



Resilient Economics Education Ecosystem: A Scoping Review of Teaching and Learning Strategies in South African Schools

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Abstract. The study explores strategies that foster a resilient Economics education ecosystem in South African schools. Economics education faces systemic challenges that affect the instructional quality, engagement, and development. This study employed a scoping review to explore articles, grey literature, and reports published between 2020 and 2025. The PRISMA protocol was used to identify relevant studies published between 2020 and 2025. 40 studies met the inclusion criteria. The following inclusion criteria were used: relevance to economics education, focus on instructional practices, and a context similar to South African education. The findings showed that teacher competence, curriculum alignment and access to learning resources influence the quality of economics instruction. Curriculum relevance and teachers' ability to adapt appropriate instructional strategies were key to students' understanding. Providing learning resources allows students to engage and deepen their understanding. The study shows that a resilient instructional ecosystem requires coordinated support to strengthen economics instruction. In addition, it informs policy, instructional practice, and resource planning in South African schools.

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INTRODUCTION

Economics education in South Africa faces persistent challenges that negatively impact teaching, learning, and the development of critical reasoning. According to Mbonambi et al. (2023), a resilient

educational ecosystem can address these challenges by strengthening interconnected elements that support meaningful learning, including teacher capacity, school leadership, learning resources, and community partnerships (Ndlovu & Mafora, 2024). Such an ecosystem enables schools to withstand

disruptions, adapt to contextual pressures, and improve educational outcomes. This study aims to conduct a scoping review of research on resilient Economics education ecosystems and their contributions to quality teaching and learning in South African schools.

A resilient educational ecosystem is an interconnected system that sustains effective instruction under dynamic conditions (Regmi, 2024). Key elements shaping teaching and learning include educational policies, resources, community support, and learner context (Kyaruzi & Rugambuka, 2026). Within this ecosystem, teachers' expertise and pedagogical competence influence student achievement (Channa & Sahito, 2022), while adequate resources and infrastructure enable active learning and understanding (Chisunum & Nwadiokwu, 2024). Effective school leadership guides curriculum implementation and motivates teachers and students (Terhoven, 2022; Mabena, 2025). Collaborative school cultures further enhance learning and classroom innovation (Nguyen et al., 2021), highlighting how these factors collectively strengthen or weaken the instructional ecosystem.

Reports from government departments, think tanks, and educational organisations highlight structural challenges affecting Economics education in South African schools (Mashwama & Thwala, 2025). Department of Basic Education reports note teacher shortages, inconsistent professional development, and inequitable resource allocation across provinces (Tran & Smith, 2021). Many schools also lack adequate classrooms, digital tools, and subject-specific learning materials (Chisango & Marongwe, 2021). These constraints, compounded by curriculum overload and limited integration of real-world economic issues (Motsie, 2023), reveal systemic barriers that continue to hinder effective teaching and learning in Economics.

Although research has examined components of the Economics education ecosystem, few studies have examined the classroom as an interconnected ecosystem that requires resilience. Most focus narrowly on teacher development, leadership, or resource provision, leaving a gap in understanding how these factors interact to

support or hinder effective instruction. The significance of this study lies in its perspective on a resilient ecosystem in education, demonstrating how factors such as teachers, learning resources, curriculum, leadership, and community influence the quality of education in South Africa. This study addresses this gap by defining the ecosystem of Economics instruction, shaped by pedagogical approaches and school-context forces. It aims to identify components that enhance student understanding and instructional quality. The guiding research question is: *How can the instructional ecosystem in South African schools be strengthened to improve the teaching and learning of Economics?*

Strengthening Teacher Capacity Through Development and Collaboration. Teacher capacity is recognised as a factor that influences students' performance and learning outcomes in Economics education. Mjobo et al. (2025) argue that teachers with strong subject knowledge, pedagogical skills, and assessment literacy deliver lessons that enhance conceptual understanding. In contrast, Mbonan et al. (2023) reported that many teachers in under-resourced schools lack professional development. This indicates inequalities in access to teacher support in schools. This reduces opportunities for active engagement and innovative pedagogical practices. Similarly, Nkambule (2022) found that rural and township teachers often rely on traditional methods due to heavy workloads and limited guidance. The contrast in their perspectives shows that while teacher development initiatives can enhance instructional outcomes, their effectiveness depends on conditions within the school context. This shows that teacher capacity is contextually mediated and determined by individual actors.

