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Re-Modelling Built Environment Education to Mitigate Work–Study Conflict Challenges

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Abstract

This study investigates how Built Environment (BE) education in Australian universities can better support student well-being and academic success. Using a mixed-methods design, survey data from 253 students across multiple institutions were analysed by integrating quantitative measures of stress, performance, and mental health with qualitative accounts of student-driven solutions. The diversity of the sample enhances the representativeness of the findings across the BE student cohort. Results confirm significant work–study pressures but, more importantly, identify novel pathways for reform, including curriculum flexibility, stronger industry–academic integration, and accessible support services. To address these gaps, the study introduces the INSPIRE Framework—a holistic, student-centred model that embeds flexibility, resilience, and institutional empathy into BE pedagogy. By filling a critical gap in the literature on student well-being in professional disciplines, the framework offers practical guidance for universities seeking to design more inclusive and sustainable learning environments.

Keywords: built-environment education; work–study conflict; student well-being; sustainable higher education; INSPIRE framework

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1. Introduction

Australian universities have increasingly promoted the integration of academic study with practical industry experience to enhance graduate employability by combining theoretical knowledge with workplace-ready skills [1]. While this model strengthens academia–industry collaboration and ensures curricula align more closely with workforce needs [2], it also places students under significant pressure to balance employment and study. These competing demands have been linked to rising rates of stress, burnout, and mental health issues across higher education [3]. Recent evidence shows that approximately 15% of Australian university students drop out in their first year, with mental health challenges being a major contributing factor [4]. Although such concerns are widespread across disciplines including nursing, engineering, and agriculture, emerging evidence suggests that Built Environment (BE) students are disproportionately affected due to the nature of their work–study interface [5].

Built Environment (BE) students encompassing construction management, building design, architecture, civil engineering, and related fields, often engage directly with the construction industry while studying. The industry's long working hours, tight project

deadlines, and high-risk environments exacerbate already demanding academic requirements, leading to burnout and poor well-being outcomes [6,7]. Burnout symptoms such as emotional exhaustion and reduced personal accomplishment are frequently compounded by anxiety, depression, and physical health issues, contributing to underperformance, withdrawal, and higher attrition rates compared with other disciplines [8,9]. In addition to work and academic demands, financial stress, limited leisure, and unstable living conditions further intensify these [9].

While prior research has made important contributions to documenting these issues, much of it has remained descriptive, focusing on prevalence rather than solutions. For example, Lingard [10] analysed relationships between paid work, burnout, and student satisfaction, while Jia et al. [11] examined links between burnout and attrition in architecture students. Moore and Loosemore [6] and Loosemore et al. [7] highlighted the high prevalence of burnout and depression in BE cohorts, and more recent studies [8] have examined resilience and coping mechanisms. Importantly, Turner et al. [8] conducted a multi-country exploration, providing insights into the challenges and coping strategies faced by students across diverse educational contexts beyond Oceania. Collectively, this body of work underscores the severity of the problem but pays limited attention to how pedagogical frameworks and educational design could actively mitigate work–study conflict.

This study addresses that gap by adopting pedagogy as a critical lens for intervention. By exploring how BE education can be restructured to align more closely with students' lived realities, it investigates strategies to reduce work–study conflict, support mental health, and improve academic outcomes. Guided by the central research question 'How can Built Environment education and pedagogy be remodelled to mitigate the challenges of work-study conflict?' the study contributes both theoretically and practically. Theoretically, it extends the literature on student well-being by conceptualising work–study conflict as a pedagogical challenge rather than solely an individual or institutional problem. Practically, it offers an actionable framework for universities to design curricula and support systems that enhance resilience, reduce attrition, and promote long-term student success.

2. Literature Review

The growing recognition of the importance of holistic development in education has led to the emergence of well-being-centred education and pedagogy as a significant focus in contemporary research and practice. Moving beyond traditional academic goals, this approach emphasises the nurturing of emotional, social, physical, and cognitive well-being to support students' overall flourishing. Rooted in humanistic theories and positive psychology, well-being-centred education seeks to create supportive learning environments where learners can thrive both personally and academically. This literature review explores the theoretical foundations, key components, and implementation strategies and challenges, highlighting its transformative potential for next-generation learning.

2.1. The Concept of Well-Being-Centred Education and Pedagogy

The concept of well-being-centred education and pedagogy has gained prominence as educational institutions increasingly prioritise the holistic development of learners. This approach recognises that true educational success extends beyond academic performance to encompass emotional, social, and physical dimensions of student growth. By fostering emotional intelligence, social skills, and a sense of self-awareness, well-being-centred education prepares students not just for academic success but also for personal and professional fulfilment [12]. Research consistently demonstrates that students who experience well-being-focused learning environments are more likely to achieve better academic outcomes, demonstrate higher levels of motivation, life-long learning, and exhibit greater emotional

stability [13]. These environments cultivate resilience, empathy, and self-efficacy, which are qualities increasingly viewed as essential for thriving in a complex, rapidly changing world.

Well-being-centred pedagogy is not merely an add-on to traditional instruction; it redefines educational priorities by placing the learner's overall flourishing at the heart of teaching and learning processes. In doing so, it shifts the focus from solely knowledge transmission to the nurturing of empowered, self-regulated individuals capable of contributing positively to society [14]. The integration of well-being into education involves various strategies and models designed to create supportive, inclusive learning environments and foster positive psychological outcomes. Positive psychology, introduced by Seligman [15], further underpins this pedagogy by highlighting the importance of nurturing positive emotions, engagement, relationships, meaning, and achievement (PERMA). Frazier and Doyle Fresco [16] introduced the PRICES framework (Preparation and Access, Restoration, Integration, Connection and Community, Educator Support, Strengths-Based Cultivation and Student Voice) as a comprehensive method for implementing social and emotional learning (SEL) programs in educational systems. The PRICES model advocates for a well-rounded education that cultivates students' social and emotional growth in addition to their academic success. Together, these theories emphasise that education should aim to develop the 'whole person,' supporting students' pursuit of a fulfilling, purpose-driven life.

2.2. Key Components of Well-Being-Centred Education

A comprehensive well-being-centred education framework encompasses multiple interconnected dimensions that support the holistic growth of students. Recognising that emotional, social, physical, academic, and existential needs collectively influence learners' experiences, educators are increasingly adopting strategies holistically support each of these dimensions [17]. By addressing these key components, universities can create environments where students not only excel academically but also develop resilience, purpose, and a lifelong capacity for well-being [16]. This section explores the critical elements that underpin well-being-centred education and highlights how each dimension contributes to the overall development of learners.

Emotional Well-Being: Universities play a critical role in helping students recognise, understand, and manage emotions. Emotional well-being is often intertwined with socio-emotional learning (SEL), which includes skills such as self-awareness, self-regulation, social awareness, responsible decision-making, relationship skills, and empathy [16]. These competencies are essential for fostering a supportive learning environment and promoting students' holistic development [18]. Emotional intelligence, a key aspect of emotional well-being, refers to the ability to recognise and manage one's emotions and those of others, which has been linked to improved academic achievement and psychological well-being [19]. Programs such as those inspired by Goleman [20] on emotional intelligence have shown significant benefits, enabling students to navigate stress, foster resilience, and build positive interpersonal relationships. Educators play a vital role in promoting emotional well-being in the classroom. Emotion coaching approaches and mindfulness practices help create emotionally safe learning spaces where students feel understood and supported [21]. Technology has emerged as a valuable tool in promoting emotional well-being. Digital tools and personalised learning platforms [22] can enhance the implementation of SEL programs, making them more accessible and effective. At the same time, recent educational trends, such as visions aligned with Education 5.0, emphasise prioritising people and students over technologies and pedagogical tools, ensuring that innovations remain human-centred and supportive of holistic development [23].

Social Well-Being: In university education for the built environment disciplines, social well-being is essential for fostering engagement, collaboration, and professional skill devel-

opment. Creating inclusive, supportive, and collaborative learning environments reflects the teamwork-oriented nature of fields like architecture, construction management, and urban planning. Cooperative learning models [24] are particularly valuable, encouraging mutual respect, communication, and a sense of belonging. Group projects, design studios, and interdisciplinary learning activities offer opportunities to build these skills while enhancing students' emotional resilience and interpersonal competencies [25]. Efforts to strengthen social well-being, such as peer mentoring programs, student societies, and anti-bullying initiatives, help students form meaningful connections and navigate university life more successfully. Research shows that strong social connectedness improves student engagement, self-esteem, and retention rates [26]. In built environment education, fostering inclusive learning cultures is particularly important for promoting diversity and creativity, as collaboration across different backgrounds can lead to more innovative and effective professional outcomes [27]. Developing social well-being within university settings thus prepares students not only for academic achievement but also for collaborative success in their future careers.

