Examining the Level of Awareness of the Education 5.0 Model Among University Lecturers in Selected State Universities in Zimbabwe.

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Abstract

This study explores the level of awareness and understanding of the Education 5.0 model among university lecturers in four selected state universities in Zimbabwe. Introduced as part of the National Vision 2030 agenda, Education 5.0 represents a paradigm shift in Zimbabwe's higher and tertiary education policy by expanding the traditional triad of teaching, research and community service to include innovation and industrialisation. The model positions universities as engines of economic transformation, requiring academic staff to adopt new roles as innovators and industrialists. However, successful implementation depends on lecturers' awareness, preparedness and institutional support. Guided by Rogers' Diffusion of Innovations Theory, this study adopted a qualitative research design by employing a multiple case study approach. A purposive sample of 20 lecturers was drawn from four state universities based on their engagement with Education 5.0 initiatives. Data were collected through semi-structured interviews and analysed thematically. The findings reveal that while most participants are familiar with the term "Education 5.0," their understanding is often superficial and fragmented, primarily informed by informal channels such as circulars and occasional workshops. Barriers to effective implementation include limited professional training, inadequate infrastructure, rigid curriculum approval processes, high workloads and weak incentives for innovation. Some lecturers also expressed ideological resistance, citing top-down policy imposition and a lack of contextual adaptation. Despite these challenges, participants endorsed the core principles of Education 5.0 and proposed practical solutions including continuous professional development, enhanced infrastructure, streamlined institutional procedures, performance-based incentives and inclusive stakeholder engagement. The study concludes that increasing awareness and support for lecturers is essential for translating the ambitions of Education 5.0 into transformative educational outcomes. Strategic communication, capacity building and policy alignment are recommended to ensure that Zimbabwe's higher education sector can effectively drive innovation-led industrialisation.

Keywords: Education 5.0, university lecturers, higher and tertiary education, innovation, industrialisation, diffusion of innovations theory.

Introduction

The transformation of Zimbabwe's higher and tertiary education sector through the adoption of Education 5.0 marks a significant paradigm shift in national development policy. Education 5.0 expands the traditional triad of teaching, research and community service (Education 3.0) by including innovation and industrialisation as core mandates. This policy innovation envisions higher education institutions as drivers of economic modernisation and the production of goods and services. For this vision to materialise, lecturers must not only implement Education 5.0 but also fully understand its objectives, implications and methodologies. This paper aims to examine the level of awareness of the Education 5.0 model among university lecturers in selected state universities in Zimbabwe, evaluating how knowledge (or lack thereof) affects implementation and alignment with national development goals.

Background of the Study

Across the globe, higher education institutions are increasingly being reimagined as key drivers of national development, moving beyond traditional academic roles to assume more entrepreneurial, innovation-led mandates. The emergence of Education 5.0, which integrates Teaching, Research, Community Service, Innovation and Industrialisation, signals a significant shift in the way universities contribute to economic and social transformation (Gouedard et al., 2020). This approach demands lecturers who are not only educators but also active contributors to industry and innovation ecosystems. In line with this, scholars such as Alharthi (2022) and Khasawneh et al. (2023) argue that educational philosophies must adapt to a pragmatic approach that aligns learning with real-world applications, echoing the need for institutions to produce knowledge that is usable, transformative and economically viable.

In Sub-Saharan Africa, the shift toward Education 5.0 reflects a broader effort to decolonise higher education and promote knowledge pluralism, cognitive justice and curriculum relevance (Erima, 2023; Gwaravanda & Ndofirepi, 2023; Ndofirepi, 2023; Mapara, 2023). The model aims to transform universities from passive consumers of knowledge to active producers capable of addressing local socio-economic challenges through applied learning, innovation and entrepreneurship (Makaye, 2023; Gwaravanda & Ndofirepi, 2021). However, successful implementation depends heavily on the awareness and capacity of academic staff, who often face barriers such as inadequate training, rigid administrative systems and limited innovation infrastructure (Mwinzi, 2016; Dziwa & Postma, 2020). Despite growing interest in learner-centred and project-based pedagogies (Havenga, 2015; Siyakwazi & Machingura, 2021), traditional lecture methods still dominate due to insufficient faculty development. Scholars such as Wingfield (2017) and Lebakeng (2023) warn that without structural reforms, including clear policy support and sustained investment in lecturer empowerment, Education 5.0 risks becoming symbolic rather than transformative. This underscores the critical need to examine university lecturers' level of awareness as a foundational step in ensuring effective and context-relevant implementation of Education 5.0 in Zimbabwean institutions.

