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Lifelong Learning and Educational Adaptability in Kenyan Universities: A Grounded Theory Study

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Abstract

This study developed a substantive grounded theory explaining how three public universities in Kenya understood, enacted, and sustained lifelong learning and educational adaptability. The study used a constructivist grounded theory design, drawing on 28 in-depth semi-structured interviews with university administrators and academic staff, five focus group discussions with postgraduate students, and analysis of institutional policies, strategic plans, and curriculum documents. Participants were selected initially through purposive sampling and subsequently through theoretical sampling as categories emerged. Analysis involved initial, focused, axial, and theoretical coding, together with constant comparison. The analysis generated the core category of Adaptive Learning Ecosystems, supported by six interrelated categories: institutional responsibility for lifelong learning; pedagogical innovation and curriculum adaptability; digital transformation; academic agency and professional learning; leadership, policy, and institutional culture; and learner engagement and adaptive identities. The findings suggest that adaptability is not a discrete intervention but a continuous and relational process requiring alignment across institutional conditions, professional practice, technology, and learner agency. Participants also highlighted tensions arising from traditional learning models, uneven digital infrastructure, policy requirements, and the costs of developing or recruiting new capabilities. The study contributes a contextually grounded explanation of how Kenyan universities can sustain lifelong learning while responding to technological, policy, and socio-economic change.

Keywords: *lifelong learning; educational adaptability; grounded theory; higher education; digital transformation; academic agency; learner engagement; Kenya*

1. Introduction

Globally, education systems are experiencing significant transformation driven by rapid technological advancement, globalization, changing labour markets, and increasing social complexity. The Fourth Industrial Revolution has altered the skills required for meaningful participation in the economy, placing greater emphasis on digital literacy, critical thinking, creativity, adaptability, and lifelong learning (Schwab, 2016; World Economic Forum [WEF], 2020). International policy frameworks such as Sustainable Development Goal 4 advocate inclusive and equitable quality education and lifelong learning opportunities for all (United Nations, 2015). Despite these commitments, education systems continue to face challenges in adapting pedagogical and institutional arrangements to changing social, technological, and economic realities (OECD, 2019).

In Africa, higher education systems face the combined challenge of addressing longstanding structural constraints while responding to emerging demands for relevant, flexible, and future-oriented learning. Although access to higher education has expanded, concerns remain about the relevance, quality, and adaptability of university curricula in relation to labour market needs (African Development Bank, 2019). The African Union's Agenda 2063 and the Continental Education Strategy for Africa 2016–2025 emphasize innovation, skills development, and lifelong learning as foundations for inclusive growth and sustainable development (African Union, 2015, 2016). Limited resources,



technological infrastructure, and educator capacity, however, constrain implementation of these aspirations in many higher education institutions (Oketch, McCowan, & Schendel, 2014).

Kenyan universities operate within this wider context. Kenya Vision 2030 and national education policy position universities as important institutions for human capital development, innovation, and socio-economic transformation (Government of Kenya, 2007; Ministry of Education, 2019). Universities are also responding to competency-based approaches, digital learning, and growing expectations for transferable skills and lifelong learning. Yet curriculum rigidity, uneven pedagogical innovation, digital infrastructure gaps, and limited professional development opportunities continue to shape institutional capacity for adaptation (Oanda & Jowi, 2012; Nganga, 2014).

In this study, the research problem was that policy and institutional commitments to lifelong learning and adaptability did not, by themselves, explain how these ideas were translated into everyday university practice or how the conditions for sustained adaptation were created. Existing literature identifies curriculum flexibility, digital transformation, professional learning, leadership, and learner agency as important, but less is known about how these dimensions interact as a social and institutional process within Kenyan universities.

The study therefore addressed the following research questions: (1) How do university stakeholders understand lifelong learning and educational adaptability in Kenyan universities? (2) What institutional conditions and social processes shape how lifelong learning and educational adaptability are enacted and sustained? and (3) How do leadership, curriculum and pedagogical practice, digital transformation, academic agency, and learner engagement interact in this process?