Physical Well-Being: In well-being-centred university education for built environment students, physical well-being is a vital aspect that supports both academic and personal success. Regular physical activity enhances physical health, cognitive function, emotional regulation, and concentration, all of which are crucial for managing the demands of intensive project-based learning [28]. Although movements like "Active Schools" originated in earlier education, universities are increasingly recognising the value of encouraging physical activity through access to recreational facilities, active transport options, and wellness programs. For built environment students, whose studies often involve long studio hours and site work, these initiatives can help sustain energy, reduce stress, and improve academic performance [29]. Supporting physical well-being also involves promoting good nutrition, sleep hygiene, and stress management. Research highlights that poor diet and sleep deprivation are widespread among university students and negatively impact mood, cognition, and resilience [30]. Built environment programs, with their heavy workloads and deadlines, make attention to these factors particularly important. By embedding health promotion activities such as nutrition workshops and flexible scheduling, universities can better equip students with sustainable habits that enhance both their academic outcomes and their preparedness for the professional demands of the construction and design industries.

Academic Well-Being: Academic well-being is a crucial component of well-being-centred education, emphasising students' positive engagement with the learning process. Given the interdisciplinary and often demanding nature of built environment programs, fostering academic well-being is critical to sustaining motivation and performance. Personalised learning approaches such as flexible studio-based learning, differentiated assessment tasks, and project-based work, help students align their academic experiences with their professional interests and strengths [31,32]. Goal-setting techniques, especially when integrated into reflective practice or portfolio development, enhance students' self-regulation and resilience [33]. Moreover, incorporating mindfulness and stress-reduction practices can support students in managing the high workload and performance expectations often associated with design critiques and technical assessments [34]. Encouraging a growth mindset [35] within learning environments, particularly in iterative design processes, helps students reframe feedback and challenges as opportunities for improvement rather than personal failure. By embedding these strategies into teaching and curriculum design, universities can foster academic confidence, reduce anxiety, and support sustainable academic engagement in built environment education.

Purpose and Meaning: Purpose and meaning is an increasingly recognised dimension of well-being-centred education, particularly relevant in university programs where students grapple with complex social, environmental, and technical challenges. Helping students cultivate a sense of purpose in their academic journey involves aligning their personal values, aspirations, and interests with their chosen field of study; be it architecture, urban planning, construction management, or sustainability. Purpose-driven education promotes intrinsic motivation by demonstrating how learning can contribute to broader societal and environmental goals [36]. In the context of built environment disciplines, engaging students in real-world projects, community-based design, and sustainability-oriented challenges enhances the meaningfulness of their academic work [37,38]. Positive education research highlights that students who view their academic efforts as purposeful tend to show increased perseverance, resilience, and life satisfaction [39]. When built environment programs provide opportunities for students to reflect on their role as future change agents, such as through design studios focused on social impact or climate resilience, it strengthens their academic identity and long-term engagement. Embedding purpose and meaning within the curriculum can thus play a pivotal role in supporting student well-being, retention, and professional fulfilment.

Incorporating emotional, social, physical, academic, and purpose-driven dimensions into education fosters a balanced and supportive learning environment that promotes student flourishing. Each component plays a vital role in shaping students' capacity to manage challenges, build meaningful relationships, maintain physical health, pursue academic goals, and find personal fulfilment. Together, these elements form the foundation of a well-being-centred pedagogy, affirming that holistic development is essential for preparing students to thrive both within and beyond the classroom.

2.3. Implementation Strategies in Well-Being Centred Education

To foster well-being in education effectively, implementation must move beyond isolated initiatives to become a systemic and sustained part of institutional practice. In university-level built environment programs, where students often engage in demanding, project-based learning, embedding well-being-centred strategies is essential for supporting academic engagement, emotional resilience, and professional identity development. The following key implementation strategies provide a multi-dimensional approach to achieving this goal.

Well-Being Centred Curriculum Design: A well-being-centred curriculum is designed to intentionally and systematically incorporate emotional, social, and ethical dimensions into academic learning, making well-being an integral part of educational outcomes rather than a peripheral concern. Core elements of such a curriculum may include resilience training, mindfulness practices, health promotion, social-emotional learning (SEL), and ethical literacy, all of which contribute to students' personal and professional growth [40]. Embedding these components across disciplines enhances students' ability to manage stress, build interpersonal relationships, and develop a strong sense of moral and civic responsibility. For example, integrating environmental ethics into sustainability units or addressing mental health awareness within construction project management courses enables students to apply emotional intelligence and ethical reasoning to real-world challenges. This approach fosters holistic learning and prepares students to navigate complex social and environmental issues within their future professions. Research has shown that SEL interventions, when systematically incorporated into educational contexts, lead to improved academic performance, better emotional regulation, and long-term wellbeing [41]. Furthermore, when students perceive their learning environment as supportive and aligned with their values, they are more likely to experience motivation, engagement, and a sense

of purpose [42]. Thus, interdisciplinary integration of well-being content not only enriches academic development but also nurtures the psychological and emotional competencies essential for thriving in both university and professional life.

Educator Well-Being: Educators play a foundational role in modelling and embedding well-being within the learning environment, especially in high-pressure disciplines like architecture, construction, and the built environment. Effective professional development focused on social-emotional learning (SEL) competencies, trauma-informed pedagogy, and educator self-care can empower educators to create psychologically safe, supportive classrooms [43]. Given the intense, critique-driven nature of studio-based learning and tight project deadlines common in the built environment education, prioritising staff well-being is essential to prevent burnout and sustain student engagement. When educators are emotionally resilient and feel supported, they are more likely to demonstrate empathy, manage classroom dynamics effectively, and foster persistence and motivation among their students [44]. Cultivating educator well-being is not only beneficial for individual staff but is also a critical enabler of whole-institutional well-being.

Whole-School Approaches: Implementing a whole-school approach to well-being ensures consistency and coherence across all dimensions of the student experience, from academic structures to institutional policies and social environments. Frameworks such as Positive Education advocate for the intentional integration of well-being practices, including character strengths development, mindfulness, and positive interpersonal relationships into everyday educational practices [15,45]. (In the university context, this may include inclusive and supportive design/tutorial studio cultures, accessible mental health resources, restorative approaches to academic integrity, and leadership strategies that prioritise student voice and psychological safety [46]. Built environment faculties can further embed well-being by designing collaborative spaces that encourage community, promoting feedback cultures grounded in growth, and offering curriculum flexibility that accommodates diverse student needs [47,48]. When well-being is embedded holistically, it fosters a climate of belonging, engagement, and long-term academic and personal success.

Community Engagement: Although university students exhibit greater autonomy than their school-aged counterparts, engaging their wider social networks, such as alumni, peers, and industry mentors, remains a vital strategy in promoting student well-being [48]. Built environment programs are uniquely positioned to foster such engagement through collaborative, practice-based learning experiences [49]. Partnerships with community organisations, professional associations, and local councils can provide students with access to mentoring, industry perspectives, and wellness-oriented initiatives that enhance both professional identity and emotional support [50]. Research conducted by Lin and Zainudin [51] highlights that community and family involvement, even at the tertiary level, enhances students' emotional competence, motivation, and resilience. These connections not only help students contextualise their academic learning but also cultivate a sense of meaning and purpose in their educational journey. Additionally, co-created projects with community partners offer powerful opportunities for experiential learning, helping students to apply their skills while contributing to society, reinforcing the intrinsic link between professional success and personal well-being.

Implementing well-being-centred education requires coordinated efforts across curriculum, educator support, institutional practices, and community partnerships. For students in built environment disciplines, where the pressure of academic and professional expectations can be particularly acute, these strategies create a foundation for both personal and academic growth. A holistic approach ensures that well-being is not treated as peripheral, but rather as a core element of educational success and lifelong development.

2.4. Research Gap

The literature highlights that a well-being-centred approach encompassing emotional, social, physical, academic, and purpose-driven dimensions provides a strong foundation for fostering students' holistic development. In built environment programs, where students often navigate high workloads, intensive projects, and competing personal and professional commitments, the need for such a framework becomes especially critical. However, while theoretical models and institutional strategies have been widely discussed, less empirical work has explored how students themselves perceive the support they need from universities and workplaces to manage work–study conflict effectively. To bridge this gap, the present study captures student voices on actionable measures that institutions and employers can implement. By drawing directly from student experiences and insights, the research seeks to align well-being-centred educational strategies with the lived realities of those balancing academic, work, and personal pressures, ultimately informing the design of targeted interventions that promote sustainable well-being and academic success.