In Zimbabwe, the government's adoption of the Education 5.0 model as part of its Vision 2030 agenda signals a bold attempt to transform universities into engines of innovation-led industrialisation (Ministry of Higher and Tertiary Education, 2018; Murwira, 2019). By adding Innovation and Industrialisation to the traditional pillars of Teaching, Research and Community Service, this model envisions graduates who are equipped to create jobs, solve real-world problems and contribute directly to national development (Togo & Gandidzanwa, 2021). Scholars like Chuma (2022) and Muzira and Bondai (2020) commend this shift for its potential to align academic programs with socio-economic needs, particularly in technical and creative fields. Yet, despite the promise, many university lecturers; the very drivers of this transformation, face serious obstacles. These include insufficient training, lack of resources, institutional inertia and the burden of balancing innovation demands with the decolonisation of curricula (Bhurekeni, 2020; Ncube, 2020; Lebakeng, 2023; Gwaravanda & Ndofirepi, 2021). Lecturers are being asked to innovate and industrialise without adequate tools or support, raising concerns about the practicality of the Education 5.0 mandate. Understanding their level of awareness and the challenges they encounter is therefore essential if the policy is to move beyond rhetoric and become a meaningful force in Zimbabwe's higher education transformation.

Statement of the Problem

The rollout of Education 5.0 in Zimbabwean state universities represents a significant policy

shift, aiming to reposition higher education institutions as catalysts for innovation, industrialisation and national development (Ministry of Higher and Tertiary Education, 2018; Murwira, 2019). While this transformation offers great promise, its success depends heavily on university lecturers, who are expected to integrate entrepreneurial thinking, applied research and production-focused teaching into their roles. However, many face challenges such as limited training, resource constraints and institutional inertia (Muzira & Bondai, 2020; Chuma, 2022; Ncube, 2020). Complicating matters further is the concurrent push to decolonise curricula, which requires lecturers to reconcile indigenous knowledge systems with global innovation standards (Bhurekeni, 2020; Gwaravanda & Ndofirepi, 2021). These competing demands can leave lecturers feeling unprepared and unsupported, raising concerns about their readiness to implement Education 5.0 effectively. Despite their central role, there remains a lack of empirical research into lecturers' awareness and lived experiences with the model, creating a critical gap that this study seeks to address.

Main Research Objective

To examine the level of awareness and understanding of the Education 5.0 model among university lecturers in selected state universities in Zimbabwe.

Research Objectives

1. To assess the extent to which lecturers are capacitated in implementing education 5.0 concept
2. To examine the challenges lecturers faced in aligning with the requirements of Education 5.0.
3. To suggest solutions to support the successful implementation of Education 5.0 in Zimbabwean universities

Main Research Question

What is the level of awareness of the Education 5.0 model among university lecturers in selected state universities in Zimbabwe?

Sub-Research Questions

1. To what extent are lecturers capacitated in implementing the education 5.0 concept?
2. What are the challenges lecturers faced in aligning with the requirements of Education 5.0?
3. What solutions can be suggested to support the successful implementation of Education 5.0 in Zimbabwean universities?

Delimitation of the Study

This study was intentionally narrowed to focus on four selected state universities in Zimbabwe: Great Zimbabwe University, Midlands State University, Reformed Church University and Lupane State University. These institutions were chosen based on their readiness to implement Education 5.0 and to ensure representation from different geographic regions. The research specifically targeted university lecturers, whose experiences and perspectives are central to the successful rollout of the Education 5.0 model. By concentrating on state universities, the study excluded private institutions and other tertiary colleges, which may face different implementation dynamics. The scope was limited to the period from the formal introduction of Education 5.0 up to the past 3–5 years, allowing the study to capture early-stage challenges and insights. The research focused exclusively on the five pillars of Education 5.0, Teaching, Research, Community Service, Innovation and Industrialisation without exploring other

educational reforms. Given practical constraints, a purposive sample of lecturers was used, selected based on their departmental roles, experience and involvement with Education 5.0 initiatives. These delimitations helped keep the study focused, manageable and relevant to its core objective.

Theoretical Framework

This study is guided by Everett Rogers' Diffusion of Innovations Theory (DOI) (1962), which offers a valuable lens through which to examine the level of awareness and readiness of university lecturers regarding the Education 5.0 model. The DOI theory posits that the adoption of any innovation whether a product, idea, or policy is a process that unfolds over time through specific communication channels within a social system. In the context of this study, Education 5.0 is conceptualised as an educational innovation and university lecturers represent the adopters operating within the social system of higher education institutions in Zimbabwe. The theory identifies five stages in the innovation-decision process: knowledge, persuasion, decision, implementation and confirmation. This framework is particularly relevant for evaluating how Zimbabwean university lecturers become aware of Education 5.0, form attitudes toward it, decide whether to support it, attempt to implement it and eventually integrate it into their professional practice. The study focuses on the first stage knowledge or awareness which is foundational to the successful adoption and implementation of Education 5.0. According to Rogers, individuals cannot adopt an innovation they are unaware of, making awareness a critical threshold issue.

DOI also categorises adopters based on their rate of adoption: innovators, early adopters, early majority, late majority and laggards. These categories provide a framework for assessing how university lecturers differ in their exposure to and engagement with Education 5.0. For instance, some lecturers may already be deeply involved in innovation and industrialisation projects (innovators), while others may still rely on traditional pedagogies and remain sceptical or unaware of the new model (laggards). Furthermore, DOI highlights the role of communication channels and institutional structures in facilitating or hindering innovation uptake. In this regard, the study considers how university policies, staff development programmes, administrative support and peer networks shape lecturers' access to information and training on Education 5.0. This is especially relevant given the background context, which reveals that many lecturers face systemic challenges such as inadequate training, lack of resources and limited institutional clarity, all factors that can delay or distort the diffusion process. By applying the Diffusion of Innovations Theory, this study gains an analytical foundation to assess the variability in lecturers' awareness, the barriers to adoption and the institutional strategies that can promote or inhibit the diffusion of Education 5.0. The theory underscores that increasing lecturers' awareness and capacity is not merely a technical exercise but a social process that requires strategic interventions in communication, training and policy support.

