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Authentic Teaching and Learning in Undergraduate Construction Programmes: Academic Perspectives on Competence Development

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Abstract

Competence development, rather than a predominant focus on disciplinary content knowledge, is increasingly shaping curriculum reform agendas in construction education. In construction and engineering programmes, graduates are expected to apply knowledge effectively within complex, practice-based project environments that demand collaboration, professional judgement, and adaptability. Authentic teaching, learning, and assessment have therefore gained prominence as pedagogical approaches for strengthening workplace readiness and developing industry-relevant and 21st-century skills. In this context, this paper reports on a qualitative case study of undergraduate built environment programmes at a large research-intensive university in KwaZulu-Natal, South Africa. The study sought to identify the extent to which professional and transferable competences are embedded within units of learning, and how these competences are intentionally developed through teaching, learning, and assessment practices. The study explored academics' perspectives on how authentic teaching, learning, and assessment practices contribute to competence development in construction education. Data were generated through seven semi-structured interviews with academics involved in teaching undergraduate-built environment modules and analysed using thematic analysis. Four themes emerged from the data: (1) competence mapping and professional relevance, (2) authentic learning design through industry-simulated tasks, (3) assessment alignment and constructive coherence, and (4) reflective integration and pedagogical tensions. The findings revealed strong support for authentic pedagogies as a means of developing workplace-relevant competencies; however, academics reported challenges in implementing fully authentic learning experiences due to curriculum coverage requirements, large class sizes, limited access to industry projects, and institutional assessment constraints. Consequently, many academics adopted what may be described as "bounded authenticity," whereby elements of professional practice were incorporated through case studies, simulations, and project-based tasks rather than full industry immersion. The paper contributes to discussions on curriculum reform in the construction business and project management education by highlighting practical strategies for strengthening competence development while balancing institutional realities.

Keywords: Authentic learning, Construction education, Competence development, Curriculum reform

1. Introduction

The construction industry is increasingly characterised by complexity, technological disruption, sustainability imperatives, and multidisciplinary collaboration. These shifts require graduates entering the fields of construction and engineering to possess not only strong disciplinary knowledge but also the capacity to apply that knowledge in dynamic workplace contexts (du Plessis & Holtzhausen, 2025). Employers now expect graduates to demonstrate competencies such as problem-solving, communication, critical thinking, teamwork, and professional judgement in real-world project environments (Geng et al., 2025). Consequently, higher education institutions are undergoing pressure to ensure that undergraduate programmes develop graduates who are workplace-ready and capable of navigating the realities of contemporary construction practice (du Plessis & Holtzhausen, 2025).

Within this context, competence-based curriculum reform has gained significant attention in higher education. Rather than focusing predominantly on subject content knowledge, universities are increasingly prioritising the development of transferable graduate attributes and professional competencies that can support successful workplace transition (Biggs & Tang, 2011; Sokhanvar et al., 2021). In construction education, this shift is particularly important because professional practice requires students to integrate technical knowledge with managerial, contractual, financial, and interpersonal skills. The construction sector demands graduates who can operate effectively in complex project settings where decision-making is often influenced by uncertainty, competing stakeholder interests, and time and cost constraints.

Authentic teaching and learning have emerged as a key pedagogical response to this challenge (Tahirsylaj & Sundberg, 2026). Authentic learning is grounded in

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situated learning theory and seeks to place students in contexts that resemble the professional environments in which knowledge will ultimately be applied (Herrington & Oliver, 2000; Tahirsylaj & Sundberg, 2026). Rather than relying solely on abstract classroom-based instruction, authentic learning emphasises real-world tasks, collaborative problem-solving, multiple perspectives, reflection, and assessment activities that mirror professional practice (Herrington & Oliver, 2000). These principles are particularly well-suited to construction education, where students must learn to interpret drawings, manage contractual issues, respond to project risks, and make decisions that reflect industry realities.

