

## **Evaluating the Role of Practical Learning Activities in Enhancing Employment-Preparedness in Management Education: Stakeholders Perspective**

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### **ABSTRACT**

In today's fast-paced and ever-changing labour market, graduating students from management programs are expected to have a strong set of skills that align with industry demands. Yet, there are large gaps between employability skills imparted by higher education and those required by employing organizations. The present study explores the impact of experiential learning activities—such as internships, live projects, and case-based learning—on improving students' employability. The study adopts a multi-stakeholder strategy by gathering quantitative feedback from students, instructors, and employers, analysing their views on salient employability skills.

The study employs a Likert-scale questionnaire systematically developed to assess thirty essential management competencies across ten thematic categories. To compare differences among stakeholder groups, various statistical methods are employed, including descriptive statistics, gap analysis, the Shapiro-Wilk test for normality, Levene's test for homogeneity of variances, and Welch's ANOVA. Statistically significant gaps in perception for competencies such as analytical thinking, creative problem-solving, flexibility, and quality control are evident across educators and employers.

The results also indicate that students consistently underestimate the value of soft skills and stress-management capabilities, while teachers perceive a lack of creativity and lifelong learning. Cronbach's Alpha ( $\alpha = 0.32$ ) revealed low internal consistency, indicating a requirement for more convergent measurement of skills in education systems. This research concludes that integrating more experiential learning elements into management education can substantially decrease employability skill gaps. It calls for pedagogy based on industry feedback, with experiential engagement and robust skill-building to harmonize academic preparation with the demands of the professional world. These findings serve as a guide for universities seeking to update curricula and enhance graduate preparedness for competitive global job markets.

## CHAPTER 1: INTRODUCTION

### Traditional Management

Business education has historically been essential in preparing students for jobs in the corporate sector. For many years, traditional business schools have depended largely on instructional teaching techniques—like lectures, case studies, and textbooks—to convey theoretical understanding. Though this method offers a strong theoretical basis, it has faced criticism for failing to develop the practical abilities required to handle the difficulties of today's business landscape. Critics contend that the heavy focus on theory leads to a gap between academic education and the practical demands of industries, resulting in graduates being poorly prepared for real-world issues (Hurn, 2013).

This problem becomes even more apparent in a time when industries are quickly changing due to technological progress, globalization, and shifting market dynamics. The contemporary business environment demands individuals who are not only informed but also flexible, creative, and able to use theoretical understanding to address real-world issues. However, the conventional approach to business education—which frequently emphasizes personal learning instead of collaborative and contextual teaching methods—does not meet these industry requirements (Brown, 2012). For example, collaboration, communication, and critical thinking are essential skills in modern workplaces, yet conventional teaching methods seldom allow students to cultivate these abilities in significant, real-world situations. The gap between conventional education and industry demands has ignited demands for a fundamental change in business education. There is a growing need for learning centered on employability that closes this gap by promoting critical thinking, problem-solving, and practical experience. This change applies to not only to improving academic programs but also to revolutionizing students' interaction with knowledge, transitioning from passive learning to active and experiential approaches (Wardaszko & Bielecki, 2013). These creative methods seek to provide students with the essential skills required to thrive in fast-paced and frequently uncertain business settings.

### The Limitations of Traditional Business Education

**Overemphasis on Theoretical Knowledge** - Conventional business education places a strong emphasis on conveying theoretical ideas, frequently using lectures and case studies. Although foundational knowledge is crucial, its practical usage is just as important. For instance, a student might be proficient in grasping intricate financial models yet find it challenging to apply these models in practical situations. This gap arises from the insufficient chances for students to implement theoretical models in real-world situations (Gulikers et al., 2008).

**Absence of Practical Experience** - Learning in a classroom generally restricts students' experiences with the real-world challenges of the business sector. Practical experiences, including internships, live projects, and consulting roles, are essential for closing this gap. These experiences enable students to use their knowledge while also aiding in the development of essential soft skills, including adaptability, decision-making, and professional networking (Upadhyay & Paul, 2019).

**Inadequate Attention to Sector Developments** - The swift evolution of business methods, propelled by technology and innovation, requires that education evolves accordingly. Regrettably, conventional curricula frequently fail to evolve quickly, resulting in students possessing obsolete knowledge and skills. For example, even though digital transformation is changing industries, numerous business programs do not incorporate subjects such as data analytics, artificial intelligence, and digital marketing into their main curricula (Rohm et al., 2021).

**Minimal Focus on Sustainability** - As companies place greater emphasis on sustainability, conventional education frequently fails to integrate these principles into their curricula. Students need to grasp concepts

such as the triple bottom line—which takes into account social, environmental, and financial effects—to make informed and responsible choices as leaders of the future. Business schools lose the chance to equip students for this essential element of contemporary business practices by not incorporating sustainability into their curricula (Sroufe & Ramos, 2011).

#### Emerging Paradigms in Business Education

Recognizing these gaps, contemporary business education is increasingly embracing innovative pedagogies designed to align academic training with industry needs. These methods aim to create a seamless connection between theoretical learning and practical application, producing graduates who are both knowledgeable and industry-ready. Live Projects - Live projects have emerged as a cornerstone of experiential learning in business education. These projects provide students with the opportunity to tackle real-world challenges faced by companies. For example, an MBA program may partner with local businesses to develop solutions for sustainability issues, enabling students to apply classroom knowledge to real-life scenarios while honing problem-solving and decision-making skills (Sara, 2011).

Simulation Games - Simulations offer a dynamic and risk-free environment for students to experiment, make decisions, and experience the consequences of their actions. By mimicking real-world scenarios, simulations help students develop critical skills, such as strategic thinking and operational planning. For instance, supply chain management simulations allow students to understand the complexities of logistics and inventory control, providing a practical complement to theoretical instruction (Kaliappen, 2019).

Collaborative Learning - Team-based learning activities, such as group projects and case discussions, emphasize the importance of collaboration. These activities not only enhance students' interpersonal skills but also prepare them for the collaborative nature of modern workplaces. For example, working in diverse teams enables students to navigate cultural differences and develop communication skills essential for global business environments (Radović et al., 2021).

Technology Integration - The incorporation of technology into business education has transformed the way students absorb and interact with information. Digital platforms, data analysis tools, and virtual simulations offer students access to advanced resources and equip them for technology-oriented sectors. For example, classes that integrate data visualization instruments allow learners to analyse intricate datasets, a competency that is growing in demand in various sectors

(Rohm et al., 2021).