Methodology

This study adopted a qualitative multiple-case study design to explore the challenges university lecturers face in implementing the Education 5.0 model in four purposively selected state universities in Zimbabwe. The Diffusion of Innovations Theory (Rogers, 1962) guided the methodological approach, providing a framework to examine awareness levels and the adoption process of this educational innovation. The target population comprised university lecturers involved in teaching, curriculum development, or Education 5.0-related activities. A purposive sampling strategy was employed to select 20 lecturers from diverse faculties, based on their experience and engagement with Education 5.0 initiatives. Data were collected through

semi- structured interviews and document analysis. Interviews explored lecturers' perceptions, institutional support and implementation challenges, while institutional documents provided contextual insights and triangulated the findings. Thematic analysis was used to manually code and interpret the data. Themes were linked to the study objectives and DOI framework to draw meaningful conclusions. To ensure trustworthiness, strategies such as member checking, thick description, audit trails and reflexive journaling were employed, ensuring credibility, transferability, dependability and confirmability of the findings. Ethical considerations included informed consent, confidentiality, voluntary participation and minimisation of harm, in line with ethical research practices. Participants' rights were respected throughout, with safeguards in place to protect their anonymity and well-being (Creswell & Creswell, 2018).

Data Presentation and Discussion of Findings

This segment presents and discusses the findings derived from semi-structured interviews and document analysis, focusing on the level of awareness of Education 5.0 among university lecturers in selected state universities in Zimbabwe. The analysis is structured around the study's specific objectives: to assess lecturers' awareness and capacity, examine challenges in implementing Education 5.0 and suggest solutions for improved adoption. The findings are interpreted through the lens of Rogers' Diffusion of Innovations Theory (DOI), particularly focusing on the knowledge stage and the factors influencing adoption.

Awareness of the Education 5.0 Model Among Lecturers

The data reveals that although most lecturers are familiar with the term *Education 5.0,* their depth of understanding varies considerably. A recurring theme across interviews was the presence of partial or superficial awareness, with many participants indicating that their knowledge of the model's objectives, practical implications and strategic alignment remains limited. Rather than receiving formal training or comprehensive orientation, most lecturers reported learning about Education 5.0 through informal channels such as circulars, briefings, or sporadic workshops. This has led to a fragmented understanding of what distinguishes Education 5.0 from previous models such as Education 3.0. As Participant D reflected, *"We have heard about Education 5.0 mainly through circulars and workshops, but it's not clear how it differs from what we were already doing."* This lack of structured induction undermines the first and critical stage in Rogers' Diffusion of Innovations Theory the knowledge stage, suggesting that meaningful adoption is unlikely without deliberate efforts to clarify the model's transformative goals and pedagogical expectations.

Further evidence of limited and fragmented understanding emerged in responses like that of Participant F, who stated, *"I know it's about innovation and industrialisation, but we were not given detailed guidance on what that means in terms of actual teaching and research."*
This illustrates a superficial awareness of Education 5.0 where key terms are recognised, but their practical implications for pedagogy, curriculum design and research engagement remain unclear. Despite this, some lecturers, including Participant F, demonstrated an appreciation of the model's broader intent, particularly its alignment with national development and community relevance. *"It's a noble idea because it pushes us to be relevant to our communities,"* they noted, *"but the message has not been clearly communicated to us as implementers."*

This disparity between policy ambition and communication strategy highlights a critical weakness in the diffusion process. According to Rogers' Diffusion of Innovations Theory, clear and consistent messaging is essential during the knowledge and persuasion stages to ensure that potential adopters among lecturers in this case understand not just the vision, but also the

practical expectations of the innovation. Without structured orientation and sustained dialogue, awareness remains superficial and implementation uneven.

However, a minority of lecturers, particularly those based in STEM-related faculties demonstrated a more robust understanding of the Education 5.0 model. These individuals were notably better positioned to articulate the five foundational pillars: teaching, research, community service, innovation and industrialisation. They also showed greater awareness of how these pillars align with Zimbabwe's broader Vision 2030 development agenda. This deeper level of comprehension appeared to be linked to their exposure to innovation-driven programmes, participation in grant-funded research, or involvement in institutional projects related to industrialisation. Their familiarity with concepts such as product development, intellectual property and entrepreneurship set them apart from their peers in the arts, humanities and education faculties, where such linkages were often vague or missing.

This finding aligns with Rogers' Diffusion of Innovations Theory, which recognises that early adopters often those with more access to information, resources and networks tend to embrace innovations sooner and more confidently than the majority. It suggests that disciplinary background and institutional positioning play a critical role in shaping lecturers' engagement with Education 5.0, thereby reinforcing the need for targeted communication and differentiated capacity-building strategies across faculties.