3. Research Method

This study employed a mixed-methods design, integrating survey-based quantitative data with qualitative insights from open-ended responses. The quantitative component allowed to capture the prevalence and patterns of work–study conflict, burnout, and associated outcomes across a diverse sample of BE students. The qualitative component provided depth by revealing student perspectives on the challenges they face and their proposed solutions. This design is well suited to the research question, as it not only establishes the scale of the problem but also identifies actionable, student-informed strategies. By combining breadth with depth, the approach ensures that the proposed pedagogical framework is both evidence-based and grounded in lived student experiences. The questionnaire included the following sections:

1. *Student Course and Demographic Information:* This section collected data on course-related details (e.g., course name, year of study, modules per semester, study mode) and student demographics (e.g., age, gender, local/international status, employment status).
2. *Academic and Work-Related Stressors:* This section assessed students' experiences of academic and work-related stressors, using a Likert scale (never, rarely, sometimes, often, always).
3. *Effects on Well-Being and Academic Performance:* This section evaluated the impact of these stressors on students' well-being and academic performance using a similar 5-point scale.
4. *Recommendations for Remodelling BE Education:* This section asked students to provide suggestions on how universities could reduce stress and improve academic performance.

The first section gathered essential background information about the participants. The second section identified the specific stressors faced by students. The third section measured the effects of these stressors on their well-being and academic performance. Finally, the fourth section collected actionable recommendations from students on how to alleviate stress and enhance academic outcomes. The second and third sections were crucial for understanding the challenges faced by BE students and ensuring that the responses to the final section were informed and relevant.

The instrument was developed by composing items from previously validated scales and questionnaires used in past research on student well-being and work–study conflict [52,53]. These sources have demonstrated reliability and validity in similar contexts, which informed our selection and adaptation of items. Additionally, we confirm that all ethical protocols were followed in the conduct of this research. This includes obtaining

ethics approval from the authors' institutions research ethics review board and ensuring informed consent from all participants.

3.1. Survey Administration and Participants

An online questionnaire survey was administered between July and October 2024, coinciding with the academic semester, and was directed at undergraduate students enrolled in built environment disciplines at Australian universities. Academic schools delivering these programs were formally approached to assist in circulating the survey among their students. In total, 379 responses were collected, with 253 fully completed and suitable for analysis. Based on Louangrath's guideline [54], which recommends a sample size between 30 and 200 for social science research involving Likert scale data, this study's valid responses surpass the suggested range. The validity of a response rate of 66.8% is further reinforced by findings from Kusmaryono [55]. Reliability and validity were further supported through the use of established survey instruments, pilot testing, and triangulation with qualitative data. Ethical approval was obtained from the authors' university Human Research Ethics Committee, with informed consent, voluntary participation, and confidentiality safeguards maintained throughout the study.

Table 1 presents an overview of the socio-demographic and course-related characteristics of the survey participants. Around 75% of respondents were under the age of 24, suggesting they were likely employed in entry-level roles such as cadetships or internships, while older students were more commonly balancing full-time work and family commitments. Female students comprised a larger share of the sample, reflecting an upward trend in female enrolment in built environment courses, which may contribute to greater gender diversity in the future workforce. The majority of participants were domestic students, with international students proportionally represented in line with typical enrolment figures. Approximately half of the respondents were in their second or third year of study, while first- and final-year students each accounted for about a quarter of the sample, ensuring a well-rounded distribution across academic stages.

Table 1. Survey participants.

Factor	Category	Frequency	Percent
Age	18–24	187	73.9
	25–34	43	17.0
	35–44	14	5.5
	45 and above	9	3.6
Gender	Male	106	41.9
	Female	144	56.9
	Non-binary/third gender	2	0.8
	Unspecified	1	0.4
Student type	Domestic student	218	86.2
	International student	35	13.8
Study level	1st year	57	22.5
	Mid years	123	48.6
	Final year	73	28.9

Table 1. *Cont.*

Factor	Category	Frequency	Percent
Modules studied per semester	1	12	4.7
	2	36	14.2
	3	77	30.4
	4	121	47.8
	5 or more	7	2.8
Assignments submitted per subject	1	6	2.4
	2	29	11.5
	3	133	52.6
	4 or more	85	33.6
Study mode	Face-to-face	114	45.1
	Online	37	14.6
	Hybrid	102	40.3
Hours worked weekly	0 h	30	11.9
	Up to 20 h	65	25.7
	20–30 h	60	23.7
	30–40 h	55	21.7
	More than 40 h	43	17.0
Tuition fee payment method	Scholarship	9	3.6
	Earn and pay	39	15.4
	Family support	33	13.0
	Study loan	159	62.8
	Pay from savings	13	5.1
Living expenses funding source	Scholarship	1	0.4
	Family support	88	34.8
	Pay from savings	17	6.7
	Earn and pay	147	58.1

In terms of study load, 50% of students were enrolled in four subjects per semester, one-third in three subjects, and the remainder in one or two, indicating varied academic commitments. Most students reported completing three to four assignments per subject, suggesting a typical full-time academic workload. The majority engaged in either face-to-face or hybrid learning modes. Weekly work hours were varied, with roughly equal proportions working up to 20, between 20–30, and 30–40 h. A small subset worked over 40 h, often combining part-time study with a reduced subject load. Financially, about two-thirds relied on student loans to cover tuition, and a similar proportion worked to meet living costs. A smaller group (approximately 15%) financed both tuition and living expenses independently, likely international students.

3.2. Analysis Techniques

The dataset was pre-processed to achieve two main objectives: re-coding Likert scale responses and addressing missing data. For quantitative analysis, Likert responses were converted to numerical values, with “never” coded as 1, “rarely” as 2, “sometimes” as 3,

"often" as 4, and "always" as 5. The 253 valid survey responses were then reviewed for missing data, which appeared to be randomly distributed across some variables. Managing missing data is critical to ensure the validity and accuracy of the analysis. To address this, the Expectation Maximisation (EM) method was employed, as it is widely regarded as a robust approach for imputing missing values [56]. EM was chosen for its proven effectiveness and because it is readily accessible and straightforward to implement within SPSS Version 29.

To address the study's objectives, a mixed-methods approach was adopted, incorporating both quantitative and qualitative analyses. Initially, quantitative data on academic and work-related stressors, psychological well-being, and academic performance were examined using measures of central tendency, specifically mean and standard deviation. Subsequently, qualitative thematic analysis was conducted on open-ended responses to identify recurring themes and generate insights aimed at enhancing built environment education and pedagogical practices.

4. Findings

This section outlines the findings of the data analysis, structured under thematic subheadings to enhance clarity and maintain a focused presentation of results.

4.1. Work–Study Conflict Stressors

Table 2 presents descriptive statistics for the academic and work-related stressors experienced by built environment (BE) students. The variables included in the table were derived from a comprehensive questionnaire composed of items adapted from previously validated instruments used in studies on student stress and well-being. These items were grouped into two categories: Academic Stressors and Work Stressors, based on their contextual relevance and alignment with existing literature.

Table 2. Stressors.

Variable	Mean	Std. Dev.
Academic stressors:		
Self-imposed high-performance expectations	4.13	0.943
Fear of academic underperformance	3.94	1.033
Heavy academic workload	3.74	0.961
Exam anxiety	3.55	1.173
Inadequate time for studies due to work	3.47	1.010
Group assignment challenges	3.31	1.084
Dissatisfaction with current performance	3.11	1.218
Anxiety around assignment presentations	3.03	1.278
Difficulty finding learning resources	2.98	0.947
Difficulty understanding assessment expectations	2.97	0.940
Challenges in understanding subjects or pre-recorded content	2.92	0.924
Challenges in adapting to different learning styles	2.77	0.922
Insufficient lecturer support for academic challenges	2.68	1.114
Difficult administrative processes	2.67	1.244
Conflict with peers	1.98	0.929

Table 2. *Cont.*

Variable	Mean	Std. Dev.
Work stressors:		
Difficulty juggling study and work commitments	3.73	1.053
Study demand conflicts with work responsibilities	3.33	1.190
Excessive workload	3.22	1.145
Excessive time pressure	3.09	1.237
Uncertainty about the career relevance of education	2.98	1.284
Uncertainty about post-graduation career opportunities	2.90	1.339
Skills underuse or unrealistic expectations in the job	2.70	1.131
Inflexible work schedule	2.51	1.259
Low pay relative to workload	2.29	1.256
Job insecurity	2.21	1.156
Lack of workplace support for academic commitments	2.18	1.233
Insufficient knowledge to perform work effectively	2.05	1.029
Low team and management support	1.99	1.032
Poor interpersonal relationships at work	1.85	0.975
Workplace harassment and bullying	1.40	0.760

Academic stressors refer to pressures directly associated with university life, learning environments, and academic expectations. These include internal factors such as 'self-imposed high-performance expectations' and 'fear of academic underperformance', as well as external academic demands like 'heavy workload, exam anxiety, and group assignment challenges'. The item 'inadequate time for studies due to work' was also classified as an academic stressor, as it reflects the impact of external commitments on academic engagement.