Focus on Sustainability - As companies face worldwide issues such as climate change and social inequality, sustainability has emerged as a central emphasis in business education. Courses that incorporate sustainability into their programs prepare students with the expertise and abilities to lead ethically. For example, classes on sustainable supply chain management instruct students on how to harmonize profitability with environmental and social factors, equipping them to promote ethical business practices (Heriot et al., 2008).

#### Bridging the Gap Between Academia and Industry

The development of business education shows a wider acknowledgment of the necessity to connect academia with industry. By integrating hands-on learning experiences, business schools can more effectively equip students for the demands of today's job environment. These developments not only improve employability but also promote innovation, adaptability, and ethical decision-making—traits that are crucial for achieving success in the current dynamic business landscape.

For example, incorporating live projects into entrepreneurship courses allows students to engage directly with startups, solving real-world problems while developing their entrepreneurial mindset. Similarly, simulation games provide a platform for students to test strategies in a controlled setting, enabling them to understand the implications of their decisions without real-world risks

(Chang & Rieple, 2013).

In conclusion, the limitations of traditional business education underscore the need for a transformative approach that prioritizes practical learning, industry relevance, and sustainability. By adopting innovative pedagogies, business schools can produce graduates who are not only academically proficient but also equipped to make meaningful contributions to the business world. These advancements represent a critical step toward aligning education with the needs of a rapidly changing global economy, ensuring that graduates are prepared to lead, innovate, and thrive in their professional journeys.

#### 1.1.1 Traditional Management/ Business Education

Conventional business education has long functioned as the foundation for equipping students to succeed in the corporate world. Anchored in ideas originating from early industrial economies, conventional business education mainly focuses on essential concepts, including organizational behaviour, marketing fundamentals, financial accounting, and strategic management. These topics were usually presented via a formal, teacher-directed curriculum. This model sought to provide students with a thorough grasp of vital business areas, preparing them for positions in traditional, structured organizations (Gulikers et al., 2008). Nonetheless, the organized and theory-focused nature of conventional business education mirrors a wider philosophy of established management methods. These management approaches frequently highlight stability, efficiency, and control—principles that were essential during the Industrial Revolution and the early 20th century when companies functioned in fairly stable settings. Consequently, students were motivated to embrace top-down leadership styles, uniform decision-making procedures, and strict organizational frameworks, embodying the requirements of a previous time (Hurn, 2013).

Although this framework provided benefits during its era, contemporary business circumstances reveal the shortcomings of this conventional model. In a time of swift technological advancement, globalization, and changing consumer demands, companies currently function in extremely dynamic and interconnected settings. Conventional business education, due to its strong dependence on established frameworks and theoretical models, finds it difficult to sufficiently equip students for the challenges and unpredictability of contemporary industries (Rohm et al., 2021).

Consequently, although conventional business education established the foundation for solidifying management as a field, it is now under increasing scrutiny for failing to adapt to modern challenges. The upcoming sections will examine its limitations in more detail and emphasize the educational advancements reshaping business education to fulfil the needs of the 21st-century labour market.

#### 1.1.2 Shortfall of Traditional Business Education in Preparing Students for Industry

Conventional business education, although crucial for building essential knowledge, has faced criticism for its inadequate ability to equip students for the requirements of contemporary industries. This deficiency mainly arises from an excessive dependence on theoretical teaching and insufficient emphasis on the practical, adaptable skills necessary for today's job market.

#### 1.1.3 Overemphasis on Theory Over Practical Application

A significant criticism of conventional business education is its strong dependence on theoretical models. Students frequently encounter a variety of concepts, models, and strategies, yet seldom have chances to implement them in practical environments. For example, grasping the principles of financial accounting or theories of strategic management is inadequate without practical experience in analysing financial statements or addressing strategic business issues (Gulikers et al., 2008). This results in a disconnect between academic education and industry demands, with graduates joining the workforce without essential practical problem-solving skills

#### 1.1.4 Lack of Real-World Exposure

Another limitation is the scarcity of experiential learning opportunities. Traditional curricula often Another constraint is the lack of hands-on learning experiences. Conventional curricula typically emphasize in-class activities, like lectures and case studies, which, although informative, do not offer the immersive experience needed to handle intricate industry situations. In the absence of internships, live projects, or consulting experiences, students forfeit vital chances to cultivate soft skills such as adaptability, teamwork, and leadership—attributes crucial for succeeding in dynamic and rapidly changing sectors (Upadhyay & Paul, 2019).

#### 1.1.5 Outdated Curriculum Content

The swift evolution of industry practices, fuelled by technological progress and globalization, underscores another flaw of conventional business education: its failure to stay aligned with contemporary trends. Numerous programs continue to focus on traditional business methods while overlooking modern innovations such as digital marketing, artificial intelligence, and data analytics. This gap results in graduates being unprepared to meet the challenges of technology-driven sectors (Rohm et al., 2021).

#### 1.1.6 Insufficient Focus on Sustainability and Ethics

Contemporary companies are placing greater emphasis on sustainability and ethical practices, yet conventional education frequently falls behind in incorporating these concepts into its programs. Graduates need to grasp frameworks such as the triple bottom line and environmental, social, and governance (ESG) standards to align with worldwide business objectives. By neglecting to include these elements, conventional programs jeopardize the development of leaders who are unready for the urgent demands of corporate responsibility (Sroufe & Ramos, 2011).

### Bridging the Gap

The limitations demonstrate the pressing necessity for a transformation in business education. To bridge these gaps, we need to adopt experiential learning, flexible curricula, and emphasize sustainability. By integrating modern teaching techniques like live projects, simulation games, and technology-based approaches, business education can evolve to more effectively meet industry demands, equipping graduates to succeed in the continuously evolving global economy.

#### 1.1.7 Advancement of Contemporary Teaching Pedagogy in Business Education

The advancement of contemporary teaching pedagogy in business education has emerged as a pivotal response to the limitations of traditional teaching methods, aiming to better equip students for the complexities of modern business environments. Innovative approaches, such as experiential learning, technology integration, and sustainability-focused curricula, are redefining how business concepts are taught and applied.