The study sought to generate a substantive grounded theory that could explain these processes rather than test predetermined variables. By doing so, it contributes a contextually grounded account of how universities can respond to uncertainty and change while maintaining local relevance.

Kenyan Higher Education in a Period of Multiple Transitions

Kenyan universities provide a particularly important setting for examining lifelong learning and educational adaptability because the sector is experiencing several transitions simultaneously. Higher education has expanded substantially in response to rising demand and national development priorities. The Ministry of Education reports that university enrolment increased from 513,182 students in 2018/19 to 562,925 in 2022/23, while the establishment of the National Open University of Kenya and the expansion of open, distance and e-learning approaches have altered the possibilities for access and delivery (Ministry of Education, 2024a). More recently, the Commission for University Education reported 80 licensed universities in the 2023/24 reporting period, with data collected from 78 institutions, illustrating the scale and institutional diversity of the sector (Commission for University Education [CUE], 2025).

This expansion has created an important policy tension. Universities are expected simultaneously to widen access, maintain quality, respond to labour-market and national development needs, support research and innovation, adopt new technologies, and operate within significant resource constraints. CUE's mandate reinforces this expectation by requiring the Commission to assure quality and relevance, monitor university education against national development goals, and promote research and innovation (CUE, n.d.). The question of adaptability in Kenya is therefore not simply whether universities introduce new technologies or curricula, but whether institutions can continuously realign their structures, people, practices, and resources as expectations change.

Expansion, Relevance, and the Changing Social Contract of the University

The expansion of Kenyan higher education has altered the social role of universities. Universities are increasingly expected to contribute directly to employability, entrepreneurship, innovation, social development, and national transformation rather than operate primarily as providers of disciplinary knowledge. Kenya's State Department for Higher Education and Research explicitly frames its objectives around access, equity, quality and relevance, while also emphasizing the development of skills and competencies for industrial and economic development (Ministry of Education, n.d.). CUE similarly identifies relevance, quality, access and equity as central dimensions of its current strategic direction (CUE, 2024).

At the same time, the literature on Kenyan universities has highlighted persistent concerns about the relationship between university education and changing social and economic needs (Oanda & Jowi, 2012; Nganga, 2014). This



creates a stronger case for understanding adaptability as an institutional capability. If programmes, pedagogies and support systems remain static while the learner population, labour market and knowledge economy change, expansion can increase access without necessarily increasing relevance. Lifelong learning therefore becomes both an educational objective and a mechanism through which universities can remain responsive to changing learner and societal needs.

Competency-Based Reform and the Future of University Education

Kenya's competency-based reform agenda adds another layer to this challenge. Although competency-based education was initially associated strongly with basic education and TVET, national reform processes increasingly position universities as part of the continuum. The Presidential Working Party on Education Reform argued that universities will need to align programmes with the competencies developed through the competency-based curriculum, and specifically identified changes in teaching methods, assessment strategies, learning resources, and lecturer capacity as necessary for university readiness (Republic of Kenya, 2023). The report also noted that lecturers would need to be retooled to deliver competency-based approaches effectively.

This matters for lifelong learning because competency-based reform shifts attention from coverage of content towards what learners can do with knowledge. Such a shift has implications for curriculum design, assessment, classroom interaction, academic identity, and professional learning. It also means that adaptability cannot be reduced to adding digital tools to existing teaching practices. It requires universities and academics to reconsider how learning is designed, facilitated and assessed. The transition therefore provides a useful Kenyan case for examining whether policy reform is translated into changes in institutional practice and professional capacity.

Digital Transformation: Opportunity, Constraint, and Unequal Implementation

Digital transformation has become another major driver of change in Kenyan higher education. The Ministry of Education's sector plan reports that open, distance and e-learning approaches and ICT-enabled solutions accelerated during the COVID-19 period, while CUE developed guidelines for digital content development and delivery (Ministry of Education, 2024a). CUE's strategic planning documents also recognize that artificial intelligence, virtual learning environments, automated assessment, and other technologies are changing curriculum delivery and the traditional university landscape (CUE, 2024).