Work stressors, on the other hand, encompass challenges arising from students' employment contexts. These include difficulty juggling study and work commitments, study demand conflicts with work responsibilities, excessive workload, excessive time pressure, and uncertainty about the career relevance of education. Although some items such as 'poor interpersonal relationships', could theoretically span both domains, classification was based on the framing of the item within the survey and its primary context. For example, 'poor interpersonal relationships' was presented in the context of workplace dynamics and therefore classified as a work stressor.

This classification approach ensures clarity in interpreting the stressors and supports the analysis of how academic and employment pressures interact to affect student well-being. Among the 15 academic stressors listed in the survey, the top five stressors reported by students are as follows:

- Self-imposed high-performance expectations
- Fear of academic underperformance
- Heavy academic workload
- Exam anxiety
- Inadequate time for studies due to work
- Group assignment challenges

The top two stressors, self-imposed expectations of high achievement and anxiety about underperformance, are internal factors commonly experienced by students. Group

assignments represent the second most significant stressor, while lack of time due to work is rated as a third-order stressor, although it is still ranked higher than the other nine stressors.

Similarly, among the 15 work-related stressors listed in the survey, the top five stressors identified by students are as follows:

- Difficulty juggling study and work commitments
- Study demand conflicts with work responsibilities
- Excessive workload
- Excessive time pressure
- Uncertainty about the career relevance of education

The academic and work stressors identified in this study are not isolated; rather, they form a complex web of interrelated pressures that compound students' experiences of stress. For example, 'inadequate time for studies due to work' directly contributes to 'fear of academic underperformance' and 'exam anxiety', as students struggle to allocate sufficient time for preparation. Similarly, 'difficulty juggling study and work commitments' and 'study demand conflicts with work responsibilities' reinforce each other, creating a cycle of time pressure and reduced academic focus. Group assignment challenges may be exacerbated by poor interpersonal relationships in the workplace, especially when students carry emotional strain from one domain into another. Furthermore, 'uncertainty about the career relevance of education' can heighten both academic and professional stress, as students question the value of their efforts in either sphere.

Given the research aim to explore how educational frameworks and pedagogical strategies could be redesigned to reduce work–study conflict and its associated challenges, these findings highlight critical areas for intervention. The internal pressures of self-expectations and anxiety about underperformance, combined with external demands such as group assignments and time constraints, highlight the need for holistic strategies that address both personal and academic challenges. Furthermore, the interrelated nature of work-related stressors suggests that effective solutions must consider the broader context of students' lives, including their employment and future career concerns. Addressing these interconnected stressors can lead to more comprehensive and effective strategies for reducing student stress and improving academic performance.

4.2. Well-Being of BE Students

The well-being of built environment (BE) students was evaluated using the Depression Anxiety Stress Scale 8 (DASS-8 scale) developed by Ali [57], which comprises eight items: two related to stress, three to anxiety, and three to depression. The scale provides symptom severity classifications based on the total score. For consistency with this study's 5-point Likert scale (as opposed to the original 0–3 scale), the severity thresholds were adjusted accordingly:

- Stress: Normal (1–3), Moderate (4–6), Severe (7–10)
- Anxiety: Normal (1–5), Moderate (6–10), Severe (11–15)
- Depression: Normal (1–5), Moderate (6–10), Severe (11–15)

Table 3 shows the descriptive statistics of wellbeing symptoms. The results reveal that BE students report severe levels of stress and moderate symptoms of anxiety and depression, largely linked to the challenge of juggling academic and employment demands.

Table 3. Wellbeing symptoms.

Wellbeing Symptom	Mean	Std. Dev.	Severity Category
Stress	6.72	2.143	Severe
Anxiety	8.31	3.435	Moderate
Depression	8.35	3.399	Moderate

4.3. Academic Outcomes of BE Students

Table 4 outlines the descriptive statistics related to the academic outcomes of BE students. The findings highlight that the simultaneous demands of employment and study frequently hinder students' academic performance and attendance. This dual responsibility affects not only their grades and engagement in scheduled learning activities but also has a moderate impact on their consideration of deferring or withdrawing from their studies.

Table 4. Academic outcomes.

Academic Outcomes	Mean	Std. Dev.
1. Negative effects on academic performance	3.84	0.978
2. Decline in class attendance	3.12	1.099
3. Study deferral intention	2.57	1.246
4. Drop out intention	2.54	1.246

4.4. Students' Suggestions to Remodel Course Structure and Delivery to Mitigate Stress for Students

This section presents the key themes identified through a thematic analysis of student responses to the question: In your opinion, what measures can universities take to minimise the stress students experience when balancing study responsibilities, work obligations and personal lives? (e.g., modifications to curriculum, teaching methods, assessments, student support systems, etc.).

Twelve overarching themes emerged from the analysis, highlighting specific areas where students believe universities can make significant positive impacts on their well-being and ability to navigate the complexities of higher education. These themes encompass various aspects of the student experience, ranging from curriculum design and assessment practices to support services and institutional understanding of students' diverse commitments.

4.4.1. Flexible Learning and Attendance Options

Students emphasized the need for hybrid/online learning, flexible attendance, evening classes, and condensed timetables (e.g., scheduling all classes on one or two days). These flexible options are crucial for helping students balance their academic responsibilities with work commitments, thereby reducing work–study conflict.

- Hybrid/Online Learning: Offering various methods of learning, such as online lectures, can make attendance more flexible and practical for students who are working. As one student noted, "Offer various methods of learning hence not making attendance a compulsory thing and instead having an option for viewing an online lecture, which will be more practical for those working to then do in their own time."
- Flexible Attendance: Allowing students to choose between attending in-person or online classes can accommodate their varying schedules. Another student suggested, "Returning to COVID-19 policy where classes were simultaneously offered online and in-person, and all teaching material was recorded would greatly improve the

ability of students to manage more adhoc social schedules, and sometimes inflexible work schedules."

- Evening Classes and Condensed Timetables: Scheduling classes in the evenings or condensing them into one or two days can help students manage their time more effectively, reducing the stress associated with balancing work and study.

4.4.2. Better Coordination of Assessment Deadlines

Many students requested better planning to avoid multiple major assessments being due at the same time across different subjects. Improved coordination of assessment deadlines can significantly reduce the stress and workload on students, allowing them to manage their time more effectively.

- Planning Assignment Timings: Students suggested that teachers coordinate assignment deadlines with other subjects to prevent overlapping due dates. One student shared, "Teachers should look to plan assignment timings with other subjects that students will be taking, I will often have two to three assignments or tests due in one week or often the same day."
- Flexible Scheduling of Assessments: Another recommendation was to spread out assignment due dates to provide students with adequate time to work, study, relax, and refresh themselves. As one student mentioned, "University should provide a more flexible schedule in relation to the assessments of each unit. Rather than putting all assignments from each unit due in a close range, spread out the due dates to provide students time to work, study, relax, and refresh themselves."

4.4.3. Assessment Design and Flexibility

Students called for fewer, more meaningful assessments, alternative types of assessments (e.g., tests instead of long reports), and greater flexibility in due dates and extension processes.

- Flexible Assessment Due Dates: Allowing for more flexible assessment due dates can help students manage their workload better. One student suggested, "Allow for more flexible assessment due dates, students can be given different questions to avoid cheating."
- Weekend Due Dates: Scheduling assessments to be due on weekends can give students better chances to complete them without conflicting with weekday work commitments. As one student noted, "Assessments should be due on weekends to give students better chances to finish them with weekday work commitments. Weekday due dates are a killer."

4.4.4. Curriculum Relevance and Simplification

Students wanted curricula more aligned with industry practices, clearer learning outcomes, fewer unnecessary assignments, and more streamlined unit structures.

