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Curriculum as a lived experience: A narrative visual analysis of Education for Sustainable Development in Geography teacher education in Eswatini

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ABSTRACT

This study used a Geography module in the higher education context to exemplify how Education for Sustainable Development (ESD) can be integrated into a teacher education curriculum. The study identifies a gap in understanding how everyday material practices can reflect and shape sustainability learning. To address this, the study analysed teaching aids that teacher educators, pre-service teachers and school learners made from recycled materials during a UNESCO-supported Change Project at a university in Eswatini, as visual narratives of pedagogical change in Geography. Guided by currere theory, the study employed narrative visual analysis to interpret these artefacts as curriculum texts. The results showed that sustainability can be embodied in creative, place-based and reflective practices that promote systems thinking and critical engagement. These results highlighted the potential of teacher education to advance transformative learning and the potential of visual analysis for ESD in Geography teacher education. The key message is that ESD curriculum reform should prioritise imaginative, ethical and context-responsive approaches.

Keywords: Currere, Education for Sustainable Development, Eswatini, Geography teacher education. Narrative visual analysis









INTRODUCTION

There has been growing global momentum to reshape education in ways that address the pressing issues of sustainable development, and teacher education is at the heart of this shift (Mandikonza & Lotz-Sisitka, 2016; Wilmot et al., 2025). Geography stands out as especially well-suited to this task because of its emphasis on how people interact with their environment, its attention to spatial patterns, and its systems-based perspective (Zimmerer, 2017). However, despite this potential, many Geography teacher education curricula across southern Africa remain unresponsive to the knowledge required for sustainability education (Wilmot, 2018). Research reveals that most curricula emphasise content delivery over transformative, critical and participatory pedagogies needed for integrating Education for Sustainable Development (ESD) (Didham & Ofei-Manu, 2021). Consequently, there is a growing call to reconceptualise and reform teacher education to become more relevant and responsive to the complex realities of contemporary sustainability challenges (Lotz-Sisitka et al., 2015; de Souza, 2025).

This study focuses on the Geography teacher education curriculum at a university in Eswatini. The university participated in the UNESCO-led Sustainability Starts with Teachers (SST) programme, which opened new avenues for innovation and ESD integration into the curriculum. The SST initiative, which was implemented across 11 southern African countries, aimed to capacitate teacher educators through Change Projects that support policy engagement and the systemic mainstreaming of ESD into curriculum and institutional practices (Lotz-Sisitka et al., 2022). The SST programme only involved teacher educators (university/college trainers of teachers) through institutional Change Projects and an online Short Course. Nonetheless, the nature of the Change Project model (see Mandikonza & Lotz-Sisitka, 2016) resulted in the teacher educators working with pre-service teachers they were training and, in turn, pre-service teachers worked with learners in schools during teaching practice. Thus, much as this study focuses on teacher educators (SST participants), it also alludes to downstream impacts on pre-service teachers and learners in schools. At the reported university, the Change Project involved creatively using recycled materials to develop instructional tools to address pedagogical innovation and community-responsive waste management challenges. This localised Change Project highlighted sustainabilityrelated curriculum gaps and showcased possibilities for transforming waste into teaching tools through upcycling. The project had cognitive, socioemotional and behavioural objectives, which resonated with ESD competencies informed by frameworks for wholeinstitution approaches to sustainability education outlined by UNESCO (2020).

However, implementing the Change Project surfaced deeper structural issues, including inconsistencies in Eswatini's policy environment for ESD and weak collaboration across academic departments at the university. In light of these challenges, it becomes essential to rethink and mainstream ESD through transformative learning in Geography (teacher) education (Wilmot et al., 2025). This prepares future teachers for addressing socioecological problems through pedagogy and models the transformative education principles enshrined in Sustainable Development Goal (SDG) 4, particularly Target 4.7, which states

that 'by 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development' (UNESCO, 2020). Despite having a supportive 2018 National Education and Training Sector Policy in Eswatini, an SST-led contextual profiling revealed fragmented ESD implementation and low educator capacity in ESD mainstreaming in the country (UNESCO, 2021). The reported university responded by forming a Community of Practice (CoP) of teacher educators and pre-service teachers to confront systemic barriers, such as exam-driven curricula and resistance to pedagogical innovation, and to design an institutional Change Project focused on sustainability education, as indicated earlier. The Change Project prioritised campus waste upcycling as an environmental and pedagogical strategy. The Change Project illustrated how collaborative and context-sensitive learning can drive systemic change. Outcomes included strengthened ESD awareness, formal curriculum proposals and community engagement, with the university's model featured in SST's reports as a leading example of CoP-driven transformation in southern Africa.

