Developing essential skills for undergraduates in a time of polycrisis: An empirically driven framework for higher education

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ABSTRACT

In an era of polycrisis, a time characterised by interconnected environmental, economic, social, and health crises amplified by neoliberal policies, higher education must evolve to equip undergraduates with essential skills beyond traditional technical knowledge. This study, located at the University of Eswatini (UNESWA), aimed to identify the essential skills undergraduates need to interact and contribute positively in situations that are described by Biesta's educational domains, whereby curricula focus on qualification and neglect socialisation and subjectification. The aim was to determine perceived core competencies, curricula weaknesses, and integration strategies in relation to transformative learning. Using a mixed-methods sequential design, the research began with a literature review on skills for complexity in the global, regional, and local context. Qualitative data were collected from five purposively chosen education stakeholders via semi-structured interviews, specifically assessing skills, skills gaps, and pedagogies. Quantitative data were obtained through surveys of 225 undergraduates and 18 educators, randomly sampled using stratified sampling. Questionnaires using a 5-point Likert scale were employed to identify priority skill sets and assess gaps in these skills. The main findings showed that people agreed that the most important skills were critical thinking and problem-solving (mean 4.6/5), resilience and adaptability (4.5), sustainability awareness and ethical reasoning (4.4), digital literacy and collaboration (4.3), and civic engagement and social justice (4.2). Surveys indicated 72% of undergraduates view curricula as inadequate for polycrisis, with a bias toward qualification over other domains. Thematic analysis revealed polycrisis as exposing qualification limitations, deficits in ethical initiative and resilience, curricular bottlenecks encouraging passivity rather than agency, and the need for pedagogical shifts such as project-based learning. Based on these findings, the study proposed an empirically grounded framework that integrates key skills across Biesta's domains through modular structures, community-linked projects, and reflective assessment. It concluded by recommending intentional approaches that cultivate autonomy, ethical responsibility, and adaptive capacities, and it calls for comparative multi-institutional research to refine the framework for application in a broader regional context.

Keywords: Biesta's Framework, Essential Skills, Higher Education, Polycrisis, Undergraduates, University of Eswatini
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I. INTRODUCTION

The contemporary world is increasingly shaped by what scholars describe as a Polycrisis, a condition in which multiple global disruptions on environmental degradation, economic instability, public health emergencies, and social fractures interact in ways that intensify their combined effects. These overlapping pressures, often linked to the long-term consequences of neoliberal economic reforms such as deregulation and market-oriented policy design, have deepened inequalities and exposed the fragility of existing social infrastructures. Events ranging from climate-related disasters to financial instability illustrate how the consequences of such surging crises are neither isolated nor short-lived (Le Grange, 2024). Within this context, higher education institutions are confronted with the necessity of adapting their teaching-learning strategies, so that students are not only technically capable but also ethically grounded and able to navigate complex and uncertain futures. As Biesta (2015) argued, education must reach beyond narrow metrics of learning to include broader questions about the purposes of schooling, questions that are particularly urgent in a polycrisis context.

Biesta's critique of "learnification", the reduction of education to individualised processes of skill acquisition detached from normative or societal aims, remains especially relevant. He proposed that education should be understood through three interconnected purposes being qualification (knowledge, skills, and technical competence), socialisation (participation in cultural and societal traditions), and subjectification (the cultivation of personal responsibility, autonomy, and agency). This framework challenges the prevailing tendency to prioritise measurable learning outcomes over deeper educational values and calls upon institutions to confront the broader question, "What is education for?" (Campbell, 2019; Mabuza, et al., 2025). These questions are particularly prominent in the context of Eswatini, a country where prolonged economic stagnation, political tensions, high youth unemployment (estimated at 58.2%; Nhlabatsi,

2022), and persistent public health challenges intersect to create an especially intense form of the polycrisis. Climate change impacts such as severe droughts and soil degradation further compound the situation (Mkhatshwa et al., 2024).

The University of Eswatini (UNESWA) provides a compelling case through which to examine how higher education responds to crises of this magnitude. Over the past decade, the institution has struggled with declining governmental support, escalating tuition arrears, aging infrastructure, and widening digital divides, all of which hinder the delivery of effective teaching and learning. Recent decisions, such as the reduction of scholarships for Humanities degrees, have intensified concerns about whether undergraduates are developing the wider competencies needed to navigate local and global uncertainties (United Nations Children's Fund [UNICEF], 2023; Zulu, 2024). These systemic conditions mean that undergraduates often enter the workforce facing limited employment prospects and heightened social vulnerability. Consequently, technical proficiency alone is not enough; the ability to adapt, collaborate, think critically, act ethically, and engage productively with real-world challenges is increasingly essential (Mabuza et al., 2025).