- Alignment with Industry Practices: Modifying the curriculum to better reflect industry practices can help sustain student motivation and prepare them for real-world challenges. One student suggested "Modifications to curriculum to align with industry practice, potentially consider the implementation of majors/minors to allow students to specialise in areas of interest to sustain motivation."
- Relevance to Practical Work: Making coursework more relevant to actual job requirements can enhance the practical value of education. As one student noted, "I think universities need to make the coursework more relevant to the real job and focus less on massive theoretical assignments that don't translate to practical work."

4.4.5. Improved Teaching Quality and Support

Feedback highlighted a need for better communication skills among lecturers, clearer assignment briefs, and more proactive academic support (e.g., timely feedback, practical examples).

- Better Communication Skills: Students emphasized the importance of having lecturers with strong communication skills. One student remarked "Have actually good teaching staff, and competent basic English."
- Clearer Assignment Briefs and Proactive Support: Providing clearer assignment briefs and more proactive academic support, such as timely feedback and practical examples, can help students navigate their coursework more effectively. Another student noted "Navigating the university website and adapting to new tech like Zoom was unduly stressful."

4.4.6. Student Support Systems

Students suggested stronger mental health support, mentoring programs, regular check-ins, and better access to counselling and financial aid.

- Mental Health Support and Mentoring Programs: Enhancing mental health support and establishing mentoring programs can provide students with the necessary resources to manage stress. One student emphasized "Student support systems need upgrading. If a student has stopped attending classes, they should be checked on instead of left to catch up on their own."
- Regular Check-Ins and Financial Aid: Regular check-ins and better access to financial aid can help students feel more supported. Another student suggested "Each student should have a mentor they can rely on, make aware of their work situations and job status, to understand and discuss if work and uni load is too much."

4.4.7. Reduced Group Work or Improved Group Work Management

Many students found group work stressful and unfair, suggesting more individual assessments or systems that penalise non-contributing group members.

- Less Group Assignments: Reducing the number of group assignments or marking them individually can prevent high-achieving students from being penalized by non-contributing members. One student shared "Less group assignments. Or, mark group assignments individually so that other students don't bring down high achieving student's grades."
- Optional Individual Assessments: Offering optional individual assessments instead of group assignments can help students who find it difficult to coordinate group work with full-time jobs. As one student noted, "Optional individual assessments instead of group assignments. It is near impossible to work well in a group while also working full time."

4.4.8. Work-Integrated Learning and Practical Exposure

Students strongly advocated for more structured opportunities to apply academic knowledge through internships, cadetships, and industry-based learning. They highlighted the need for coursework to include practical applications and for universities to formally recognise on-the-job learning. As one student shared, "Taking strong action towards work-integrated learning or industry-based learning [gives] students practical exposure and a sense of confidence." Another noted "The anxiety comes from not knowing if what I have learned is useful." These reflections highlight the importance of experiential learning in reducing uncertainty, enhancing confidence, and supporting academic well-being.

4.4.9. Financial and Resource Support

Many students expressed the need for greater financial and material support to ease the burden of study-related expenses. A recurring concern was the high cost of tuition, particularly for international students, with one student urging institutions to "please lower the tuition fees for international students." Others emphasized the importance of access to essential materials such as architectural stationery, software, and printing facilities as well as flexible payment options. As one student explained, there should be a "pay later scheme for international students" alongside efforts to "decrease the costs of tuition [and] provide materials such as architectural stationery." These suggestions reflect a broader call for more equitable and accessible learning environments.

4.4.10. More Social and Networking Opportunities

Students expressed a strong desire for more opportunities to build social connections and foster a sense of community on campus. Social engagement was seen as vital to balancing academic demands with personal well-being. One student suggested that "university can arrange more networking/social events," while another emphasised that "universities should offer more facilities to allow students to interact as a social group," highlighting the need for a stronger focus on social life within the university itself. These comments point to the importance of intentional efforts to support student interaction and connection beyond the classroom.

4.4.11. Simplification of Administrative Processes

Students identified administrative hurdles such as complex enrolment, extension requests, and poorly coordinated scheduling as significant sources of stress. They called for simpler, faster, and more transparent systems. As one student put it, "The admin and enrolment processes were by far the most stressful at Uni—try to at least make that easier for students." Another recommended "Organise assessment schedule for a degree as a team, better coordinate curriculums so classes can be timetabled more efficiently." These insights underline the need for more student-friendly administrative support and coordinated academic planning.

4.4.12. Recognition of Students' Complex Lives

Students emphasised the need for universities to acknowledge and accommodate the realities of their lives beyond study, including demanding work schedules, family responsibilities, and financial pressures. As one student noted, "Be more flexible, understand that in this course, the majority of students are in the construction industry, which doesn't allow flexibility outside of work." Another added "Universities need to realise that students have complex lives outside of university—work, family, and financial pressures should be considered in structuring courses." These perspectives highlight the importance of flexible course design and empathetic institutional support.

In conclusion, the thematic analysis of student responses reveals a clear need for universities to adopt more flexible, empathetic, and practical approaches to support students in balancing their academic, work, and personal lives. As summarized in Table 5, the twelve key themes identified, ranging from flexible learning options and improved assessment coordination to enhanced student support systems and a recognition of students' diverse life circumstances, underscore the importance of creating a holistic and responsive educational environment. By implementing these measures, universities can alleviate stress, improve student well-being, and foster an atmosphere where students are empowered to thrive both academically and personally. This approach not only benefits students but also contributes to the broader goal of creating more inclusive and sustainable higher education systems.

Table 5. Student-Identified Themes and Recommended University Actions to Support Well-Being.

Theme	Recommended Actions for Universities
1. Flexible Learning and Attendance Options	Provide hybrid/online learning, flexible attendance policies, evening classes, and condensed timetables to help students manage study alongside work.
2. Better Coordination of Assessment Deadlines	Coordinate assignment schedules across units to avoid overlapping deadlines and allow adequate time for preparation.
3. Assessment Design and Flexibility	Reduce assessment volume, offer varied assessment types (tests, shorter reports), allow flexible due dates, and consider weekend deadlines.
4. Curriculum Relevance and Simplification	Align curriculum with industry practices, ensure clear learning outcomes, remove unnecessary assignments, and streamline unit structures.
5. Improved Teaching Quality and Support	Invest in teaching quality, improve communication skills of lecturers, provide clearer assignment briefs, timely feedback, and practical examples.
6. Student Support Systems	Strengthen mental health support, mentoring programs, regular check-ins, counselling services, and financial aid access.
7. Reduced Group Work or Improved Group Work Management	Reduce reliance on group work, introduce individual assessment options, or develop mechanisms to address unequal contributions.
8. Work-Integrated Learning and Practical Exposure	Expand opportunities for internships, cadetships, and industry-based learning, and formally recognise work experience.
9. Financial and Resource Support	Lower tuition fees (especially for international students), provide access to essential learning materials/software, and introduce flexible payment options.
10. More Social and Networking Opportunities	Facilitate social and networking events, build stronger community spaces, and encourage peer interaction beyond the classroom.
11. Simplification of Administrative Processes	Streamline enrolment, assessment extensions, and scheduling systems to reduce administrative stress.
12. Recognition of Students' Complex Lives	Acknowledge students' work, family, and financial responsibilities; embed flexibility and empathy into course design and delivery.

4.5. Students' Suggestions on How Workplaces Can Better Support Student Well-Being to Remodel WIL

Balancing study responsibilities, work obligations, and personal lives presents significant challenges for students engaged in cadet or work-integrated learning roles. To explore how workplaces can better support student well-being, responses to survey question 'In your opinion, what measures can workplaces take to minimise the stress students experience when balancing study responsibilities, work obligations and personal lives?' were analysed. Key themes emerging from the feedback highlight a strong need for greater flexibility, formal support mechanisms, empathetic management practices, and financial and career development support. Understanding these priorities is essential to design-

ing a well-being centred WIL model that enables students to thrive academically and professionally while maintaining a sustainable work–life balance.

4.5.1. Flexibility in Work Hours, Location, and Load

Flexibility in work arrangements is essential for supporting students who balance employment with academic responsibilities. Workplaces should adopt student-friendly policies by allowing flexible hours, enabling remote work where feasible, adjusting workloads during high-pressure academic periods, and respecting class timetable restrictions. These practices acknowledge the dual demands faced by working students and promote their well-being and academic success. As one student emphasized, "For part time work, workers should be able to submit their university timetables and not be expected to work during class times." Another highlighted the importance of adaptable work arrangements: "Accept flexible working hours and working from home." Such measures not only help students manage their responsibilities more effectively but also foster a more inclusive and sustainable working environment.

