, pedagogical flexibility, and collaboration skills to foster inclusive classroom environments (Khoza et al., 2025). Furthermore, INSET initiatives should incorporate mechanisms for ongoing assessment and feedback to monitor the effectiveness of professional development efforts and inform continuous improvement (Kyndt et al., 2016).

The implications derived from synthesising key findings underscore the critical importance of INSET programmes in promoting inclusive classrooms for epistemic access. By addressing learners' diverse needs and equipping teachers with the necessary knowledge and skills, INSET initiatives can transform educational practices and outcomes. Moving forward, stakeholders across the education sector must collaborate to design and implement effective INSET programmes that prioritise inclusivity and equity, ultimately advancing the goal of providing quality education for all.

## Conclusion

The current study comprehensively explores the impact of INSET on navigating opportunities and challenges in contemporary classrooms, specifically on promoting inclusive education practices. Through synthesising key findings and insights, several important themes have emerged, shedding light on the crucial role of INSET in enhancing teacher effectiveness and promoting equitable learning opportunities for all learners. Throughout the study, the discussion has focused on how INSET programmes contribute to teachers' professional growth by equipping them with the knowledge, skills, and strategies needed to address learners' diverse needs. By engaging in targeted professional development initiatives, teachers can enhance their pedagogical practices, promote inclusive teaching approaches, and create supportive learning environments that foster academic success and well-being for all learners.

Furthermore, the study has underscored the importance of aligning teacher education programmes, professional development initiatives, and educational policies with the principles of inclusivity. By prioritising inclusivity in teacher training and policy development, stakeholders can ensure that teachers are adequately prepared to meet the needs of diverse learners and create inclusive classrooms where all learners

feel valued and supported. As one looks to the future, stakeholders across the education landscape must prioritise inclusivity to support teacher development and improve educational outcomes. By investing in high-quality INSET programmes that promote inclusive education practices, one can work towards creating learning environments that provide equitable opportunities for all learners to thrive. In the current study, the findings underscore the importance of INSET in fostering inclusive education practices and highlight the need for continued efforts to prioritise inclusivity in teacher training and educational policy. By working collaboratively to promote inclusive practices, more equitable and inclusive educational systems can be created that benefit all learners. Top of Form

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