Authentic assessment approaches move beyond traditional examinations and instead require students to demonstrate competence through tasks that simulate professional activities and workplace expectations (Tahirsylaj & Sundberg, 2026). These may include project reports, case analyses, tender documentation, contract administration exercises, presentations, and reflective portfolios. Research suggests that authentic assessment enhances the transferability of learning by enabling students to connect theoretical concepts with their practical application in future employment contexts (Boud & Falchikov, 2006; Sokhanvar et al., 2021). For construction programmes, this alignment between curriculum, teaching, and assessment is critical to ensuring that students are prepared for the demands of project-based professional practice.

Despite the growing recognition of authentic pedagogies, their implementation within construction-related undergraduate programmes remains inconsistent. Academics may interpret competence and authenticity differently, and curriculum structures often continue to privilege content coverage over applied learning. Furthermore, professional accreditation requirements and institutional assessment systems can constrain innovation in teaching practice. It is therefore important to explore how academics conceptualise and embed authentic teaching and learning within their modules. This paper is located within this discourse and reports on a case study conducted within undergraduate construction-related programmes at a South African institution.

2. Literature Review

The increasing complexity of the construction industry has intensified calls for curriculum reform in higher education, particularly within construction and project management programmes (Harinarain Haupt, 2016). Graduates entering the sector are expected to demonstrate not only technical knowledge, but also the ability to apply this knowledge in real-world project contexts that demand problem-solving, communication, teamwork, and professional judgement (Geng et al., 2025; Haupt Harinarain, 2016). As a result, higher education institutions are increasingly shifting from content-driven curricula towards competence-based teaching and learning approaches that emphasise employability and workplace readiness (Biggs & Tang, 2011).

Competence-based education is underpinned by the notion that learning should move beyond knowledge acquisition to include the development of transferable skills and professional capabilities (Zhan et al., 2025). In construction education, this is particularly important because graduates must operate in environments characterised by uncertainty, risk, complex stakeholder relationships, contractual obligations, and project delivery pressures (Harinarain & Haupt, 2015). These demands align with the broader higher education discourse on graduate attributes and 21st-century skills, including critical thinking, collaboration, adaptability, and ethical decision-making (Oliver, 2013).

2.1. Authentic Teaching and Learning

Authentic teaching and learning have emerged as a critical approach in higher education, particularly in discussions about preparing graduates for the complexities of contemporary professional environments. Authentic learning is grounded in situated learning theory, which posits that knowledge is most effectively acquired when learning occurs in contexts that closely resemble the environments in which it will be applied (Tahirsylaj & Sundberg, 2025). Herrington and Oliver (2000) argue that authentic learning environments should incorporate real-world relevance, ill-defined problems, multiple perspectives, collaboration, and opportunities for reflection. These characteristics are highly relevant to construction education, where professional practice involves solving complex, context-dependent problems rather than merely recalling theoretical concepts (du Plessis & Holtzhausen, 2025).

In recent years, global debates have emphasised the role of authentic teaching in bridging the persistent gap between academic knowledge and workplace practice (Boud & Falchikov, 2006). Scholars contend that by embedding authentic teaching approaches, universities can create learning experiences that allow students to transfer their skills across disciplinary and professional contexts (Ashford-Rowe, Herrington, & Brown, 2014). This has made authentic learning an integral part of curriculum reform agendas aimed at enhancing the relevance and applicability of higher education.

Within construction and engineering programmes, authentic learning may take the form of case-based learning, live industry projects, simulated contract administration exercises, risk management scenarios, and project-based teamwork (Harinarain & Haupt, 2015). Such approaches allow students to engage with the ambiguity and multidisciplinary nature of construction practice. By mirroring workplace realities,

authentic learning creates opportunities for students to develop professional identity and gain confidence in applying disciplinary knowledge. Recent systematic reviews confirm that authentic learning and assessment enhance engagement, critical thinking, collaboration, and employability skills across higher education disciplines (Sokhanvar et al., 2021).