4.5.2. Formal Support Structures—Study Leave and Wellbeing Days

Structured workplace support, such as designated study leave, exam leave, and wellbeing or mental health days, plays a critical role in helping students manage the pressures of work and study. These formal support mechanisms should be clearly outlined, easily accessible, and not burdened by complex approval procedures. Such policies affirm an employer's commitment to student well-being and academic success. As one student recommended, "Paid days off for studying, set policy about salaried cadets working the hours they're contracted for," highlighting the need for boundaries and fair treatment. Another urged the value of proactive support: "Offer flexible study days on top of uni days, especially when assessments are due." Implementing these measures can improve student retention, reduce stress, and foster a more equitable and supportive work–study balance.

4.5.3. Empathetic Management and Supportive Workplace Culture

Effective support for working students extends beyond policies—it requires empathetic and proactive management. Managers should recognize the unique pressures faced by student employees, foster open lines of communication, and adjust expectations during academically demanding times. This approach cultivates a culture of compassion, where academic commitments are respected rather than seen as inconveniences. As one student noted, "With an understanding manager no student would feel stress about work and study balance," underscoring the importance of managerial empathy. Another emphasized the need for clear communication: "Communicate with their student employees effectively so they understand the student's requirements and situation." By actively listening and responding to student needs, managers can play a pivotal role in reducing stress and enabling students to thrive both academically and professionally.

4.5.4. Fair Compensation and Career Development Recognition

To truly support student workers, employers must go beyond flexibility and empathy by addressing financial stress and aligning work with long-term career growth. Providing fair wages that reflect the rising cost of living, recognizing academic study as valuable professional development, and offering clear career pathways help students feel valued and motivated. One student stressed "Workplaces should also understand the cost-of-living crisis, and pay accordingly," highlighting the urgent need for adequate compensation. Another added "Talk about study as a value-adding benefit, not something that gets in the way of work," underscoring the importance of reframing education as an asset rather

than a burden. By integrating financial support and career planning, employers can foster a sense of purpose, reduce stress, and encourage long-term engagement and loyalty.

4.6. Triangulating Quantitative Data with Qualitative Insights

The qualitative findings provide rich context that complements and deepens the quantitative results, highlighting how students' lived experiences shape their perceptions of stress, well-being, and academic outcomes. For example, the survey revealed that the top academic stressors were self-imposed high-performance expectations, fear of underperformance, and heavy workloads, while work-related stressors included juggling study and employment responsibilities. Thematic analysis of open-ended responses supports these findings, with students elaborating on the specific challenges of balancing deadlines, group assignments, and industry commitments. Similarly, quantitative results indicated severe stress and moderate anxiety and depression levels among students; qualitative comments illustrated how these emotional states manifest in daily routines, such as sleep disturbances, social withdrawal, and reduced engagement with coursework. Moreover, students' suggestions for flexible learning options, better assessment coordination, and enhanced support systems not only align with the statistical patterns but also offer actionable strategies for intervention. By integrating both quantitative and qualitative evidence, the study provides a holistic understanding of BE students' experiences, ensuring that proposed pedagogical and institutional reforms are grounded in empirical data while reflecting students' nuanced perspectives.

In conclusion, students' insights offer a compelling blueprint for how workplaces can reshape Work Integrated Learning (WIL) to better support student well-being. The integration of flexible work practices, formalised support structures, empathetic leadership, and recognition of both financial realities and professional development needs is not just beneficial but it is essential. These measures reflect a shared desire for workplaces to respect and accommodate the dual roles students occupy, allowing them to thrive without compromising either their education or career aspirations. A reimagined WIL model, grounded in these principles, has the potential to foster a healthier, more inclusive, and future-ready workforce that benefits both students and employers alike.

5. INSPIRE Framework for Well-Being Centric BE Education

Based on the study findings, the INSPIRE Framework has been developed to support students navigating work–study conflicts and personal challenges, as illustrated in Figure 1.

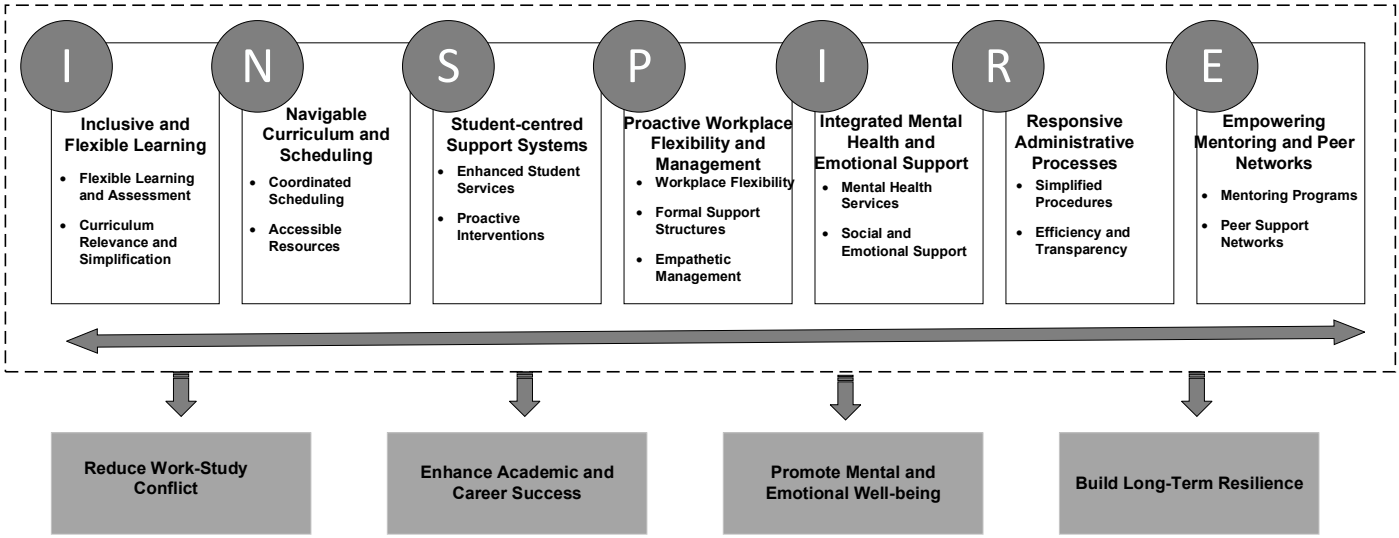


Figure 1. INSPIRE Framework for well-being centric BE Education.

INSPIRE is founded on the belief that student success and well-being are intricately linked to the social, academic, and professional ecosystems surrounding them. By addressing student needs, implementing flexible university practices, and fostering supportive work environments, INSPIRE seeks to reduce stress, enhance academic performance, and build long-term resilience.

5.1. Core Components of INSPIRE

The INSPIRE Framework for student well-being consist of seven (07) core components, which are elaborated below.

1. Inclusive and Flexible Learning

- Flexible Learning and Assessment: INSPIRE emphasizes the need for universities to offer hybrid or online learning options and flexible attendance schedules. This flexibility allows students to balance academic responsibilities with work obligations and personal commitments. Assessment flexibility (e.g., extended deadlines, weekend submissions) further aids students in managing their workloads without compromising academic integrity or mental well-being.
- Curriculum Relevance and Simplification: The framework advocates for curricula that are closely aligned with industry standards, ensuring that academic learning is both relevant and practically applicable. A simplified curriculum design with clear learning outcomes and reduced unnecessary assignments helps students maintain focus and reduces cognitive overload.

2. Navigable Curriculum and Scheduling

- Coordinated Scheduling: Universities should coordinate course schedules to prevent overlapping deadlines and ensure that students can manage their time effectively.
- Accessible Resources: Students should have timely access to essential academic resources such as study materials, software, and workspace to support their learning.

3. Student-centred Support Systems

- Enhanced Student Services: INSPIRE stresses the importance of accessible student support services such as mental health resources, financial aid, academic advising, and mentoring programs.
- Proactive Interventions: Regular check-ins and personalized guidance can help students navigate academic challenges and life pressures.

4. Proactive Workplace Flexibility and Management

- Workplace Flexibility: INSPIRE asserts that workplaces need to adopt flexible working hours, remote work options, and adjusted workloads during peak academic periods. Allowing students to share academic timetables with employers helps avoid scheduling conflicts.
- Formal Support Structures: Employers should provide formalized support, such as designated study leave, mental health days, and paid time off for academic duties.
- Empathetic Management: Managers should demonstrate understanding and flexibility toward students' dual roles, adjusting expectations during periods of high academic demand.