However, technology adoption should not be treated as synonymous with institutional adaptability. Evidence from Kenya's wider ICT-in-education experience shows that implementation has been uneven and that digital inequalities often follow existing social and economic inequalities (UNESCO, 2021). The COVID-19 experience further demonstrated that moving teaching online requires more than platforms and connectivity; it also depends on appropriate curriculum, staff capability, learner support, and institutional readiness. This supports a view of digital transformation as both an enabler and a stressor. The relevant question is therefore not simply whether universities have adopted technology, but whether technology is being integrated into pedagogical and organizational systems in ways that expand meaningful participation and learning.

Academic Agency, Professional Learning, and the Capacity to Change

These reforms place substantial demands on academic staff. Curriculum reform, competency-based approaches, blended learning, digital platforms, new assessment practices, research expectations, and changing learner needs all require academics to learn and adapt continuously. Existing scholarship emphasizes the importance of professional learning, academic identity, and agency in educational change (Henkel, 2005; Priestley et al., 2015). Academic agency, however, is not simply an individual characteristic. It is exercised within institutional structures, workload arrangements, leadership practices, incentives, and available resources.

The Kenyan policy context reinforces this point. In 2024, national university leadership discussions identified inadequate funding, human-capital constraints, infrastructure and equipment gaps, and low research outputs among the challenges confronting public universities. The same discussions called for stronger academic-industry linkages, new pedagogical approaches, technology use, professional capacity, and resource mobilization (Ministry of Education, 2024b). Adaptability can therefore be understood as a capacity that universities must build collectively, rather than an expectation placed on individual academics.



Leadership, Governance, and Policy Coherence

Institutional leadership and governance are particularly important in contexts characterized by repeated policy reform. CUE's mandate combines regulation, quality assurance, policy advice, monitoring, data, research and innovation, while its 2024–2028 strategic plan emphasizes quality, access, relevance and equity and describes a shift towards addressing critical challenges in university education (CUE, 2024; CUE, n.d.). The national reform agenda likewise calls for stronger governance, university-industry linkages, research frameworks, data systems, and more coherent regulation (Republic of Kenya, 2024).

The literature therefore points to a potential implementation problem: policy coherence at the national level does not necessarily produce coherence within institutions. Universities must interpret and translate multiple external expectations into programme design, staff development, quality assurance, budgeting, technology decisions, and day-to-day teaching. Leadership becomes important not only because leaders initiate change, but because they mediate competing priorities and create the conditions under which academics can experiment, collaborate, and sustain new practices. This provides a stronger rationale for examining adaptability as a relational and organizational process.

Lifelong Learning, Learner Agency, and Adaptive Identities

Lifelong learning also requires attention to the learner. It encompasses formal, non-formal and informal learning and is associated with self-direction, reflection, continuous skill development, and the ability to navigate changing environments (Candy, 1991; Knowles et al., 2015; UNESCO, 2016). In the Kenyan university context, expanding access and flexible modes of delivery mean that learners increasingly encounter different combinations of face-to-face, online, blended, professional and self-directed learning. Such arrangements require learners to exercise greater agency while also depending on institutional systems that make agency feasible.

This creates an important interaction between institutional adaptability and learner adaptability. A university may provide flexible platforms and pathways, but learners need digital, metacognitive and self-regulatory capacities to use them effectively. Conversely, learner practices can expose limitations in institutional systems and create pressure for further adaptation. Lifelong learning is therefore better understood as an interaction between institutional structures and learner agency than as a characteristic located solely within the individual.