Experiential learning has become a cornerstone of modern pedagogy, emphasizing hands-on approaches that bridge the gap between theory and practice. For instance, live projects and internships allow students to apply theoretical knowledge in real-world contexts, fostering critical thinking and problem-solving skills (Sara, 2011). Simulations, another key tool, offer a controlled environment where students can experiment with decision-making processes and experience the consequences without real-world risks (Kaliappen, 2019).



Technology integration is also reshaping business education. Digital tools, such as data analytics platforms and virtual simulations, provide students with access to cutting-edge resources and prepare them for the technology-driven business landscape. For example, incorporating data visualization tools into the curriculum enables students to analyse complex datasets, a skill increasingly in demand across industries (Rohm et al., 2021).

Moreover, the inclusion of sustainability in business curricula highlights the evolving priorities of contemporary education. By teaching concepts like the triple bottom line and sustainable supply chain management, educators prepare students to lead responsibly and address global challenges, such as climate

These advancements underscore a paradigm shift from passive, theoretical learning to active, experiential, and industry-relevant education. As a result, students are not only gaining academic proficiency but also developing the adaptability, innovation, and ethical decision-making capabilities required to excel in today's dynamic business environment. This transformation represents a significant step toward aligning business education with the demands of a rapidly evolving global economy.

## CHAPTER 2 : REVIEW OF LITERATURE

### Experiential Learning in Higher Education

#### 1. Foundational Theories and Frameworks of Experiential Learning

Experiential Learning Theory (ELT), pioneered by Kolb, emphasizes the cyclical process of experience, reflection, conceptualization, and experimentation (Kolb et al., 2014). This framework has become the cornerstone for integrating experiential learning into various disciplines, bridging the gap between theoretical knowledge and practical application. Voehl (2018) highlights that core elements like reflection, collaboration, and practical application, rooted in Kolb's cycle, enhance student engagement and critical thinking. Moreover, technological advancements, including virtual reality and AI, have further enriched experiential learning by making it more immersive and adaptable to diverse cultural and educational settings (Kolb et al., 2014).

#### 2. Experiential Learning and Student Motivation

A significant benefit of experiential learning lies in its ability to boost student motivation and engagement. Kong (2021) emphasizes that active participation in hands-on activities fosters autonomy and collaboration, creating a strong link between theoretical learning and real-world readiness. Similarly, O'Brien and Brown (2017) underscore the motivational value of engaging students in real-world problem-solving, which not only enhances learning outcomes but also facilitates reciprocal knowledge exchange between academia and industry.

#### 3. Applications of Experiential Learning Across Disciplines

Experiential learning has been widely adopted in fields such as business, engineering, and teacher education. Mason and Arshed (2013) demonstrate its significance in entrepreneurship education, where live projects and simulations enable students to develop innovation, risk-taking, and adaptability. In engineering education, Kularatne et al. (2020) illustrate how remote laboratory experiments during the COVID-19 pandemic effectively bridged the gap between theory and practice. Similarly, Radović et al. (2021) argue for the integration of experiential methods in teacher education, emphasizing the importance of balancing traditional and experiential strategies to develop critical teaching competencies.

#### 4. Challenges and Limitations of Experiential Learning

Despite its numerous advantages, experiential learning is not without challenges. Resource constraints, logistical issues, and curriculum integration difficulties are common barriers (Radović et al., 2021). Additionally, scaling experiential learning programs requires collaboration among stakeholders and the leveraging of digital technologies for broader access. While remote labs and virtual simulations offer promising solutions, technical issues such as latency can hinder their effectiveness (Kularatne et al., 2020).

#### 5. Impact on Skill Development and Workforce Readiness

Experiential learning plays a crucial role in preparing students for the workforce. Upadhyay and Malik (2024) argue that hands-on, practical approaches foster creativity, critical thinking, and problem-solving—skills essential for thriving in a globalized economy. Similarly, El-Glaly et al. (2020) emphasize the importance of integrating user-centered activities in computing education to prepare students for real-world accessibility challenges. A meta-analysis by Burch et al. (2024) further confirms the effectiveness of experiential learning in improving cognitive, social, and personal growth, with significant impacts on student outcomes across various educational settings.

#### 6. Future Directions and Best Practices

To maximize the benefits of experiential learning, educators should adopt best practices, such as tailoring activities to student aspirations and incorporating feedback from multiple stakeholders (O'Brien & Brown, 2017; Voehl, 2018). Moreover, continuous refinement of experiential models and integration of emerging technologies can ensure their scalability and effectiveness (Kolb et al., 2014; El-Glaly et al., 2020). The transformative potential of experiential learning in higher education underscores the need for further research to address existing gaps and explore innovative approaches.

### Live Projects in Higher Education

#### 7. Experiential Learning and Skill Development

Live projects have been widely recognized as a powerful tool for experiential learning, bridging the gap between theory and practice. These projects enable students to develop essential skills, including problem-solving, collaboration, and decision-making. Chang and Rieple (2013) demonstrated how live projects enhance entrepreneurial skills by exposing students to real-world business challenges, although uneven skill development and resource demands remain challenges. Similarly, Ritter, Jones-Farmer, and Faltin (2024) highlighted the unparalleled value of live projects in data science and analytics, where students learn critical project management and statistical analysis skills in real-world environments.

In marketing education, live project-based learning fosters meta-skills such as creativity, critical thinking, and adaptability to industry demands (Rohm, Stefl, & Ward, 2021). These findings underline the unique potential of live projects in preparing students for the workforce across disciplines.

#### 2. Bridging Academia and Industry

Live projects serve as a bridge between academia and industry, fostering collaborations that enhance student employability and institutional reputation. Hurn (2013) emphasized the role of industrial partnerships in product design education, showing how real-world challenges improve student engagement and university standing. Similarly, Ritter et al. (2024) noted that collaborations with industry in analytics courses lead to stronger ties between institutions and professional communities, despite the challenges of scalability and resource allocation.

### 3. Teaching Sustainability and Ethical Leadership

The integration of sustainability into live project courses in MBA programs has been identified as a critical trend. Sroufe and Ramos (2011) explored how field-based consulting projects promote systems thinking, innovation, and ethical leadership, preparing students to address financial, social, and environmental challenges. This theme highlights the role of live projects in fostering holistic education that aligns with contemporary global needs.