The findings in this segment also reveal a significant awareness gap that potentially undermines the effective implementation of Education 5.0. While the term is widely recognised, deeper conceptual understanding is often lacking. This supports Muzira and Bondai (2020), who found that many university staff members had only a vague comprehension of Education 5.0 and were not equipped to align their academic roles with its strategic goals. From the perspective of Rogers' Diffusion of Innovation theory, this stage reflects the early "knowledge" phase, where awareness exists but is not accompanied by sufficient understanding to drive behavioural change. Rogers (2003) emphasised that for an innovation to be adopted, potential adopters must not only be aware of it but must also grasp its operational relevance and practical benefits. The findings align with the knowledge stage in DOI, where awareness does not necessarily equate to understanding. While communication channels such as staff meetings, circulars and workshops existed, they were often sporadic and not sufficiently detailed, impeding deeper comprehension.

Moreover, the lack of comprehensive institutional communication and training on Education 5.0 hinders the "persuasion" and "decision" phases of innovation adoption, slowing down diffusion among academic staff. As Gwaravanda and Ndofirepi (2023) argue, policy clarity and epistemological alignment are critical for ensuring buy-in among lecturers. These findings point to the need for systematic sensitisation programs, policy workshops and the incorporation of Education 5.0 themes into professional development curricula. Enhancing awareness is a foundational step in transforming higher education institutions in line with national innovation agendas.

What are the challenges lecturers faced in aligning with the requirements of Education 5.0?

This section presents key challenges experienced by university lecturers in their efforts to align with the goals and expectations of Education 5.0. The challenges are multidimensional, cutting across individual, institutional and epistemological domains.

a. Limited training and preparedness

One of the most striking themes that emerged from the interviews was the lack of adequate training and preparedness among lecturers to effectively implement the innovation and industrialisation components of Education 5.0. While most participants acknowledged the importance and ambition of the policy, they expressed deep concern that their academic formation and professional development had not prepared them for this dramatic shift in expectations. Many participants reported that their academic and professional training did not equip them with the skills demanded by the innovation and industrialisation focus. For many, their postgraduate studies both locally and internationally had focused almost exclusively on pedagogy, disciplinary knowledge and academic research, with little to no emphasis on entrepreneurship, intellectual property management, or industrial collaboration. As a result, the sudden demand to transform into innovation leaders felt not only unfamiliar but overwhelming.

Participants also described how the new expectations conflicted with their long- standing professional identities, which had been shaped by traditional academic norms. Some reflected on feeling marginalised or ill-equipped, particularly when comparisons were made to STEM colleagues who appeared to have more access to innovation hubs and institutional resources. Participant H from the School of Social Sciences shared that: *"Sometimes you feel left behind. We are told to innovate, but no one is showing us how to start. There's no roadmap"*.

Several lecturers also highlighted the absence of structured professional development opportunities to bridge the gap between existing skills and Education 5.0 demands. Occasional workshops or policy briefings, they noted, were insufficient substitutes for sustained, hands-on training. Without institutional investment in capacity building, many felt they were being set up to fail or, at best, to comply in symbolic ways that fell short of the policy's transformative vision. This disparity between expectations and preparedness underscores a critical implementation gap. While the goals of Education 5.0 are ambitious and forward-looking, they risk remaining aspirational unless universities retool and support their academic staff through targeted training, interdisciplinary collaboration and clear operational guidance.

b. Skills mismatch and professional gaps

In addition to limited training, several participants pointed to a pronounced mismatch between their existing skill sets and the competencies demanded by Education 5.0, especially in domains such as entrepreneurship, product development and intellectual property management. While lecturers are expected to lead innovation and contribute to industrialisation, many acknowledged that these expectations lie outside their traditional academic preparation. Participant D, a lecturer in the Faculty of Science and Technology explained that. *"We are being told to commercialise our research, but no one taught us how to design a product, protect it legally, or take it to market"*.

This gap was particularly frustrating for lecturers who were enthusiastic about contributing to national development but felt disempowered by the lack of practical knowledge and institutional support. For example, participants noted that while universities encouraged patenting and start-up incubation, few had received formal training in intellectual property rights, business model design, or engaging with industry stakeholders.

Some lecturers also expressed concern that existing professional development programs remain overly academic in nature, focusing on research methods or curriculum design without addressing the entrepreneurial skills required under Education 5.0. As a result, the innovation agenda seemed abstract or inaccessible, particularly to those outside business or engineering disciplines. Participant G from the Faculty of Arts, *"Entrepreneurship is now part of the*

curriculum, but who is training us to teach it? We're figuring it out as we go".