This Change Project is used as a case study to critically reflect on how ESD can be meaningfully integrated into Geography teacher education curricula. This article responds to ongoing calls from scholarship and practice to develop contextually relevant and sustainability-oriented curriculum frameworks that prepare teachers with the knowledge, skills and values necessary to contribute to a more just and sustainable future. The article undertakes this call through a narrative visual analysis of photographs that tell stories of pedagogical innovation and transformative learning from the Change Project through William Pinar's currere theory (with a focus on regressive, progressive, analytical and synthetic moments). Some of the visuals were created by teacher educators in collaboration with their student teachers in a university setting, while other visuals were created by the student teachers with their learners in schools when they went for teaching practice. In this article, the visuals represent the voice of the people who created them. The aim is to demonstrate how ESD can be mainstreamed in Geography teacher education, which would eventually inform school education for sustainability.

CLARIFYING THE CONCEPTS

Education for Sustainable Development

Education for Sustainable Development (ESD) is an internationally-endorsed approach, integral to SDG 4 Target 4.7, which aspires to prepare learners with knowledge, skills, values and attitudes for sustainable living, global citizenship, social justice and environmental stewardship (UNESCO, 2020). Since the UN Global Action Programme (GAP), ESD has been framed across formal, non-formal and informal education contexts. In southern Africa, the Sustainability Starts with Teachers (SST) initiative (2019–2023) built regional capacity by engaging teacher educators in action-learning 'Change Projects' to integrate ESD in institutional policies, pedagogy and curriculum across 11 countries, including Eswatini (Lotz-Sisitka et al., 2022). These Change Projects focused on whole-school integration through community engagement, campus greening, waste reduction and

curriculum redesign using lived experience and socioecological reflection. In this regard, teacher agency and transformative learning are central as ESD is most effective when teachers experience sustainability as lived practice in their environments before facilitating it in classrooms (Wilmot et al., 2025).

Geography teacher education

Geography as a subject is well-placed to deliver ESD due to its natural focus on humanenvironment interactions, place, systems thinking and global citizenship (Zimmerer, 2017). Brandt et al. (2022) found that, although teachers have shown willingness to integrate ESD, they lack a deep conceptual understanding of it. However, with relevant professional learning networks, this situation can be mitigated. In South Africa, for example, inservice Geography teachers who participated in Fundisa for Change ESD professional development shifted toward learner-centred and transformative pedagogy, and began to integrate climate change more meaningfully into the Curriculum and Assessment Policy Statement (CAPS) Geography curriculum (Thenga et al., 2020). Mzuza & van der Westhuizen (2023) reported that practices in South African Geography teacher education include using GIS and self-directed learning to enhance quality and reflective practice among trainee Geography teachers. Studies such as Wilmot et al. (2025) have argued that such teacher practices may translate into transformative learning for learners by enabling systems-level thinking, critical reflection, and agency in Geography classrooms, especially when scaffolded through situated active learning experiences such as case-studies, experiments, fieldwork and community engagement.

Curriculum

A curriculum refers to the institutionalised plan of study; its structure, content, pedagogy, assessments and underlying values. Many current Geography teacher education curricula in southern Africa remain largely compartmentalised. For example, in the South African context, Tlhabanelo (2020) found that the Further Education and Training (FET) Geography lacks practical integration of environmental education in a way that theory is not taught separately from practice. In Eswatini, policy frameworks (e.g. the National Education and Training Sector Policy of 2018) emphasise ESD, but the curriculum scan revealed ESD remains fragmented within programmes rather than mainstreamed (UNESCO, 2021). Best practice models from other SST Change Projects show how curriculum transformation at teacher training colleges can proceed through integrating ESD in multiple course units, redesigning assessments, and using the campus as a 'living laboratory' for sustainable practice (see de Souza, 2025). Such approaches signal a shift toward transdisciplinary and values-based curriculum structures that support systemic reflection, inclusion and societal impact (Lotz-Sisitka et al., 2022).

