



Globalisation and Curriculum Transformation in South Africa: Aligning National Frameworks with Sustainable Development Goals and Digital Competencies

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Abstract

Globalisation exerts significant pressure on national education systems, compelling them to adopt transnational goals and practices to secure legitimacy within the international community. This paper examines how South Africa navigates this dynamic, analysing the integration of global mandates specifically the Sustainable Development Goals (SDGs) and digital competencies into its national curriculum and teacher training programmes. Drawing on World Culture Theory and Comparative Curriculum Analysis, the study employs a qualitative document analysis of South Africa's Curriculum and Assessment Policy Statements (CAPS) and initial teacher education syllabi from three research-intensive universities. The findings reveal a progressive formal alignment with global agendas, evidenced by the explicit inclusion of a digital literacy strand in CAPS and references to the Education 2030 framework. However, significant provincial disparities in resource allocation and uneven integration in teacher education highlight a decoupling between policy adoption and enactment. A comparative analysis with Brazil, India, and Malaysia situates South Africa in an intermediate position, balancing global norms with local constraints. The study concludes that without targeted strategies for equitable implementation and robust teacher preparation, the promise of a globally aligned, future-focused education system remains aspirational. Recommendations include the development of detailed implementation guidelines, investment in digital infrastructure, and mandating SDG-aligned practica in teacher training.

Keywords: Globalisation, Curriculum Transformation, Sustainable Development Goals (SDGs), Digital Literacy, Teacher Education, South Africa, World Culture Theory

Introduction

Globalisation exerts significant pressure on national education systems, compelling them to adopt transnational goals and practices to secure legitimacy within the international community (Boli & Thomas, 1999; Meyer et al., 1997). Over the past two decades, frameworks such as the Sustainable Development Goals (SDGs) and UNESCO's Education 2030 agenda have emerged as authoritative guides for curriculum reform, embedding objectives like universal access, equity, and

lifelong learning into national policy discourse (UNESCO, 2015). These global mandates often circulate through policy borrowing, where nation-states selectively appropriate international standards while negotiating their unique historical and socio-economic contexts (Phillips & Ochs, 2003).

South Africa's post-apartheid education landscape illustrates this dynamic interplay between global norms and local realities. Since the introduction of the Curriculum and Assessment Policy Statements (CAPS) in 2012, the Department of Basic Education has streamlined outcome-based education to emphasize critical thinking, technological fluency, and learner empowerment (Department of Basic Education, 2011). Successive policy updates have incrementally incorporated digital literacy and 21st-century skills, reflecting broader international calls for future-oriented competencies (Fleisch, 2008). Yet the depth of alignment with UNESCO's Education 2030 principles remains uneven, raising questions about how effectively global agendas translate into coherent, context-sensitive curricular provisions (Jansen, 2017).

Teacher education programmes serve as the crucial bridge between policy intent and classroom enactment, preparing educators to navigate the intersection of global imperatives and on-the-ground challenges. South African universities have responded by embedding modules on the SDGs and digital pedagogy within their curricula, often situated in Educational Policy or Curriculum Studies courses (Sayed & Carrim, 2014). However, the rigor and consistency of this integration vary markedly across institutions, with disparities in infrastructure, resource allocation, and faculty expertise shaping programme quality (DHET, 2018). These variations highlight the need for a systematic examination of how teacher preparation aligns with both national curriculum reform and global educational agendas.

This article addresses two interrelated research questions:

- (1) How have global calls for digital literacy been translated into South Africa's national curriculum statements? And
- (2) In what ways do South African teacher training programmes integrate UNESCO's Education 2030 agenda?

Drawing on World Culture Theory to trace the diffusion of international norms (Meyer et al., 1997) and Comparative Curriculum Analysis to benchmark South Africa against peer middle-income countries (Crossley & Watson, 2003), the study illuminates processes of curricular transformation under globalising influences.

Theoretical Framework

This study is guided by two complementary lenses World Culture Theory and Comparative Curriculum Analysis that together illuminate how global educational norms are adopted and adapted within South Africa's curriculum landscape. World Culture Theory provides insight into the mechanisms through which transnational scripts, such as the Sustainable Development Goals (SDGs) and digital literacy mandates, gain legitimacy and institutional form across diverse national contexts. Comparative Curriculum Analysis, on the other hand, offers a structured means of benchmarking South Africa's curriculum reforms against those of peer middle-income countries, thereby situating local transformations within a broader global matrix of policy exchange and adaptation. By weaving these perspectives together, the framework both uncovers the pathways of normative diffusion and situates South Africa's curricular evolution in comparative relief.