Factors such as institutional support, workload and access to professional development are critical for effective instruction. Crawford (2022) asserts that factors such as development programmes, mentorship, and collaborative learning enhance teacher capacity and reflective practice. Professional learning communities and structured support systems foster resilience in teaching and learning environments (Mabunda & McKay, 2024). These authors believe schools need to embark on sustained professional engagement to

enhance the quality of instruction over time. They emphasise the importance of teacher capacity and sustained professional development, both of which are critical to improving instructional quality and student participation. Research shows the significance of collaboration and its contribution to improved instructional practices in schools. Botha and Nel (2022) discovered that collaborative platforms enable teachers to exchange strategies, assess student performance, and design materials that promote active engagement. In contrast, Shula and Heystek (2024) argue that collaboration is not effective when it is unsupported by strong leadership and adequate resource provision. This suggests that schools in resource-constrained environments need to provide the necessary learning resources to support economics instruction.

According to Chabalala and Naidoo (2021), many South African schools allocate limited time for collaboration and lack effective instructional leadership. This challenge constrains teachers' professional growth and the quality of instructional practices. Similarly, Kilag and Sasan (2023) note that poor pedagogical practices, limited collaboration, and weak leadership foster a culture of teacher isolation. Consequently, teachers often work independently and struggle to adapt to curriculum changes (Kiplangat et al., 2025). A fragmented instructional environment in schools strengthens this view. In addition, it suggests that sustained leadership support and resourced collaboration are essential for enhancing pedagogical practice and building a resilient school ecosystem. Thus, teacher development, leadership, and collaboration need to complement one another to maintain quality teaching.

The Role of Resources and Infrastructure in Enhancing Economics Instruction. Access to learning resources is considered an essential factor for effective economics instruction in schools. Chiramba (2024) found that access to learning resources contributes to the development of a resilient education system. Similarly, Rzyankina (2024) claims that the availability of learning materials supports students' learning in-depth students' learning. These studies overlook the role of quality teaching and responsive pedagogy in

delivering content. This implies that the availability of resources in schools alone does not guarantee effective learning outcomes. As such, researchers suggest integrating digital tools to enhance students' engagement and analytical skills. This enables them to interpret economic data when digital tools are supported with the relevant instructional strategies (Adeel et al., 2023). The benefits of such collaborative platforms in schools are not equally realised in most South African schools. More especially, rural and township schools in South Africa experience shortages of teachers, infrastructure and learning materials (Mkhize, 2023). This not only reflects the broader socio-economic imbalances but also limits students' ability to understand complex economic concepts.

While resources are key to effective teaching and learning, their impact depends on their availability and teachers' ability to integrate them into economics instruction. This reveals that the interaction between material conditions and teachers' pedagogical competence is critical for economics teaching. The quality of school and community infrastructure conditions affects the effectiveness of Economics instruction. Mncube (2023) concluded that Overcrowded classrooms, unstable electricity, and poor learning environments lessen the effectiveness of lesson delivery and student engagement. This constraint teaches practising and learner engagement in the classroom. Conversely, Besharati et al. (2021) and Mauti (2025) argue that schools with adequate infrastructure can implement curricula more effectively and support deeper learning. Effective teaching in economics is achieved when resources and infrastructure are available, and the teacher can adapt to the school's conditions.

Pretorius et al. (2021) maintain that Infrastructure shortages limit learning opportunities and collaborative activities that can enhance understanding of economic concepts. While these studies recognise the role of infrastructure, they also show imbalances between resourced schools and disadvantaged communities. They indicate that persistent inequality in underresourced schools hinders the achievement of quality learning outcomes. As a result, Fobosi and Malima (2025) emphasise the need for sustained investment in infrastructure and for leaders to upgrade and maintain school

environments. The findings reveal how resources and infrastructure serve as enabling conditions for economic development. Thus, the value of resources and infrastructure to economic education is optimised when effective instructional strategies complement it. In addition, this shows that physical infrastructure, resources, and instructional factors need to work together to complement each other.

Leadership Capacity and Policy Alignment as Drivers of Resilient Education. School leadership is widely acknowledged as a catalyst for a resilient instructional ecosystem. According to Ajan (2024), school leadership creates conditions that foster sustainable instruction. Similarly, Shava and Heystek (2021) and Shula (2023) claim that effective leaders promote teacher collaboration, allocate resources, and support professional growth to improve student progress and learning outcomes. This posits that leaders are a force that influences instructional activities within the school environment. These perspectives reveal the critical role of school leaders in creating a conducive learning environment. This is supported by Gading (2024), who posits that principals provide clear direction and mentorship to strengthen classroom practice and pedagogical innovation. This implies that school leaders not only act as administrators and managers, but also provide instructional leadership that shapes the instructional environment. Particularly, by linking pedagogical practices with the instructional goals of the school

Empirical studies have identified contextual challenges that lessen the effectiveness of school leaders. Tapala et al. (2021) found that increased workloads, a lack of leadership training, and complex school contexts hinder school leaders' ability to provide sustained support for teaching and learning. While leaders have the potential to improve pedagogical practices, their effectiveness is affected by contextual factors. Moreover, this reveals that the school's socioeconomic conditions hinder school leaders' influence. As a result, Somba and Zigama (2025) emphasise the importance of context-responsive leaders who can address specific obstacles that hinder economic instruction in schools. Policy frameworks and community contexts play a critical role in

shaping schools' learning environments. Osoro et al. (2025) concluded that education policies contribute to curriculum implementation, assessment practices, and resource distribution. This view shows how teachers are influenced by contextual conditions in which they operate.

