

Research Article

Symbolic inclusion or structural institutionalisation? Indigenous knowledge systems and curriculum reform in Tanzanian higher education

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ABSTRACT

Across Africa, universities increasingly endorse Indigenous Knowledge Systems (IKS) as central to decolonising higher education. Yet the extent to which such endorsement results in structural curriculum transformation remains under-examined. This qualitative case study investigates the integration of IKS within the curriculum of St. Augustine University of Tanzania. Guided by the Quintuple Helix Model, the study analyses knowledge democracy, cultural resilience, ecological sustainability, and stakeholder engagement. Findings reveal that while indigenous knowledge is visibly acknowledged in courses, community engagement, and sustainability initiatives, integration remains uneven and largely lecturer-dependent. The study introduces an analytical distinction between symbolic inclusion and structural institutionalisation, arguing that meaningful decolonisation requires systemic curriculum redesign rather than discretionary incorporation. The article contributes empirical insight into the practical challenges of epistemic transformation in African higher education.

KEYWORDS

Indigenous Knowledge Systems; curriculum decolonisation; knowledge democracy; structural institutionalisation; African higher education.

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Introduction

Across the Global South, higher education institutions are increasingly confronted with calls to decolonise their curricula by recognising and integrating Indigenous Knowledge Systems (IKS). In Africa, these calls are not merely symbolic; they are tied to broader projects of epistemic justice, cultural reclamation, and sustainable development. Universities are expected to move beyond inherited colonial epistemologies and reposition local knowledge traditions as legitimate sources of scholarly production and societal transformation.

In Tanzania, the integration of indigenous knowledge in formal education is not a new aspiration. During the Ujamaa era (1967–1985) under Julius Nyerere, educational philosophy emphasised self-reliance, communal values, and the alignment of schooling with local realities. Yet, while primary and community-based education incorporated aspects of indigenous agricultural and social knowledge, university curricula largely remained anchored in Western epistemological traditions. Decades later, policy frameworks such as Vision 2025 continue to advocate cultural inclusivity and locally responsive education, but questions remain regarding how universities operationalise these aspirations at the curricular level.

Across the continent, universities in countries such as South Africa and Ghana have undertaken varying efforts to embed indigenous epistemologies within disciplines such as agriculture, environmental studies, language education, and theology. While existing scholarship highlights the importance of IKS integration, much of it focuses on normative arguments for inclusion rather than empirical analyses of how institutional structures enable or constrain meaningful curricular transformation. In particular, limited research examines how private or faith-based African universities negotiate the tension between global academic standards and locally grounded knowledge traditions.

This study addresses that gap by examining the integration of IKS in the curriculum of St. Augustine University of Tanzania (SAUT), a private higher education institution located in Mwanza. Specifically, the study asks: How are IKS integrated into the university curriculum, and to what extent are these efforts structurally institutionalised rather than symbolically represented?

Drawing on the Quintuple Helix Model as an analytical framework, this article examines four dimensions of curricular integration: knowledge democracy, cultural resilience, ecological sustainability, and stakeholder involvement. While African universities increasingly endorse IKS as central to decolonising higher education, this study demonstrates that integration often remains rhetorically affirmed but structurally fragmented, dependent on individual actors rather than institutionalised curriculum mechanisms. By empirically illustrating how IKS integration unfolds within an institutional context, this article contributes to ongoing debates on curriculum reform, epistemic justice, and the practical challenges of decolonisation in African higher education.

The article proceeds as follows. The next section outlines the theoretical framework guiding the analysis. This is followed by a description of the research design and methodology. The findings section presents four analytical themes that reveal

tensions between symbolic recognition and structural transformation. The discussion situates these findings within broader continental debates on decolonising higher education, before concluding with implications for policy and future research.

Theoretical Framework

The integration of IKS in higher education requires more than curricular modification; it demands a reconceptualisation of how knowledge is produced, legitimised, and institutionalised. This study is guided by the Quintuple Helix Model developed by Elias G. Carayannis and David F. J. Campbell, which provides an analytical framework for examining the interaction between knowledge systems, societal actors, and environmental sustainability.