2.2. Authentic Assessment

Closely aligned with authentic teaching is the concept of authentic assessment. Authentic assessment focuses on evaluating not only what students know but also how they can apply their knowledge to real-world or professional contexts (Zhan et al., 2025). According to Sokhanvar et al. (2021), authentic assessment requires students to perform tasks that replicate the complexity of work or societal contexts, demanding the integration of knowledge, skills, and attitudes. This approach challenges traditional assessment practices, such as examinations, that often emphasise rote memorisation and recall of content knowledge.

The value of authentic assessment lies in its potential to strengthen the transferability of competences. For example, case studies, portfolios, simulations, and project-based tasks are increasingly used in higher education to assess students' ability to demonstrate professional judgement, problem-solving, and collaboration (Ashford-Rowe et al., 2014). These assessment approaches align with the global trend toward competency-based education, which seeks to ensure that graduates leave university with demonstrable capabilities that meet workplace expectations.

Closely linked to authentic learning is authentic assessment, which has become increasingly prominent in higher education reform. Zhan et al. (2025) define authentic assessment as an assessment that requires students to apply the same competencies, attitudes, and knowledge that they would need in professional practice. This differs significantly from traditional assessments, such as examinations, which primarily test recall and conceptual understanding. Instead, authentic assessment requires students to perform tasks that resemble those undertaken by practitioners in the field, such as preparing project reports, analysing claims, producing tender documentation, or presenting solutions to real construction management problems (Tahirsylaj & Sundberg, 2025).

The literature consistently highlights the pedagogical value of authentic assessment in supporting deeper learning and employability. For example, recent reviews found that authentic assessment strengthens workplace readiness by developing critical professional skills such as problem-solving, communication, and self-reflection (Sokhanvar et al., 2021). In the context of construction education, this is particularly important because many professional tasks require integration of technical knowledge with interpersonal and managerial competence. Project managers, quantity surveyors, and construction professionals must routinely interpret information, negotiate with stakeholders, manage risk, and make time-sensitive decisions (du Plessis & Holtzhausen, 2025).

2.3. Challenges in Implementing Authentic Pedagogy

Despite the recognised benefits, the literature also identifies several challenges in implementing authentic teaching and assessment. One key challenge is the tension between curriculum coverage and competence development (Zhan et al., 2025). Academics often face pressure to cover extensive disciplinary content while simultaneously embedding practical, applied learning experiences. Large class sizes, limited time, institutional assessment regulations, and accreditation requirements may further constrain innovation in teaching practice. This tension is especially evident in construction programmes, where professional accreditation standards may require coverage of broad technical content areas.

Another important issue emerging from the literature is the varying interpretation of what constitutes "authenticity." McArthur (2023) argues that authentic assessment should not become a superficial educational buzzword, but rather should meaningfully connect academic learning with work, society, and student well-being (Zhan et al., 2025). This perspective is particularly relevant in construction education, where authentic learning should not merely simulate workplace tasks, but should also foster ethical responsibility, sustainability awareness, and professional judgement.

Although the broader higher education literature on authentic learning is well established, there remains a relative scarcity of studies focusing specifically on authentic pedagogy in undergraduate construction education within the South African context. This study seeks to contribute to this gap by exploring how academics conceptualise and embed authentic teaching, learning, and assessment practices within construction-related modules.

While the broader higher education literature on authentic learning and assessment is well established, there remains limited research specifically focused on undergraduate built environment programmes in the South African context. There is a need to understand how academics within these disciplines conceptualise competence, authenticity, and professional readiness. This study addresses this gap by exploring academic perspectives on authentic teaching and learning within undergraduate built environment programmes.