Integrating ESD in the curriculum

The SST Change Project methodology expected teacher educators to co-design and implement ESD integration through collaborative projects, such as upcycling waste materials into teaching aids, campus greening, inclusion of persons with disabilities and entrepreneurial activities, that simultaneously embed curricula, pedagogy, assessment and community engagement (de Souza, 2025). Pedagogically, this integration is supported by transformative learning theory, which foregrounds critical reflection, agency and systems thinking as key competencies in ESD teaching and learning (Wilmot et al., 2025). Therefore, teacher educators learnt collaboratively through CoP to scaffold their professional growth toward ESD integration through:

- institutional readiness (policy, leadership, community partnerships),
- capacity building through SST-style action learning.
- curriculum revision across modules and assessment,
- pedagogy that is learner-centred, experience-based and reflective,
- campus-community engagement as a living laboratory, and
- iterative evaluation and scaling across cohorts.

In Geography teacher education, this has been practised by integrating place-based fieldwork, climate change case analysis, GIS/self-directed learning tools and contextually relevant local examples to promote sustainable thinking, practitioner agency and curriculum ownership (Mzuza & van der Westhuizen, 2023; Thenga et al., 2020).

RESEARCH DESIGN AND METHODOLOGY

This study adopted a narrative visual analysis (based on Reavey & Johnson, 2008; Rose, 2016) to examine how ESD can be meaningfully integrated into Geography teacher education. The research was situated in the UNESCO-supported Sustainability Starts with Teachers (SST) Change Project at a university in Eswatini. The participants were teacher educators who took part in the SST programme and the pre-service teachers they worked with during their practicum. These pre-service teachers, in turn, collaborated with school learners in creating teaching aids from recycled materials, as explained in the introduction.

The teacher educators' activities involved designing and producing Geography instructional tools using locally available waste materials, as part of a Change Project that aimed to promote creative, community-responsive and sustainability-oriented pedagogy. During these activities, participants documented their processes through photographs, which served as visual evidence of pedagogical and material transformation. These photographs constituted the primary data for the study. In addition to the visual data, a research journal was kept throughout the project to capture participants' reflections and explanations as they discussed their artefacts and teaching processes. Although no interview data are presented in this article, these recorded journal reflections provided contextual insights and voices that informed the interpretation of the visual materials.

Data analysis followed a narrative visual analysis approach (based on Riessman, 2008; Covert & Koro-Ljungberg, 2015), integrating narrative inquiry and visual semiotic interpretation. This approach enabled the photographs to be read as curriculum texts (Pinar, 2012) that embody lived experience, aesthetic expression and sustainability values. Through this approach, the study sought to understand how the participants' everyday material practices reflected and shaped sustainability learning. The visual artefacts thus served both as pedagogical tools and as visual narratives that illustrated the integration of sustainability principles into Geography teacher education. The analysis involved multiple layers that involved: (1) identifying the visual and material features of each artefact; (2) interpreting the narratives embedded in their creation and use; and (3) situating these narratives in broader discourses of ESD, innovation and reflexive pedagogy (Figure 1).

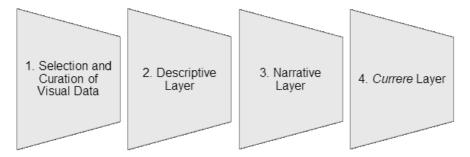


Figure 1. Multi-layered procedure for narrative visual analysis in this study.

- Selection and Curation of Visual Data: The dataset consisted of over 30 photographs of recycled teaching and learning aids that participants took during the SST Change Project. These photos featured instructional materials made from recycled cardboard, plastic bottles, calendars and other discarded items. The teaching aids represented various geographical concepts such as climate adaptation (e.g. a model greenhouse), road systems (e.g. traffic signage) and physical landscapes (e.g. mountains and rivers). The selection of the photos to be included in this article was guided by relevance to Geography education content areas and clarity of visual narrative.
- 2. Descriptive Layer: In this article, each photograph is described in detail by the researcher while, where necessary, quoting what the participants said, capturing its composition, materials used, design elements and implied function in the classroom. At this level, attention was paid to spatial arrangement, labelling and materiality, establishing a baseline for deeper interpretive work.
- 3. Narrative Layer: Building on the descriptive phase, the analysis sought to extract the implicit story embedded in each image. This involved interpreting the image as a visual narrative and what journey it might represent in the educator's or teacher's learning experience. What pedagogical intention does the artefact