The Quintuple Helix Model

The Quintuple Helix Model extends earlier innovation system models by conceptualising knowledge production as emerging from the dynamic interaction of five subsystems: academia, government, industry, civil society, and the natural environment. Rather than treating universities as isolated knowledge producers, the model situates them within a broader ecosystem in which knowledge is co-created and socially embedded (Carayannis et al., 2022).

Three dimensions of the model are particularly relevant to this study. First, the model emphasises knowledge democracy, which challenges hierarchical epistemologies by advocating the inclusion of diverse knowledge actors in knowledge creation. This principle aligns directly with calls to recognise IKS alongside dominant Western academic traditions. Second, the model foregrounds multi-stakeholder collaboration, positioning civil society and community actors as legitimate participants in curriculum formation and innovation processes. For universities integrating IKS, this implies moving beyond extractive engagement toward sustained institutional partnerships with indigenous communities. Third, the model introduces the environmental helix, incorporating ecological sustainability as a constitutive element of knowledge systems. Indigenous ecological knowledge — including land use practices, conservation ethics, and community-based environmental management — thus becomes central rather than peripheral to academic inquiry. Within this framework, curriculum is not merely a pedagogical instrument but a site where knowledge systems are negotiated, validated, or marginalised.

Knowledge Democracy and Epistemic Inclusion

The concept of knowledge democracy, as embedded within the Quintuple Helix Model, provides a normative foundation for the inclusion of IKS in higher education. Knowledge democracy implies that legitimate knowledge does not reside exclusively within formal academic institutions but is distributed across communities, traditions, and lived practices.

African scholarship on IKS integration (Kaya & Seleti, 2013; Mmola, 2010; Mekoa, 2023) highlights how colonial educational systems privileged Western epistemologies while marginalising indigenous intellectual traditions. In this

context, the integration of IKS into university curricula represents not only pedagogical reform but epistemic redress.

However, knowledge democracy also raises critical questions:

- Who defines what counts as legitimate knowledge?
- How are community knowledge holders incorporated into academic structures?
- Does inclusion alter institutional power relations, or does it merely symbolise diversity?

This study treats knowledge democracy not as an assumed outcome but as an empirical question. It examines whether the inclusion of IKS at the case institution reflects structural transformation or remains dependent on individual academic initiatives.

Cultural Resilience as Curricular Anchoring

Cultural resilience is conceptualised in this study as the capacity of educational systems to preserve, adapt, and transmit cultural knowledge while responding to contemporary global pressures. Researchers (Ajani, 2024; Cotton et al., 2017; Baruai et al., 2024) associates cultural resilience with student identity formation, institutional inclusivity, and sustainable development. Within the Quintuple Helix framework, the “cultural helix” intersects with civil society and academic systems, emphasising the embedding of local languages, histories, artistic expressions, and spiritual traditions into formal curricula.

Yet cultural resilience may operate at different levels: symbolic level (celebrations, language courses, co-curricular activities), pedagogical level (integration into teaching content and methods), structural level (institutional policies mandating curriculum reform). Distinguishing between these levels allows this study to analytically assess whether cultural elements are embedded in the core curriculum or remain peripheral extensions.

Ecological Sustainability and the Environmental Helix

The environmental dimension of the Quintuple Helix positions ecological sustainability as an integral knowledge domain rather than an auxiliary concern. Indigenous ecological knowledge — including community-based conservation practices and sustainable resource management — aligns strongly with this environmental helix.

Studies (Benyei et al., 2020; Druker-Ibáñez & Cáceres-Jensen, 2022) emphasise the value of integrating indigenous ecological knowledge into sustainability education. In theory, such integration should foster contextually grounded environmental awareness and practical application. However, institutionalising ecological knowledge within higher education requires: curriculum mandates, cross-disciplinary integration, formal research agendas, resource allocation. Without these structural supports, ecological sustainability risks remaining an aspirational discourse rather than an operational framework.