These accounts suggest that without deliberate and systematic capacity building in these specialised areas, lecturers may struggle to fulfil the broader goals of Education 5.0. The skills mismatch not only limits effective implementation but also risks deepening a sense of exclusion, particularly among lecturers from non-STEM or traditionally theory-based faculties. In line with Rogers' Diffusion of Innovations Theory, this mismatch represents a barrier to adoption where the innovation is perceived as incompatible with current knowledge, thereby slowing or distorting its uptake. Addressing this gap requires institutions to go beyond policy pronouncements and invest in interdisciplinary training, mentorship and partnerships that equip lecturers with the skills to innovate meaningfully and sustainably.

c. Inadequate infrastructure and resource constraints

Another major theme that emerged was the lack of adequate infrastructure and resources to support the implementation of the innovation and industrialisation components of Education 5.0. While the policy calls for universities to become engines of industrial productivity and innovation, many participants described a stark disconnect between this ambition and the realities on the ground. Lecturers across all four universities cited similar challenges, including insufficient laboratory space, lack of access to functional technology and limited or no funding for research-to-product development. Some noted that basic teaching tools, such as internet connectivity and functional computers, were themselves unreliable let alone the advanced equipment required for innovation or prototyping. This inadequacy has led to frustration and disillusionment among academic staff, many of whom expressed willingness to embrace Education 5.0 but felt undermined by a lack of institutional readiness. Several pointed out that while universities boast about innovation hubs or industrialisation goals in public messaging, these aspirations often exist more on paper than in practice. Participant I from the Faculty of Engineering also shared that: *"There's a lot of talk about innovation hubs, but they're underfunded and inaccessible. Most of us have never even used them".*

These accounts reflect what Rogers' Diffusion of Innovations Theory refers to as "infrastructure compatibility", the idea that the successful adoption of an innovation depends not only on awareness and attitudes but also on the presence of supportive physical and technological environments. Where these are missing, the innovation process stalls or fails entirely. In this context, Education 5.0 appears to suffer from policy-implementation misalignment, where strategic directives are not matched by operational and logistical support. For lecturers, the message is clear: **"***you are expected to innovate, but without the tools to do so".* This has the potential to reduce morale, foster resistance and widen the gap between policy goals and educational realities.

d. Curricular rigidity and bureaucratic obstacles

Another major issue was curricular rigidity and bureaucratic processes. Lecturers expressed frustration at slow curriculum review procedures and lack of interdisciplinary collaboration. Participant H said, *"You propose something innovative and it takes two years to be approved. By then, the relevance is lost".*

A recurring concern among participants was the inflexibility of university curricula and the bureaucratic bottlenecks that stifle innovation. Despite Education 5.0's call for dynamic, industry-aligned and responsive education, many lecturers reported that the current systems for curriculum development and revision are slow, centralised and resistant to change. Participant H lamented that, *"You propose something innovative and it takes two years to be approved. By then, the relevance is lost".*

This experience was echoed across multiple institutions, where lecturers described rigid curriculum review processes involving multiple layers of approval faculty boards, academic councils, senate committees and ministerial endorsements. While such structures are intended to ensure academic quality and accountability, participants argued that they have become bureaucratic barriers to timely and context-relevant innovation.

Moreover, the lack of interdisciplinary collaboration further compounds the problem. Several lecturers expressed frustration at the siloed nature of faculties and departments, which undermines the cross-disciplinary thinking that Education 5.0 demands. For instance, lecturers with ideas for integrating engineering with agriculture, or art with entrepreneurship, reported being discouraged by institutional cultures that favour traditional, discipline-bound programming. Participant K from the Faculty of Arts and Humanities expressed that, *"We are told to innovate, but there's no real platform to collaborate across departments. Everyone is boxed into their faculty"*.

These findings resonate strongly with Rogers' Diffusion of Innovations Theory, particularly the concept of organisational inertia, where existing structures and processes inhibit the adoption of new ideas. According to the theory, even when individuals are ready to embrace innovation, institutional norms and administrative delays can serve as major barriers to diffusion. In the case of Zimbabwean universities, the disconnect between policy ambition and bureaucratic reality is especially problematic. Education 5.0 requires a nimble and experimental curriculum development model, yet universities continue to operate under systems designed for stability and tradition, not agility or entrepreneurship.

e. Workload and time constraints

One of the most consistent and pressing concerns raised by participants was the issue of excessive workload and limited time. While the goals of Education 5.0 requiring lecturers to teach, research, innovate, industrialise and engage communities are ambitious, many lecturers felt overburdened and under-supported in trying to meet these expectations. Lecturers described a working environment characterised by large student numbers, multiple course preparations, administrative duties and pressure to produce academic publications. Against this backdrop, the additional demands of innovation and industrialisation felt unrealistic without adjustments to workload policies or provision of dedicated time and resources. Several participants also mentioned that efforts to fulfil the new mandates were often undertaken during personal time, such as evenings, weekends, or sabbaticals leading to burnout and reduced motivation. Others noted that **c**ommunity engagement and industrialisation projects typically require time-intensive planning, travel and coordination, none of which are factored into official schedules or performance evaluations. Participant M, said, *"There's no time allocated for these new responsibilities. It's like we're expected to fit them into an already packed schedule"*.