- convey? What sustainability principle does it embody? What values and identities are communicated through its form?
- 4. Currere Layer: The final phase of interpretation applied the currere method to understand the artefacts as part of a broader autobiographical curriculum journey. The regressive moment involved asking what past experiences or educational traditions this artefact might recall or respond to. The progressive phase considered how the artefact gestures toward future practice and what kinds of teachers and learners it imagines. The analytical phase reflected the disjunctions and contradictions that it surfaces (e.g. between waste and value, theory and practice). Finally, the synthetic phase sought to assemble these insights into a coherent picture of the teacher education curriculum as a transformative and contextually responsive space.

This layered analysis aligned with Pinar's (2011) call to reimagine curriculum as a site of *presence*, where teachers and learners are invited into an existential encounter with content, context and conscience. The artefacts were not merely evidence of curriculum change; they were curriculum events, incarnations of a lived pedagogy that enacts sustainability, creativity and reflective engagement. As visual narratives, they performed what Pinar (2006) calls a 'curriculum of reparation', healing the rift between academic abstraction and everyday reality, between policy rhetoric and pedagogical practice.

This study is based on research that received ethical clearance as part of my doctoral studies at Rhodes University (clearance No. 2021-4989-6408). This ethics clearance focused on research with teacher educators only, not pre-service teachers or learners. Thus, this article only presents the voice of five teacher educators (index coded as TE1 to TE5) documented through journaling by the researcher. One photograph included herein was captured in a school and taken by a teacher educator. This is used in this article as evidence of how ESD efforts are funnelled to schools through the teachers. The teacher educator included this photograph (and others not featured in this article) as part of their SST portfolio, for which the ethics clearance allowed me to access and use, with the permission of both teachers and school authorities. The story of this photograph (Figure 4) is told from the perspective of the teacher educators.

RESULTS

This section reports the narrative visual analysis of the photographs from the reported SST Change Project. In this regard, the most relevant three photographs are presented here to demonstrate ESD integration in Geography teacher education.

Visual analysis story 1

This story is narrated and analysed based on Figure 2. Instead of throwing away used boxes and plastic wrappers, participants used them to build a small greenhouse model (Figure 2). It was not fancy, but it was full of meaning. When introducing the visual, participant TE1 said: 'In Geography, there are topics on climate change, food security and water management'. She commented that a greenhouse connects to all of these topics. It shows how human actions affect the environment and how we can create solutions. This simple recycled model became a teaching tool, a conversation starter in the classroom. The visual (Figure 2) helps future Geography teachers to be resourceful and context-aware. It shows that learning can still be deep, relevant and creative in schools where teaching resources are limited.

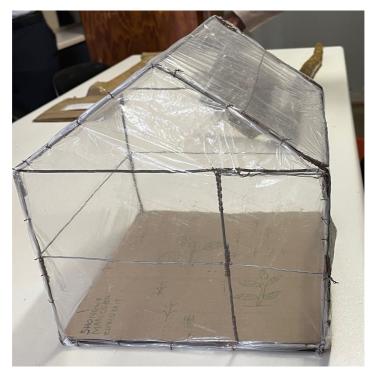


Figure 2. A greenhouse made from recycled materials.

Seen through through Pinar's currere theory (Figure 1), this greenhouse is not just an object but part of a journey. Pinar's idea of curriculum is not about a fixed list of topics, it is about lived experience. In the regressive moment, teacher educators asked student teachers to think back to their schooling, where learning was mostly about textbooks and memorising. Participant TE2 said: 'They were never asked to build something or think

about how their learning connects to their world'. In the progressive moment, student teachers were asked to imagine a different future, 'a classroom where learners do not just copy notes, but engage with ideas, touch things, ask questions and build with their hands' (TE1). In the analytical moment, the focus is on what this model challenges. It challenges the belief that only expensive, store-bought resources are valuable, and questions the divide between theory and practice. It even questions what counts as 'curriculum'. In the synthetical moment, everything comes together: the student teachers' personal growth, a new way of thinking and action, all captured in this one small greenhouse model. This picture, then, participant TE3 emphasised, is more than an image. It is a curriculum event. He said: 'It tells the story of a future teacher learning to teach with presence, purpose and sustainability in mind. It reminds us that curriculum lives in actions and relationships'.