This study addresses this gap directly by identifying the essential skills that UNESWA undergraduates need to thrive within a polycrisis environment and participate as productive societal actors. Drawing on insights from students, educators, and sector stakeholders, the research shows a set of core competencies, being critical thinking, adaptive problem-solving, ethical reasoning, resilience, communication, creativity, and civic engagement that are widely recognised in both global and regional literature as central to navigating complexity (Thornhill-Miller, 2024; Gaebel et al., 2024; Redling, 2024). Yet, although these skills are well documented, higher education systems often lack the mechanisms to meaningfully integrate them into their curricula.

Traditional university programmes in Eswatini, as in much of the world, remain heavily oriented toward qualifications that emphasise technical knowledge while providing limited opportunities for students to build the social and personal capacities required for agency. This structural imbalance leaves undergraduates underprepared for the demands of the Polycrisis, a condition intensified in lower-resource contexts where shocks are more deeply felt and recovery systems are limited (Chipangura & Dtendjo-Ndjindja, 2022; Zickafoose et al., 2024). Without a logical model for integrating cognitive, interpersonal, and ethical dimensions of learning, higher education risks producing graduates who are equipped to perform tasks but ill-prepared to influence or reshape the systems they exist in.

Biesta's (2015) framework offers a valuable lens for addressing this imbalance. Through emphasising subjectification alongside knowledge and social engagement, the framework inspires a more holistic understanding of what higher education must achieve in the face of systemic instability. It also resonates with emerging literature on Education for Sustainable Development (ESD), which indicates the importance of inner resilience, reflective practice, and sustainability ethics (Libertson, 2023; UNICEF, 2023; Redling, 2024). At the same time, critiques of neoliberalism in higher education remind that market-driven reforms have both benefits and weaknesses. While such policies have sometimes expanded access and encouraged innovation (Nureev et al., 2020; Santamaria, 2020), they have also intensified uncertainties and undermined public educational missions (Akala, 2021; Morley, 2023). The challenge, therefore, lies not in rejecting reform in general but in navigating its implications thoughtfully, balancing efficiency with ethics and individual learning with collective responsibility (Tataj et al., 2023; Sokol & Stephens, 2025).

Against this backdrop, the present study developed an empirically grounded framework that brings together Biesta's three educational purposes and reimagines how they might be operationalised in undergraduate education during a polycrisis. Through drawing on mixed-methods evidence from UNESWA, the study offers both diagnosis and direction as it identified the gaps in current curricular practice and proposed a set of practical pathways, such as community-engaged projects, modular curriculum design, and reflective assessments that can promote more transformative learning outcomes. This framework aims not only to prepare undergraduates for employment but also to nurture their capacity to engage ethically and creatively with the complexities of their society.

1.1 Statement of the Problem

The world today is marked by interconnected environmental, economic, social, and health crises intensified by neoliberal policies. Higher education institutions are seen as failing to adequately equip undergraduates with the essential skills needed to navigate and contribute positively to a complex world. At UNESWA, and by extension in similar contexts, curricula remain extremely focused on qualification, while critically neglecting the educational domains of socialisation and subjectification as framed by Biesta (2015). This discrepancy creates a significant gap whereby graduates are increasingly left unprepared for the realities of polycrisis, because they lack competencies in critical thinking, resilience, ethical reasoning, and civic engagement. The problem is further proven by perceived inadequacies in the curriculum, which promotes student passivity rather than proactive agency, and by the absence of a coherent pedagogical framework to integrate these vital transformative skills across the educational experience. Consequently, there is an urgent need to identify the core competencies essential for polycrisis resilience, to critically assess current curricular weaknesses, and to develop effective approaches for integrating transformative learning that prepares undergraduates not just for employment, but for responsible, adaptive, and ethically engaged citizenship.

1.2 Research Objectives

i. To identify the core competencies that undergraduates at UNESWA require in order to navigate and contribute constructively within a context shaped by a polycrisis.
ii. To develop an empirically informed framework that integrates the core competencies into higher-education curricula and pedagogical practices, drawing on Biesta's (2015) three educational purposes, qualification, socialisation, and subjectification, to support transformative learning.