According to Mabunda (2023), policies shape teachers' expectations and instructional priorities in the school. Despite the important role of education policies, many empirical findings emphasise the conflict between policy intentions and realities in the school environment. This indicates a gap between how policies are designed and how they are implemented to promote teaching and learning. In many instances, education policies are developed at the national level and may not address the socio-economic conditions that plague rural and township schools in South Africa. This lack of alignment reduces the effectiveness of policy changes aimed at transformative education. In response to these weaknesses, Thwala (2023) and Chepkirui and Kirimi (2025) identified the role of community engagement in reinforcing resilience in economic education in schools. These studies reveal that community engagement can help link economic instruction to context and classroom learning.

Local realities, such as employment patterns, informal trade, and household financial practices, enhance students' understanding of economic content. Nkambule et al. (2024) concur that school partnerships with parents, the community, and local firms are critical for expanding learning opportunities and students' contextual understanding. These insights suggest that resilient economic education depends on the effective implementation of policies and on the active participation of other stakeholders in education.

Literature Synthesis and Research Focus. The reviewed literature reveals diverse factors that shape economics education. These factors include teacher capacity, collaboration, resource provision, leadership support and a link between policy and education context. These factors complement each other to influence the quality of teaching and learning in schools. In the context of South African education, rural and township schools are affected by a lack of infrastructure,

limited opportunities for professional development and poor instructional support.

While previous research acknowledges these complexities, it mostly treats them as distinct challenges and not interdependent elements of the school educational ecosystem. These challenges reduce the knowledge of the complementary influence of these factors in the classroom. To address this gap, this study responds to the research question: *How can the instructional ecosystem in South African schools be strengthened to improve the teaching and learning of Economics?*

Method

This study uses a scoping review to map existing evidence, identify key concepts, highlight knowledge gaps, and suggest directions for future research. A scoping review was employed because of its suitability for exploring complex phenomena and mapping evidence. (Pollock et al., 2024). The review follows Arksey and O'Malley's five-stage framework (Mirahmadi & Khorasani, 2021), which involves defining the research question, identifying relevant studies, applying inclusion and exclusion criteria, charting data, and collating, summarising, and reporting the findings. This permits the scoping research process to be systematic and transparent.

The review was guided by a focused research question: *How can the instructional ecosystem in South African schools strengthen the teaching and learning of Economics?* Framed using the Population, Concept, and Context (PCC) guideline, the population included Economics students and teachers, the concept was the instructional ecosystem, and the context was South African schools. This approach aligns with the review's purpose and the evidence generated. Furthermore, it also maintains coherence between the research questions used and the selection criteria applied.

Identification and selection of studies

The scoping review used a comprehensive search strategy to identify studies on the economics instructional ecosystem in South African schools. The review search was conducted across databases such as Scopus, ProQuest, and Google Scholar, as well as grey literature, during the

period 2020 to 2025. This confirmed that foundational and recent developments in the field were obtained.

The keyword combinations and search strings were developed and refined to allow appropriate, relevant studies to be selected. These keywords included "instructional ecosystem" AND "Economics education" AND "South Africa". Variations such as ("teaching" OR "learning") AND ("schools" OR "classroom") AND ("students" OR "teachers") were also used to broaden the search and capture relevant sources. The Boolean operators "AND" and "OR" were used to extend and narrow the search for eligible sources appropriately. The literature search was conducted from June to August 2025, and the retrieved documents were recorded for replicability and transparency. Data extraction and coding were systematically carried out to ensure consistency across studies and support a reliable synthesis of findings.

The selected records for the scoping review were further screened against the reviewers' inclusion and exclusion criteria. This guaranteed that a comprehensive review of all selected articles met the eligibility requirements. (Hermont et al., 2022).

Inclusion Criteria is (1) Studies on school-level Economics teaching and student-teacher experiences; (2) Research on practices that support a resilient learning ecosystem; (3) Studies that were conducted in the South African context.

Exclusion Criteria is: (1) Studies that are not related to Economics or not centred on Economics as a subject; (2) Studies that are outside South Africa or are irrelevant to the school-level contexts; (3) Studies that are limited to individual performance without considering the school ecosystem.