A Kenyan Case for Studying Adaptability as an Ecosystem

Taken together, the Kenyan literature and policy environment suggest that universities are being asked to adapt on several fronts at once: expanding access while maintaining quality; aligning programmes with changing labour-market and national development priorities; preparing for competency-based progression; integrating digital and emerging technologies; strengthening academic capacity; responding to financial and infrastructure constraints; and supporting increasingly diverse learners. These demands are interconnected rather than discrete. A change in curriculum can require new assessment practices; new assessment practices can require professional learning; digital delivery can alter learner support needs; and resource constraints can shape whether institutional reforms are sustained.

The existing literature provides important insights into each of these dimensions, but it gives less attention to the mechanisms through which they interact in the everyday life of Kenyan universities. Much of the policy discussion is also normative, describing what universities should become, rather than explanatory of how adaptation actually occurs. This creates a strong rationale for a grounded theory approach that starts with the experiences of administrators, academic staff, and postgraduate students and asks how they collectively understand, negotiate, and sustain change.

Synthesis and Research Gap

The literature therefore points towards a shift from viewing adaptability as a collection of innovations to viewing it as an institutional capability and social process. Kenyan universities operate at the intersection of policy reform, massification, financial pressure, digital transformation, changing expectations of graduate competencies, and evolving learner identities. Yet the relationships among these pressures, institutional conditions, academic agency, and learner engagement remain insufficiently explained. This study addresses that gap by examining how these dimensions interact and by generating a substantive grounded theory of lifelong learning and educational adaptability in Kenyan universities.



2. Research Methods

This study used a qualitative constructivist grounded theory design to develop a substantive explanation of how lifelong learning and educational adaptability are understood, practised, and sustained in Kenyan universities. It was conducted in three selected public universities within the context of higher education reforms, digital learning, and lifelong learning policies. Participants comprised university administrators, academic staff, and postgraduate students involved in teaching, learning, curriculum development, or institutional leadership. Sampling began purposively and progressed to theoretical sampling as categories emerged. The study included 28 individual interviews and five focus group discussions with postgraduate students.

Data were collected between February and June 2026 through semi-structured interviews, postgraduate focus group discussions, and a review of nine institutional documents, including policies, strategic plans, and curriculum documents. Interviews lasted 45-60 minutes, while focus group discussions lasted 60–90 minutes. With participants' consent, interviews were audio-recorded and transcribed verbatim. The data addressed participants' views and experiences regarding lifelong learning, educational adaptability, curriculum and pedagogy, technology, academic practice, institutional change, and learner agency.

Data analysis followed constructivist grounded theory procedures, including line-by-line initial coding, focused coding, relational coding, theoretical coding, and constant comparison. Data, codes, and categories were compared across participant groups and sources to examine conditions, actions, relationships, and consequences. Theoretical sampling and analysis continued until additional data no longer substantially extended the properties, dimensions, or relationships of the emerging categories. Trustworthiness was enhanced through triangulation, peer debriefing, prolonged engagement, reflexive notes, and an audit trail documenting analytical decisions and theoretical development. Ethical approval was obtained from the relevant institutional committees, and participants provided informed consent. Participation was voluntary, confidentiality was protected through pseudonyms, and data were securely stored.

3. Analysis Results

The grounded theory analysis generated a substantive explanation of how lifelong learning and educational adaptability were understood, enacted, and sustained within Kenyan universities. Rather than appearing as separate reforms, the findings show a set of interacting processes: universities are expected to cultivate learners' capabilities and respond to current societal problems; curriculum and pedagogy must become more responsive; technology is increasingly unavoidable; academics must continually acquire new capabilities; and institutional policy, cost, staffing, and infrastructure shape what can be sustained. These relationships formed the basis of the core category, Adaptive Learning Ecosystems.

The quotations below make the analytic claims traceable to participant accounts. Participant identifiers are anonymised source codes: INT-## denotes an individual interview and FGD-## denotes a focus group discussion.