This sense of overextension is closely tied to Rogers' Diffusion of Innovations Theory, which emphasises that adoption is influenced not only by awareness and attitudes, but also by practical feasibility. When an innovation requires significant time and effort without corresponding institutional adjustments, individuals are more likely to resist or adopt superficially.

f. Resistance to change and ideological concerns

While many participants acknowledged the potential benefits of Education 5.0, a significant number also expressed resistance or scepticism, rooted in both ideological concerns and the top-down nature of the policy's implementation. For these lecturers, the rollout of Education 5.0

felt less like a collaborative transformation and more like an administrative directive handed down with limited consultation or contextual sensitivity. Some lecturers felt that Education 5.0 was imposed without sufficient dialogue or contextualisation. This perceived lack of engagement has contributed to a sense of disempowerment and alienation among academic staff. Many felt that their professional expertise, local knowledge and lived experiences were sidelined in favour of an agenda that appears externally imposed, modelled more on technocratic or industrial benchmarks than on the social, historical and pedagogical realities of Zimbabwean universities.

Some participants also raised ideological concerns about the implications of the policy. They questioned whether the push toward innovation and industrialisation might come at the expense of critical thinking, decolonisation efforts and humanistic values. Lecturers in the arts and social sciences were worried that Education 5.0 privileges economic utility over social justice, potentially reinforcing narrow understandings of development. Participant L argued that *"We are being asked to turn students into entrepreneurs, but what about critical citizenship? What about indigenous knowledge? The policy doesn't speak to that".*

These concerns reflect what Rogers' Diffusion of Innovations Theory calls the compatibility dimension, the degree to which an innovation aligns with the values, beliefs and existing practices of potential adopters. When an innovation is perceived as culturally or ideologically misaligned, or as imposed rather than co-created, resistance is a natural and rational response. Moreover, resistance in this context should not be dismissed as inertia or defiance. Rather, it reflects a desire for more inclusive policymaking, where lecturers are not mere implementers but active agents in shaping educational reforms that reflect local realities and epistemologies.

g. Policy ambiguity and lack of clarity

Another critical theme that emerged was the lack of clarity and coherence surrounding the goals, expectations, and operationalisation of Education 5.0. Many lecturers indicated that while the overarching vision of Education 5.0 is frequently referenced in university communications and government rhetoric, the specifics of how to implement it in everyday academic practice remain vague or inconsistent. Participant N questioned that, *"We keep hearing about innovation and industrialisation, but what does that mean for me as a literature lecturer?"*

Participants cited the absence of detailed guidelines, implementation frameworks, or discipline-specific adaptation strategies as a major source of confusion. This ambiguity has led to uneven implementation, with some departments making progress while others remain unsure of their roles. Several lecturers admitted they felt as though they were "navigating in the dark," trying to interpret policy goals without adequate institutional support or shared understanding.

Others pointed out contradictions in messaging. For example, while universities are urged to commercialise research and engage with industry, there is little clarity on how to balance this with academic freedom, critical inquiry and ethical scholarship, especially in the humanities and social sciences. This confusion aligns with Rogers' concept of 'uncertainty' in the innovation-decision process, where the absence of sufficient knowledge about an innovation reduces the likelihood of its successful adoption. Such ambiguity creates hesitation, misinterpretation and uneven implementation across departments.

h. Declining faculty morale and motivation

Closely related to the above challenges was the issue of declining morale among lecturers,

largely attributed to the combined pressures of low salaries, high workload, resource scarcity, policy confusion and institutional inertia. While some participants remained enthusiastic about the potential of Education 5.0, a considerable number expressed feelings of fatigue, frustration and demotivation. Participant F noted that, *"It feels like we're being asked to do everything, with nothing. The pressure is immense and there's no recognition or incentive."*

Several lecturers spoke of a sense of being overwhelmed and underappreciated. Despite being on the frontlines of implementing a national transformation agenda, many felt that their voices were excluded from key decision-making processes. This disconnect has eroded trust in institutional leadership and weakened motivation to engage meaningfully with the Education 5.0 mandate. In some cases, morale was also impacted by the perceived inequity in resource allocation. Faculties aligned with science, engineering, or business were often better equipped for innovation and industrialisation than those in education, humanities, or social sciences. This uneven support structure contributed to feelings of marginalisation among some staff. Participant J reflected that, *"You look at the innovation hub and realise it's only accessible to certain departments. It sends a message about whose work matters".* These morale challenges are significant because high faculty engagement is critical to the success of Education 5.0. According to Rogers' theory, individual commitment is necessary not only for initial adoption, but for sustained implementation and confirmation of innovation. Low morale, in this sense, poses a systemic threat to the policy's diffusion across institutions.

For this segment, the findings confirm that implementation of Education 5.0 is hampered by a combination of systemic, structural and attitudinal challenges. The lack of capacity building and professional development opportunities leaves many lecturers ill-equipped to drive innovation echoing Muzira and Bondai (2020), who argue that a professional development vacuum is undermining reform goals. The infrastructural limitations mirror what Togo and Gandidzanwa (2021) documented, that institutions lack the physical and technological support structures to foster applied learning and innovation.

Rogers' Diffusion of Innovation theory helps illuminate how these barriers affect adoption. Without compatibility between the innovation and the user's existing values, experiences and resources and without observable advantages or institutional reinforcement, diffusion stalls. The "trialability" and "observability" aspects of innovation are diminished when lecturers lack time, space, or encouragement to experiment. Furthermore, the ideological resistance noted by Bhurekeni (2020) and Gwaravanda and Ndofirepi (2021) highlights the importance of epistemic alignment and cultural buy-in. When reform is seen as externally imposed or lacking contextual sensitivity, it triggers defensive postures and slows engagement. In sum, these challenges underscore the need for a holistic support strategy that includes training, infrastructure, policy reform and dialogue to ease the transition and ensure genuine lecturer engagement.