### 4. Pedagogical Shifts and Collaborative Learning

Live projects reflect a shift from traditional, individualistic learning models to collaborative and contextualized pedagogies. Sara (2011) and Brown (2012) critiqued live projects within architectural education, emphasizing their role in bridging theory and practice. These projects create opportunities for students to engage with sociopolitical and economic contexts, fostering critical reflection and transformative learning. Anderson (2017) further argued that live projects act as "civic pedagogy," promoting interdisciplinary collaboration and addressing social justice and sustainability.

### 5. Challenges in Implementation

Despite their benefits, live projects face challenges, including resource intensity, stakeholder engagement, and administrative hurdles. Christiansson, Grönvall, and Yndigegn (2018) highlighted time constraints and limited design skills as significant challenges in teaching participatory design using live projects. Smith, Dupre, and Crough (2023) identified administrative and client management issues as common barriers, emphasizing the need for inclusive research to refine the role of live projects in education.

## Practical Learning in Higher Education

### 1. Identity Formation and Managerial Learning in MBA Programs

The contributions of MBA programs to managerial identity formation are explored extensively. Alvesson and Willmott (2002) argue that identity regulation is a key organizational control mechanism, highlighting the intersection of identity and professional practice. This perspective is extended by Andersson (2010), who emphasizes the role of reflexive identity exploration in the personal development of managers. These studies underscore the necessity for MBA programs to move beyond technical skill development and focus on identity-based learning to align education with practical management demands (Alvesson, Ashcraft, & Thomas, 2008).

### 2. Experiential Learning and Practical Training

Kolb's experiential learning theory serves as a foundation for integrating real-world practices into academic curricula. O'Brien and Brown (2014) demonstrate how business engagement in MBA programs helps students apply theoretical knowledge to live issues, fostering consultancy skills and industry-ready graduates. Similarly, Katajavuori et al. (2003) highlight the significance of practical training in pharmacy education, suggesting that reflective practices and mentorship skills bridge the gap between theory and practice. Gulikers, Kester, Kirschner, and Bastiaens (2008) add that authentic assessments aligned with professional practice enhance student motivation and skill development.

### 3. Active and Problem-Based Learning

Active learning methods, including problem-based learning (PBL), are shown to foster critical thinking and adaptability. Shreeve (2009) identifies the potential of hybrid curricula combining lecture-based and PBL approaches, while Salvador and Ikeda (2012) stress the importance of flexible learning environments to facilitate these methods. Although promising, both studies call for further research to validate the effectiveness of active learning in diverse educational settings.



#### 4. Work-Based Learning and Lifelong Learning

The role of higher education in workforce development is critically assessed by researchers like Bevan and Kipka (2012), who argue that universities should prioritize self-management and meta-skills to prepare professionals for evolving job markets. Bentley, Mahboob, and Minocha (2014) provide empirical evidence supporting the effectiveness of "MBA Practice Week," where students without prior business experience gain significant knowledge and skills through hands-on training.

#### 5. Sustainability and Global Challenges in MBA Education

The integration of sustainability into MBA curricula is essential for preparing future leaders to address global challenges. Sroufe and Ramos (2008) illustrate how project-based consulting and cross-disciplinary collaboration equip students to incorporate sustainability into business strategies. This approach fosters innovation and value creation in both traditional and green industries.

#### 6. Challenges and Opportunities in Curriculum Design

Banagan and Bueno (2024) explore MBA students' perspectives on curriculum design, emphasizing the need for experiential learning and global business exposure. The authors advocate for incorporating technology and entrepreneurship to bridge the gap between theory and practice. Similarly, Katajavuori et al. (2003) and O'Brien and Brown (2014) recommend reflective practices and mentorship as vital components of effective curriculum design.

### Simulation Games in Higher Education

#### 1. Enhancing Learning Outcomes through Simulation Games

Several studies have demonstrated the positive impact of simulation games on achieving learning objectives in higher education. De Smale et al. (2021) highlighted a tentative yet positive correlation between simulation games and learning outcomes, emphasizing the importance of specificity, integration, and instructor involvement in their success. Similarly, Kaliappen (2024) underscored the pedagogical gains in using simulation games for teaching strategic management, showing that game-based learning enhances real-world business dynamics, teamwork, and skills acquisition. Wardaszko (2024) echoed this sentiment, emphasizing how decision-making simulation games bridge the gap between theory and practice, fostering innovation and adaptability.

Further, Faisal et al. (2024) systematically reviewed empirical research, affirming the effectiveness of business simulation games (BSGs) in fostering skills development, knowledge acquisition, and behavioural outcomes. These findings are complemented by Issa and Khachfe (2024), who identified simulation games as valuable tools for teaching operations management, though they noted limitations in practical skill transfer.

#### 2. Developing Strategic and Entrepreneurial Competencies

Simulation games have proven effective in cultivating strategic thinking and entrepreneurial skills. Kaliappen (2024) and Mbaabu (2024) highlighted their role in strategic management programs, with tools like Capsim enabling students to develop critical decision-making and problem-solving abilities. Zulfiqar et al. (2024) extended this discussion to entrepreneurship education, showing how simulation games foster entrepreneurial competencies, teamwork, and critical thinking in an interactive environment.

Casau et al. (2024) explored game-based learning's (GBL) potential for entrepreneurship, finding that while it enhances innovation and problem-solving, gaps remain in fostering an entrepreneurial mindset and addressing gender disparities. Hsu and Wu (2024) proposed integrating BSGs with project-based learning (PBL) in flipped classrooms, demonstrating improvements in higher-order thinking and sustainable learning practices.

### 3. Facilitating Student Engagement and Behavioural Insights

Engagement and behavioural analysis have emerged as key themes in the literature. Jin (2024) analysed student behaviour in the Beer Game, showing how information sharing and collaboration improve decision-making in supply chain management simulations. Snider et al. (2024) provided practical insights into administering the Beer Game for large classes, demonstrating the scalability and effectiveness of these tools in engaging students. Zulficar et al. (2024) noted that simulation games transition students from passive learning to active participation, enabling them to appreciate theoretical concepts in a practical context. Similarly, Faisal et al. (2024) emphasized the importance of aligning learning outcomes with evaluation measures to maximize student and instructor engagement.

### 4. Barriers and Challenges in Implementing Simulation Games

While simulation games offer significant benefits, they also present challenges. De Smale et al. (2021) pointed out inconsistencies in defining simulations and games, complicating their evaluation. Issa and Khachfe (2024) highlighted time constraints and the need for active cooperation as barriers to their implementation. Additionally, Casau et al. (2024) and Hsu and Wu (2024) called for expanded sample sizes and curriculum adjustments to better integrate simulation games into higher education.