Visual analysis story 2

The second story is narrated and analysed based on Figure 3. Here, roads are marked with old bottle tops used as road signs. Toy cars move along the paths, each heading in the correct direction. There is even a zoo with paper fences and tiny animal toys, and a shopping complex built from discarded cardboard off to the side. Participant TE2 observed that: 'What would normally be seen as trash, eggshells, broken toys and leftover cartons, has been carefully transformed into a model town'. This town is not just a creative art project, it is a teaching aid 'made to help teach key Geography topics like road signs, urban features and mapping' (TE4). This visual (Figure 3) tells a powerful story about how sustainability can be lived and taught at the same time. It shows how we can take 'what is usually thrown away and turn it into something useful, meaningful and educational' (TE5). It also shows how Geography education can be more than textbook learning; it can be about making, reflecting and connecting with the environment personally.



Figure 3. A small model town made of waste products.

Through Pinar's currere theory, this small town becomes much more than a classroom tool; it becomes a curriculum in itself, a story of becoming. According to Pinar (2019), curriculum is not just a teaching plan. Participant TE1, who is a Geography teacher educator at the university, explained that through creations like the visual (Figure 3), education becomes 'a journey where the teacher and learner reflect on the past, imagine the future, understand the present and bring it together in new and meaningful ways'. This model town fits into the regressive phase of currere, where we reflect on 'how education used to be - chalk and talk, theory without practice, waste without thought' (TE3). Much as no student teachers or learners were directly asked, the progressive phase suggests that Figure 3 shapes a future where learners are gaining knowledge and becoming problem-solvers and eco-conscious individuals. In the analytical phase, the model helps us question teaching methods, materials and curriculum content boundaries in the synthetic phase.

Participant TE4 commented that 'making this town and using it to teach shows how student teachers are not just learning Geography, but living it'. Teacher educators were of the view that such ESD activities are shaping their own and their student teachers' teaching identities. Both teacher educators and trainee teachers are learning to teach with care, creativity and context in mind. This small town built by student teachers in collaboration with teacher educators from waste tells a big story. It teaches Geography. However, more than that, it teaches us how to see value in what is overlooked. It reminds us that the curriculum is what we teach, how we live and who we become (Smith, 2024). Therefore, Figure 3 suggests that integrating ESD in Geography teacher education is not just about content, but a practice as well.

Visual analysis story 3

The third story is narrated and analysed based on Figure 4 (see the methodology section for the ethical implications of this visual) which shows a teaching aid, made by student teachers and learners during the Change Project. This suggests that Geography education can go beyond textbooks; it can become something we live, do and grow together. This image was chosen from several that teacher educators took from schools where their student teachers were doing teaching practice. Figure 4 shows used soft drink bottles that have been turned into small planting containers. Each bottle holds soil and a growing crop, arranged in neat rows, forming a vertical garden. Participant TE5 commented that: 'these bottles normally end up in landfills or litter the environment, taking hundreds of years to decompose, if at all'. However, here, they have been given a new purpose. This is more than just a gardening project: 'It is a lesson in land use, environmental care, recycling and sustainability, all key topics in Geography' (TE1). What makes this picture even more special is where it was taken. The vertical garden was not created at the university, but at a local school where student teachers were placed for their teaching practice. As indicated earlier, this study did not go beyond teacher educators to engage student teachers or learners. Therefore, the study could not solicit teachers' or learners' views on the project. This is an area for further inquiry.



Figure 4. A vertical garden made from plastic bottles.

