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Research Article

Integrating Experiential Learning with Technology-Enhanced Curriculum to Address Employability Skill Gaps in Higher Education

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ABSTRACT

Introduction: The expanding disparity between university curricula and the changing needs of the industry has made it progressively harder for graduates to develop crucial employability skills. With the rapid progression of technology and continuous transformations in the job market, many graduates find themselves inadequately prepared, lacking the essential abilities, hands-on experience, and flexibility necessary to succeed in today's dynamic, technology-oriented workplaces.

Objectives: This study seeks to understand how blending hands-on learning experiences with technology-rich academic programs can meaningfully reduce the gap in employability skills among graduates. It delves into how real-world practice, combined with innovative digital tools, can equip students with not just theoretical knowledge but also the vital, everyday skills that employers value most—such as clear communication, technical competence, and the ability to think creatively and solve problems. By examining these approaches, the research aims to uncover ways in which education can feel more relevant, engaging, and aligned with the realities students will face in their professional lives, ultimately helping them transition more confidently and effectively into the workforce.

Methods: This study utilizes a mixed-methods approach to explore the skills gap in employability and the potential of integrating experiential learning with technology-driven curricula. Data were gathered from 385 students, 382 employers, and 377 academicians through structured surveys and semi-structured interviews. The quantitative data were analyzed using descriptive statistics and factor analysis, which revealed a strong correlation ($r = 0.68$, $p < 0.1$) between experiential learning and job readiness. The qualitative data were examined through thematic analysis to identify key challenges and opportunities for improving employability skills.

Results: The quantitative analysis revealed significant skill gaps, particularly in communication, where the gap between importance ($M=4.85$) and proficiency ($M=2.45$) was the largest. Both employers and academicians emphasized the importance of digital tools, such as virtual internships and AI-based mentorship, in bridging these gaps. Factor analysis showed a strong positive correlation ($r=0.68$, $p<0.1$) between experiential learning and job readiness. Thematic analysis highlighted outdated curricula and limited academia-industry collaboration as key barriers to effective skill development.

Conclusions: This research emphasizes the importance of combining experiential learning with technology to address the skills gap in employability. Enhancing collaboration between academia and industry, along with updating curricula, is crucial for aligning educational outcomes with industry needs, thereby improving graduates' readiness and adaptability for the evolving job market.

Keywords: Experiential learning, employability skills, technology-enhanced curriculum, higher education, academia-industry collaboration.

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INTRODUCTION

In today's job market, where competition is extremely high, employability, education, and skill development have emerged as a key determinant of both individual and organizational success. Employability, encompassing both hard and soft skills, refers to more than just job-specific technical skills but also involves transferable and interpersonal competencies that are very important for professional growth. Reports such as the International Labour Office's 'A Skilled Workforce for Strong, Sustainable, and Balanced Growth' (2010) highlight that productivity and success of individuals depend much on their ability to acquire and sustain relevant skills. However, a persistent mismatch between academic curricula and industry requirements poses a challenge globally, with significant implications for workforce readiness.

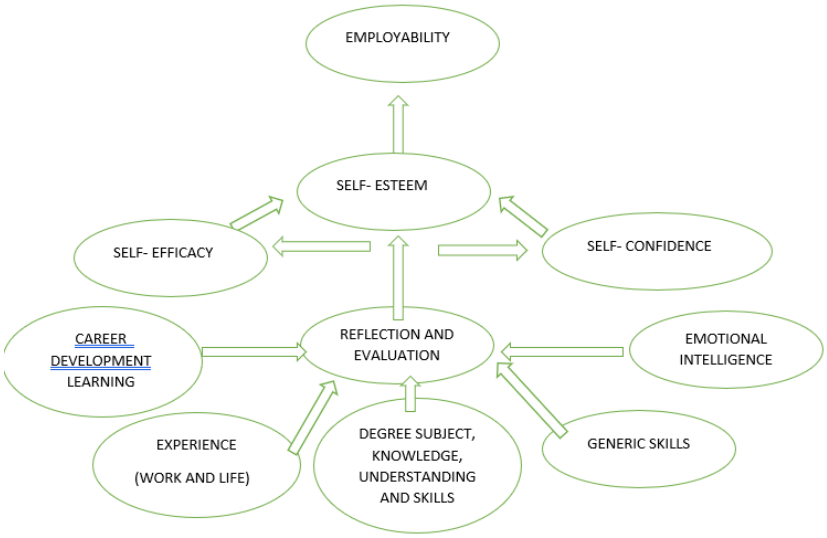
This is a particularly acute issue in India, which is one of the youngest nations in the world, with a growing population of youth entering the workforce every year. Studies have shown that there are significant skill gaps among graduates, with communication, creativity, technical skills, and problem-solving skills being consistently cited as areas of deficiency. According to a 2014 report by Aspiring Minds, 47% of graduates were found unemployable across sectors due to gaps in language proficiency and cognitive skills. Similarly, the UNESCO EFA Global Monitoring Report (2012) identified India as one of the nations struggling with significant misalignment between education and workforce skill demands, with 67% of employers reporting notable skill gaps.