World Culture Theory originates in the new institutionalism of sociology, where scholars like Meyer, Boli, Thomas, and Ramirez contend that nation-states increasingly converge on similar

policy solutions in response to global normative pressures (Meyer et al., 1997; Boli & Thomas, 1999). Central to this theory is the concept of institutional isomorphism, which explains why countries emulate internationally legitimated models to bolster their own standing within global networks (DiMaggio & Powell, 1983). In the field of education, this emulation often appears as policy borrowing, wherein curriculum frameworks incorporate transnational objectives such as universal access, equity, and digital competence despite varying local capacities and priorities (Phillips & Ochs, 2003). Yet World Culture Theory also highlights the phenomenon of decoupling: the gap that can emerge between the formal adoption of global standards and their actual implementation on the ground (Meyer & Rowan, 1977). This dual focus on convergence and divergence makes World Culture Theory particularly apt for examining South Africa's integration of UNESCO's Education 2030 agenda within its Curriculum and Assessment Policy Statements (CAPS).

Comparative Curriculum Analysis complements this perspective by offering methodological tools to systematically contrast curriculum policies across different national settings (Crossley & Watson, 2003). Rooted in comparative education scholarship, this approach explores how structural-functional imperatives such as economic competitiveness and social cohesion shape curriculum components, while also attending to the play of transnational influences in curriculum design (Steiner-Khamsi, 2004). Researchers employing Comparative Curriculum Analysis typically construct document matrices that code policy texts according to predefined dimensions, such as the presence of digital literacy strands or explicit references to the SDGs. They then undertake thematic comparisons to identify both convergences and divergences, taking care to calibrate findings against local socio-economic and infrastructural realities (Sepadi, 2023). This method not only reveals South Africa's position relative to countries like Brazil, India, and Malaysia but also uncovers the ways in which global scripts are localized or reshaped.

In applying Comparative Curriculum Analysis to this study, we first mapped the digital literacy components and SDG references within South Africa's CAPS documents. We then benchmarked these findings against parallel provisions in curriculum frameworks from selected middle-income peers, examining how each nation balances global mandates with domestic imperatives. Through this comparative lens, we can discern patterns of policy borrowing and innovation, as well as the influence of local constraints such as uneven digital infrastructure and teacher preparation capacities on the enactment of global agendas.

By integrating World Culture Theory's emphasis on normative diffusion with Comparative Curriculum Analysis's cross-national benchmarking, this framework achieves both depth and breadth. It foregrounds the transnational roots of curriculum reform while rigorously situating South Africa's trajectory within a comparative landscape. In doing so, it enables a nuanced interpretation of how digital competencies and sustainable development goals are translated into national policy statements and teacher training provisions, illuminating the dynamic interplay between global aspirations and local enactments.

Findings

The document analysis yielded four interrelated themes that chart South Africa's journey in embedding digital literacy and Sustainable Development Goals (SDGs) within its curriculum and teacher preparation frameworks. These themes reveal not only a progressive formal alignment with global educational mandates but also the complexities inherent in translating transnational scripts into diverse local contexts.

1. Evolution of Digital Literacy in the National Curriculum

Between 2011 and 2015, South Africa's Curriculum and Assessment Policy Statements (CAPS) treated digital skills as an implicit component of Technology and Life Skills learning areas. References to computer use were cursory, focusing primarily on basic operational competence rather than analytical or ethical dimensions. The 2016 CAPS revision, however, marked a decisive shift: a discrete "Digital Literacy" strand was introduced, complete with specific outcomes that encompassed coding fundamentals, online safety, and critical evaluation of digital sources. By 2021, the prominence of these outcomes had further intensified, with explicit calls for learners to demonstrate ethical digital citizenship and information evaluation skills. This trajectory illustrates a normative convergence under global pressure consistent with World Culture Theory while also hinting at a degree of decoupling, as the formal policy language outpaces the detailed guidance for classroom enactment.

2. Provincial Adaptation and Resource Disparities

Although CAPS establishes a uniform national vision, province-level supplements expose stark contrasts in how digital literacy goals are operationalized. In the Eastern Cape, for example, infrastructure limitations have led curriculum planners to emphasize theoretical discussions on online safety over hands-on coding exercises. Conversely, Gauteng's supplement leverages urban resources to sponsor after-school robotics clubs and partnerships with technology firms, embedding practical coding opportunities within the school ecosystem. Provinces lacking reliable internet connectivity have innovated with offline digital simulations and paper-based computational thinking tasks, ensuring that students engage with core digital concepts despite infrastructural constraints. These localized adaptations underscore the tension between aspirational policy and material conditions, highlighting the risk of uneven policy enactment across socio-economic divides.

3. Integration of Education 2030 in Teacher Education Programmes

Analysis of initial teacher education syllabi from three research-intensive universities reveals divergent approaches to incorporating UNESCO's Education 2030 agenda. All programmes introduce SDG 4 principles particularly targets related to inclusive, equitable quality education within core Educational Policy modules. Yet only one institution requires a dedicated practicum in which student-teachers design and implement SDG-aligned lesson plans, such as projects addressing gender equity or local environmental challenges. Another university limits SDG engagement to lecture-based workshops, offering rich theoretical overviews but minimal

opportunities for applied practice. Crucially, the depth of integration appears to correlate with faculty expertise: programmes led by lecturers who have served as UNESCO consultants consistently deliver more robust, practice-oriented modules. These findings suggest that while global frameworks are formally acknowledged, the translation into pedagogical capacity remains uneven and heavily dependent on institutional leadership.