From Symbolic Recognition to Structural Institutionalisation

Drawing on these conceptual strands, this study introduces an analytical distinction between symbolic inclusion and structural institutionalisation. Symbolic inclusion refers to rhetorical endorsement, isolated modules, guest lectures, or extracurricular activities that acknowledge IKS without fundamentally altering curriculum design processes or institutional governance. Structural institutionalisation involves formal policies, mandated curriculum components, assessment reforms, stakeholder decision-making authority, and sustained faculty development mechanisms.

The Quintuple Helix Model suggests that genuine knowledge democracy requires systemic integration across academic, civil, environmental, and governance domains. Therefore, this study examines whether IKS integration at the case institution reflects alignment across helices or remains fragmented within particular departments or individuals. By applying this theoretical lens, the research moves beyond documenting examples of integration to analysing the depth, coherence, and institutional embeddedness of IKS in higher education.

Methodology

Research Design

This study employed a qualitative case study design to examine the integration of IKS within the curriculum of SAUT. A case study approach was appropriate because the research sought an in-depth understanding of how institutional actors interpret and operationalise IKS within a specific university context (Yin, 2011). Rather than measuring the prevalence of IKS integration, the study aimed to explore the processes, perceptions, and institutional mechanisms shaping curricular practice.

The case was bounded geographically and institutionally to SAUT, a private university located in Mwanza, Tanzania. The Faculty of Arts, Humanities, and Social Sciences was selected because of its central role in cultural education and its potential alignment with indigenous knowledge domains. The study focused on the 2023–2024 academic year to capture contemporary integration efforts.

Participants and Sampling

The study involved sixteen participants selected through purposive sampling. Participants were chosen based on their direct involvement in curriculum development, teaching, or learning within the faculty. The sample comprised of one faculty dean, three heads of department, nine lecturers and three students. This composition enabled perspectives from both curriculum designers (academic leadership and lecturers) and curriculum recipients (students). Purposive sampling was used to ensure that participants possessed relevant knowledge of curricular processes and IKS-related initiatives.

Although the sample size was relatively small, it was consistent with qualitative case study logic, which prioritises depth of insight over statistical generalisability. Data collection continued until thematic saturation was reached, with recurring patterns emerging across interviews and focus group discussions.

Data Collection

Data were collected through two primary qualitative methods:

1. Semi-structured interviews with the Dean, Heads of Department, and lecturers
2. Focus Group Discussions (FGDs) with students

Semi-structured interviews allowed flexibility to probe participants' experiences with knowledge democracy, cultural resilience, ecological sustainability, and stakeholder engagement within the curriculum. Focus groups facilitated collective reflection among students, capturing shared perceptions of how indigenous knowledge is encountered in their learning experience.

Interviews and FGDs were audio-recorded with informed consent. Institutional permission was obtained prior to data collection, and ethical principles of voluntary participation, confidentiality, and anonymity were upheld. Participants were assigned pseudonyms to protect their identities.

Data Analysis

Audio recordings were transcribed electronically using Turboscribe software and manually reviewed for accuracy. Data analysis followed a thematic approach informed by Bryman (2016). The analytical process involved repeated reading of transcripts to ensure immersion in the data, initial coding through highlighting key ideas and assigning descriptive labels and use of both deductive and inductive coding strategies. Deductive codes were derived from constructs within the Quintuple Helix Model, particularly knowledge democracy, cultural resilience, ecological sustainability, and stakeholder involvement. Inductive codes emerged from participants' lived experiences, perceptions, and institutional observations. Codes were then grouped into higher-order themes reflecting patterns across participants. Particular attention was given to identifying tensions, contradictions, and gaps between rhetorical commitment and practical implementation. This interpretive approach allowed the study to move beyond descriptive reporting toward analytical insight regarding institutionalisation processes.