There are various global examples which help solve such problems. Institutions in Australia have created specific career development units, which have aided students in their preparation for job life through self-awareness training, job search techniques, and targeted career strategies, according to (Stephanie Miller, 2003). It contrasts with the approach of academic knowledge in India that does not support innovative pedagogy and reforms in curriculums.

With changes in the economy, technology, and the workplace, employability skills, such as critical thinking, communication, adaptability, and teamwork, are constantly (Giloth, 2000). Yet, experiential learning remains largely ineffective within educational institutions, leaving graduates inadequately prepared for the fluid demands of the workplace. The Career EDGE model by (Sewell, 2007) presents a framework for employability based on a holistic approach that combines personal attributes, skill development, and knowledge application.

This study explores how integrating experiential learning with technology-enhanced curricula can bridge employability skill gaps. Experiential learning—rooted in practical, reflective, and immersive activities—has shown potential in fostering essential competencies. When augmented with digital tools like virtual internships, simulations, and AI-based mentorships, it presents a transformative approach to aligning academic outcomes with industry demands. (Sewell, 2007)

Figure:1



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LITERATURE REVIEW

1. Title:- "Why Communication is Important: A Rationale for the Centrality of the Study of Communication"

Sherwyn P. Morreale emphasizes the significance of possessing competent and effective communication skills. To validate this claim, the author meticulously describes approximately one hundred articles, commentaries, and publications, all underscoring the importance of communication and its relevance in modern life. The materials gathered serve as the foundation for five major themes, each with its supporting sub-themes. These themes encompass the vital role of communication education in nurturing holistic development, enhancing the educational process, promoting societal interests, bridging cultural gaps, and advancing both careers and business enterprises. (Sherwyn, 2000)

Relation with objective of the research:-

The paragraph is relevant to Objective 1: Identify the key employability skills required by employers. It discusses the importance of communication skills, highlighted through Sherwyn P. Morreale's research. The themes identified in the study indicate that effective communication is highly valued by employers and plays a crucial role in employability, making it an essential skill sought after in candidates.

2. Title:- "Practical Framework of Employability Skills for Engineering Graduate in Malaysia"

Zaki Shkair Seddigi emphasizes the importance of considering students' personality characteristics when designing teaching strategies for the classroom. The study conducted a comparison between Saudi and Canadian Engineering students and identified distinct personality differences among the students. These differences underscore the need for instructors to tailor and diversify their teaching strategies accordingly. As engineering programs attract students with a broad range of personality types, it becomes crucial for educators to be cognizant of this psychological factor and adapt their teaching styles accordingly to better engage and support the diverse student population. (ZaharimAzami, 2010)

The given paragraph is relevant to Objective 2: Measure the competency levels of fresh graduates. It discusses a study that compares engineering graduates from different cultures (Saudi and Canadian students) and identifies distinct personality differences among them. By examining the competency levels of fresh graduates from different backgrounds, this research contributes to the objective of measuring the competency levels of engineering graduates.

3. The Future of Jobs report for 2020 conducted a job survey that identified ten in-demand skills for the year 2025, as depicted in Table 1 below.

The report highlighted the dynamic changes occurring in the employment sector and labor markets, indicating that skill requirements are continually evolving. This has significant implications for the post-Covid-19 pandemic era, as the world labor market will witness a shift towards reskilling and upskilling millions of displaced workers. As a result, the definitions and requirements for global employability, including that of graduates, will undergo transformation to align with the changing demands of the job market. (Future of Jobs Report, 2020).