Pinar (2012) theorises that a curriculum is not just content to be taught, but a personal journey by educators and learners that includes reflection on the past, awareness of the present and imagination of the future. The vertical garden thus becomes part of that journey for student teachers and learners. In the regressive phase of currere, we look back. Participant TE2 explained that when making the visual (Figure 4), 'the student teachers remembered how they were taught geography in traditional ways: lectures, notes and exams'. Perhaps 'they saw that those methods did not connect with real life or environmental problems. That past pushes them to want something better' (TE4). Participants' comments about ESD initiatives such as the one shown in Figure 4 suggest that, in the progressive phase, they imagined a new mode of teaching that is practical, inspiring and connected to the world. They dreamt of making a difference, of helping student teachers and learners care for the earth. In the analytical phase, they began to see the gap between what is and what could be. Participant TE1 commented from her experiences that 'schoolyards are mostly unused spaces, and how curriculum policies talk about sustainability but do not show how to teach it'. Finally, they brought it all together in the synthetical phase by building the vertical garden. According to participant TE5, 'this act combines knowledge, values and action. It reflects a new kind of Geography curriculum, one that is lived, not just taught'. The vertical garden is not just a record of a project, it is the curriculum and provides a window into how ESD can be integrated into teacher education in real and powerful ways.

Opportunities for integrating ESD in teacher education curriculum

The global education agenda needs transformative pedagogies that cultivate learners' capacity to address pressing socioecological challenges (UNESCO, 2020). With its intrinsic concern for space and human-environment interdependencies, Geography holds curricular potential to lead this shift (Zimmerer, 2017). However, transformation in education cannot be realised through policy mandates or content additions alone. It requires an ontological rethinking of the curriculum and how teachers and learners experience it (Lotz-Sisitka, 2017). From this standpoint, the integration of ESD into Geography teacher education must be understood not simply as instructional reform, but as a currere-driven reconstruction of educational subjectivity, institutional culture and lived experience (Pinar, 2019). Drawing from a visual narrative analysis of three photographic artefacts, each representing a teaching aid made from recycled materials, this study explored how ESD can be embedded in content and teacher education's pedagogical and ethical fabric. These images were not neutral products; they were curriculum texts, each telling a story of reflexive engagement, place-based learning and pedagogical innovation. Alongside these photographs, study participants (teacher educators) explained concrete manifestations of how curriculum becomes lived, storied and transformative.

These visual narratives reaffirm Pinar's notion that curriculum is not merely the delivery of content, but the lived reconstruction of meaning. The Change Project, as reflected in these artefacts, provided teacher educators a space to enact a curriculum of presence. Rather than treating sustainability as an external theme, it became embedded in the pedagogical process, making, collaborating and reflecting, as reported in the results section and shown in the three examples presented (Figures 2–4). The CoP functioned as a curricular public sphere, enabling educators to reauthor their professional identities and reconstruct education as a medium of ethical engagement with the world (Mandikonza & Kavai, 2023; Lotz-Sisitka et al., 2025).

Tlhabanelo (2020) states that environmental education in South Africa is compartmentalised and highly depends on Geography and Life Sciences for execution. In light of such evidence, teacher educators must work with pre-service teachers in finding innovative ways of integrating ESD principles in the curriculum. In most educational settings, ESD is placed within the environmental education framework. The reported Change Project in Eswatini was one of the efforts toward this goal. Participants emphasised that the integration of upcycled teaching aids in teaching topics such as land use, environmental degradation and transport systems offered a fresh entry point into reflective and applied pedagogy. The curriculum is thus no longer about teaching about the world but about teaching through the world, its materials, contradictions and possibilities. This reorientation resonates with the core principles of both ESD and currere. It calls upon teacher educators to reflect on their histories, imagine new futures, question assumptions and synthesise knowledge with their lived experience (Lotz-Sisitka et al., 2022).

However, challenges remain for teacher educators to translate the Change Project activities into sustained curriculum practice. As Pinar (2015) cautions, educational

transformation without the support of institutional structures and policy environments can easily stall. Curriculum reform for ESD integration should therefore be accompanied by professional development, assessment redesign, and institutional ethos shifts that value reflective practice and participatory pedagogy (Didham & Ofei-Manu, 2021; Brandt et al., 2022). The artefacts in this study also signal the need to rethink assessment. Tools such as reflective journals, visual portfolios and curriculum storytelling are potential answers, and these are methods that resonate not only with ESD goals but with *currere* as a method of inquiry.