5. Integrated Mental Health and Emotional Support

- Mental Health Services: The framework emphasizes the importance of integrating mental health support systems, including counselling services, peer support programs, and stress management resources.

- Social and Emotional Support: Universities should foster environments where students can interact, network, and build social bonds, enhancing their sense of belonging and reducing isolation.

6. Responsive Administrative Processes

- Simplified Procedures: INSPIRE highlights the importance of streamlining university administrative procedures, such as course registration, extension requests, and scheduling.
- Efficiency and Transparency: Reducing bureaucratic complexity saves time and reduces stress, allowing students to focus on their studies.

7. Empowering Mentoring and Peer Networks

- Mentoring Programs: Regular mentoring initiatives provide students with role models and guidance.
- Peer Support Networks: Peer-led support groups foster a sense of community and emotional resilience, helping students manage academic and personal stressors.

5.2. Operation of the INSPIRE Framework

The INSPIRE Framework functions as an integrated, student-centred system where each component contributes to a cohesive support network. Here's how the framework operates:

Student-Centred Core

At the heart of INSPIRE is the student. The framework recognizes students as individuals with diverse academic, professional, and personal challenges. INSPIRE is designed to respond to these needs through inclusive, flexible systems and personalized support structures that prioritize student agency and well-being.

Interconnected Components

INSPIRE operates on the principle that its seven pillars—Inclusive and Flexible Learning, Navigable Curriculum and Scheduling, Student-Centred Support Systems, Proactive Workplace Flexibility and Management, Integrated Mental Health and Emotional Support, Responsive Administrative Processes, and Empowering Mentoring and Peer Networks—are dynamically interconnected:

- Flexible learning options support students managing work commitments.
- Responsive administrative processes reduce stress, enabling better engagement with mental health and mentoring services.
- Proactive workplace flexibility complements academic scheduling, reducing conflict and enhancing performance.

Holistic Well-being and Resilience

INSPIRE promotes long-term resilience by addressing the full spectrum of student needs—not just academic success, but emotional, social, and professional well-being. By helping students balance study, work, and life, the framework fosters adaptive coping strategies and emotional strength, preparing students to thrive in complex, real-world environments.

Continuous Feedback and Adaptation

INSPIRE incorporates a feedback loop that uses student input and data to refine and evolve its components. This ensures the framework remains responsive to emerging challenges. For instance, feedback might highlight the need for more flexible assessment formats or expanded peer support networks, prompting timely institutional adjustments.

5.3. Impact of the INSPIRE Framework

By embedding flexibility, empathy, and structural reform across educational and workplace systems, INSPIRE aims to achieve the following:

- Reduce Work–Study Conflict

Through flexible learning, assessment, and work arrangements, students can better manage competing demands, reducing stress and burnout.

- Enhance Academic and Career Success

Students are supported holistically, enabling them to excel academically while gaining meaningful work experience and career development.

- Promote Mental and Emotional Well-being

Integrated mental health services and strong social-emotional ecosystems nurture resilience, belonging, and psychological safety.

- Build Long-Term Resilience

INSPIRE equips students with the tools, networks, and support systems to adapt to challenges and thrive in both academic and professional spheres.

In conclusion, the INSPIRE Framework redefines how universities, employers, and support systems collaborate to foster student success. By centering student needs and embedding flexibility, empathy, and innovation into institutional practices, INSPIRE offers a sustainable, resilient pathway for students navigating the complexities of modern education and work.

5.4. Implementation and Governance of the INSPIRE Framework

Effective implementation of the INSPIRE Framework requires a multi-level governance approach that balances institutional autonomy with coordinated oversight. Given the framework's holistic nature—spanning academic, administrative, and workplace domains—its success hinges on strategic collaboration among universities, employers, and policy-makers.

Governance Structures

Three tiers of governance are proposed to support the operationalisation of INSPIRE:

- Institutional Autonomy with Strategic Alignment

Universities and employers should retain autonomy in tailoring INSPIRE components to their unique contexts. However, alignment with a shared set of principles and performance indicators ensures consistency and accountability across institutions.

- Inter-Institutional Coordination

A consortium or working group comprising representatives from universities, industry partners, and student bodies can facilitate knowledge exchange, benchmarking, and continuous improvement. This body may also oversee the development of shared tools (e.g., flexible scheduling platforms, mental health resources) and promote best practices.

- National-Level Policy Support

Government agencies and higher education regulators can play a pivotal role by embedding INSPIRE principles into national education and workforce policies. This includes funding incentives for flexible learning models, mental health integration, and workplace accommodations for student employees.

Professional Roles and Capacities

To ensure effective implementation and ongoing management of INSPIRE, several new or adapted professional roles may be required:

- Student Well-being Coordinators

Embedded within universities, these professionals would oversee the integration of INSPIRE components, liaise with academic and support units, and monitor student feedback and outcomes.

- Workplace Liaison Officers

Appointed within partner organisations, these officers would coordinate with universities to align work schedules with academic calendars, facilitate study leave arrangements, and promote empathetic management practices.

- INSPIRE Implementation Leads

At the inter-institutional level, these individuals would guide strategic planning, facilitate cross-sector collaboration, and ensure fidelity to the framework's principles.

- Data and Evaluation Specialists

Responsible for collecting and analysing feedback, these specialists would support the continuous refinement of INSPIRE through evidence-based decision-making.

Capacity Building and Training

To support these roles, targeted training programs should be developed, focusing on the following:

- Trauma-informed and empathetic management practices;
- Flexible curriculum design and assessment strategies;
- Mental health literacy and peer support facilitation;
- Cross-sector collaboration and communication.

6. Discussion

The INSPIRE Framework offers a significant and timely contribution to the evolving discourse on well-being-centred education. By addressing the multifaceted dimensions of student development—academic, emotional, social, cognitive, and professional—INSPIRE presents a holistic and integrated model that enhances the learning environment and supports long-term student success. Compared to established models such as PERMA and SEL, INSPIRE places a stronger emphasis on resilience, adaptability, and sustainable flourishing, which are increasingly critical in contemporary higher education, especially in demanding disciplines like architecture, construction, and urban planning.

6.1. Comparison with Existing Theories

The PERMA model [15] has been foundational in promoting positive psychology in education. INSPIRE builds on these principles by integrating them into a broader framework that includes navigable curriculum design, proactive workplace flexibility, and responsive administrative systems. These additions reflect the real-world complexities students face, particularly those balancing academic and professional responsibilities.

Social-Emotional Learning (SEL) frameworks, such as those developed by CASEL, have advanced the integration of emotional intelligence and interpersonal skills in education. INSPIRE extends SEL by embedding resilience and adaptability as core outcomes, recognizing that emotional and social competencies must be supported by institutional flexibility and structural reform to be truly effective.

The PRICES model [16] offers a prescriptive approach to implementing SEL strategies. In contrast, INSPIRE provides a comprehensive, systems-level framework that not only supports emotional and social development but also aligns academic, administrative, and workplace systems to foster student flourishing—defined as thriving across personal, academic, and professional domains.

Overall, as summarized in Table 6 below, the comparison highlights that while PERMA, SEL, and PRICES each offer valuable contributions to wellbeing and social-emotional learning, they tend to focus on individual or instructional dimensions. The INSPIRE framework advances these approaches by embedding wellbeing, adaptability, and resilience within

institutional structures, curricular design, and workplace alignment. This systemic integration positions INSPIRE as a more comprehensive and sustainable model for addressing the real-world challenges faced by today's students.

Table 6. Comparative Assessment of Frameworks.

Criteria	PERMA [15]	SEL (CASEL)	PRICES [16]	INSPIRE Framework
Focus	Positive psychology (wellbeing through Positive emotion, Engagement, Relationships, Meaning, Accomplishment)	Emotional intelligence and interpersonal skills	Prescriptive SEL strategy implementation	Holistic, student-centred model integrating curriculum, workplace, and institutional structures
Scope	Individual wellbeing	Emotional & social development	Structured guidance for SEL	Systems-level reform across academic, professional, and personal domains
Curriculum Integration	Indirect	Embedded emotional/social skills	Applied SEL strategies	Flexible, navigable curriculum with hybrid modes and adaptable deadlines
Industry/Workplace Alignment	Limited	Minimal	Not a core component	Formal recognition of work-integrated learning; alignment with professional realities
Institutional Structures	Not addressed	Limited institutional focus	Mainly instructional strategies	Proactive administrative reforms (one-stop support, faster services, organisational realignment)
Core Outcomes	Wellbeing & flourishing	Social-emotional competence	Effective SEL delivery	Student flourishing through motivation, resilience, wellbeing, and career readiness
Strengths	Strong conceptual clarity	Widely adopted, evidence-based	Practical and prescriptive	Comprehensive, holistic, adaptable to diverse student needs
Limitations	Narrower focus, less structural	Limited integration with broader systems	Prescriptive rather than systemic	Requires significant institutional commitment, resources, and change management

6.2. New Theoretical Contributions of INSPIRE

INSPIRE's most distinctive contribution lies in its integrated, student-centred design, which unites seven interdependent pillars to support holistic student well-being. These contributions are particularly relevant in university programs within the built environment disciplines, where students often face intense workloads, tight deadlines, and high expectations.