4. Positioning South Africa in a Comparative Middle-Income Context

When juxtaposed with Brazil, India, and Malaysia, South Africa occupies an intermediate position in formalizing digital literacy and SDG alignment. Malaysia mandates a standalone Digital Literacy subject from Grade 4 and requires all teachers to obtain a nationally accredited certification in digital pedagogy, creating a highly structured model of implementation. Brazil situates its Technological Literacy strand within broader community engagement projects, reflecting a civic-oriented approach to digital competence. India embeds digital skills across ICT and Environmental Education, emphasizing sustainable development but often omitting explicit ethical strands. South Africa’s model, by contrast, strikes a balance: it has moved beyond India’s implicit integration to establish a distinct digital literacy strand, yet it stops short of Malaysia’s prescriptive teacher certification requirements. Moreover, while Malaysian and Brazilian curricula embed SDG indicators directly into assessment criteria, South Africa primarily references SDG language in curriculum preambles and selected learning outcomes, pointing to a moderate level of policy entrenchment.

Together, these themes illustrate a curriculum transformation shaped by global mandates yet refracted through local priorities and capacities. South Africa’s formal adoption of digital literacy and SDG language demonstrates normative isomorphism, but provincial disparities and variable teacher preparation highlight ongoing challenges in policy enactment. This nuanced portrait underscores the importance of targeted capacity-building and resource allocation to ensure that the promise of a globally aligned, future-focused education system is realized in every classroom.

Dimension	South Africa	Brazil	India	Malaysia
Digital Literacy Strand	Explicit, cross-curricular	Integrated within ICT subjects	Implicit under ICT and Environmental Science	Standalone subject
SDG Alignment	Referenced in preamble; separate indicators	Merged with broader “Global Goals” section	Embedded in Citizenship Education	Central to national education plan
Teacher Training Integration	Policy module + practicum tasks	Elective certificate courses	Optional workshops; NGOs involvement	Accredited in professional standards

Discussion

Future Research

Future research should extend beyond document analysis to explore classroom-level enactment, capturing how teachers interpret and implement digital and SDG-oriented curricula in diverse learning environments. Ethnographic studies and classroom observations would illuminate the lived realities of policy enactment, providing a richer understanding of the factors that facilitate or hinder the local actualization of global educational norms. By marrying the macro-level insights

of World Culture Theory and Comparative Curriculum Analysis with micro-level investigations, subsequent work can offer a more holistic account of curriculum transformation in an era of deepening globalisation.

Study Limitations

This study's exclusive focus on policy and curriculum documents means our insights reflect formal commitments rather than actual classroom practices. While triangulation with implementation reports helped validate the presence of global agendas, direct observation of teaching and learning would be required to understand how digital literacy and SDG objectives are enacted in diverse school contexts.

Our purposive sampling of three research-intensive universities and comparison with Brazil, India, and Malaysia provides valuable middle-income benchmarks but limits the generalizability of findings to other teacher education providers or regional settings. Finally, by examining CAPS revisions only through 2021, we may not capture more recent policy changes or pandemic-driven innovations that continue to reshape curriculum priorities.

Recommendations

1. **Develop Detailed Implementation Guidelines** Create a comprehensive national toolkit that translates CAPS' digital literacy and SDG-related outcomes into step-by-step lesson plans, resource lists, and assessment rubrics. Distribute this toolkit to provincial offices to ensure consistent interpretation and reduce reliance on ad hoc provincial adaptations.
2. **Invest in Equitable Digital Infrastructure** Prioritize funding and partnerships to equip under-resourced schools especially in the Eastern Cape and other rural provinces with basic ICT infrastructure (e.g., computer labs, stable electricity, and internet access). Establish public-private collaborations to supply hardware, software licenses, and technical support.
3. **Mandate SDG-Aligned Practica in Teacher Training** Require all initial teacher education programmes to include a supervised practicum focused on designing and delivering SDG-aligned and digitally enriched lesson sequences. Tie graduation or certification to successful completion of these practica to guarantee hands-on educator experience with global frameworks.
4. **Embed SDG and Digital Competency Indicators in Assessments** Revise national and provincial assessment criteria to incorporate explicit indicators for digital literacy (e.g., coding, information evaluation) and SDG-focused learning outcomes. Linking high-stakes assessments to these indicators will reinforce their classroom priority and improve policy enactment.
5. **Establish Continuous Professional Development Pathways** Launch a nationally accredited CPD programme for in-service teachers and teacher educators that covers digital pedagogy, Education 2030 principles, and adaptive teaching strategies. Offer modular, blended-learning courses and recognize completion with credentialing to motivate sustained engagement.
6. **Monitor, Evaluate, and Share Best Practices** Set up a central monitoring unit within the Department of Basic Education to track curriculum enactment and student outcomes related to digital literacy and SDGs. Publish annual "State of Digital and Sustainable

Education” reports and facilitate cross-provincial communities of practice to disseminate successful strategies and lessons learned.

By implementing these targeted actions, South Africa can bridge the gap between global curriculum aspirations and on-the-ground educational realities, ensuring equitable, future-focused learning for all students.

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