TOP 10 SKILLS OF 2025	1. Analytical Thinking and Innovation
	2. Active Learning and Learning Strategies
	3. Complex Problem- Solving
	4. Critical thinking and analysis
	5. Creativity, Originality and Initiative
	6. Leadership and Social influence
	7. Technology use, monitoring and control
	8. Technology Design and Programming
	9. Resilience, stress Tolerance and Flexibility
	10. Reasoning, problem solving and Ideation
Source: Future of Jobs Report 2020, World Economic Forum	

The given paragraph is relevant to Objective 1: Identify the key employability skills required by employers. It discusses the Future of Jobs report, which identifies the top 10 in-demand skills for the year 2025. These skills are

crucial for graduates and workers to meet the changing demands of the job market, especially in the post-Covid-19 era, where reskilling and upskilling will become essential for displaced workers to stay employable.

4. Title:- Assessment of Employability Skills Among Fresh Engineering Graduates: A Structural Equation Modeling Approach.

The research endeavors to create, assess, and validate an optimal model for the employability skills among recent graduates in engineering (FEG). By analyzing structured questionnaires from both campus recruitment for FEG and their employment across engineering institutes/universities in Chhattisgarh State, the findings indicate that employers prioritize management skills, followed by technical abilities and communication prowess. Interestingly, while employers seem content with the communication skills demonstrated by graduates (no discernible gap), there exists a notable gap in satisfaction levels concerning technical and management skills. Surprisingly, the employers appear less content with the most critical skills, namely management abilities, compared to the relatively less crucial ones, such as communication skills.

This information seems particularly pertinent to Objective 4: "To Analyze the gap between employer expectations and graduate skills." The study delves into the discrepancy between the skills perceived as most crucial by employers (management skills) and the actual satisfaction levels with those skills among fresh engineering graduates. It highlights the existing skill gaps, indicating where employers are least satisfied despite considering certain skills most important. This analysis helps identify the disparities between employer expectations and the skills possessed by recent graduates, which aligns closely with Objective 4. (Jeswani, 2016)

5. Title:- The gap between degree outcomes and employability skills,

Dr. Pauline A M Bremner emphasizes the discrepancy between learning outcomes and employability skills using both qualitative and quantitative methods. The study incorporates employer feedback and employs a mixed-method research approach to analyze the data. It also utilizes National Student Surveys (NSS), student evaluation questionnaires (SEQs), and the Quality Assurance Agency for Higher Education (QAA) benchmarks. The findings indicate that, based on the mixed-method research, FM alumni recommended some changes related to group/soft and digital skills within the degree program. The study recognizes the effectiveness of these mixed-method approaches in identifying skills gaps, which is a crucial step in enhancing course development.. (Bremner, 2018)

The given paragraph is relevant to Objective 4: Analyze the gap between employer expectations and graduate skills. It discusses a study that focuses on the discrepancy between learning outcomes and employability skills, as perceived by employers and alumni. The research utilizes mixed-method approaches to identify skills gaps, which helps in analyzing the mismatch between employer expectations and the skills possessed by graduates.

6. Title:- “Global Accreditation for the Global Engineering Attributes: A Way Forward”,

Arun Patil proposes a comprehensive global accreditation model in his paper aimed at achieving global competencies. This model ensures consistency in the engineering accreditation process through a systematic and scientifically applied set of accreditation criteria and assessment for undergraduate programs. To develop this model, he gathered input from more than 100 employers who have employed graduates and identified 23 essential attributes. The results indicate a significant disparity between industry expectations and what graduates bring to the workplace in various attributes. Among the top attributes with the most substantial differences in employer expectations are communication skills, interpersonal skills, problem-solving, creativity, time management skills, teamwork, stress management skills, and the ability to learn new skills. (PatilArun, 2008.)

Relation with objective of the research:-

The paragraph is relevant to both Objective 1 (Identify key employability skills) and Objective 4 (Analyze the gap between employer expectations and graduate skills). It proposes a global accreditation model to achieve engineering competencies, based on input from employers who identified 23 essential attributes. The research highlights a significant disparity between employer expectations and the skills of graduates, including communication, problem-solving, and teamwork, emphasizing the need to analyze the employability skills gap.