3.1 Core Category: Adaptive Learning Ecosystems in Kenyan Universities

The core category that emerged from the analysis was Adaptive Learning Ecosystems. The category captures the idea that adaptability is not a single intervention or a linear sequence of reforms. It is produced through continuing interaction among institutional expectations, curriculum and pedagogy, technology, academic learning, policy, resources, and learner agency. Participants' accounts repeatedly connected these elements: changing expectations of learners create pressure for curricular and pedagogical change; digital transformation creates new demands on lecturers; and institutional policies, costs and infrastructure determine whether these changes can be sustained.

"If you don't work within the parameters, the lecturers and students will be left behind by technology, because you cannot afford to keep away from tech." - (INT-04)

3.2 Category 1: Reframing Lifelong Learning as an Institutional Responsibility

Participants positioned the university as responsible not simply for delivering a curriculum but for identifying and strengthening learners' capabilities. One participant described this responsibility in terms of actively identifying talent among students and strengthening it. This reframes lifelong learning from the acquisition of qualifications towards the cultivation of capabilities that learners can continue to develop and apply beyond university.



“Search for talent among students and strengthen it.”- (INT-01)

This view also appeared in participants’ understanding of research. Rather than treating research as an end in itself, participants linked knowledge production to current social needs and practical problem-solving.

“Research should not be for research's sake; it should be geared towards providing solutions.”- (INT-02)

3.3 Category 2: Pedagogical Innovation and Curriculum Adaptability

Participants identified a tension between established curriculum and the demands of the current learning environment. Some courses and teaching approaches were described as too traditional to prepare learners for rapidly changing conditions. Innovation, including the use of AI-supported tools, was seen as part of making learning more responsive. The issue was therefore not technology alone, but whether curriculum and pedagogy create opportunities for learners to experiment, solve problems, and develop capabilities relevant to current conditions.

“Some courses are so traditional and therefore not helpful to the learner in the current situation; learners should be helped to be innovative with support of AI programmes.”- (INT-03)

3.4 Category 3: Digital Transformation as a Catalyst for Adaptability

Digital transformation emerged as both an enabler of adaptability and a source of new institutional pressures. Participants described technology as increasingly unavoidable; universities and their members risk being left behind if they fail to engage with digital modes of teaching and learning. Technology was also understood as changing the role of the lecturer and expanding opportunities for learners to work independently. One participant described the need for lecturers to embrace both synchronous and asynchronous delivery while allowing learners greater responsibility for accessing and developing knowledge.

“The teacher's work is not only to teach and help learners learn; they must embrace asynchronous and synchronous modes of delivery, while the learner is allowed to work and get knowledge by themselves.”- (INT-05)

Student accounts complicated this positive view by showing that digital transformation remained dependent on infrastructure and platform capacity.

“The bandwidth of Wi-Fi that they use is weak; you can only access if you are in a hotspot. Hotspots are few compared to the number of students, and many [students are] away from comfortable learning areas.”- (FGD-02)

3.5 Category 4: Academic Agency and Professional Learning

Adaptability required academics themselves to become continuous learners. Participants described lecturers having to acquire computer-related skills in response to institutional e-learning programmes, suggesting that digital transformation was simultaneously changing teaching practice and creating new professional learning demands. Academic agency therefore appeared not as an abstract individual quality, but as an ongoing process of acquiring capabilities in response to institutional and technological change.

“Most lecturers are on toes to learn skills on computer adaptability because of the e-learning programme in the university.”- (INT-06)

Academic agency was also linked to the broader expectation that university knowledge work should remain relevant to society. This expectation was expressed through a view of research as a means of addressing current social problems rather than an end in itself.

3.6 Category 5: Leadership, Policy, and Institutional Culture

Participants’ accounts showed that institutional adaptation is shaped by practical and organizational constraints, particularly cost, staffing, and policy. Moving from traditional teaching towards technology-assisted learning was not described as a matter of individual lecturer choice alone; participants identified policy change as necessary to support efficiency, use, and uptake. Universities also faced difficult workforce choices around retraining existing staff and recruiting staff with newer technological capabilities.