3. Research Methodology

This study adopted a qualitative case study design to explore academics' perspectives on authentic teaching, learning, and assessment in undergraduate programmes. A qualitative approach was chosen because it enables the collection of in-depth insights into academics' lived experiences, pedagogical practices, and interpretations of competence within their teaching contexts (Creswell & Poth, 2018). The case study design allowed for a detailed investigation of authentic teaching practices at the University of KwaZulu-Natal (UKZN).

The participants comprised seven academics drawn from the Engineering and Land Surveying Disciplines in the School of Engineering. The academics had an average of 8 years of teaching experience in higher education, ranging from early-career lecturers to more senior staff. Purposive sampling was employed to select participants who had direct teaching responsibilities in undergraduate programmes and were therefore well-positioned to reflect on how competences were taught, learned, and assessed in their modules.

Data were generated through semi-structured interviews, which provided a flexible yet focused means of exploring academics' perspectives on authentic teaching and learning. Each interview lasted approximately 30 minutes and was conducted in person or via Zoom, depending on the participants' availability. The interview schedule included open-ended questions focusing on three main areas: (1) participants' understanding of authentic teaching, learning, and assessment; (2) strategies used to embed competences in undergraduate modules; and (3) perceived challenges and opportunities in implementing competence-oriented teaching. All interviews were analysed thematically. During the seventh interview, no substantially new themes or concepts emerged, indicating that thematic saturation had been reached. This approach is consistent with qualitative research guidance suggesting that saturation may occur within relatively small samples when participants share expertise related to a focused research question (Creswell & Poth, 2018).

Ethical principles relating to informed consent, confidentiality, and voluntary participation were observed throughout the study. Participants were informed of the purpose of the research and their right to withdraw at any stage without consequence. Institutional ethical clearance was obtained prior to data collection.

4. Findings and Discussion

The thematic analysis of the interviews yielded four interrelated themes that illuminate how academics in undergraduate construction programmes conceptualise and enact authentic teaching and learning. These themes are: (1) competence mapping and professional relevance, (2) authentic learning constraints, (3) assessment alignment and constructive coherence, and (4) reflective integration and pedagogical tensions (Figure 1).

The participant profile depicted in Table 1 demonstrates representation across multiple built environment disciplines and academic ranks.

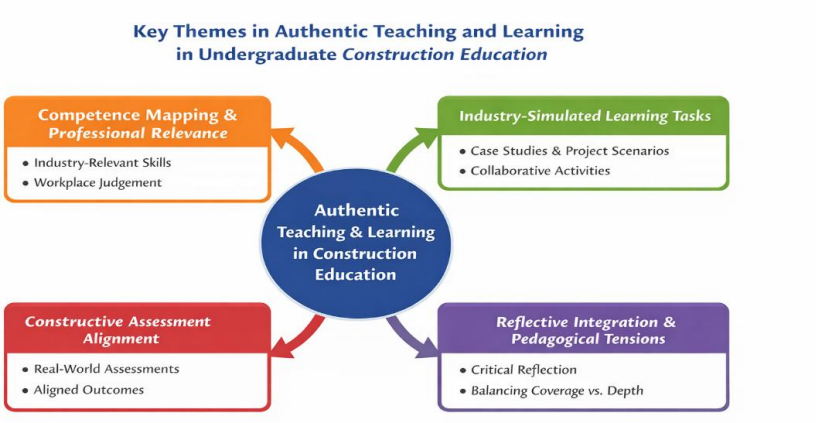

Figure 1: Key themes in authentic teaching and learning (Author's creation)

Table 1: Participant Profile

Participant	Discipline	Academic Rank	Years of Teaching Experience
P1	Civil Engineering	Associate Professor	15
P2	Agricultural Engineering	Lecturer	3
P3	Land Surveying	Associate Professor	12
P4	Chemical Engineering	Associate Professor	11
P5	Civil Engineering	Senior Lecturer	8
P6	Land Surveying	Lecturer	3
P7	Civil Engineering	Senior Lecturer	5

Theme 1: Competence Mapping and Professional Relevance

A dominant theme across the interviews was the recognition that undergraduate construction education must move beyond content transmission to deliberate competence development. Participants consistently emphasised that modules should prepare students for the practical realities of the construction industry, including decision-making, communication, and problem-solving.