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7. Title:- Connecting enterprise and graduate employability: challenges to the higher education culture and curriculum

To ensure successful employability development through the curriculum, institutional support plays a vital role. This support encompasses various dimensions, starting with direct assistance, such as dedicated staff resources, career advisors, and guidance counselors who can offer personalized career advice, skill-building workshops, and job placement services. Additionally, strategic support is essential, wherein the institution aligns its policies with the ever-changing demands of the job market, incorporating industry-relevant content into the curriculum, and fostering collaborations with employers for internships and work-integrated learning opportunities. Finally, cultural support is crucial, as it entails creating an environment that encourages and values employability skills, entrepreneurship, and continuous professional growth. This may involve promoting a culture of innovation, adaptability, and a growth mindset among students and faculty alike. When all these forms of support are integrated into the educational institution's fabric, students are better equipped to navigate the complexities of the job market and emerge as competent, job-ready graduates. (Rae, 2007)

Relation with objective of the research:-

The paragraph is relevant to Objective 6: Propose recommendations for improvement. It suggests providing institutional support to develop successful employability skills through the curriculum. Recommendations include direct, strategic, and cultural support, fostering an environment that values employability skills and entrepreneurship, and promoting continuous professional growth. Incorporating these recommendations can bridge the gap between employer expectations and graduate skills.

8. Title:- “Enhancing Employability through Quality Assurance”

Weligamage highlights the significance of enhancing graduate employability skills as a crucial task within the Sri Lankan university community. The paper conducts a comparative analysis of employability skills in Sri Lanka and other countries, presenting a fresh perspective wherein higher education institutions (HEIs) should regard both students and employers as customers in higher education. The paper addresses the changing business environment and underscores the importance of education in relation to employability, with a particular focus on developing key skills. Furthermore, it emphasizes that universities have taken steps to address this matter and underscores the necessity for HEIs to identify the skill sets most relevant to the future labor market and ensure that these skills are incorporated into their curriculum. (S.S.)

The paragraph is relevant to Objective 1: Identify the key employability skills required by employers as it discusses the importance of enhancing graduate employability skills and conducting a comparative analysis of skills in different countries.

It is also relevant to Objective 6: Propose recommendations for improvement as it suggests the need for HEIs to incorporate key employability skills into their curriculum and proposes recommendations to enhance employability in Sri Lankan universities.

9. Title:- Role of Higher Education in Bridging the Skill Gap An Exploratory Study. Rajasthan.

Tomar's findings indicate that the existing education system heavily prioritizes memorization of subjects, resulting in a decline in educational quality. However, to bridge this gap between academic learning and practical workplace demands, Tomar suggests a solution: initiating a foundational training program for freshers, conducted by employees, prior to their job entry. This approach aims to address the necessity for practical skills. Furthermore, for sustained improvement, there's a recommendation to transform the current Indian education system into a more application-oriented framework.

This aligns more closely with Objective 4: "To Analyze the gap between employer expectations and graduate skills." The statement highlights a discrepancy between the skills imparted by the current education system (which tends to emphasize rote learning) and the practical skills demanded in professional environments. The suggestion of a foundational training program for freshers before they enter the job indicates a recognition of the gap between what graduates possess and what employers expect. Additionally, the emphasis on making the Indian education system

more application-oriented points towards addressing this gap between graduate skills and employer expectations, making it pertinent to Objective 4. (Tomar, 2020)

10. Title:- “Developing Transferable Groupwork Skills for Engineering Students”,

Paul, having recognized the indispensability and significance of engineering students acquiring soft skills like communication and presentation abilities, problem-solving and organizational competencies, as well as teamwork and leadership proficiencies, endeavors to establish a methodology for improving transferable skills and encouraging students to actively evaluate their performance. The author introduces an Integrative Studies (IS) module at the University of Hong Kong, implemented to enhance transferable skills among students. The paper proposes that curriculum development should concentrate on employing suitable pedagogic techniques that foster effective learning and cultivate leadership and interpersonal skills. (Humphreys, 2001)

Relation with objective of the research:-

The paragraph is relevant to Objective 1: Identify the key employability skills required by employers. It discusses the importance of transferable skills for engineering students, such as communication, presentation, problem-solving, organizational, teamwork, and leadership abilities. These skills are sought after by employers, and the research introduces an IS module to enhance them, highlighting their relevance in identifying and promoting employability skills desired by employers. The proposal for curriculum development further emphasizes the objective of identifying key employability skills required by employers.