1.3. Research Questions

The investigation was structured around the following research questions:

i. What core competencies that undergraduates at UNESWA require in order to navigate and contribute constructively within a context shaped by a polycrisis?
ii. How do undergraduates and educators perceive the current curriculum's effectiveness in developing the core competencies in relation to Biesta's (2015) three purposes of education, qualification, socialisation, and subjectification, to support transformative learning?
iii. How can an empirically informed framework be developed to meaningfully integrate the core competencies into undergraduate programmes and pedagogical practices to advance transformative learning?

II. METHODOLOGY

This mixed-methods study employed a sequential design to gather comprehensive data on the essential skills of undergraduates engaging in polycrisis. The study began with an extensive review of global, regional, and local scholarship addressing education in times of complexity and disruption. The review synthesised literature on polycrisis conditions, skill requirements for uncertain environments, and transformative educational frameworks, including Biesta's (2015) three-domain model. This stage informed the development of interview themes and survey constructs. Qualitative data were gathered through detailed semi-structured interviews with five stakeholders involved in the education sector. Participants were purposively selected through a two-stage sampling strategy. The professional profiles of 15 potential participants were targeted as the initial starting point. Criterion sampling was conducted to identify the 5 final interviewees from this pool (Patton, 2015). To take part, participants needed at least 5 years of leadership experience in their field and be also involved in projects or policies related to higher education and crisis response. Key decision-makers across all educational sectors were invited to participate, thus ensuring diversity in experience, such as a senior policymaker from Eswatini Ministry of Education and Training, a programme director from an international Non-Governmental Organisation (NGO) involved in educational equity, a university management officer working in the field of crisis initiatives, a researcher with a specialisation in higher education policy, and a representative of a funding agency working on crisis response programmes. This strategy guaranteed the choice of data-rich cases at the core of the research question. Interviews lasted 45 minutes, each conducted in person, designed to gather views of essential skills, curriculum gaps, and integration strategies.

Quantitative data were collected using surveys given to 300 undergraduates and 20 educators on campus. The undergraduates' sample was differentiated by year of enrolment and faculty to ensure representation. These strata were enabling to capture of important differences in the academic experience, maturity levels, or exposure to policy processes. Such factors might affect undergraduates' perceptions of the critical skills needed to navigate polycrises differently between early and advanced years and across disciplines. The stratification based on enrolment was intended to avoid larger cohorts from dominating the sample, reducing sampling bias and thus benefiting generalisability of findings. Enrolment data at the university indicated 5,000 undergraduates at the main campus (University of Eswatini Undergraduate Prospectus, 2024/2025). Thus, the strata were first-year (1,250 undergraduates), second-year (1,500), third-year (1,250), and fourth-year (1,000). A sample of 60% females and 40% males, distributed over four years, consisting of 75 (25%) first-year, 90 (30%) second-year, 75 (25%) third-year, and 60 (20%) fourth-year. Qualitative data were thematically analysed and observed trends in skills and frameworks. Descriptive statistics (means, frequencies, standard deviations) and correlations (e.g. between resilience and subjectification) were performed on quantitative data. Triangulation established validity by cross-checking the interview design to find the items that matched the survey data. Ethical clearance was obtained from Human Subjects Research Committee (HSREC) of the UNESWA Research Centre with informed consent from all participants. To address potential bias from the small qualitative sample, the study engaged a broad range of stakeholders to ensure wide-ranging viewpoints. This breadth complemented the quantitative findings, which were validated by a high degree of internal consistency (Cronbach's α > 0.80).

This mixed-methods study generated two complementary types of data, both quantitative and qualitative, about skills that undergraduates needed during a period of polycrisis.

IV. FINDINGS & DISCUSSION

4.1 Findings

The response rate was 75% for undergraduates (225 completed out of 300 provided) and 90% for educators (18 completed out of 20). The survey conveyed a clear priority of core competences. Skills rated the highest (on a 5-point scale) were: critical thinking and problem-solving (mean 4.6/5), resilience and adaptability (4.5), sustainability awareness and ethical reasoning (4.4), digital literacy and collaboration (4.3), and civic engagement and social justice (4.2). Overall, 72% of undergraduates indicated that their current curricula inadequately address polycrisis (mean gap score: 3.8/5, SD: 0.8), with educators reporting a bias in favour of qualification (65%) rather than subjectification (Table 1).