Notably, the findings from this Eswatini-based Change Project resonate with similar initiatives across the southern African region (see examples in de Souza, 2024). Programmes such as South Africa's Fundisa for Change reinforce the idea that meaningful ESD integration depends not just on curriculum documents but also on teacher identity, critical reflection and relational pedagogies (Schudel et al., 2021). When understood through the reconceptualist curriculum framework or *currere*, teacher education becomes a site not just of knowledge transfer but of becoming: becoming sustainable, becoming conscious, and becoming connected.

CONCLUSIONS

Integrating ESD into teacher education is not merely an optional enhancement but a fundamental shift towards meaningful and future-oriented pedagogy. Based on Pinar's currere theory, the study redefines curriculum as a lived and autobiographical process where teacher educators, teachers and learners can co-construct knowledge through reflection and place-based engagement. Using narrative visual analysis of teaching aids made from recycled materials, the article illustrated how artefacts can serve as curriculum texts, telling stories of sustainability, creativity and transformation. These visual findings, derived from an SST Change Project in Eswatini, show how ESD can be incorporated through practical and context-sensitive methods that connect theory with collective action. The Change Project has exemplified an ESD integration that shifts focus from content delivery towards ethical, ecological and pedagogical renewal. Therefore, sustainability in teacher education is a dynamic space of becoming, where waste transforms into wisdom, teaching becomes praxis, and curriculum embarks on a journey of reimagining both the self and the world. This vision provides a guiding ESD integration roadmap for teacher education institutions across Southern Africa and perhaps beyond.

REFERENCES

- Brandt, J. O., Barth, M., Hale, A., & Merritt, E. (2022). Developing ESD-specific professional action competence for teachers: Knowledge, skills, and attitudes in implementing ESD at the school level. *Environmental Education Research*, 28(12), 1691–1729.
- Covert, H. H., & Koro-Ljungberg, M. (2015). Layers of narratives, images, and analysis. *Qualitative Research Journal*, 15(3), 306-318.
- de Souza, B. (2024). Investigating the mainstreaming of inclusive education in teacher education practice for pedagogical proficiency through Education for Sustainable Development change projects in Southern Africa. Unpublished PhD thesis, Rhodes University, South Africa.
- de Souza, B. (2025). Towards change-oriented sustainability education in teacher education in Malawi. Southern African Journal of Environmental Education, 41(1), 1-18.
- Didham, R. J., & Ofei-Manu, P. (2021). Advancing policy to achieve quality education for sustainable development. In: Leicht, A., Heiss, J., & Byun, W. J. (eds), *Issues and trends in education for sustainable development*, pp. 87–110. UNESCO, Paris.
- Lotz-Sisitka, H. (2017). Decolonisation as future frame for environmental and sustainability education: Embracing the commons with absence and emergence. In: Corcoran, P. B., Weakland, J. P., & Wals, A. E. J. (eds.), *Envisioning futures for environmental and sustainability education*, pp. 45–62. Wageningen Academic, The Netherlands.
- Lotz-Sisitka, H., Schudel, I., Wilmot, D., Songqwaru, Z., O'Donoghue, R., & Chikunda, C. (2022). Transformative learning for teacher educators: Making sense of education for sustainable development (ESD) policy emphasis on transformative education. In: Eberth, A., Goller, A., Günther, J., Hanke, M., Holz, V., Krug, A., Ron evi, K., & Singer-Brodowski, M. (eds), Bildung für nachhaltige Entwicklung Impulse zu Digitalisierung, Inklusion und Klimaschutz, pp. 267–295. Verlag Barbara Budrich, Berlin.
- Lotz-Sisitka, H., Mponwana, M., O'Donoghue, R., Bhurekeni, J., de Souza, B., van Staden, W., Sibanda, A., Jalasi, E., Conde-Aller, L., & Rivera, J. C. S. (2025). When transgression becomes developmental-Ethical-political empowerment through expansive learning and transformative agency. In: Rajala, A., Cortez, A., Hofmann, R., Jornet, A., Lotz-Sisitka, H., & Markauskaite, L. (eds), *Proceedings of the 19th International Conference of the Learning Sciences-ICLS 2025*, pp. 2442-2450.
- Lotz-Sisitka, H., Wals, A. E., Kronlid, D., & McGarry, D. (2015). Transformative, transgressive social learning: Rethinking higher education pedagogy in times of systemic global dysfunction. *Current Opinion in Environmental Sustainability*, 16, 73–80.
- Mandikonza, C., & Kavai, P. (2023). Education for Sustainable Development (ESD) classroom practices: A South African perspective. In: Hofmann, E., Mavhunga, E., Bohl, T., Maringe, F., & Diekmann, D. (eds), *Teacher education in South Africa and Germany: Shared perspectives on national and global questions*, pp. 235–250. Tübingen University Press, Tübingen.