Study Screening and Selection

In accordance with the PRISMA ScR, this study employed a rigorous screening process for transparency and reproducibility. Figure 2 depicts the process of screening and selecting eligible articles from various databases. Titles, abstracts, and full-text articles were utilised to select those that meet the inclusion criteria.

Two reviewers conducted the screening and selection of studies to ensure reliability. In the event of disagreement, the two reviewers

discussed these issues to address the discrepancy. Where necessary, a third reviewer was consulted in order to reach an agreement. The study set a clear criterion for evaluating the quality of the selected sources. This allowed selected articles to be linked to the study's objective and inclusion criteria.

This figure 1 presents a PRISM flow diagram for screening and selecting eligible sources for this study.

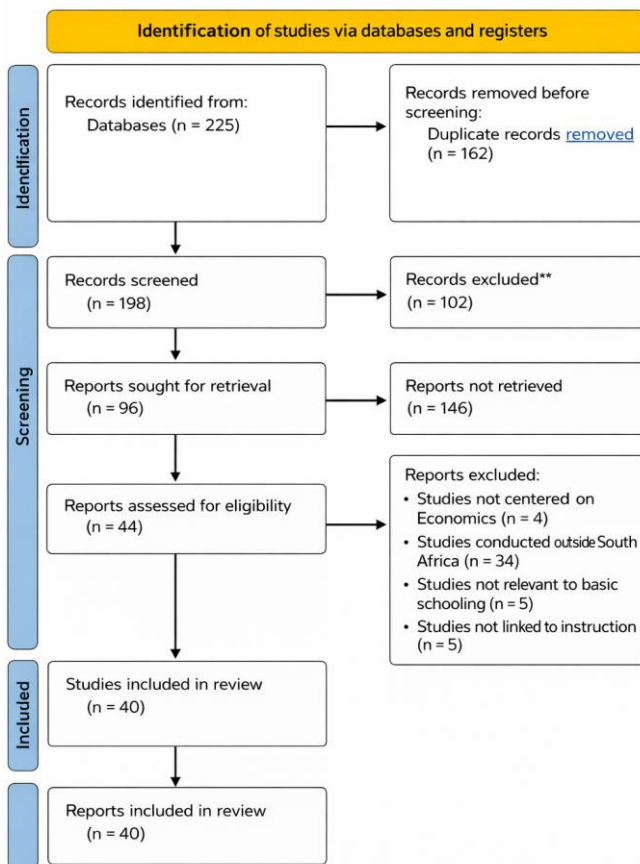


Figure 1. PRISMA Flow Diagram

Figure 1 presents the screening and selection process for the scoping review. Of 225 records, duplicate records, titles and abstracts were also screened for a full-text assessment. Studies were excluded based on their relevance, context and focus. Consequently, 40 studies met the inclusion criteria and underwent rigorous review.

RESULTS AND DISCUSSION

The review employed Hart and Yoost's (2025) structured guide for charting, collating, and reporting results. Data extraction focused on teacher competence, curriculum alignment, instructional strategies, learning resources, school leadership, and learner engagement. This process identified patterns across studies and organised findings around the critical components of the Economics instructional ecosystem in South African schools. A cross-tabulation of dominant themes across studies enabled interpretation of the evidence (van den Haspel et al., 2022). The synthesis of findings shows how these factors shape the quality of Economics teaching and learning.

This figure 2 presents the main thematic areas covered in the studies included in the scoping review. Figure 2 indicates that most studies focus on educational challenges, instructional methodologies, and digital integration. These areas constitute the largest share of the reviewed literature and emphasise classroom practices and systemic constraints. In contrast, relatively few studies address school leadership and learner engagement, indicating limited representation of school-level governance and student-centred pedagogies. This uneven distribution suggests imbalances in the literature and highlights the need for a more integrated perspective on the Economics instructional ecosystem.

This figure illustrates the annual distribution of documents included in the scoping review.