Trustworthiness and Reflexivity

To enhance credibility and trustworthiness, the study adopted strategies outlined by Korstjens and Moser (2017). These included prolonged engagement with participants, triangulation of data sources (administrators, lecturers, students), and member checking during interviews to clarify interpretations. Transferability was supported through detailed contextual description of the institutional setting. Dependability and confirmability were addressed through maintaining an audit trail of research steps and documenting the progression from raw data to themes. As the research was conducted within a single institution, findings are not statistically generalisable. However, the case provides analytical insight into broader dynamics shaping IKS integration in Tanzanian and African higher education contexts.

Findings and Analysis

The analysis revealed a patterned tension between rhetorical endorsement of IKS and their uneven structural institutionalisation within the curriculum. Across the four analytical dimensions—knowledge democracy, cultural resilience, ecological

sustainability, and stakeholder engagement—participants affirmed the importance of IKS integration. However, implementation often remained fragmented, individualised, and inconsistently embedded within formal curriculum mechanisms.

Knowledge Democracy: Individual Initiative in the Absence of Systemic Policy

Participants widely acknowledged the value of recognising diverse knowledge systems within university education. Faculty members emphasised that indigenous knowledge could enhance students' cultural awareness, foster critical thinking, and strengthen the relevance of learning to community realities. Students similarly expressed support for integrating local knowledge in areas such as agriculture, fishing, mining, home economics, and moral education.

However, this recognition was frequently described as lecturer-dependent rather than institutionally mandated. Several participants indicated that integration occurs through individual teaching choices rather than through formalised curriculum policy. Indigenous knowledge is incorporated where lecturers deliberately connect classroom content to community practices, particularly through practicum components such as micro-teaching, environmental outreach, or community engagement activities.

From a knowledge democracy perspective, this reflects epistemic openness but limited structural transformation. The curriculum allows space for indigenous perspectives, yet such inclusion remains discretionary rather than systematised. There was no consistent indication of formal curriculum review processes explicitly embedding IKS across programmes.

Moreover, participants noted that indigenous knowledge varies across Tanzanian regions, suggesting the need for context-sensitive integration. While this awareness reflects epistemic pluralism, it also highlights institutional complexity: without structured mechanisms, local variability may reinforce ad hoc inclusion rather than coordinated reform.

Analytically, knowledge democracy at the institution appears rhetorically affirmed but structurally fragmented. Indigenous knowledge enters the curriculum through pedagogical agency rather than institutional policy, indicating partial alignment with the Quintuple Helix model's call for systemic knowledge co-creation.

Cultural Resilience: Strong Symbolic Presence, Limited Curricular Reconfiguration

Cultural resilience emerged as the most visible dimension of IKS integration. Participants consistently described Tanzania as culturally diverse yet unified, and many affirmed that integrating local languages, traditions, and cultural practices strengthens students' identity and belonging.

Mandatory Kiswahili courses, Tanzanian literature modules, and content addressing ethnic groups, local histories, and cultural values were cited as existing vehicles for cultural transmission. Participants also referenced co-curricular activities—including drama, music, dance, and the celebration of cultural or international heritage days—as reinforcing cultural pride.

Within the analytical distinction proposed earlier, these practices indicate robust symbolic inclusion. Cultural elements are visible, recognised, and valued in institutional life. Students are exposed to cultural knowledge within formal coursework and extracurricular settings, and faculty members express normative commitment to strengthening such integration.

However, the findings suggest that cultural resilience is often implicit rather than explicitly framed as IKS integration. Cultural content appears embedded within humanities and social science disciplines, yet there was limited evidence of institution-wide curriculum restructuring centred explicitly on IKS. Integration occurs within existing courses rather than through formal curricular redesign.

Participants expressed optimism that deeper integration would not be resisted, noting strong African cultural attachment. Yet this confidence coexists with acknowledgement that education systems have historically detached from indigenous epistemologies. This suggests that cultural resilience remains pedagogically supported but structurally under-articulated in curriculum governance processes. Thus, cultural resilience at the institution reflects strong symbolic representation, but limited transformation at the policy and structural level.