What solutions can be suggested to support the successful implementation of Education 5.0 in Zimbabwean universities?

This section presents recommendations derived from participants' insights on what is needed to improve the awareness of Education 5.0 among lecturers to enable effective implementation of Education 5.0. The proposed solutions focus on capacity development, structural reforms, attitudinal shifts and systemic support mechanisms.

a. Continuous professional development

Amid the challenges articulated by lecturers, one of the most frequently proposed and strongly

supported solutions was the need for continuous professional development (CPD). Many participants expressed a clear desire to align with the goals of Education 5.0 but emphasised that this ambition could only be realised through structured, ongoing training in areas such as innovation, entrepreneurship, product development and intellectual property rights. Participant A stated, *"We need workshops and refresher courses not just once, but regularly to keep up with what Education 5.0 demands"*. This sentiment reflects a widespread recognition that Education 5.0 introduces a new pedagogical and institutional paradigm, one that cannot be navigated through prior academic training alone. Lecturers acknowledged that adapting to this shift requires a new set of competencies, including how to design and deliver innovation-led curricula, develop partnerships with industry, translate research into commercially viable products and navigate intellectual property law. Participants criticised the current model of once-off training seminars, often offered more as symbolic compliance than meaningful skill-building. Instead, they called for institutionalised CPD frameworks integrated into university systems where staff receive continuous, hands-on exposure to the practical dimensions of innovation and industrialisation.

Some participants also advocated for interdisciplinary CPD programmes that cut across faculties, encouraging collaboration between lecturers in science, engineering, business, arts and education. This approach, they argued, would reflect the real-world nature of innovation, which often thrives on diverse perspectives and integrated thinking. From a theoretical perspective, this recommendation aligns with Rogers' Diffusion of Innovations Theory, particularly the importance of reducing complexity and enhancing trialability to promote adoption. Regular CPD can serve as a crucial mechanism to build confidence, reduce uncertainty and move lecturers from mere awareness to active implementation. In addition to skills development, participants also saw CPD as a motivational and morale-boosting intervention, signalling that the institution values its academic staff and is willing to invest in their transformation. Ultimately, lecturers framed CPD not simply as an add-on, but as a core strategy for embedding Education 5.0 within university culture.

b. Improvement of infrastructure and access to technology

Another widely suggested solution was the improvement of infrastructure and access to technology. Participants stressed that without adequate facilities, the goals of Education 5.0 would remain aspirational rather than actionable. They pointed out that for innovation and industrialisation to take root within the university system, there must be tangible investments in physical infrastructure such as innovation hubs, modern laboratories, maker spaces and digital resources. Several participants noted that students often have brilliant ideas but lack the tools or environments to test and refine them. Many campuses still operate with outdated or poorly maintained laboratories, unreliable internet access and insufficient digital equipment, conditions that directly undermine the applied, hands-on learning that Education 5.0 promotes.

Participants further highlighted that the absence of infrastructure creates a disconnect between policy and practice. While lecturers are encouraged to engage in entrepreneurship and product development, their institutions lack the basic resources to support these efforts. This gap, they argued, leads to frustration and inertia, particularly when expectations to innovate are not matched with the means to do so. From the perspective of Rogers' Diffusion of Innovations Theory, the lack of enabling infrastructure severely hampers the compatibility and reinvention of new ideas, thereby slowing down the adoption process. In response, participants proposed the establishment of discipline-specific innovation hubs, digital resource centres and improved lab facilities. They also called for partnerships with government and industry stakeholders to ensure sustained infrastructural investment. Participants argued that if Education 5.0 is to move

beyond policy rhetoric, universities must be equipped with the technological and physical environments necessary to support real-world innovation and learning.

c. Institutional flexibility and policy reforms

Institutional flexibility and policy reforms also emerged as critical enablers of Education 5.0 implementation. Participants argued that the existing bureaucratic structures within universities are often too rigid, slow and hierarchical to support the fast-paced, dynamic nature of innovation. Several lecturers noted that curriculum review processes take years to complete, by which time proposed innovations may have already lost their relevance or impact. There was also a strong call for breaking down academic silos and promoting interdisciplinary collaboration, which many viewed as essential to solving complex real-world problems. The current administrative and academic systems, they argued, are not adequately designed to accommodate the iterative, experimental and cross-cutting processes required for innovation and industrialisation. This insight aligns with Rogers' Diffusion of Innovations Theory, particularly the notion that institutional structures can either accelerate or hinder the spread of new ideas depending on their openness to change. As such, participants recommended comprehensive policy reforms that would streamline approval processes, decentralise decision-making and incentivise cross-faculty initiatives. They stressed that without this shift towards agility and adaptability; Education 5.0 would continue to face systemic barriers that limit its transformative potential.