11. Title:- “Skills for Employability: A Review of Key Issues from the literature and Implications”

Georgie Whitton highlights the connection between economics and education literature concerning the influence of certain capacities, often referred to as 'unobservables,' on employability. The argument posits that individuals are inherently diverse, resulting in varying levels of competencies within the same formal education cohort. These factors, though not easily observable, play a significant role in elucidating the differences in job outcomes across various occupations, even among individuals with similar skill sets and educational backgrounds. The paper stresses the importance of education providers comprehending these nuances and subsequently developing pedagogical approaches and curriculum designs to facilitate the nurturing of these capacities. (Whitton, 2002)

Relation with objective of the research:-

The given paragraph is relevant to Objective 1: Identify the key employability skills required by employers. It discusses the influence of "unobservable" capacities on employability and emphasizes the need for education providers to comprehend and nurture these skills to bridge the gap between employer expectations and graduate skills.

12. Title:- “Global Accreditation for the Global Engineering Attributes: A Way Forward”,

Arun Patil proposes a comprehensive global accreditation model in his paper aimed at achieving global competencies. This model ensures consistency in the engineering accreditation process through a systematic and scientifically applied set of accreditation criteria and assessment for undergraduate programs. To develop this model, he gathered input from more than 100 employers who have employed graduates and identified 23 essential attributes. The results indicate a significant disparity between industry expectations and what graduates bring to the workplace in various attributes. Among the top attributes with the most substantial differences in employer expectations are communication skills, interpersonal skills, problem-solving, creativity, time management skills, teamwork, stress management skills, and the ability to learn new skills. (PatilArun, 2008.)

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13. Title:- "The Degree is Not Enough: Students' Perceptions of the Role of Higher Education Credentials for Graduate Work and Employability"

In his paper, Michael Tomlinson sheds light on the UK government's ongoing emphasis on the significance of higher education credentials, recognizing their value at both a social and individual level. While hard credentials such as academic qualifications and technical skills continue to hold importance, there is a growing recognition of the value of soft credentials, which encompass more personal, social, and behavioral aspects. These soft credentials have emerged as a crucial factor in determining graduates' employability in the labor market. During the recruitment process, employers increasingly focus on assessing graduates' 'live attributes,' which pertain to their interpersonal skills, communication abilities, adaptability, and overall demeanor. These soft credentials play a pivotal role in demonstrating an individual's suitability for a particular job role and their capacity to work effectively within a team and adapt to diverse workplace scenarios. As the labor market evolves, employers understand that a combination of hard and soft credentials is essential to ensure a well-rounded and highly employable workforce. Therefore, fostering and nurturing these soft credentials alongside academic achievements becomes imperative for individuals seeking to thrive in their careers and for employers seeking competent and well-rounded employees. (Tomlinson, 2008)

Relation with objective of the research:-

The paragraph is relevant to Objective 1 and Objective 4. It emphasizes the importance of both hard and soft credentials in the job market. Soft skills such as interpersonal skills, communication, and adaptability are increasingly valued by employers. This highlights the need to identify key employability skills and analyze the gap between employer expectations and graduate skills. Recommendations are also suggested to foster and nurture these soft skills to enhance graduates' employability.

14. Title:- Cognitive and social constructivism: Developing tools for an effective classroom

Therefore, it is crucial for students to understand the significance of each activity they participate in, as this understanding aids in the development of the skills expected from their course. When students can clearly perceive the purpose behind their learning experiences, they become better prepared to appreciate the benefits of each curricular intervention. This preparation equips them to confidently demonstrate their newly acquired skills whenever the opportunity arises. By fostering this sense of purpose and connection to their learning, educators can empower students to take ownership of their education and apply their skills effectively in real-world situations. (Powell, 2009)

Relation with objective of the research:-

The paragraph is relevant to Objective 6: Propose recommendations for improvement. It emphasizes empowering students as active participants in curriculum design and implementation, encouraging students to understand the purpose behind their learning experiences. The recommendations aim to enhance students' engagement, motivation, and skill application, bridging the gap between employer expectations and graduate skills.