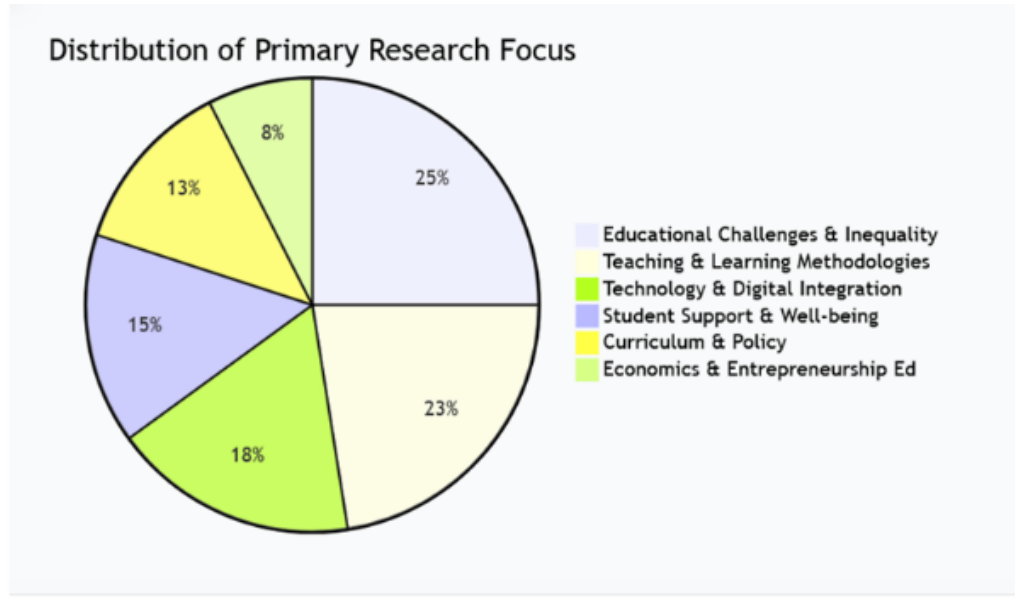


Figure 2. Distribution of Primary Research Focus across Included Studies

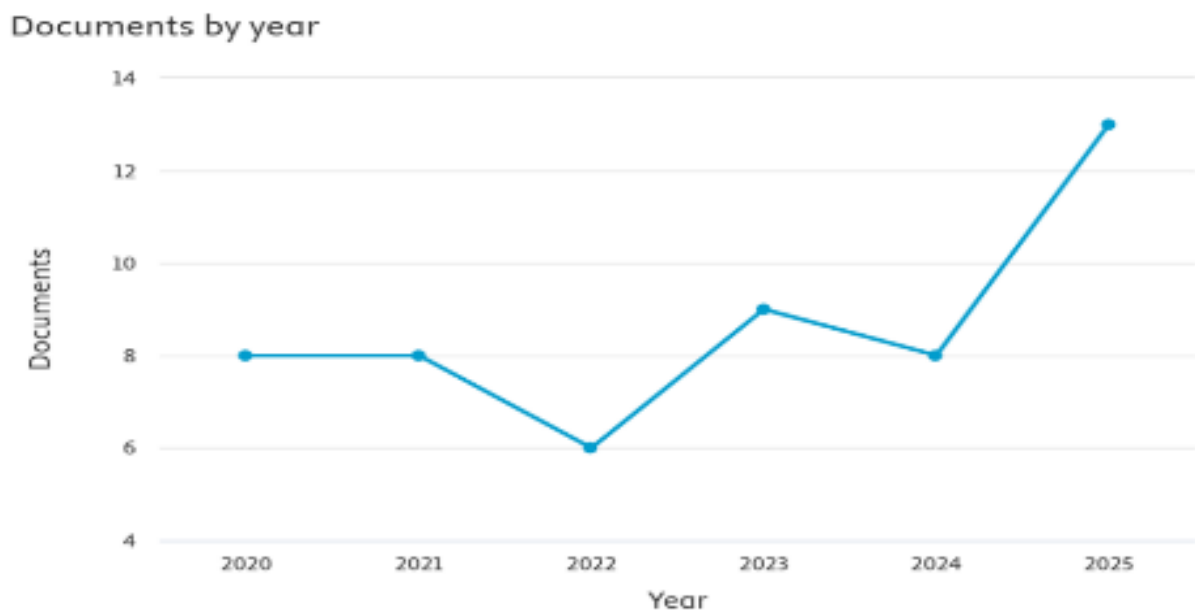


Figure 4. Shows fluctuations in publication output alongside a general upward trend over time.

Figure 4 shows fluctuations in publication output alongside a general upward trend over time. The period from 2020 to 2022 reflects moderate publication activity, followed by a marked increase from 2023 to 2025, with the highest output observed in 2025. This trend indicates growing scholarly attention to the

development of instructional ecosystems that support Economics education in South African schools.