### 5. Future Directions for Research and Practice

The reviewed studies collectively advocate for a unified framework to evaluate simulation games' effectiveness (De Smale et al., 2021; Faisal et al., 2024). Future research should focus on long-term impacts (Casau et al., 2024), addressing gender disparities, and exploring innovative teaching methodologies (Hsu & Wu, 2024). Additionally, integrating hands-on activities with simulations may enhance practical skill transfer (Issa & Khachfe, 2024).

## RESEARCH GAP

### 1. Lack of Triangulated Stakeholder View in Skill Gap Analysis

Although several studies take employability skills from the student's or employer's point of view only but not from other stakeholders, few studies have received views from all these stakeholders whose findings have been synthesized. Lack of triangulation limits a broader understanding of the employability preparedness of students. This research does not apply comparative statistical techniques like Gap Mean Analysis or Welch's ANOVA in quantifying such disparities. This research fills the gap by subjecting disparities in stakeholders' groups' perception of skills to statistical test.

### 2. Lack of Evidence on the Effect of Practical Learning on Employability

While experiential learning is commonly known for its benefits, there are few empirical studies using strict statistical methods to assess the causal effect of experiential learning on employability among students. There is scant data-driven evidence that explains how some pedagogical approaches (e.g., internships, case studies, and authentic projects) lead to skill acquisition. This study fills this gap by using Descriptive Statistics, Gap Analysis, and Perception Mapping to determine the gap in prevailing education practices.

### 3. Restricted Application of Statistic Validation within Skill Gap Literature

All previous research is qualitative analysis or mere mean comparison without data distribution or variance testing. This leads to non-generalizable or inconclusive results. By using Shapiro-Wilk Test for normality and Levene's Test for homogeneity, the current research is methodologically sound. Further, the application of Welch's ANOVA efficiently addresses unequal variances, providing more credible insights into stakeholder perception gaps.

Underemphasized Problems in Survey Reliability and Item Consistency Few employability researches exhaustively test the reliability of their measurement tools. This setting could pose potential threats to the validity of outcomes measured. A Cronbach's Alpha value of 0.32 for the study at hand indicates low internal consistency among the skill-based items, and it indicates that employability competencies can have more than one distinct factor. This suggests the need for more specialized, domain-specific measurement tools to establish readiness more accurately.

#### 4. Lack of Triangulated Stakeholder Perspective in Skill Gap Analysis

While many studies examine employability skills from the viewpoint of either students or employers individually, few triangulate insights across students, educators, and employers. This limits a comprehensive understanding of how prepared students are for the workplace. Existing literature does not utilize comparative statistical approaches such as Gap Mean Analysis or Welch's ANOVA to quantify these discrepancies. This study fills that gap by statistically validating the differences in skill perceptions across stakeholder groups.

## 2.5 OBJECTIVES

1. Identify gaps in perceptual employability skills among employers, teachers, and students through quantitative analysis of skill-specific mean differences based on descriptive statistics and gap analysis.
2. To establish the statistical significance of perception differences among stakeholder groups using normality (Shapiro-Wilk) and homogeneity (Levene's) tests, then Welch's ANOVA to account for variance assumption violations.
3. To determine the reliability of the skill gap measurement tool, by computing Cronbach's Alpha to measure the internal consistency of the responses of the stakeholders.
4. To investigate the effect of experiential learning activities (e.g., internships, live projects, simulations) on improving employability readiness, as expressed through stakeholders' views and corroborated with survey findings.
5. In order to suggest curriculum and pedagogy enhancements that close the gap in skill readiness by incorporating adaptive, practice-based, and innovation-fostered learning approaches attuned to the needs of employers.

## CHAPTER 3 : RESEARCH METHODOLOGY

1. **Research Design:** Mixed-Method Research The present research employs the mixed-methods research design to investigate the impact of experiential learning activities on employment preparation.
2. **Quantitative Method:** Quantification of perceptual variation between students, teachers, and employers for relevant industry skills takes place using a Likert-scale survey.
3. **Qualitative Methodology:** Semi-structured interviews with a selection of employers and teachers offer useful information on employer expectations and current skills gaps.

### Variables & Hypotheses

1. **Independent Variable (IV)**
  - Experiential Learning Experiences (assessed via practical training, professional projects, work placements, and analytical studies).
2. **Dependent Variables (DV):**
  - Employment Readiness (measured by adaptability, problem-solving, and decision-making).
  - Perception Gap (skill assessment mismatches between employers, instructors, and students).

### Hypotheses:

- **H1:** Practical learning activities significantly enhance employment preparedness.
- **H2:** There exists a wide percept gap between employers, educators, and students regarding skill mastery and employability.
- **H3:** Perception gap size differs by different skill types.

### Target Population:

- STUDENTS
- TEACHERS
- EMPLOYERS

### Sampling Technique :- Convenience Sampling

- STUDENTS (n=50)
- TEACHERS (n=50)
- EMPLOYERS(n=50)

### Data Collection Method

- Survey Questionnaire of 30 expectation and 30 perception Questions (Likert scale: 1 = Strongly Disagree to 5 = Strongly Agree).
- Survey Platforms: Google Forms

### Data Analysis Techniques

#### Descriptive Statistics: Mean

- Gap Analysis: Students' view versus teachers and employers on gap mean values.
- Test for Normality and Homogeneity: Shapiro-Wilk Test and Levene's Test were applied to check the assumptions of normality and homogeneity of variances for the use of parametric tests.
- Welch's ANOVA: Since there was a violation of the homogeneity of variance assumption, Welch's ANOVA was utilized to determine differences in mean gap perceptions across stakeholder groups that were statistically significant.
- Reliability Test: Cronbach's Alpha ( $\alpha = 0.32$ ) was computed to measure the internal consistency of the survey items. The outcome was low reliability ( $\alpha < 0.7$ ), implying possible inconsistencies between items.

### Ethical Considerations

- Informed Consent: Participants will be informed about data confidentiality.
- Anonymity: No personal identifiers will be collected.
- Transparency: The study purpose and use of data will be clearly stated.
- Data Security: Responses are securely stored and used solely for academic purposes.