- Inclusive and Flexible Learning: Emphasizes flexible learning modalities and assessment structures that accommodate diverse student needs.
- Navigable Curriculum and Scheduling: Advocates for streamlined, industry-relevant curricula and coordinated scheduling to reduce cognitive overload.
- Student-Centred Support Systems: Prioritizes accessible, proactive support services that foster a sense of security and belonging.

- Proactive Workplace Flexibility and Management: Promotes flexible work arrangements and empathetic management practices.
- Integrated Mental Health and Emotional Support: Embeds mental health services and peer support networks into the student experience.
- Responsive Administrative Processes: Streamlines bureaucratic processes to reduce stress and improve efficiency.
- Empowering Mentoring and Peer Networks: Recognizes the value of mentorship and peer support in building resilience and community.

6.3. Practical Implications of INSPIRE in Education

In practical terms, the INSPIRE Framework offers transformative implications for the design and implementation of well-being-centred education in university settings:

- Curriculum Design and Pedagogy: INSPIRE encourages the integration of well-being principles—such as resilience, purpose, and growth mindset—directly into course content. For built environment students, this could involve embedding real-world, community-based projects that foster a sense of impact and professional identity. These experiences not only enhance academic learning but also promote emotional engagement and long-term motivation.
- Educator Training and Support: The framework highlights the importance of educator well-being and capacity-building. Educators should be equipped to model empathy, emotional resilience, and inclusive teaching practices. Professional development in areas such as trauma-informed pedagogy, mindfulness, and SEL competencies can empower educators to create psychologically safe and supportive learning environments.
- Whole-Institution Approach: INSPIRE advocates for a university-wide commitment to student well-being. This includes embedding well-being into institutional policies, campus design, and student services. A cohesive, whole-institution approach ensures that well-being is not siloed but integrated across all aspects of the student experience—from orientation to graduation.
- Community Engagement and Industry Collaboration: Particularly relevant to disciplines like the built environment, INSPIRE emphasizes the value of connecting students with industry mentors, professionals, and real-world applications. Collaborative projects and internships not only enhance academic relevance but also strengthen students' emotional and social well-being by fostering a sense of belonging and professional purpose.

6.4. Anticipated Challenges for the INSPIRE and Strategies to Address Them

While the INSPIRE Framework offers a strong roadmap for improving student experience and outcomes, its implementation may face several practical and structural challenges. These include issues of institutional culture, resources, equity, and sustainability. Key anticipated challenges are as follows:

- Institutional resistance to changes in academic calendars, schedules, assessment practices, and teaching structures due to compliance and accreditation requirements.
- Equity concerns, with flexibility and industry experience potentially benefiting some students more than others, creating uneven outcomes.
- Resource implications, as hybrid delivery modes, one-stop support models, and expanded partnerships require sustained investment in staff, infrastructure, and training.
- Assessment and quality assurance difficulties, particularly in maintaining consistency across flexible deadlines, hybrid modes, and diverse workplace learning experiences.
- Partnership limitations, since not all institutions have strong industry networks, reducing opportunities for equitable student engagement in internships or cadetships.

- Scalability challenges for large student populations, where ensuring fast response times and personalised support may be difficult.
- Student awareness and utilisation issues, as stigma or lack of information can prevent students from accessing available support services.
- Integration and coordination barriers, with universities often working in silos across academic, administrative, and wellbeing services.
- Change management and cultural shift requirements, needing strong institutional leadership, faculty buy-in, and clear communication.
- Sustainability concerns, with ongoing funding, monitoring, and staffing essential to prevent reforms from becoming short-term initiatives.
- Equity of access, particularly for students in regional, low-income, or international contexts, who may face greater barriers to benefitting fully from the framework.

6.5. Measurements and Evidence of Practical Outcomes

To assess the effectiveness of the INSPIRE Framework, it is important to identify clear measurements and collect evidence that demonstrates practical outcomes. These outcomes should capture both student experience and institutional performance, reflecting the framework's holistic and student-centred approach.

Potential outcome indicators include the following:

- Student motivation and engagement
  - Increased participation in classes, workshops, and support services.
  - Improved student feedback on flexibility, relevance, and accessibility of learning.
- Student wellbeing
  - Reduced reports of stress and burnout linked to work–study conflict.
  - Greater utilisation of academic, psychological, and administrative support services.
  - Positive survey results on students' sense of balance and belonging.
- Retention and progression
  - Higher course completion rates and reduced dropout or deferral numbers.
  - Improved progression rates across key transition points (first year to second year, coursework to professional practice).
  - Stronger performance in student success metrics tracked by institutions.
- Industry readiness and employability
  - Greater participation in internships, cadetships, and industry-linked projects.
  - Formal recognition of workplace learning reflected in student transcripts.
  - Positive employer feedback on graduates' skills and readiness for industry.
- Institutional effectiveness
  - Shorter response times for student support requests under a one-stop service model.
  - Evidence of effective cross-departmental collaboration to deliver integrated support.
  - Consistent quality assurance across flexible delivery modes and workplace-based learning.

By embedding curricular flexibility, recognising industry experience, and streamlining access to support, the INSPIRE Framework can reduce work–study conflict, safeguard mental health, and improve overall student satisfaction. These changes are expected to foster greater student motivation, strengthen wellbeing, and lead to higher retention and progression rates while also enhancing students' career readiness and long-term success.

7. Conclusions

This study examined work–study conflict among Built Environment (BE) students in Australian universities, using a mixed-methods approach that combined quantitative analysis of stressors with qualitative insights from students' experiences. By integrating these perspectives, the research moves beyond problem identification to provide evidence-based, student-informed strategies for enhancing BE education.

The findings reveal that BE students face a uniquely complex combination of academic, professional, and personal pressures, including heavy workloads, high-stakes assessments, long work hours, and financial constraints. These intersecting stressors contribute to burnout, emotional exhaustion, and diminished academic engagement.

In response, the study introduces the INSPIRE Framework, a holistic, student-centred model comprising seven interdependent pillars: Inclusive and Flexible Learning, Navigable Curriculum and Scheduling, Student-Centred Support Systems, Proactive Workplace Flexibility and Management, Integrated Mental Health and Emotional Support, Responsive Administrative Processes, and Empowering Mentoring and Peer Networks. By aligning pedagogical practices with students' lived realities, INSPIRE addresses gaps in existing models such as PERMA and SEL, emphasizing long-term resilience, adaptability, and institutional responsibility.

The study makes both theoretical and practical contributions. Theoretically, it advances understanding of how pedagogical design can mitigate work–study conflict and support student well-being, extending the literature on stress, resilience, and ecological approaches in higher education. Practically, INSPIRE provides actionable guidance for universities to redesign curricula, enhance educator practices, improve institutional support, and foster industry collaboration.

Overall, mitigating work–study conflict requires systemic, inclusive, and proactive strategies. The INSPIRE Framework offers a blueprint for supporting BE students' academic success and well-being, providing a foundation for institutional reform and future research aimed at creating more equitable, adaptable, and supportive higher education systems.

While this study offers valuable insights into the challenges faced by students navigating work–study conflict and proposes the INSPIRE Framework as a holistic support model, several limitations must be acknowledged. The research focused exclusively on undergraduate students from a single country context, which may limit the generalisability of findings to other educational levels or settings. Additionally, the reliance on self-reported data introduces potential bias in the responses. These limitations highlight the need for future research to explore the applicability of the INSPIRE Framework across diverse student populations, including postgraduate cohorts, and to incorporate mixed-method approaches for deeper validation and impact assessment.

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Abbreviations

BE—Built Environment; SEL—Social and Emotional Learning; PERMA Framework—Positive emotions, Engagement, Relationships, Meaning, and Achievement Framework; PRICES Framework—Preparation and Access, Restoration, Integration, Connection and Community, Educator Support, Strengths-Based Cultivation and Student Voice Framework; WIL—Work Integrated Learning; EM—Expectation Maximisation; DASS-8—Depression Anxiety Stress Scale 8

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