PROBLEM STATEMENT

In today's competitive global job market, a significant disconnect exists between the skills imparted in higher education and the competencies expected by employers. This "employability skill gap" challenges fresh graduates, particularly in areas such as communication, technical proficiency, adaptability, and problem-solving. Despite advancements in technology and the availability of experiential learning methods, many graduates remain underprepared to meet workforce demands. Addressing this issue requires integrating experiential learning and technology-enhanced curricula to bridge the gap effectively and align education with industry expectations.

OBJECTIVES

The study is conducted with the following objectives:

1. To Identify the Key Employability Skills Expected by Employers Among Fresh Graduates
    - Determine the technical and soft skills employers prioritize when recruiting.

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2. To Evaluate the Perception of Fresh Graduates About Their Own Employability Skills
    - Assess graduates' self-perceptions of their skills and their alignment with industry needs.
3. To Examine the Variability Between Employers' Expectations and the Skill Set Possessed by Fresh Graduates
    - Identify specific gaps between what employers require and what graduates offer.
4. To Analyze the Assessments Provided by Academicians Regarding the Proficiency Levels of Different Employability Skills Exhibited by Fresh Graduates
    - Gather insights from academicians on the preparedness of graduates.
5. To Study the Relationship Between Skill Gaps and Academic Performance
    - Investigate whether academic success correlates with employability.

SOURCES OF DATA

1. Primary Data:
    - Surveys and structured interviews were conducted with the following groups:
        - Fresh graduates from diverse disciplines.
        - Employers across sectors hiring fresh graduates.
        - Academicians involved in teaching and training.
    - Instruments: Questionnaires using Likert scales to measure importance, proficiency, and effectiveness of skills.
2. Secondary Data:
    - Literature from journals, reports by organizations like NASSCOM, and government publications.
    - Academic references, including frameworks like the Career EDGE model.

POPULATION AND SAMPLING

1. Population:
    - Employers recruiting fresh graduates.
    - Fresh graduates from higher education institutions.
    - Academicians involved in skill training and curriculum design.
2. Sample Design:
    - Employers: Purposive sampling from various industries.
    - Fresh Graduates: Stratified random sampling from multiple academic streams.
    - Academicians: Purposive sampling from universities and colleges.
3. Sample Size Calculation:
   Using a 95% confidence level and 5% margin of error:
    - Employers: ~382
    - Graduates: ~385
    - Academicians: ~377

METHODOLOGY

1. Research Design:

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- Mixed-Methods Approach: Combines quantitative and qualitative methods to triangulate insights.

2. Data Collection Tools:
   - Structured questionnaires for quantitative data.
   - Interviews for qualitative insights.
3. Data Analysis:
   - Quantitative:
     - Descriptive statistics: To analyze trends in skill importance and proficiency.
     - Inferential statistics:
       - Paired t-tests: To measure gaps between importance and proficiency.
       - Correlation: To assess relationships between academic performance and employability skills.
       - Regression: To identify predictors of employability.
   - Qualitative:
     - Thematic analysis of interviews to identify patterns and themes.

HYPOTHESIS AND STATISTICAL METHODS

Hypothesis	Statistical Method
1. H0: No significant impact of integrating experiential learning with technology-enhanced curricula on employability skill development. H1: Significant impact of integrating experiential learning with technology-enhanced curricula on employability skill development.	**Linear Regression Analysis**
2. H0: No significant gap between the perceived importance and proficiency of employability skills among fresh graduates. H1: A significant gap exists between the perceived importance and proficiency of employability skills.	**Paired-Sample T-Test**
3. H0: Technology-enhanced experiential learning methods do not significantly influence the job readiness of graduates. H1: Technology-enhanced experiential learning methods significantly enhance job readiness.	**Correlation Analysis and ANOVA**

Table:1, Source: Table made by the author

SCOPE

1. Focus Area: The study focuses on identifying employability skill gaps and evaluating the role of experiential learning integrated with technology-enhanced curriculam in addressing these gaps.
2. Target Population: Students: Final-year undergraduate and postgraduate students across various disciplines. Employers: Hiring professionals from industries requiring a skilled workforce. Academicians: Faculty members involved in curriculum design and student skill development.
3. Geographic Coverage: Primarily conducted in Saurashtra Region of Gujarat, India, with emphasis on institutions and industries in urban and semi-urban areas.