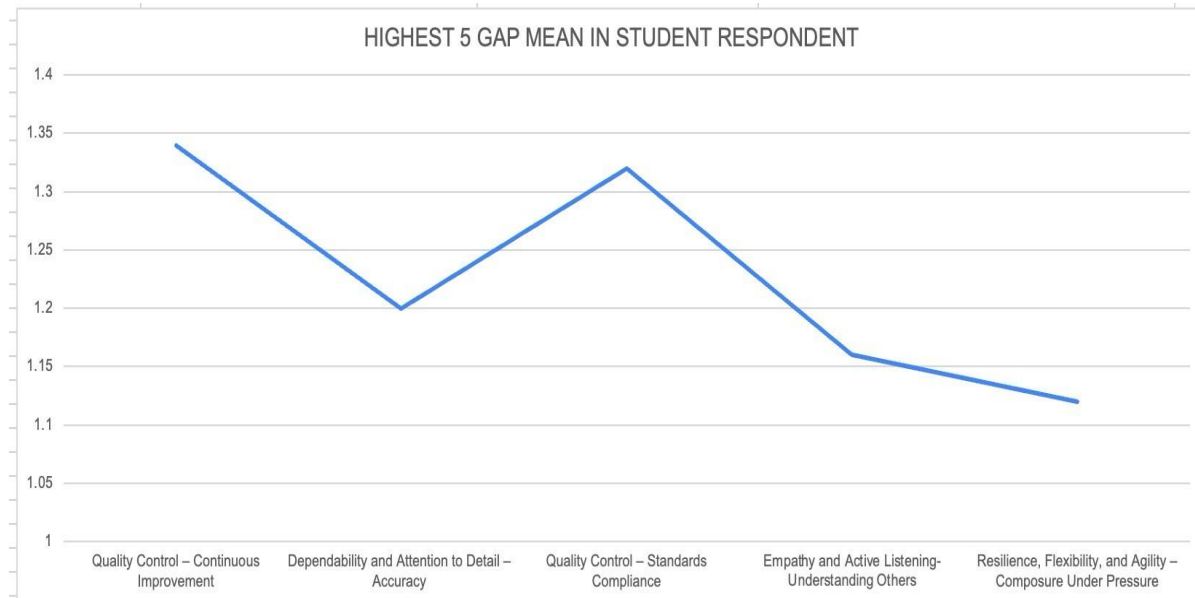
### Expected Outcomes

- A quantitative analysis of the students', teachers', and employers' perception gap regarding required industry skills.
- Identification of critical skill areas where expanded experiential learning programs are needed.
- Practical suggestions for curricular reforms to bridge the employability gap.