“To shift from traditional methods of teaching to technological assisted learning requires policy change for efficiency, use and uptake.”— (INT-07)

The resource implications of this transition were also explicit.

“It gets costly to educate them and even worse to employ new ones.”- (INT-08)

3.7 Category 6: Learner Engagement and Adaptive Identities

Learner agency emerged most clearly in the postgraduate focus groups. Students described learning models as insufficiently responsive to current issues and pointed to the need for more contemporary research and greater use of technology. Their accounts also revealed a paradox: students could experience significant barriers to digital participation while simultaneously demonstrating considerable technological agility. In some cases, students reported adapting to platforms faster than lecturers, while technology-enabled assignments could be completed and submitted more quickly. Adaptability was therefore co-constructed but unevenly distributed across institutional infrastructure, lecturer capability, and learner capability.

“Learning models have not changed in a while. The postgraduate students need to research on areas that are more current to provide knowledge on current issues that affect society.”- (FGD-01)

Students also described a mismatch between platform capacity and the scale of university teaching. At the same time, some described technology as increasing the speed and flexibility of their work, including faster completion and submission of assignments. Students also perceived a shifting balance of technological competence between lecturers and learners, with some learners becoming sufficiently familiar with platforms to exercise forms of control previously associated with the lecturer.

“The students marvel at the speed with which technology is leaving their lecturers; [they] can make themselves admins and therefore the lecturers are not in control of class, which can be frustrating.”- (FGD-04)

“The beauty is that tech assignments given to students are quickly done, quickly submitted early before deadline.”— (FGD-05)

“The virtual learning platforms have issues on capacity... Zoom/Google Meet can only accommodate 100 participants. Think about larger classes—common university courses which have up to a thousand or more.” — (FGD-03)

3.8 Grounded Theory Model

Figure 1 presents the emerging grounded theory as a dynamic system rather than a linear sequence. The findings suggest that external and societal pressures create a continuing demand for adaptation, but the institutional response depends on the interaction of leadership and policy, curriculum and pedagogy, academic learning, digital infrastructure, and learner agency. These elements can reinforce one another, but tensions in one part of the system, such as weak infrastructure, policy constraints, cost, or uneven staff capability, can limit adaptation elsewhere. The model therefore conceptualizes lifelong learning and educational adaptability as an iterative institutional process rather than a one-time reform outcome.