This table 1 focuses on the skills, training, and philosophical frameworks that educators require to facilitate effective learning

Table 1. Knowledge and Pedagogical Competence

Theme	Studies (Authors & Year)	Key Focus
Pedagogical capability and evidence-based teaching	Kline et al. (2022); Amponsah (2023)	Strengthening evidence-based and philosophically grounded pedagogical competencies
Digital pedagogical competencies	Schildkamp et al. (2024); Sari & Gashan (2023); Moradi et al. (2023)	Preparing teachers to integrate digital tools into teaching practices
Subject matter knowledge (Economic/Financial literacy)	Leder & Linton (2023); Thieme et al. (2024)	Improving competency in economics-related knowledge areas
Challenges affecting teaching capacity	McKinley et al. (2022); Putroti et al. (2023)	Stressors, disruptions, and safety concerns that affect teacher performance

Table 1 reveals the importance of comprehensive teacher support in developing a resilient teaching ecosystem. The dominant themes across the studies emphasise pedagogical competence and digital skills. At the same time, several studies note that

teacher well-being and safety influence instructional effectiveness. These findings point to the need for sustained professional development and capacity-building that strengthen both competence and working conditions

Table 2. Curriculum Design and Alignment

Theme	Studies (Authors & Year)	Key Focus
Economics and entrepreneurship curriculum	Thieme et al. (2024); Leder & Linton (2023)	Addressing alignment between curriculum expectations and economic competencies
Indigenous, linguistic, and contextual curriculum issues	Dike & Celiksoz (2024); Amponsah (2023)	Aligning curriculum with local languages, identities, and epistemologies
Equity and curriculum access	Celani et al. (2023); Amponsah & Tannepanga (2023)	Ensuring curriculum access for disadvantaged learners

This table 2 includes studies that address the content, structure, and goals of educational programs, as well as their alignment with national needs and global standards. Table 2 identifies curriculum as a central component of a resilient Economics education ecosystem. Most studies emphasise curriculum relevance, structure, and alignment with required competencies. Fewer studies address inclusivity, indigenous knowledge, and linguistic diversity. Although the relationship between curriculum and learning outcomes is acknowledged, the literature reflects limited attention to contextual responsiveness within diverse schooling environments.

Table 3 shows that instructional practices within a resilient Economics ecosystem must be adaptive and contextually responsive. A dominant theme is the use of digital and blended instructional approaches, alongside transdisciplinary strategies in Economics education. However, limited evidence is available on how these strategies are implemented in resource-constrained schools. This gap indicates a disconnect between pedagogical approaches and the realities of diverse school contexts.

Table 3. Instructional Practices and Classroom Strategies

Theme	Studies (Authors & Year)	Key Focus
Teaching strategies in specialized subjects	Moradi et al. (2023); Sari & Gashan (2023)	Pedagogical positioning in quantitative and technology-based subjects
Teaching in times of disruption	McKinley et al. (2022); Nicolau et al. (2023)	Classroom strategies during crises and disruptions
Transformative and interdisciplinary approaches	Spence et al. (2023)	Transformative learning and interdisciplinary collaboration
Curriculum-enactment practices	Koch & Bergas (2023)	How teachers deliver challenging curriculum components

Table 4. Learning Resources and Infrastructure

Theme	Studies (Authors & Year)	Key Focus
Technology integration	Sahlberg et al. (2024); Sari & Ghofar (2025); Moradi et al. (2025)	Digital access and classroom ICT capacity.
Physical and contextual constraints	Morsyoglu & Tanrioğen (2025)	Resource limitations such as ESD facilities for improved access.
System-level resource inequalities	Mnguni & Abrahams (2025); Obwatinga et al. (2024)	Structural inequalities affecting resource distribution.

This table 4 includes studies on the physical, digital, and financial resources required for effective teaching and learning. Table 4 highlights the dependence of ecosystem resilience on equitable access to resources. The findings emphasise the importance of digital infrastructure and adequate physical facilities. Persistent inequalities in resource distribution continue to affect teaching conditions and learner outcomes. These constraints limit the adoption of innovative instructional approaches and weaken the overall functioning of the Economics education ecosystem.

This table 5 focuses on governance, management, policy, and support systems within educational institutions. Table 5 focuses on the role of leadership and institutional structures in sustaining a resilient instructional ecosystem. The findings indicate that governance, funding, and policy frameworks contribute to system stability. However, the literature emphasises conceptual discussions of leadership rather than its practical implementation in classrooms. This reflects a gap in understanding how leadership practices translate into improved instructional conditions for Economics education.

Table 5. School Leadership and Institutional Support

Theme	Studies (Authors & Year)	Key Focus
Governance and organizational support	Brodbeck et al. (2025); Kurniati & Kurniawan Ramba (2025; 2024)	Governance, funding, and leadership systems shaping school support.
Academic advising and student support	Veenstra & Mardiyah (2024)	Strengthening advising and institutional guidance.
Safety and educator well-being	Potokri et al. (2025)	Safety issues affect teacher support and school climate.
Evidence-based institutional development	Kitto et al. (2025)	Importance of research-informed educational leadership.