Table 1

Ranked Essential Skills and Agreement Levels

Skill	Mean Rating	SD	Agreement (Undergrads)	Agreement (Educators)	Agreement (Stakeholders)	Key Alignment & Correlation
Critical Thinking & Problem-Solving	4.6	0.5	85%	90%	100%	Strong correlation to ethical decision-making in uncertainty (r =0.68, p <0.01)
Resilience & Adaptability	4.5	0.6	82%	88%	80%	High correlation with Biesta's subjectification domain (r =0.72, p <0.01)
Sustainability Awareness & Ethical Reasoning	4.4	0.5	78%	85%	100%	Subjectification/Qualification Domains; Links to Education for Sustainable Development (ESD).
Digital Literacy & Collaboration	4.3	0.7	80%	82%	60%	Qualification/Socialization Domains; Focus on teamwork in virtual spaces.
Civic Engagement & Social Justice	4.2	0.6	75%	80%	80%	Socialization Domain; Focus on becoming agents of change.

Interviews with stakeholders produced qualitative-rich, contextual insight to the quantitative data, and generated four central themes aligned with the interview guide.

Theme 1: Polycrisis as a Reality Check for Qualification

Stakeholders regularly identified polycrisis as a force that limited the size of specialised skills to only narrow technical knowledge skills. "We have graduates who are technically capable but mentally overwhelmed," a policymaker said. The shocks, such as, economic, climatic and social, hit them simultaneously. Their qualification is not in question, but their ability to hold that knowledge ethically and resiliently is." This shows a critical gap where traditional qualification fails to equip undergraduates for a volatile world, directly implicating the need for subjectification.

Theme 2: The Immediate Shortage in Ethical Initiative and Resilience.

When questioned about the skills that were most lacking, all participants listed subjectification as the strongest trait lacking. The three biggest gaps, according to an industry leader, were ethical reasoning, the courage to take initiative without knowing the plan, and the ability to persevere despite failure. One leader stated, "We need folks who aren't just able to detect problems but who feel a personal responsibility to engage with those problems." This theme reinforced that qualities such as critical thinking are considered superficial to the extent that the ethical compass and personal agency to use those values meaningfully are absent.

Theme 3: The Curricular Bottleneck Is Agency, Not Information.

Stakeholders expressed skepticism over the existing curriculum that had failed to develop students as "agents of change." An NGO representative explained the bottleneck this way: "The system socialises students into passivity. It's about consuming information; it's not about challenging systems or designing new ones. The critical bottleneck here is the absence of pedagogical environments for students to develop as subjects of their own learning and actions, not objects of instruction." This signals systemic neglect of socialisation into active citizenship and subjectification.

Theme 4: Integrate through Pedagogical Shifts, Not Curricular Add-ons.

On the question of integration, stakeholders insisted on fundamental pedagogical transformation as opposed to just introducing new courses. And beyond a new course, another leader proposed, "We need a shift to project-based learning, where students solve real, messy local problems. Assessment also needs to shift from tests to reflective portfolios that record their ethical reasoning and development. We must explore the process of becoming, not just the

state of knowing." This theme informs the Integration Pathways of the framework, which promote pedagogies based on a blend of Qualification (apply knowledge to real problems), Socialisation (work with broader communities), and Subjectification (form into reflective, ethical positions).

In the context of UNESWA and amidst the challenges experienced in their polycrisis, the results of this study towards the development of key skills for undergraduates suggest a strong consensus on what constitutes competence for undergraduates as resilient and change-making agents. Combining surveys of 300 undergraduates and 20 educators with in-depth interviews of five stakeholders through a mixed-methods approach, the findings demonstrated a ranked hierarchy of skills that place a premium on cognitive and adaptive abilities. On the other hand, the qualitative themes identified systemic curricular gaps. These lessons are then overlaid into a triangulated, empirically based framework of the three domains of education identified in Biesta (2015) qualification, socialization and subjectification that provides the operationalisation of what makes for powerful pedagogy.