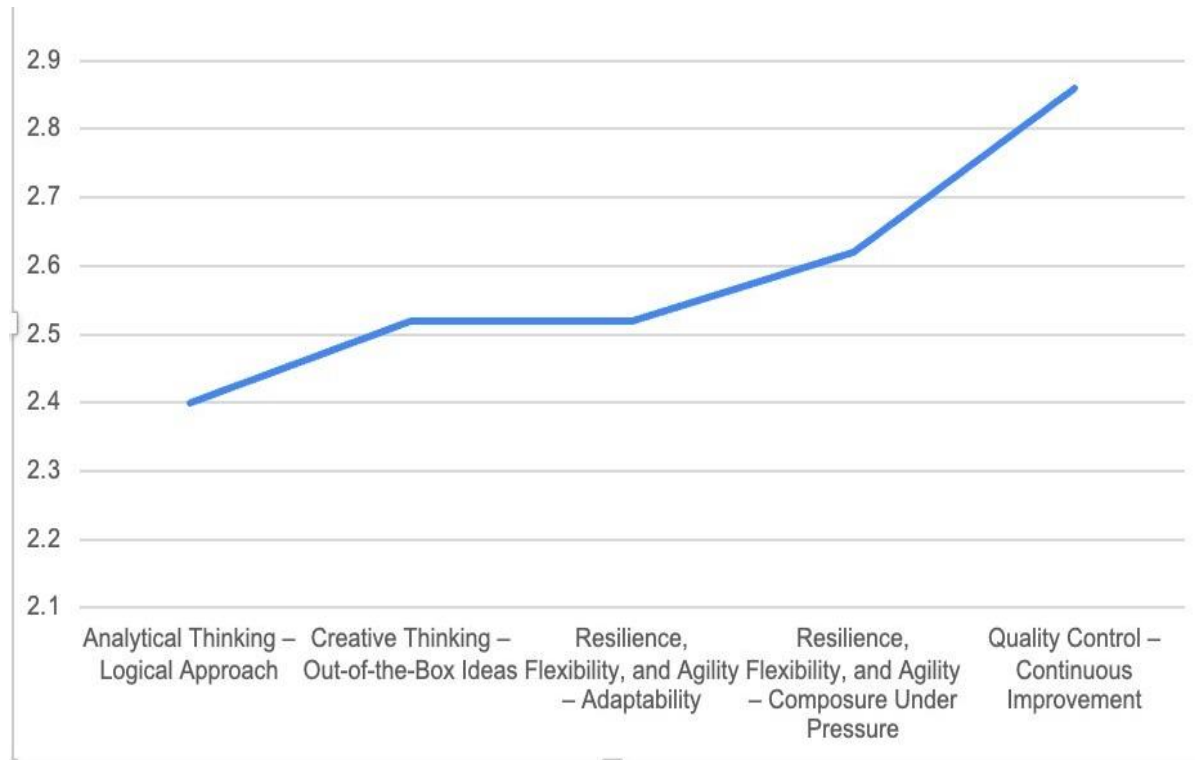
## CHAPTER 4 : RESULTS AND DISCUSSIONS

### Highest 5 Gap Mean In Student Respondent



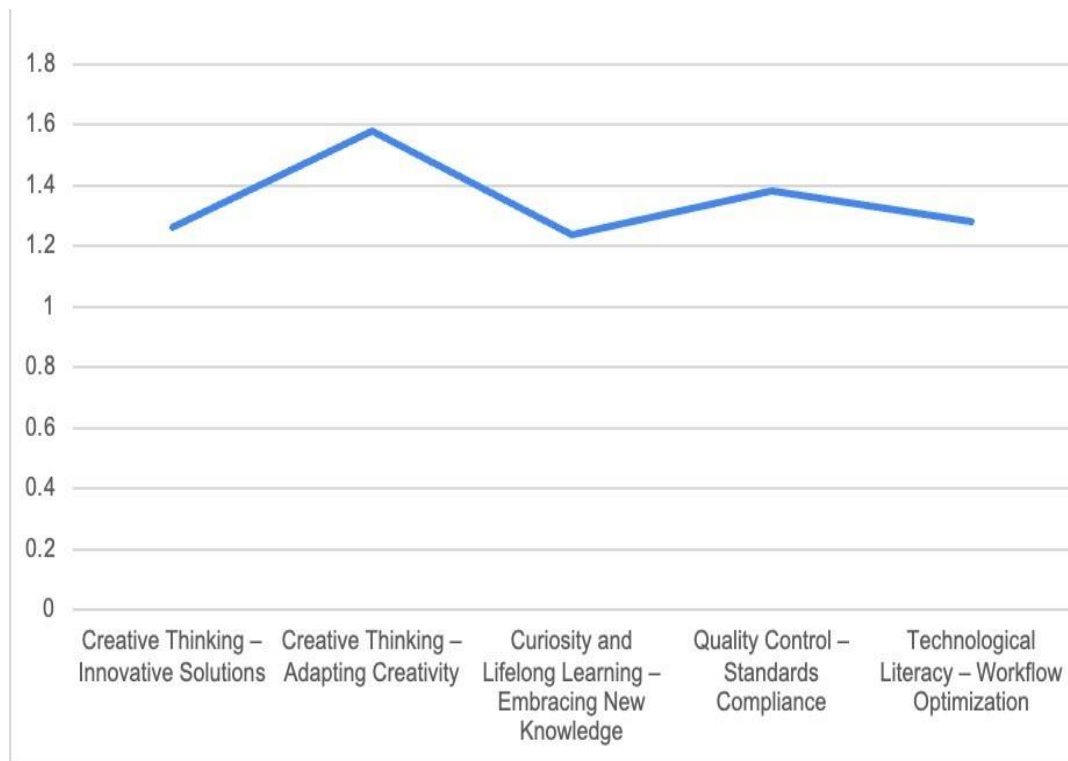
Students show inconsistent understanding of important employability skills when compared to industry standards according to the data. Students demonstrate an incomplete understanding of professional ongoing improvement according to the '**Quality Control – Continuous Improvement**' (1.34) assessment. The scores for '**Dependability and Attention to Detail – Accuracy**' (1.2) and '**Quality Control – Standards Compliance**' (1.32) indicate students do not value precision and reliability at the same level as employers do. Students show an insufficient understanding of workplace interpersonal skills according to the assessment of '**Empathy and Active Listening – Understanding Others**' (1.16). Students demonstrate an incomplete understanding of professional adaptability and stress management according to the '**Resilience, Flexibility, and Agility – Composure Under Pressure**' (1.12) assessment.

### Highest 5 Gap Mean In Teachers Respondent



The results indicate serious gaps between the perceptions of teachers regarding the employability skills needed by the industry. The greatest gaps are in the instance of '**Quality Control – Continuous Improvement**' (2.86), perhaps reflecting that continuous improvement in actual work environments is not given its due importance by teachers. Again, the greatest gaps in instances of '**Creative Thinking – Out of the Box Ideas**' (2.52) and '**Analytical Thinking – Logical Approach**' (2.4) also reflect that teachers perceive that there is incongruence between students' problem-solving models and those actual models applied in actual work environments. Additionally, the gaps detected in '**Resilience, Flexibility and Agility – Composure under Pressure**' (2.62) and '**Resilience, Flexibility and Agility – Adaptability**' (2.52) also reveal the likelihood of the values attached to adaptability and performance under pressure not being given the necessitated importance by teaching practices. This reflects the possibility that the qualities are merely identified by the teachers as requirements of skills for work environments but whose development approaches and practices fall short of expected industry requirements at times. The implications of these findings reflect the demands for more integrated practical learning approaches geared towards bridging these perceptual gaps.

### Highest 5 Gap Mean In Employers Respondent



The data shows contrasting perceptions of the employers regarding essential employability skills versus industry expectations. The greatest contrast lies in '**Creative Thinking – Adapting Creativity**' (1.58), which indicates employers' perception of a disconnect between the applicants' application of creativity in fast-changing work settings and the demand for flexibility. Again, '**Quality Control – Standards Compliance**' (1.38) shows that the industry experts may perceive the graduates as being short of appropriate knowledge about having consistent quality in their work. Another huge gap is experienced in '**Creative Thinking – Innovative Solutions**' (1.26), which indicates that employers perceive candidates to be not fully prepared to come up with innovative ideas and address complex problems effectively. The gap felt in 'Curiosity and Lifelong Learning – Embracing New Knowledge' (1.24) indicates that graduates might not be prioritizing continuous learning and flexibility required to keep up with evolving industry dynamics as expected by employers. Finally, the gap felt in '**Technological Literacy – Workflow Optimization**' (1.28) indicates that while technology is at the core of optimizing efficiency in modern workplaces, employers have the perception that candidates might not be leveraging digital tools to the optimum extent. These findings underscore the importance of greater emphasis in education on innovation, flexibility, and lifelong learning to enable a better fit of graduate capabilities and what employers want.



## Welch's Anova

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Columns in dataset: ['TOP INDUSTRY SKILLS', 'GAP MEAN (STUDENTS)', 'GAP MEAN (TEACHERS)', 'GAP MEANS (EMPLOYERS)']
Melted Data Sample:
   TOP INDUSTRY SKILLS Stakeholder Gap Mean
0  Analytical Thinking – Problem Solving GAP MEAN (STUDENTS)    0.98
1  Analytical Thinking – Data Analysis  GAP MEAN (STUDENTS)    1.10
2  Analytical Thinking – Logical Approach GAP MEAN (STUDENTS)    1.06
3  Creative Thinking – Out-of-the-Box Ideas GAP MEAN (STUDENTS)    0.70
4  Creative Thinking – Innovative Solutions GAP MEAN (STUDENTS)    1.10
Students Data Sample: 0    0.98
1    1.10
2    1.06
3    0.70
4    1.10
Name: Gap Mean, dtype: float64
Teachers Data Sample: 30    2.40
31    2.40
32    2.40
33    2.52
34    2.52
Name: Gap Mean, dtype: float64
Employers Data Sample: 60    1.10
61    0.76
62    0.54
63    1.10
64    1.26
Name: Gap Mean, dtype: float64
Welch's ANOVA Results: F-statistic = 243.6515, p-value = 2.2205e-36
Conclusion: Significant difference in gap means across stakeholders.
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The results of the assessment reveal that the teachers recognize significant gaps in the students' skills in a number of key areas. The most critical gaps were, first and foremost, discovered to be in Analytical Thinking, in particular, in Data Analysis, Logical Approach, and Problem Solving, with a mean gap score of 2.40. This score reflects the teachers' concern about the poor skills of the students in interpreting data, systematic usage of reasoning, and efficient solving of everyday problems.