Participant 2 explained, "*It is no longer enough for students to know the theory of project planning; they need to be able to use it in a way that mirrors what happens on site and in project meetings.*"

This perspective closely aligns with the findings from Villarroel et al. (2021), which posits that learning is most effective when embedded in contexts that resemble professional practice. Participants described competence not merely as technical mastery, but as the integration of disciplinary knowledge with workplace judgement.

Another academic noted: "*Our graduates must be able to read a situation, manage conflict between stakeholders, and still make decisions that keep the project moving*" (Participant 5).

This finding aligns with Geng, et al. (2025) framing of graduate attributes as capabilities that transcend disciplinary boundaries and with Oliver's (2013) emphasis on employability-oriented curriculum renewal. In the context of construction and project management education, these competencies reflect the sector's demand for graduates who can navigate risk, stakeholder interests, and project constraints.

The findings therefore suggest that academics increasingly view competence development as central to curriculum reform, consistent with broader higher education trends towards outcome-based and workplace-responsive education (Biggs & Tang, 2011).

Theme 2: Authentic Learning Constraints

While participants strongly endorsed the value of industry-simulated learning tasks, a consistent finding across the interviews was that the implementation of authentic learning is often constrained in practice. Academics expressed a clear understanding of what constitutes ideal authentic learning in construction education, yet highlighted structural, institutional, and contextual barriers that limit its full realisation.

Participants described the ideal authentic learning environment as one in which students engage directly with live or highly realistic construction scenarios over sustained periods. This would include working with real project documentation, interacting with industry stakeholders, and responding to evolving project conditions.

Participant 1 articulated this ideal: "*In a perfect situation, students would work on a live project from start to finish, engaging with real drawings, real contracts, and even real clients. That is where the real learning happens*."

Similarly, another noted, "*Ideally, we would simulate the full lifecycle of a construction project, where students must deal with procurement, delays, claims, and stakeholder pressures as they arise*" (Participant 4).

These descriptions align closely with the principles of authentic context (Herrington & Oliver, 2000), which emphasise learning through participation in real-world practices. However, participants consistently indicated that such approaches are not always feasible within the constraints of undergraduate programmes.

Time and Curriculum Constraints

A major limitation identified was the restricted time available within modules, which often necessitates prioritising content coverage over extended, complex tasks. "*We only have a 12-week semester. You simply cannot run a full project simulation and still cover all the required theory*" (Participant 3).

"*There is pressure to get through the syllabus, especially in technically heavy modules. That limits how 'authentic' you can really be*" (Participant 5). This reflects the well-documented tension between breadth and depth in curriculum design (Biggs & Tang, 2011), where the need to cover prescribed content constrains opportunities for immersive learning.

Class Size and Resource Limitations

Participants also highlighted large class sizes and limited resources as barriers to implementing authentic, interactive learning tasks. "*It is very difficult to manage detailed simulations when you have over a hundred students. You just don't have the capacity to give meaningful feedback*" (Participant 7).

"*Authentic tasks require time, engagement, and feedback. With large classes, it becomes more about managing logistics than facilitating learning*" (Participant 2). These findings align with the broader literature, which identifies workload and scalability as key constraints in the implementation of authentic assessment (Vlachopoulos & Makri, 2024).

Limited Industry Engagement

Another challenge is access to industry and real-world project data, which is essential for creating truly authentic learning experiences. "*We would love to use real project data, but companies are often reluctant to share due to confidentiality issues*" (Participant 6).

"*Without strong industry partnerships, it becomes difficult to create truly authentic scenarios; we end up relying on simplified case studies*" (Participant 1). This limitation restricts the extent to which students can engage with the complexity and unpredictability of real construction environments.