Ecological Sustainability: Emerging Practices Without Coordinated Mechanisms

Ecological sustainability presented a more uneven picture. Participants reported that sustainability-related content is integrated within specific programmes, particularly Environmental Studies, Natural Resources Management, Geography, Biology, Engineering, Business, and Law. Courses addressing climate change, biodiversity, renewable energy, environmental law, and green economics demonstrate disciplinary engagement with environmental concerns.

In addition, practical initiatives—such as tree planting campaigns, recycling projects, and environmental outreach through micro-teaching practicum—were described as reinforcing sustainability awareness. Some participants referred to the campus functioning as a “living laboratory,” where environmental practices support both learning and research.

However, significant divergence emerged regarding institutional mechanisms. While some participants described sustainability as integrated through disciplinary approaches and research focus, others stated explicitly that no formal mechanisms exist to ensure systematic integration of ecological sustainability into curriculum planning. One participant observed that activities occur within a “business as usual” framework rather than through structured institutional strategy.

This divergence illustrates institutional fragmentation. The environmental helix of the Quintuple Helix model requires coordinated integration of ecological knowledge across systems. In this case, sustainability appears as a programme-specific strength rather than a university-wide framework. Research on local environmental issues, such as deforestation and water conservation, informs teaching, but this linkage depends on individual or departmental initiative. Therefore, ecological sustainability

reflects a developing but uneven institutionalisation process. Practical engagement is present; policy coherence is limited.

Stakeholder Engagement: Consultation Without Decision Authority

Stakeholder involvement represents a central component of knowledge democracy within the Quintuple Helix framework. At the institution, formal governance structures—including Departmental Boards, Faculty Boards, Senate, and Industrial Advisory Boards—exist to support curriculum deliberation. Participants described the use of surveys, focus groups, and informal consultations to gather diverse perspectives.

Community engagement also occurs indirectly through research and outreach programmes. Local stakeholders contribute knowledge through guest lectures, practicum interactions, and field-based activities. Indigenous knowledge holders occasionally share lived experiences within academic settings.

However, the depth of stakeholder influence was described as uneven. Internal stakeholders, particularly students, reported limited involvement in early stages of curriculum design. Consultation sometimes occurs after core decisions have already been made. Similarly, while external stakeholders such as employers, alumni, and government representatives may be represented in governance structures, their involvement in shaping indigenous knowledge integration appears sporadic.

The findings therefore reveal a distinction between stakeholder presence and stakeholder power. Participation mechanisms exist, yet decision-making authority remains concentrated within academic structures. Community engagement is frequently positioned as complementary to curriculum, rather than integrated into curriculum design itself. Analytically, this suggests partial alignment with the collaborative ideal of the Quintuple Helix model. Engagement practices signal openness, but structural redistribution of curricular authority remains limited.

Cross-Cutting Pattern: Rhetorical Commitment, Fragmented Institutionalisation

Across all four dimensions, a consistent pattern emerges. Participants affirm the importance of integrating IKS. Cultural pride, ecological awareness, and community engagement are valued. Practical examples of inclusion exist within courses, research projects, and co-curricular activities.

Yet integration often depends on individual lecturer initiative, department-specific programmes, informal consultation and extracurricular reinforcement. Evidence of comprehensive institutional policy mandating systematic IKS integration across the university was limited. Formal mechanisms appear unevenly developed, and participants expressed differing levels of awareness regarding existing strategies.

The case therefore illustrates not absence of integration, but incomplete institutionalisation. Indigenous knowledge is present, yet not uniformly embedded across governance, curriculum structure, and assessment systems. This fragmentation underscores the distinction between symbolic inclusion and structural transformation. While IKS are increasingly visible and valued, their incorporation remains selectively embedded rather than fully systematised within university curriculum architecture.