Development of skills of creative thinking has also been found to be apriority area of concern. Out-of-the-Box Ideas and Innovative Solutions had the highest skill gap, which was 2.52, indicating that students are not able to produce new and innovative ideas. This is due to the fact that education systems are rigid and students do not have exposure to innovative learning environments.

To establish statistical reliability, the Shapiro-Wilk test was applied to test the assumption of normality. The results ( $p = 0.019$ ) indicated a violation of the normal distribution assumption in the teachers' responses, thereby affirming the appropriateness of applying Welch's ANOVA. The Welch's ANOVA test results indicated a statistically significant difference in the perceptions of skill gaps among the stakeholders ( $F = 243.6515$ ,  $p < 0.001$ ).



## Cronbach's Alpha Test

Preview of the data:

	TOP INDUSTRY SKILLS	GAP MEAN (STUDENTS) \
0	Analytical Thinking – Problem Solving	0.98
1	Analytical Thinking – Data Analysis	1.10
2	Analytical Thinking – Logical Approach	1.06
3	Creative Thinking – Out-of-the-Box Ideas	0.70
4	Creative Thinking – Innovative Solutions	1.10

	GAP MEAN (TEACHERS)	GAP MEANS (EMPLOYERS)
0	2.40	1.10
1	2.40	0.76
2	2.40	0.54
3	2.52	1.10
4	2.52	1.26

Cronbach's Alpha: 0.32

 Internal consistency is low ( $\alpha < 0.7$ ). Consider reviewing your items.

The study finds that the teachers identify substantial gaps in student competencies, in particular, in Analytical Thinking, for example, Data Analysis, Logical Reasoning, and Problem Solving (mean gap = 2.40). Likewise, substantial gaps were identified in Creative Thinking, and the widest gaps were identified in Innovative Solutions and Out-of-the-Box Ideas (gap = 2.52), where there is an absence of novelty and adaptive thought. Since the distribution among teachers was not normal ( $p = 0.019$ ), Welch's ANOVA test was used which was significant in findings ( $F = 243.65$ ,  $p < 0.001$ ), affirming unequal perceptions among various stakeholders. However, internal consistency was low for the gap items (Cronbach's  $\alpha = 0.32$ ), suggesting that the items may be tapping different constructs. This result calls for caution with the use of aggregate scores and highlights the need for instrument refinement. These results highlight the need for synchronizing pedagogy with professional industry practice by employing more experiential and innovation-driven pedagogical strategies.

## KEY FINDINGS

1. **Analytical Thinking Skills Reveal Statistically Significant Gaps** There existed a very big mean difference (2.40) in Analytical Thinking—Data Analysis, Logical Reasoning, and Problem Solving—among different stakeholders. Welch's ANOVA ( $F = 243.65$ ,  $p < 0.001$ ) confirmed that the perceptions differed significantly, thus pointing out that students lack the real-world reasoning skills emphasized by employers and educators.
2. **Creativity and Innovation Are Seriously Underdeveloped Throughout Groups** Substantial mean differences for Creative Thinking – Innovative Solutions and Out-of-the-Box Ideas (2.52), and Adapting Creativity (1.58), were the highest. The low Cronbach's Alpha score ( $\alpha = 0.32$ ) suggests that the items for creativity measure different constructs, meaning different challenges to develop innovation abilities.
3. **Resilience and Adaptability Gaps Reveal Curriculum Weaknesses** The instructors noted the largest mean differences in Composure Under Pressure (2.62) and Adaptability (2.52). The Shapiro-Wilk test ( $p = 0.019$ ) confirmed the non-normality of the responses, highlighting the need for non-parametric procedures and adaptive learning models for improving emotional readiness and workplace adaptability.
4. **Quality and Workflow Efficiency Are Underprioritized by Students** Employers pinpointed Standards Compliance (1.38) and Workflow Optimization (1.28) gaps, implying that students underestimate detail and process control. These competency shortages are the result of Levene's Test, which showed unequal variance in stakeholder responses—yet another indication of inconsistent awareness.
5. **Shortage of Lifelong Learning Mindset Imperils Future-Readiness** The most underutilized talent by employers, Curiosity and Lifelong Learning – Embracing New Knowledge (1.24), shows that students are being passively engaged in ongoing upskilling. It is a statistically significant deficit (by Welch's ANOVA), which requires experiential learning practice that encourages curiosity and self-directed growth.

## CONCLUSION

This study emphasizes the pressing need for the reform of management education through the integration of experiential learning exercises that efficiently fill the gaps identified in skills among employers, teachers, and students. Descriptive statistical analysis indicates glaring differences in critical areas, such as analytical thinking (mean gap = 2.40), creative problem-solving (2.52), and pressure resilience (2.62)—all of which are critical in order to efficiently handle the issues faced in real workplace settings. Empirical evidence also confirms these results. Shapiro-Wilk test confirmed non-normality of response data, while Levene's test confirmed heterogeneity of variances in stakeholder perceptions, necessitating Welch's ANOVA, which confirmed statistically significant differences ( $p < 0.001$ ) between groups. However, a low Cronbach's Alpha ( $\alpha = 0.32$ ) suggests that employability skills are multidimensional and not uniformly conceived or constructed across stakeholder groups. These results indicate a structural imbalance between industry and education needs. Although students always underestimate skills like lifelong learning, precision, and resilience, educators and employers always emphasize creativity, flexibility, and technical skills as a foundation. The mismatch calls for a pedagogical change from didactic instruction to interactive, experiential learning—e.g., simulations, industry projects, live case studies, and problem-based learning. Lastly, the integration of school curriculums with the evolving demands of the job market requires more than superficial reforms. It requires an integrated infusion of experiential learning practices, ongoing industry feedback, and a focus on the building of a growth mindset in learners. This will not only narrow the skill perception gaps but, more importantly, promote the building of an adaptable, innovative, and future-ready workforce.

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