Student Preparedness and Cognitive Load

Participants further noted that students may not always be ready for highly complex, ill-defined tasks, particularly at lower levels of study. "*First- and second-year students often struggle with open-ended tasks. They want clear answers, not ambiguity*" (Participant 4).

"*You have to scaffold authenticity. If you throw students into a fully complex scenario too early, they become overwhelmed*" (Participant 3). This highlights the importance of scaffolding within authentic learning design, ensuring that complexity is introduced progressively (Herrington & Oliver, 2000).

The findings suggest that while academics value authentic learning, they are often engaged in a process of negotiation between the ideal and the practical. Rather than fully immersive simulations, many adopt "bounded authenticity", where elements of real-world practice are incorporated within manageable constraints.

Importantly, the findings reinforce that authentic learning in construction education should not be viewed as an all-or-nothing approach. Instead, it exists along a continuum, where even partial integration of real-world tasks can contribute meaningfully to competence development.

Theme 3: Assessment Alignment and Constructive Coherence

The third theme focused on how assessment practices either support or hinder competence development. Participants consistently argued that traditional assessment approaches were inadequate for evaluating workplace competence. While all seven participants supported authentic assessment in principle, there was disagreement about how deeply authenticity should be embedded in the assessment design.

Several participants expressed concern that examinations continue to dominate assessment structures, despite industry demand for applied competencies. Participant 1 explained: "A student can achieve 80% in an examination and still struggle to apply that knowledge when faced with a real project problem." Similarly, Participant 4 noted: "The issue is that examinations measure what students remember, but they do not necessarily measure how they think as future construction professionals."

Participants described attempting to incorporate authentic assessment tasks such as project reports, tender evaluations, dispute analyses, and stakeholder presentations. However, many indicated that institutional moderation requirements and large student numbers often constrained the complexity of these assessments.

Interestingly, participants reported an ongoing tension between assessing technical knowledge and assessing professional judgement. While technical competence was viewed as relatively straightforward to evaluate, professional judgement was perceived as subjective and therefore more difficult to assess reliably.

This suggests that authentic assessment in construction education involves balancing reliability and standardisation against the need to evaluate complex workplace competencies.

This theme emphasises coherence between outcomes, teaching activities, and assessment (Biggs & Tang, 2011). However, participants also highlighted institutional barriers. Participant 7 noted: "*Sometimes the university system still pushes us towards traditional exams because they are easier to administer at scale*." This tension reflects a recurring issue in the literature. Vlachopoulos and Makri (2024) note that while authentic assessment is widely advocated, implementation is often constrained by workload, standardisation requirements, and class size. The findings therefore suggest that while academics recognise the value of authentic assessment, systemic constraints may limit full alignment.

Theme 4: Reflective Integration and Pedagogical Tensions

The final theme concerns the reflective dimension of authentic teaching and the tensions academics face in balancing professional relevance with curriculum coverage. Participants frequently described themselves as operating between two worlds: the university and the construction industry.

Participant 7 observed: "Industry wants graduates who can hit the ground running, but universities are expected to produce thinkers, not just practitioners." Participants repeatedly referred to the challenge of "covering content" while also developing applied competence. Participant 5 explained, "*There is always this tension between teaching what the syllabus requires and creating space for deeper applied learning.*"

This reflects a well-documented challenge in higher education pedagogy (Biggs & Tang, 2011). In construction education, where programmes often need to satisfy professional accreditation requirements, this tension may be particularly acute.

Reflection was also viewed as an important learning mechanism. "*We encourage students to justify why they made a project decision, not just what decision they made*" (Participant 2). This aligns with authentic learning principles of reflection and articulation (Herrington & Oliver, 2000). Reflective activities help students develop professional judgement, which is critical in construction management.

Several participants argued that reflective activities help students develop professional judgement, ethical awareness, and decision-making capabilities that are difficult to cultivate through traditional teaching methods. However, participants acknowledged that students frequently resist reflective tasks because they perceive them as less important than technical content.