- Mandikonza, C., & Lotz-Sisitka, H. (2016). Emergence of environment and sustainability education (ESE) in teacher education contexts in Southern Africa: A common good concern. *Educational Research for Social Change*, 5(1), 107–130.
- Mzuza, M. K., & van der Westhuizen, C. (2023). Improving the quality of geography teacher education through geographical information systems and self-directed learning. *Journal of Geography Education in Africa (JoGEA)*, 6, 132-149.
- Pinar, W. F. (2006). The synoptic text today and other essays: Curriculum development after the reconceptualization. Peter Lang, New York.
- Pinar, W. F. (2011). The character of curriculum studies: Bildung, currere, and the recurring question of the subject. Palgrave Macmillan, New York.
- Pinar, W. F. (2012). What is curriculum theory? Routledge, New York.
- Pinar, W. F. (2015). Educational Experience as Lived: Knowledge, History, Alterity. The Selected Works of William F. Pinar. Routledge, New York.
- Pinar, W. F. (2019). Currere. In: Wearing, J., Ingersoll, M., DeLuca, C., Bolden, B., Ogden, H., & Christou, T. M. (eds), *Key concepts in curriculum studies: Perspectives on the fundamentals*, pp. 50–52. Routledge, New York.
- Reavey, P., & Johnson, K. (2008). Visual approaches: Using and interpreting images. In: Willig, C., & Stainton-Rogers, W. (eds), *The SAGE handbook of qualitative research in psychology*, pp. 354–373. Sage, London.
- Riessman, C. K. (2008). Narrative methods for the human sciences. Sage, London.
- Rose, G. (2016). Visual methodologies: An introduction to researching with visual materials, 4th ed. Sage. London.
- Schudel, I., Lotz-Sisitka, H., Songqwaru, Z., & Tshiningayamwe, S. (2021). Engaging Education for Sustainable Development as quality education in the Fundisa for Change programme. In: Schudel, I., Songqwaru, Z., Tshiningayamwe, S., & Lotz-Sisitka, H. (eds), *Teaching and learning for change*, pp. 3–24. African Minds, Cape Town.
- Smith, K. (2024). Reconceptualising curriculum in a new era of Welsh education. *Wales Journal of Education*, 26(2), 54-71.
- Thenga, M., Goldschagg, P., Ferguson, R., & Mandikonza, C. (2020). Teacher professional development and geography teachers' pedagogical practices for climate change education. *Southern African Journal of Environmental Education*, 36, 34-47.
- Thabanelo, B. B. (2020). A curriculum framework for environmental education in the South African further education and training band. Unpublished PhD thesis, University of the Free State, South Africa.
- UNESCO (2020). Education for sustainable development: A roadmap. UNESCO, Paris.
- UNESCO (2021, April 29). Eswatini joins Sustainability Starts with Teachers programme. UNESCO. https://www.unesco.org/en/articles/eswatini-joins
- Wilmot, D. (2018). Advancing geography education in Southern Africa. *The Journal of Geography Education in Africa (JoGEA)*, 1, 1-13.

- Wilmot, D., Bednarz, S. W., Fatima, M., Garcia de la Vega, A., Grob, R., Mäsgen, J., & Wilson, S. (2025). Transformative learning in geography education: International perspectives and practices. *International Research in Geographical and Environmental Education*, 34(3), 254-273.
- Zimmerer, K. S. (2017). Geography and the study of human-environment relations. In: Richardson, D., Castree, N., Goodchild, M. F., Kobayashi, A., Liu, W., & Martson, R. A. (eds), *The international encyclopedia of Geography*, pp. 1-12. Wiley, Chichester.