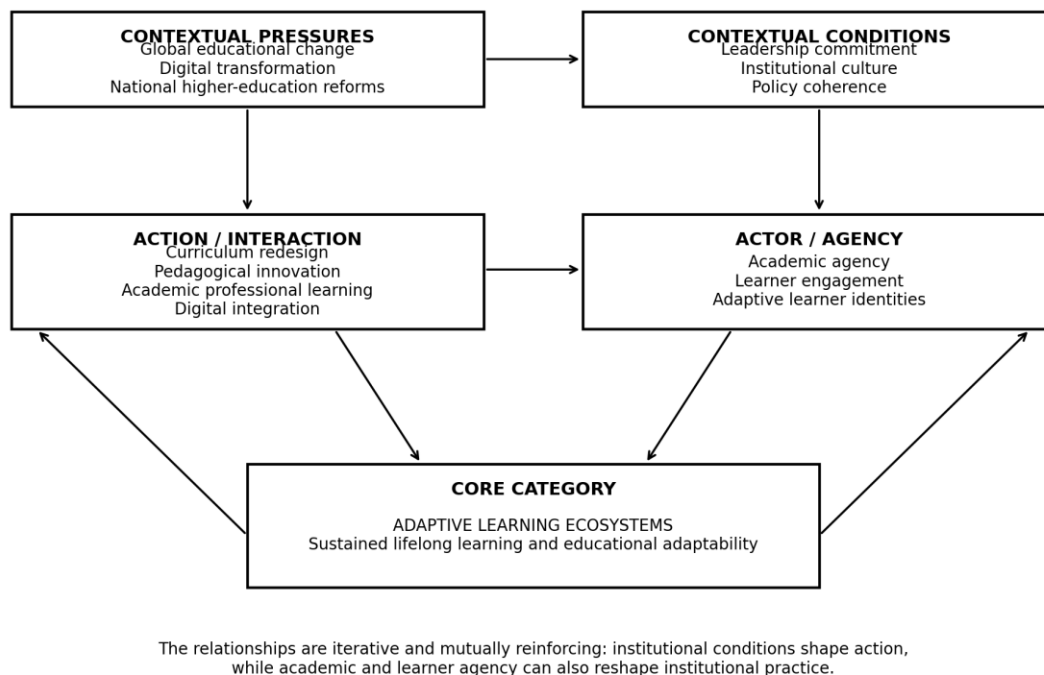


Figure 1. Adaptive Learning Ecosystems: a grounded theory of lifelong learning and educational adaptability in Kenyan universities.

4. Discussion

This study sought to develop a grounded explanation of how lifelong learning and educational adaptability are understood, enacted, and sustained within Kenyan universities. The central contribution is the concept of Adaptive Learning Ecosystems: adaptability emerges through interaction among institutional responsibility, curriculum and pedagogy, technology, academic learning, institutional conditions, and learner agency. The participant accounts make this process visible in ways that a list of separate innovations would not. Universities are expected to identify and strengthen learner capabilities, produce knowledge that addresses current problems, and update teaching in response to technological and social change. Yet the same process is constrained by infrastructure, cost, policy, staffing structures, and uneven institutional capacity.

First, the findings suggest that lifelong learning is more than an individual orientation. Participants positioned universities as responsible for identifying and strengthening student capabilities and for producing knowledge that responds to societal problems. This extends the idea of institutionalizing lifelong learning from providing flexible pathways towards cultivating institutional practices that value capability development and social relevance.

Second, curriculum and pedagogical innovation were closely connected to the changing purpose of university learning. Participants identified some courses and learning models as too traditional for current conditions and argued for approaches that help learners innovate and engage with emerging tools such as AI. The finding suggests that curriculum responsiveness is not simply a matter of formally updating programmes; it requires changes in what learners are expected to do with knowledge.

Third, digital transformation operated in two directions. Technology was described as unavoidable and as changing the roles of lecturers and learners, but students also reported weak Wi-Fi, limited hotspots, and platform capacity problems in very large classes. Digitalization therefore creates possibilities for flexibility and learner agency while



simultaneously exposing institutional infrastructure and capability gaps. The value of technology depends on whether the wider ecosystem can support its use.

Fourth, the findings indicate that adaptability is co-constructed and resource-dependent. Academics must continuously acquire new digital capabilities, while leaders and institutions must create enabling policy and staffing conditions. Participants also described the costs of retraining existing staff and recruiting new expertise. This suggests that institutional adaptability involves choices about investment, workforce renewal, and policy coherence, not simply willingness to innovate.

5. Limitations

The study was situated in selected public universities in Kenya and therefore does not claim statistical generalizability to all higher education institutions. The transferability of the emerging theory depends on the similarity of institutional and policy contexts. The qualitative design also means that findings are interpretive and shaped by participant accounts and researcher interpretation. Further limitations should be reported transparently in relation to the number and selection of institutions, participants, documents, and the duration of data collection.

The study may also have been shaped by the perspectives of participants who were more engaged with institutional reform, digital learning, or educational change. The emergent theory should therefore be read as an interpretive account grounded in participants' experiences rather than as a comprehensive account of all Kenyan universities.

6. Conclusions

This study developed a substantive grounded theory explaining educational adaptability in Kenyan universities as a process sustained through interaction among leadership and policy, curriculum and pedagogy, academic agency, digital capacity, and learner engagement. The findings suggest that lifelong learning and adaptability are not achieved through isolated reforms but through alignment across institutional policies, professional practices, technological systems, and learner identities.