The survey data provided in Table 1, in quantitative terms, illustrate a clear priority for skills needed to navigate the polycrisis of the modern age. Critical thinking and problem-solving were rated as top skills (mean score: 4.6), with significantly high degrees of agreement rates (85% from undergraduates, 90% from educators, and 100% from stakeholders), suggesting the main basis of their ability to handle the complex uncertainties. This is consistent with the introduction's description of polycrisis in terms of "a causal entanglement of multiple, interconnected crises", which then finds it further worsened by the hegemony of neoliberal capitalism through deregulation-induced reforms promoting market-based activity, thus increasing the chances of increasing inequalities and systemic instability (Le Grange, 2024). Likewise, the review indicated that critical thinking is crucial when living through a polycrisis (as demonstrated by empirical work on UK drama and theatre arts courses, where creative pedagogies promoted a sense of ethical responsibility and crisis navigation) (Hu & Shu, 2025; Redling, 2024). Strong, reciprocal correlations were observed between this skill and ethical decision-making under uncertainty ($r = 0.68$, $p < 0.01$). This finding aligns with Biesta's (2015) criticism of 'learnification', the idea that education can become an unguided process lacking normative purpose. Eventually, as Campbell (2019) argued, uncertain conditions require people to reconsider "what education is for" and to champion a 'full education' that provides necessary guidance.

Following were resilience and adaptability, which received a mean score of 4.5, with agreement rates of 82%, 88%, and 80% respectively, and a notable correlation to Biesta's subjectification domain ($r = 0.72$, $p < 0.01$). The prominence of this skill reflects the psychological and adaptive costs of polycrisis, as described by Mkhatshwa et al. (2021), UNICEF (2023), and Zulu (2024). The current crisis in Eswatini, characterised by a lack of development prospects, youth unemployment above 50%, political turmoil, and environmental pressures like drought (Libertson, 2023; UNICEF, 2023), symbolises this polycrisis. In response, this study builds on this context to embed "inner transitions" (including mindfulness and emotional resilience) into Education for Sustainable Development (ESD), framing it as an ethical endeavour that adopts a relational understanding of interrelated systems. These findings resonate with longstanding skill mismatch reports in the African context, including in Eswatini, where more than 62% of employers feel that graduates are not equipped with sufficient competencies to fulfil a dual role in tackling gaps in poverty alleviation and disrupting early education (National Labour Market Skills Project (NLMSP), 2025; International Monetary Fund African Department, 2024).

Sustainability awareness and ethical reasoning, with mean of 4.4 and agreements of 78%, 85%, and 100%, are directly related to ESD and cut across subjectification and qualification areas, suggesting the moral aspects of crises. This aligns with arguments for affirmative ethics to empower undergraduates as agents of change, reversing a neoliberal commoditisation of education (Biesta, 2015; Walton et al., 2025). Such an ethic advocates for a relational, justice-oriented approach that integrates sustainability and de-colonial approaches to rectify historical imbalances in polycrisis-era Africa. Digital literacy, cooperation, and collective education (mean 4.3, agreements 80%, 82%, 60%) have a clear emphasis on qualification and socialization, promoting teamwork in virtual spaces, while civic engagement and social justice (mean 4.2, agreements 75%, 80%, 80%) correlate with the focus on becoming agents of change in socialisation. The extreme clustering of means (within 0.4 points) implies widespread agreement on the critical importance of all listed skills. However, the notably lower endorsement of digital literacy suggests practical divergence whereby stakeholders may view technical skills as a baseline requirement rather than a transformative one. This view aligns with calls by Biesta (2025), Tataj et al. (2023), and Le Grange (2024) for an education that counters neoliberal trends and embraces decolonization.

The four qualitative themes identified added context and consistency with the quantitative data, revealing curricular gaps. Theme 1 presented polycrisis as a reality check for qualification, in which technically sound graduates are mentally overloaded by simultaneous shocks, indicating the necessity of subjectification to infuse knowledge with ethical resilience. This echoes Zulu (2024) and UNICEF (2023) in referring to UNESWA's budgetary constraints and scholarship suspensions that drive undergraduates to vocational routes in an environment of minimal employment availability. Theme 2 reported marked deficits of ethical initiative, courage, and resilience, with stakeholders observing graduates' failure to take personal responsibility within the ethical dilemma. This observation resonated with Biesta's

(2025) and Redling's (2024) extended version of Biesta's framework, which adds to the definition "risking ourselves" for responsible agency within education. Theme 3 critiqued the curriculum as a bottleneck that produces complacency rather than agency. It argued that current approaches socialise undergraduates to passively digest content instead of challenging systems. This echoes Biesta's (2015) educational domains and aligns with Walton et al. (2025) and Quacquarelli (2023), who called for integrating active learning strategies, such as simulations and projects, into the curriculum. Theme 4 advocated for educational shifts, such as reflective portfolios assessing the "journey of becoming," over add-on courses, informing integration pathways that blend domains.