d. Incentivisation and support for research and innovation

Another important area raised by participants was the need for robust incentivisation and institutional support for research and innovation. While Education 5.0 places significant emphasis on innovation and industrialisation, many lecturers observed that their efforts in these areas often go unrecognised or unrewarded. As a result, motivation to engage meaningfully with the model remains low, especially when traditional metrics such as lecture delivery and academic publication continue to dominate performance evaluations. Lecturers proposed a range of both financial and non-financial incentives to encourage innovation-related outputs. These included access to research and innovation grants, institutional support for patent registration, funding for prototype development, assistance with academic publishing and revised promotion criteria that formally acknowledge innovation, entrepreneurship and community impact. As Participant J put it, *"There must be motivation. Right now, there's little reward for being innovative."*

This sentiment underscores the need to realign institutional reward systems with the expectations of Education 5.0, ensuring that lecturers are not only trained and equipped but also appropriately incentivised to innovate. Within Rogers' Diffusion of Innovations Theory, this aligns with the principle that positive reinforcement and observable benefits accelerate the adoption of new practices. Without such motivational structures in place, the innovation mandate risks being perceived as an additional burden rather than an opportunity for professional growth and societal contribution.

e. Inclusive stakeholder engagement

Participants strongly emphasised the importance of inclusive stakeholder engagement in the successful implementation of Education 5.0. They argued that one of the reasons for resistance and slow uptake among lecturers is the perception that the policy was introduced in a top-down manner, without adequate consultation or contextual consideration. To overcome this, they proposed a more collaborative approach that brings together lecturers, students, industry partners and policymakers in the co-design of curricula, innovation projects and institutional

strategies. Such inclusive engagement, they noted, would not only enhance the relevance of Education 5.0 initiatives but also foster a greater sense of ownership and shared responsibility among key actors. Participants highlighted that when stakeholders feel heard and involved in shaping reforms, they are more likely to support and champion them. This insight aligns with Rogers' Diffusion of Innovations Theory, which recognises the role of communication networks and social systems in accelerating adoption. Therefore, inclusive dialogue, participatory planning and sustained engagement across all stakeholder groups were seen as essential for building trust, reducing resistance and aligning Education 5.0 with the actual needs and realities of Zimbabwe's higher education system.

The findings in this segment suggest a strong consensus among lecturers that successful implementation of Education 5.0 requires robust capacity-building programmes. This aligns with Muzira and Bondai (2020), who advocate for the retraining of lecturers to address the pedagogical and technical gaps under Education 5.0. The demand for modern infrastructure and resources echoes Togo and Gandidzanwa's (2021) argument that without physical spaces that support innovation, lecturers cannot fulfil their expanded roles. Innovation hubs, well-equipped labs and digital tools are necessary to operationalise the Education 5.0 pillars.

In line with Rogers' Diffusion of Innovation theory, these solutions target the key attributes that affect adoption: compatibility (alignment with lecturers' needs and realities), complexity (minimising difficulties through training) and relative advantage (highlighting benefits and providing incentives). Increasing "trialability" and "observability" of innovation processes through pilot programmes and institutional support can also foster greater uptake. The call for reformed institutional cultures and policy frameworks aligns with Chuma (2022) and Bhurekeni (2020), who emphasise the need for structural rethinking in higher education governance. Moreover, inclusive engagement supports Gwaravanda and Ndofirepi's (2021) vision of cognitive justice and epistemic participation in university transformation.

Conclusion

This study set out to examine the level of awareness of the Education 5.0 model among university lecturers in selected state universities in Zimbabwe and to explore the challenges and proposed solutions surrounding its implementation. Grounded in Rogers' Diffusion of Innovations Theory, the research revealed that while the term "Education 5.0" is widely recognised, there is significant variation in lecturers' depth of understanding, particularly regarding its practical application in teaching, research and community engagement.

A key finding is that most lecturers have acquired only partial or informal knowledge of Education 5.0, often through circulars or workshops lacking in strategic clarity. This superficial awareness hinders meaningful adoption, as many are unclear about how to translate policy rhetoric into actionable academic practice. However, a small group mainly from STEM faculties demonstrated a more comprehensive grasp of the model's goals and its alignment with Zimbabwe's Vision 2030, suggesting that disciplinary background and exposure to innovation ecosystems influence awareness levels.

The study also highlighted several structural and institutional challenges obstructing implementation. These include limited training and preparedness, inadequate infrastructure, rigid curricular and bureaucratic systems, workload pressures and a lack of incentives for innovation. Ideological concerns were also noted, with some lecturers feeling that the policy was imposed top-down without sufficient stakeholder consultation.

Despite these challenges, participants expressed strong support for the underlying philosophy of Education 5.0 and proposed several practical solutions. These include continuous professional development, investment in innovation-supportive infrastructure, policy reforms to increase institutional flexibility, clearer communication and inclusive stakeholder engagement. Together, these recommendations underscore the need to align institutional capacity-building with national development objectives. For Education 5.0 to move from policy to practice, there must be a deliberate and inclusive effort to equip, motivate and support lecturers who are the primary drivers of this transformation. Enhancing their awareness and engagement through structured communication, targeted training and institutional reforms is not only essential for successful implementation but also for ensuring that higher education in Zimbabwe becomes a true engine of innovation and industrialisation.

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