The concept of Adaptive Learning Ecosystems provides a contextually grounded way of understanding how universities respond to rapid social, technological, and economic change. The contribution of the study lies less in identifying individual innovations than in showing how their sustainability depends on relationships among institutional conditions and human agency. Future research could test and refine the emerging theory through comparative studies across public and private universities, different regions of Kenya, and other East African higher education systems, including mixed-methods work that examines how the identified mechanisms vary across institutional contexts.

7. Recommendations

The findings suggest that strengthening lifelong learning and educational adaptability in Kenyan universities requires more than introducing isolated innovations. Adaptability depends on the alignment of institutional purpose, curriculum and pedagogy, academic capability, digital systems, policy, resources, and learner agency. The following recommendations are therefore directed at the institutional and system conditions that enable universities to adapt.

7.1 Reorient University Education Towards Capability, Relevance and Problem-Solving

Universities should make the development of learner capability and societal relevance explicit institutional priorities. This includes strengthening opportunities for students to identify and develop their talents, apply knowledge to current problems, and undertake research that contributes to practical solutions. Curriculum review should therefore examine not only whether content is current, but whether programmes enable learners to think critically, innovate, solve problems, and continue learning beyond graduation.

7.2 Move Beyond Curriculum Reform to Pedagogical Reform

Curriculum changes will have limited effect where teaching and assessment continue to rely predominantly on traditional approaches. Universities should support lecturers to use learner-centred, inquiry-based, collaborative and problem-oriented pedagogies, including appropriate use of AI and digital tools. Curriculum review should be accompanied by changes in how learning is facilitated and assessed so that learners are expected to apply, create and interrogate knowledge rather than primarily reproduce it.



7.3 Treat Digital Transformation as a Whole-System Change

Universities should move beyond technology procurement towards pedagogically purposeful digital transformation. Investments in connectivity, learning platforms and digital resources should be assessed against the scale and needs of actual teaching and learning, including very large common courses. Institutions should also strengthen digital support for both lecturers and students and provide for synchronous and asynchronous learning. Technology strategies should explicitly address access, platform capacity, digital capability and learner independence rather than assume that technology availability will automatically improve learning.

7.4 Build Academic Adaptability as an Institutional Capability

Continuous professional learning should become a sustained feature of academic work rather than a one-off training activity. Universities should provide structured opportunities for lecturers to develop digital, pedagogical and curriculum-design capabilities, learn from peers, experiment with new approaches and reflect on their practice. Professional-development expectations should be matched by appropriate workload, incentives and institutional support so that academics have both the capability and the opportunity to adapt.

7.5 Align Policy, Leadership and Workforce Planning with Educational Change

Institutional policies and leadership practices should enable, rather than constrain, pedagogical and technological change. Universities should review policies that hinder the adoption and sustained use of technology-assisted learning and establish clear institutional processes for innovation. Workforce planning should also consider the balance between developing existing staff and recruiting new expertise, recognising that both approaches carry costs. Leadership should therefore treat adaptability as a long-term organisational capability requiring deliberate investment rather than as a series of short-term projects.

7.6 Design for Learner Agency and Equity

Learners should be treated as active participants in shaping adaptive learning environments. Universities should create greater opportunities for self-directed learning, independent research, flexible learning and the use of relevant digital tools. At the same time, learner agency cannot be assumed where connectivity, access to learning spaces or platform capacity are inadequate. Institutional approaches to flexibility should therefore combine greater learner autonomy with deliberate measures to address the infrastructural barriers that make digital participation uneven.

7.7 Strengthen System-Level Conditions for Adaptability

At system level, the Commission for University Education and the Ministry of Education should strengthen coherence between higher education policy, quality assurance, digital transformation, competency-oriented reform, institutional funding and workforce development. National policy should provide universities with sufficient flexibility and resources to translate reform ambitions into institutional practice. This is particularly important where policy change requires substantial investment in staff capability, digital infrastructure and new modes of teaching and learning.

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