This table groups studies that address the socio-economic, environmental, and well-being factors that affect a learner's ability to engage and succeed

Table 6. Learner Engagement and Learning Conditions

Themes	Studies (Authors and Years)	Key Focus
Socio-ecological & Family Support	Reid, J.; et al. (2025)	<ul style="list-style-type: none"> Examines how family capabilities shape the well-being of individuals and families in diverse contexts, directly impacting learner support and engagement.
Educational Inequality & Access	Muyambi, G.G.; Ahiakpor, P.K.A. (2025)	<ul style="list-style-type: none"> Directly addresses the pervasive issue of global inequality, as exemplified in South African schools, a fundamental condition that affects learning opportunities.
Safety & Well-being	Potokri, O.C.; et al. (2025)	<ul style="list-style-type: none"> Highlights the challenge of violence against women in South Africa, creating a hostile and unsafe learning environment that hinders engagement.
Inclusive Education	Masuku, K.P.; Marumulo, K. (2024)	<ul style="list-style-type: none"> Focuses on providing accommodations for children with complex communication needs, which is essential for their participation and engagement in learning.
Language & Identity	Diko, M.; Celliers, A.B. (2024)	<ul style="list-style-type: none"> Addresses challenges in teaching indigenous languages, particularly regarding learner identity, cultural inclusion, and engagement within the education system.
Crisis & Disruption	McNulty, J.P.; et al. (2025)	<ul style="list-style-type: none"> Identifies the specific challenges students face during a major disruption (the COVID-19 pandemic) and explains how crises affect learning conditions and support.

Table 6 positions students as a central component of the instructional ecosystem. Socio-economic conditions, family support, and environmental factors influence

engagement, while inequality constrains access to quality learning. The findings emphasise the importance of safe, inclusive environments that recognise language and

identity. At the same time, limited attention is given to trauma, safety, and psychosocial factors that may affect learner participation in Economics education.

Discussion

The findings demonstrate that a resilient Economics instruction ecosystem is not just a collection of components but an interconnected set of factors that interact to shape or constrain the learning environment. Figures 3 and 4, and Tables 1 to 6, emphasise teacher capacity, curriculum alignment, instructional strategies, resources, leadership, and school conditions as important categories. These dominant factors indicate that resilience emerges from interactions among these components, rather than from their presence in isolation. In support, Mjobo et al. (2025) and MBaunda and McKay (2024), who reframe resilience as a systemic property in which the effectiveness of any component depends on the functionality of the others. This perspective aligns with educational theories of quality, which focus on the instructional, institutional, and socioeconomic contexts of the school and complement one another.

Teacher capacity, as shown in Table 1, was found to be critical in achieving quality economic instruction. This result is more than just a confirmation of the significance of teacher capacity. But it shows how teacher competence acts as a force within the classroom environment. In this environment, factors such as pedagogical competence, subject knowledge and digital practice allow the curriculum and instructional strategies to be activated. In contrast, Ktto et al. (2025) and Ampnsah (2023) argue that school-level factors, such as teacher safety and working conditions, moderate the impact of these factors. This is supported by Lotter and Okoro (2023), who concluded that teachers' effectiveness is shaped by systemic structures more than by individual effort. In this regard, the finding aligns with the need to implement teacher development by enhancing teachers' professional competence within the school and its socioeconomic context.

The alignment of curriculum and instructional practices, which were shown in Tables 2 and 3, emphasises how these factors interact within the school ecosystem. Past research focuses on relevance, inclusivity, and

active learning (Thetsane et al., 2024; Diko & Celliers, 2024). The study shows that a resilient curriculum is achieved when it is aligned with pedagogical practice and the school's context. When this alignment is weak in linguistically diverse and underresourced settings, the purpose and intended curriculum do not operate effectively in practice. This finding supports established curriculum theory and also emphasises the role of context in mediating enactment of the education school curriculum (Ajani, 2024). This shows the importance of alignment and how it must be understood from both structural and relational perspectives in the learning ecosystem.

The analysis of resources and leadership, as shown in Tables 4 and 5, respectively, reveals the importance of structural conditions in schools and their conceptual implication. These tables show how materials and school resources serve as infrastructures that allow and constrain the functioning of the educational ecosystem. In contrast, studies by Rzyankina (2024) and Adeel et al. (2023) align resources and school leadership to enhance educational outcomes. The authors indicate that the influence of the educational ecosystem is achieved through indirect, mediated instructional processes (Adeel et al., 2023). Their finding suggest that leadership does not directly improve educational outcomes; instead, it is influenced by conditions that facilitate effective collaboration among teachers, curricula, and students. While school leadership is viewed as an independent variable, its approach treats it as a tool within a complex school environment.