Triangulating these findings, it was observed that there was strong convergence that high-rated skills like critical thinking were incomplete without ethical agency. This was based on qualitative analysis uncovering how qualification-dominated curricula intensify subjectification and socialisation deficiencies. The statistical link between resilience and subjectification extends Theme 2's emphasis on resilience despite failure. However, it may also reflect underlying differences in undergraduates' attitudes. For example, only 75% agreed on the importance of civic engagement. This lower consensus may stem from immediate job pressures rather than a lack of crisis preparedness for the distant future. It also relates to broader discussions calling for the immediacy of active citizenship (Thornhill-Miller, 2023; Gaebel et al., 2024; Redling, 2024). While stakeholders fully endorsed sustainability, undergraduates endorsed it slightly less heavily. This indicated generational complexes in the ways they perceived urgency, similar to the UNICEF (2023) interest in home-grown innovation in Africa.

Building on the results of this study is the empirically-grounded framework for necessary skills development (Figure 1). This framework justifies reimagining higher education through Biesta's (2015) model of qualification, socialisation, and subjectification. It moves beyond an initial focus on purposeless education, which risks losing hope and creativity in the face of a polycrisis-induced "melancholy" and instead proposes a higher-order approach centered on subjectification. This approach is rooted in ethics and the affective closeness essential for meaningful engagement (Redling, 2024).
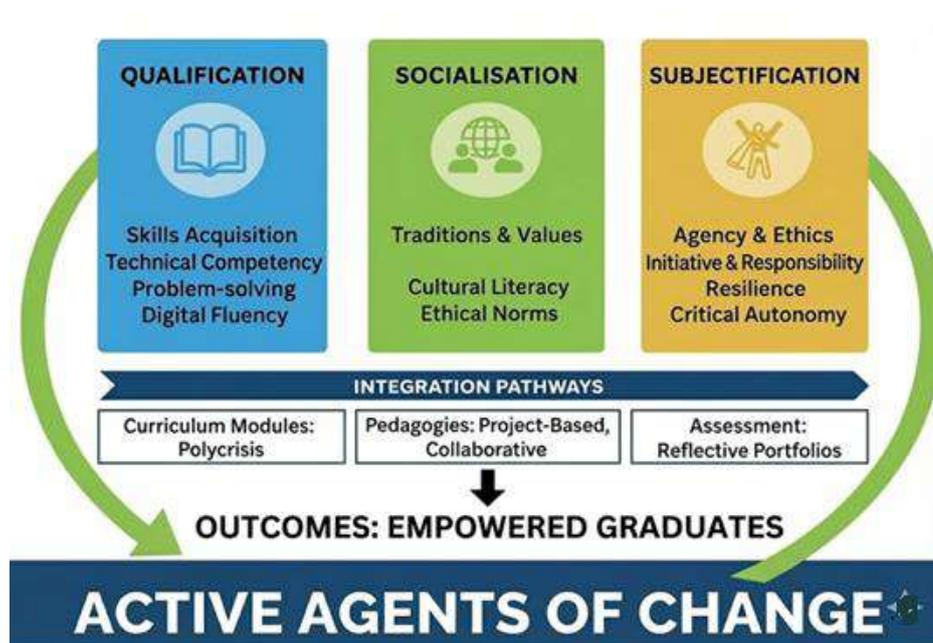

Figure 1
Framework for Essential Skills Development

The empirically-based framework shown in Figure 1 presents three interrelated pillars representing Biesta's domains, qualification (characterised by skills such as digital literacy and problem-solving), socialisation (in the middle with civic engagement and cooperation), and subjectification (with specific emphasis on resilience and ethical efforts). The arrows represent integration pathways, being, modular curricula that link qualification to real-world projects, collaborative pedagogies that connect socialisation and community engagement, and reflective assessments that transform subjectification through ethical pondering. This visualisation shows dynamic equilibrium, with polycrisis features (e.g., icons of economic instability and environmental shocks) around the circles to emphasise contextually relevant aspects.