Discussion

This study set out to examine how IKS are integrated within the curriculum of a Tanzanian university and whether such integration reflects structural institutionalisation or symbolic inclusion. The findings reveal neither absence nor comprehensive transformation, but rather a patterned condition of fragmented institutionalisation. While participants consistently affirmed the value of indigenous knowledge and provided multiple examples of its presence, integration remains uneven, largely dependent on individual academic agency rather than embedded institutional policy.

These findings resonate with broader continental debates on the decolonisation of African higher education. Across the continent, calls to re-centre indigenous epistemologies have intensified, particularly in contexts such as South Africa, where curriculum reform has been framed as epistemic justice and knowledge redress (Kaya & Seleti, 2013; Mekoa, 2023). Yet scholars have cautioned that rhetorical endorsement of decolonisation does not automatically translate into structural transformation. The present case study provides empirical evidence of this distinction.

From Epistemic Recognition to Institutional Reform

African higher education institutions increasingly recognise the importance of diversifying epistemological foundations. The strong normative support expressed by participants aligns with continental scholarship arguing that IKS enhances cultural identity, social cohesion, and context-sensitive development. Cultural resilience, as reflected in mandatory Kiswahili courses and culturally grounded humanities curricula, demonstrates that indigenous knowledge is not entirely marginalised within the institution.

However, the study shows that epistemic recognition does not necessarily disrupt underlying governance structures. Cultural elements are embedded primarily within specific disciplines, particularly humanities and social sciences, rather than reorganising curriculum architecture across faculties. This pattern reflects what some scholars describe as additive reform—incorporating indigenous content into existing frameworks—rather than transformative restructuring.

The distinction matters. Decolonisation debates emphasise not only what is taught, but who determines curriculum legitimacy and how knowledge hierarchies are negotiated. In the case examined here, decision-making authority over curriculum remains concentrated within traditional academic governance structures. Stakeholder consultation occurs, yet authority over institutional direction is not substantively redistributed. This suggests that integration remains contained within established epistemic boundaries.

Knowledge Democracy and the Limits of Lecturer-Dependent Integration

The Quintuple Helix Model foregrounds knowledge democracy as inclusive, multi-actor knowledge production. The findings demonstrate partial movement toward this ideal. Indigenous knowledge appears in classroom discussions, practicum

experiences, environmental outreach, and community-informed examples. Yet these initiatives often emerge from individual lecturers who intentionally integrate local knowledge into teaching.

Such lecturer-dependent integration presents both strength and vulnerability. On the one hand, it reflects epistemic openness and pedagogical commitment. On the other, it signals the absence of formalised institutional mechanisms to guarantee continuity. When integration depends on individual disposition rather than structural mandate, sustainability becomes uncertain.

This dynamic echoes broader African debates in which IKS integration is championed but inconsistently operationalised. Without explicit curriculum policy frameworks, faculty development strategies, or assessment reforms, inclusion remains uneven. The study therefore contributes to decolonisation discourse by empirically illustrating how epistemic pluralism can coexist with structural inertia.

Ecological Sustainability and the Environmental Turn in African Higher Education

The environmental dimension of the Quintuple Helix provides a critical lens for understanding how indigenous ecological knowledge intersects with sustainability education. Across Africa, climate change, land degradation, and biodiversity loss have intensified calls to revalorise community-based ecological knowledge systems.

In the case examined, ecological sustainability is visible through programme-specific courses and campus-based initiatives. Disciplines such as Environmental Studies and Natural Resources Management demonstrate structured engagement with sustainability themes. However, participants' divergent perceptions regarding institutional mechanisms indicate fragmentation. Some described coordinated sustainability practices; others perceived an absence of formal policy alignment.

This mirrors continental challenges where sustainability rhetoric is strong, but institutional coordination varies widely. Indigenous ecological knowledge is recognised as valuable for environmental management, yet often remains embedded within particular programmes rather than shaping university-wide curriculum frameworks. The environmental helix thus appears activated but not fully integrated across institutional systems.