Table 1, which maps teachers' capacity, aligns with the literature that identifies pedagogical competencies and subject knowledge. This finding provides a foundation for effective economics teaching and learning. Findings by Ktto et al. (2025), Amonsah (2023), and Lotter & Okoro (2023) show that resilience begins with educators who are well-prepared in evidence-based methods, digital tools, and disciplinary content. Conversely, McNulty et al. (2025) and Potokri et al. (2025) argue that disruptions, safety concerns, and poor working conditions hinder teachers' ability to deliver quality instruction. This finding aligns with Mbonani et al. (2025) and Nkambule

(2022), who observed that teachers in under-resourced schools do not receive sustained professional development. As a result, most of these teachers have to rely on traditional teaching approaches. The data from studies by Botha and Nel (2022) and Crawford (2022) confirm that professional learning communities and structured support systems remain unevenly implemented, despite their potential to enhance teacher practice.

Alignment of curriculum and pedagogical practices has become a vital element of a resilient economic ecosystem. Tables 2 and 3 show that the importance of curriculum, linguistic inclusion, and practical application remains a key issue. Thetsane et al. (2024), Lotter and Okoro (2023), and Diko and Celliars' (2024) findings emphasise the need for a curriculum that aligns with local realities while fulfilling national standards in Economics. Msweli et al. (2023), Saal and Graham (2023), and Spence et al. (2025) described instructional strategies in their studies that promote active and transdisciplinary learning. Despite evidence from Naidoo et al. (2023) and McNulty et al. (2025) indicate that crises and disruptions worsen the challenges of curriculum delivery. Similarly, Mabunbda & McKay (2024) assert that curriculum resilience relies on its design and implementation within supportive school environments.

The availability of instructional resources and infrastructure continues to impact students' ability to access economics education. Table 4 shows that digital access to physical materials and systemic inequalities within schools persist unevenly. These patterns confirm the claims of Rzyankina (2024), Adeel et al. (2023), and Mkhize (2023), which link the lack of resources to poor student engagement and limited use of innovative teaching methods. The absence of innovative pedagogies in schools suggests that targeted interventions, as demonstrated by Muzingili and Tarvinga (2025), can enhance access. Moreover, as this study shows, these structures are reinforced by leadership and institutional support for economics instruction in schools. As Table 5 shows, strong governance, academic advising, safety, and evidence-based decision-making are crucial for improving and maintaining school stability. This is supported by the studies of Shava and Hestek (2021) and Ajani (2024),

which demonstrate that leadership capacity inspires resilience in economic instruction within schools.

Student engagement and learning environments complete the ecosystem by illustrating how socio-economic realities, safety, well-being, and identity influence participation, as shown by the results. For example, Table 6 indicates that inequality, unsafe environments, and resilience diminish during crises, whereas inclusive education and community support promote student engagement with economics concepts. These patterns align with the broader findings of Reid et al. (2025), Muyambi and Ahiaku (2025), and Masuku and Marumolo (2024). The results recognise that learning conditions affect how students benefit from economics instruction. They emphasise that resilience in economics teaching arises from the interplay of competent teachers, curriculum relevance, instructional practices, resources, leadership, and the school environment. Each of these key components of the economic ecosystem supports the others to maintain the sustainability and quality of economic education in South African schools.

CONCLUSION AND SUGGESTION

The review shows that resilience in Economics education in South Africa depends on the interaction of multiple components within an instructional ecosystem. These include teacher capacity, curriculum design, instructional practices, resource availability, leadership, and learner conditions. The findings reveal persistent inequalities and identify opportunities to strengthen the system through coordinated, context-sensitive interventions. Thus, improving Economics education requires integrated efforts across classroom practice, school structures, and the broader educational environment.

This review included studies published between 2020 and 2025 and relied primarily on peer-reviewed sources. Relevant studies may have been excluded due to database limitations, restricted access to grey literature, and variations in terminology. In addition, the absence of quality appraisal limits the ability to assess the relative strength of individual studies. Future studies should examine resilient pedagogical practices across diverse school contexts, including rural and

township schools. Empirical research is needed to explore how teacher development, resource allocation, and leadership practices interact to support Economics education. Further work should also incorporate learner and community perspectives to better understand how to sustain resilient Economics classrooms.

CRedit authorship contribution statement

Nana Yaw Brenya Agyeman: The first author contributed to the conceptualisation of the study, development of the methodology, data collection and investigation, formal analysis, drafting of the original manuscript, and the visualisation and presentation of the data.

Menu Elijah Osei: The second author contributed to the validation of the study, critical review and proofreading of the manuscript, and supported the revision and editing of the paper.

Declaration of competing interests

The author declares that he has no known competing financial interests or personal relationships that have influenced the reported work in this study.

Declaration of the use of AI

This study didn't require ethical approval

Conflict of interest

The author declares no conflict of interest.

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The data used in this study have not been deposited in any public repository. All data used are referenced in this study.

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