McArthur (2023) further argues that authentic assessment should support students' well-being, identity, and societal relevance rather than merely serve as a workplace simulation. This broader view is relevant in construction education, particularly in relation to sustainability, ethics, and social responsibility.

Collectively, the findings suggest that authentic teaching and learning in undergraduate construction programmes are increasingly framed around competence development, workplace simulation, and aligned assessment.

5. Contribution to Knowledge

This study contributes to the growing body of scholarship on authentic teaching and learning in construction education in three ways. First, the study extends existing authentic learning literature by demonstrating that authenticity in construction education exists on a continuum rather than as a binary condition. While the literature often presents authentic learning as the replication of workplace environments (Herrington & Oliver, 2000), the findings reveal that academics operate within significant institutional constraints that prevent full immersion in industry. Consequently, academics selectively embed workplace-relevant experiences through simulations, case studies, project-based learning, and authentic assessments. This paper conceptualises this phenomenon as bounded authenticity, whereby authentic learning is intentionally adapted to fit institutional realities while maintaining professional relevance.

Second, the study contributes empirical evidence from the South African construction education context, an area that remains underrepresented in the international authentic learning literature. While much of the existing scholarship originates in North America, Europe, and Australia, this study provides insights into how authentic pedagogies are interpreted and implemented in a developing economy characterised by resource constraints, large student cohorts, and significant challenges in graduate employability.

Third, the study advances understanding of the relationship between competence development and curriculum design within undergraduate construction programmes. The findings demonstrate that authentic teaching, learning, and assessment are most effective when deliberately aligned with professional competencies rather than treated as isolated pedagogical interventions. This reinforces the importance of constructive alignment in preparing graduates for increasingly complex construction environments.

6. Conclusion and Further Research

This paper explores how authentic teaching and learning are conceptualised and implemented within undergraduate construction-related programmes, with a particular focus on competence development and workplace readiness. Located within the broader discourse of curriculum reform in higher education, the study responded to the growing need for construction graduates who can transfer disciplinary knowledge into complex professional settings characterised by uncertainty, collaboration, and real-time decision-making.

The findings demonstrate that academics increasingly recognise the importance of moving beyond content transmission towards deliberate competence development. Authentic learning activities such as live case studies, project simulations, collaborative tasks, and workplace-oriented assessments were viewed as effective mechanisms for preparing students for the realities of construction and project management practice. These approaches were found to support not only technical competence, but also professional judgement, teamwork, communication, and decision-making skills that are essential for workplace transition.

At the same time, the study identified significant structural and pedagogical challenges. Tensions between syllabus coverage and deep applied learning, institutional reliance on traditional assessment formats, and varying academic interpretations of authenticity may limit the full implementation of authentic pedagogies. These findings reinforce the need for deliberate curriculum alignment and academic development initiatives that support lecturers in designing learning experiences that closely mirror professional practice.

Based on the findings of this study, it is recommended that construction-related programmes adopt a more explicit competence-mapping approach, in which professional capabilities such as project planning, risk management, and contractual reasoning are

intentionally embedded across modules and levels of study. Learning outcomes should clearly articulate both disciplinary knowledge and workplace-oriented competencies.

Academics should be encouraged to integrate more industry-simulated and problem-based learning tasks into undergraduate modules. These may include live case studies from construction projects, project scheduling exercises, risk management workshops, tender and procurement documentation tasks and stakeholder negotiation scenarios.

Assessment strategies should move beyond predominantly traditional examinations towards authentic assessment methods that better evaluate workplace readiness, such as construction claims analysis, reflective learning portfolios and group-based project simulations.

Further research should extend this study by incorporating student perspectives on authentic learning experiences within construction programmes. Understanding how students experience and interpret authentic tasks will provide a more holistic view of curriculum effectiveness.

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