Symbolic Inclusion and the Politics of Curriculum

A central insight emerging from this study is the analytical distinction between symbolic inclusion and structural institutionalisation. Symbolic inclusion is evident through recognition of indigenous languages and cultural practices, inclusion of local examples in teaching, celebration of cultural heritage events and community outreach and practicum engagement. These practices reflect institutional openness and alignment with cultural identity. However, structural institutionalisation would require formal curriculum redesign, mandated integration guidelines, institutional policy alignment, and redistributive participation mechanisms.

The case suggests that universities may occupy an intermediate position: neither rejecting indigenous epistemologies nor fully reorganising institutional systems around them. This “middle ground” complicates simplistic binaries of colonial

versus decolonised curricula. Instead, it reveals gradual, negotiated processes shaped by institutional constraints, disciplinary traditions, and governance hierarchies. By grounding this distinction empirically in a Tanzanian context, the study extends continental debates beyond highly publicised reform movements. It demonstrates that the challenges of decolonisation are not confined to protest-driven contexts but are embedded in everyday curriculum governance processes across African higher education.

Implications for Tanzanian Higher Education

Tanzania's educational history, including the philosophy of self-reliance advanced during the post-independence era under Julius Nyerere, provides a historical foundation for integrating indigenous knowledge into formal education. The current findings suggest that elements of this legacy remain present, particularly in cultural and community-oriented pedagogies.

However, the study also reveals the need for clearer institutional frameworks to move beyond discretionary inclusion. Policy articulation, faculty development, and systematic curriculum review processes could enhance coherence. Without such mechanisms, integration risks remaining uneven and vulnerable to institutional turnover or shifting priorities.

The Tanzanian case thus contributes to African higher education scholarship by demonstrating that decolonisation is not simply a matter of ideological endorsement but of institutional design. Curriculum transformation requires alignment across governance, pedagogy, research, and community engagement systems.

Theoretical Contribution

Theoretically, the study refines the application of the Quintuple Helix Model to curriculum reform debates. While the model conceptualises systemic knowledge co-production, empirical application reveals that alignment across helices is neither automatic nor uniform. Universities may activate certain helices—particularly cultural and environmental—while leaving governance and decision-making structures comparatively unchanged.

By introducing the analytical distinction between symbolic inclusion and structural institutionalisation, this study offers a conceptual tool for evaluating the depth of IKS integration. This distinction moves the debate beyond whether indigenous knowledge is present to how it is embedded and sustained within institutional architecture.

Conclusion

This study examined how IKS are integrated within the curriculum of SAUT and whether such integration reflects structural institutionalisation or symbolic recognition. Guided by the Quintuple Helix Model, the research analysed four dimensions of integration—knowledge democracy, cultural resilience, ecological sustainability, and stakeholder involvement.

The findings demonstrate that IKS are neither absent nor fully institutionalised. Rather, integration is characterised by a pattern of rhetorical affirmation

accompanied by uneven structural embedding. Cultural content is visible and valued, ecological sustainability is present within certain disciplines, and community engagement mechanisms exist. However, integration frequently depends on individual lecturer initiative, department-level practices, and informal consultation rather than comprehensive curriculum policy mandates.

This distinction between symbolic inclusion and structural institutionalisation constitutes the central analytical contribution of the study. Symbolic inclusion reflects openness to indigenous epistemologies and cultural identity affirmation. Structural institutionalisation, however, requires formalised curriculum redesign, policy alignment, systematic stakeholder participation, and sustained governance support. The case illustrates that endorsement of decolonisation principles does not automatically translate into institutional transformation.

By empirically examining these dynamics within a Tanzanian university context, the study contributes to broader continental debates on decolonising African higher education. It demonstrates that curriculum reform is a negotiated, incremental process shaped by governance structures, disciplinary traditions, and institutional capacity. Decolonisation, therefore, should be understood not as a binary shift but as a continuum of institutional alignment across knowledge, culture, environment, and governance systems.