The pillars are rendered as intersecting circles to portray their interdependence and have polycrisis markers (including images of economic instability, environmental shocks, and social disruptions) surrounding them to stress the importance of the framework's local context within Eswatini's complex challenges. At the centre of the figure are

bidirectional arrows which are pointing forward, to "integration pathways," that allow the domains to mix and match together dynamically. These pathways are not random but correspond to the sample's mixed-methods data. Quantitatively, they derive from the correlations found between resilience and subjectification (r =0.72, p <0.01), such as the strong relationship between critical thinking/problem-solving and ethical decision making in uncertainty (r = 0.68, p <0.01 as a qualification domain), which means that the skills must intersect in addressing the complexities of a polycrisis.

In terms of qualitative inspiration, this path was rooted in Theme 4 of stakeholder interviews, which framed educational transitions such as project-based learning as being essential to address "real, messy local problems,", thus tying qualification (applying knowledge) to socialisation (community involvement) and subjectification (ethical reflection). For example, stakeholder advocacy for reflective portfolios that "capture their ethical reasoning and growth" guided pathways such as modular curricula linking qualification to real-world projects, collaborative pedagogies connecting socialisation to community involvement, and reflective assessments which elevate subjectification as the product of personal agency. This data-driven derivation ensures that the pathways are based in empirical evidence, where domains are mutually reinforcing rather than working in silos. This in turn produce empowered graduates who will be active agents of change.

Practical implications, therefore, are the implementation of the integration pathways via module-based curricula and project-based assignments that are applying domains in both the existing disciplines in authentic contexts at the same time (Quacquarelli, 2023). Assessment becomes reflective through approaches that record subjective change, in producing "free subjects rather than docile objects" (Biesta, 2015). The framework would fill the literature, by offering solutions on how to integrate skills through creative pedagogies in creating transformative forms of education for resilience and systemic change (Langelaan et al., 2024; OECD, 2024). Overall, the findings have implications that recommend holistic reforms at UNESWA and beyond, by connecting theory and practice to promote agency in a time of polycrisis. While this study has developed a theoretically strong and empirically grounded framework, its evidence is drawn from a single-institution sample (UNESWA). This provides crucial local relevance, but it limits the direct generalisation of the identified skill priorities. An essential next step is to conduct multi-site comparative studies across higher education institutions in the SADC region. Such research would help confirm the core Qualification-Socialization-Subjectification structure of the framework and generate richer data on how various domestic polycrisis strains affect the actual content of these three educational purposes.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

This research contributes to ongoing debates about how higher education can respond meaningfully to an era defined by overlapping crises. It asserts that institutions cannot rely solely on discipline-specific knowledge or conventional approaches to teaching and assessment. Instead, they must embrace a more extensive view of education, one that emphasises human agency, ethical deliberation, and social responsibility. The empirically-derived framework developed in this study offers a practical model for integrating Biesta's educational purposes into curriculum design and pedagogical practice. Positioning subjectification alongside qualification and socialisation, the framework challenges higher education institutions to nurture undergraduates who are not only skilled but also reflective, resilient, and capable of contributing meaningfully to the complex systems they live in. Such an orientation is vital in a Polycrisis, a world where the impacts of climate change, economic instability, social fragmentation, and political uncertainty intersect. Higher education must not only prepare undergraduates to survive these crises, but also enable them to contribute to shaping a more just, sustainable, and resilient society.

5.2 Recommendations

To bridge polycrisis demands and higher education reform, this research proposed an Empirically-Driven Framework that integrates key skills with Biesta's domains. The framework nurtures resilient, ethical agents who are adept at thriving within complexity and provide hope to those caught between the two worlds by advancing subjectification alongside qualification and socialisation. Based on the evidence from highly rated competencies such as critical thinking and resilience to the identified curricular voids, the study makes a significant effort to reveal the requirement of transformative pedagogies that honour affirmative ethics and collaborative innovation. Therefore, the study makes the following recommendations:

Institutions must plan learning intentionally so as to cultivate resilience, independent thought, and ethical responsibility as much as learning technically. Shift to modular curricula and project-based assignments that require undergraduates to employ all three domains (Qualification, Socialization, Subjectification) at once. Implement reflective portfolios and peer feedback as they capture subjective transformation and the establishment of undergraduates' ethical stance according to subjective reflection and reflection on personal transformation, and reflection in the process of

students' ethical formation. Invest in multi-site comparative research to validate the framework's structure and adapt its content to local polycrisis demands across different regions.

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