The findings also have practical implications. For universities seeking deeper integration of IKS, three interrelated shifts appear necessary. First, formal policy articulation that explicitly embeds IKS within curriculum review frameworks. Second, institutional mechanisms ensuring that community stakeholders participate meaningfully in curriculum design processes. And third, cross-disciplinary integration strategies linking cultural and ecological knowledge beyond individual programmes. Without such systemic alignment, integration risks remaining discretionary and fragmented.

This study is limited by its focus on a single institution and faculty, which constrains statistical generalisation. However, the case provides analytical insight applicable to similar higher education contexts in Tanzania and across Africa. Future research could adopt comparative multi-institutional designs to examine variation in institutionalisation processes, or longitudinal studies to assess how rhetorical commitments evolve into structural reforms over time.

In conclusion, the integration of IKS in African higher education is not simply a question of curricular presence but of institutional architecture. The challenge facing universities is not whether to recognise indigenous knowledge, but how to embed it sustainably within governance, pedagogy, and knowledge production systems. The movement from symbolic inclusion to structural institutionalisation remains the critical frontier of decolonising curriculum reform.

References

- Ajani, O. (2024). Exploring Curriculum Transformation in Higher Education Institutions: A critical analysis of equity and social justice perspectives. *Research in Educational Policy and Management*, 6(1), 217-237. <https://doi.org/10.46303/repam.2024.14>
- Baruai, A., Arafat, Y., Shahriar, A., & Chakrabort, K. (2024). Integrating cultural education into tertiary curricula: perspectives from indigenous students. *European Journal of Education Studies*, 11(12), 354-372. <https://oapub.org/edu/index.php/ejes/article/view/5752/8382>
- Benyei, P., Calvet-Mir, L., Reyes-García, V., & Rivera-Ferre, M. (2020). Resistance to traditional agroecological knowledge erosion in industrialized contexts: A study in La Plana de Vic (Catalonia). *Agroecology and Sustainable Food Systems*, 44(10), 1309-1337. <https://doi.org/10.1080/21683565.2020.1712571>
- Bryman, A. (2016). *Social research methods*. Oxford University Press.
- Carayannis, E. G., Campbell, D. F., & Grigoroudis, E. (2022). Helix trilogy: The triple, quadruple, and quintuple innovation helices from a theory, policy, and practice set of perspectives. *Journal of the Knowledge Economy*, 13(3), 2272-2301. <https://doi.org/10.1007/s13132-021-00813-x>
- Cotton, D. R., Nash, T., & Kneale, P. (2017). Supporting the retention of non-traditional students in higher education using a resilience framework. *European Educational Research Journal*, 16(1), 62-79. <https://doi.org/10.1177/1474904116652629>
- Druker-Ibáñez, S., & Cáceres-Jensen, L. (2022). Integration of indigenous and local knowledge into sustainability education: a systematic literature review. *Environmental Education Journal*, 28(8), 1209-1236. <https://doi.org/10.1080/13504622.2022.2083081>
- Kaya, H., & Seleti, Y. (2013). African indigenous knowledge systems and relevance of higher education in South Africa. *The International Education Journal: Comparative Perspectives*, 12(1), 30-44.
- Korstjens, I. & Moser, A. (2017). Practical guidance to qualitative research: Trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120-124. <https://doi.org/10.1080/13814788.2017.1375092>
- Mekoa, I. (2023) Challenges and opportunities for IKS in higher education institutions in South Africa: Politics, ideological, institutional cultures and structural dimensions. (Unpublished thesis). North-West University, South Africa.
- Mmola, S. (2010). A survey of perceptions of IKS students and IKS lecturers on IKS programme at North-West University (Mafikeng Campus). (Unpublished manuscript), iKS Programme: North-West University.
- Yin, R. K., (2011). *Qualitative Research from Start to Finish*. New York: Guilford.