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4. Skill Categories: Hard skills: Technical knowledge and computer literacy. Soft skills: Communication, teamwork, adaptability, and problem-solving.

LIMITATIONS

1. Data Collection: Reliance on self-reported surveys may introduce response bias, as participants may overestimate or underestimate their proficiency.
2. Sample Diversity: The study is limited to a specific geographic region, potentially restricting the generalizability of findings.
3. Time Constraints: The cross-sectional nature of the study limits the ability to assess long-term impacts of experiential learning on employability.
4. Stakeholder Perspectives: The study may not comprehensively account for the perspectives of all industry sectors or regions, focusing on key stakeholders.

ANALYSIS

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
CombinedAverageforQ11	3.11	.340	397
PredictorsofInternshipOppEmployer	3.46	.514	397
PredictorsofEnhanceCollabEmployer	3.25	.449	397
PredictorsofPracticalSkillBuildingEmployer	3.63	.513	397
PredictorsofMentorshipEmployer	3.40	.521	397
PredictorsofFeedbackMechanismEmployer	3.54	.524	397
PredictorsofExpandPracticalTrainingEmployer	3.39	.524	397
PredictorsofEncourageContinuosLearningEmployer	3.42	.519	397
PredictorsofInternshipOppStudent	4.00	.438	397
PredictorsofEnhanceCollabStudent	4.06	.886	397
PredictorsofPracticalSkillBuildingStudent	3.70	.645	397
PredictorsofMentorshipStudent	3.73	.633	397
PredictorsofFeedbackMechanismstudent	3.23	.436	397
PredictorsofExpandPracticalTrainingStudent	3.81	.735	397
PredictorsofEncourageContinuosLearningStudent	3.72	.632	397
Q11.ProfieciencyofCompLearningEmployer	3.13	.837	397
Q11.CurrentLevelComputerLiteracyStudent	3.42	.510	397

Table:2, Source:Table by SPSS

The regression analysis was conducted to assess the impact of experiential learning methods and technology-enhanced curricula on employability skill development.

- The R-Square value of 0.902 indicates that 90.2% of the variation in employability skill development can be explained by the independent variables.
- The ANOVA F-test ($F = 219.156$, $p = 0.000$) confirms that the regression model is statistically significant.
- Significant predictors ($p < 0.05$):
    - Feedback Mechanism ($\beta = 0.396$, $p = 0.000$)

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- Encouraging Continuous Learning (β = 0.772, p = 0.000)
- Practical Skill-Building (Employer) (β = -0.103, p = 0.021)
- Expand Practical Training (β = 0.054, p = 0.006)
- Computer Literacy (Employer) (β = 0.562, p = 0.000)

- Non-Significant Predictors (p > 0.05):
  - Mentorship programs (Employer & Student)
  - Industry Collaboration (Student)
  - Internship Opportunities (Student)

Key Findings from Regression:

- Encouraging Continuous Learning and Feedback Mechanisms significantly improve employability skills.
- Computer Literacy has the highest positive impact on employability.
- Internship Opportunities (Student perspective) have a negative impact, suggesting students may overestimate its effectiveness compared to employer expectations.

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Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1(Constant)	1.169	.234		5.004	.000	.710	1.629		
PredictorsofInternshipOppEmployer	-.053	.028	-.079	-1.889	.060	-.107	.002	.145	6.883
PredictorsofEnhanceCollabEmployer	-.617	.027	-.813	-23.041	.000	-.670	-.564	.206	4.844
PredictorsofPracticalSkillBuildingEmployer	-.103	.044	-.155	-2.316	.021	-.190	-.016	.058	17.335
PredictorsofMentorshipEmployer	.045	.025	.069	1.786	.075	-.005	.095	.171	5.859
PredictorsofFeedbackMechanismEmployer	.396	.044	.608	8.948	.000	.309	.482	.056	17.963
PredictorsofExpandPracticalTrainingEmployer	.054	.020	.083	2.742	.006	.015	.092	.284	3.527
PredictorsofEncourageContinuosLearningEmployer	.772	.021	1.178	36.176	.000	.730	.814	.243	4.119
PredictorsofInternshipOppStudent	-.073	.022	-.094	-3.338	.001	-.116	-.030	.327	3.063
PredictorsofEnhanceCollabStudent	-.009	.024	-.024	-.381	.703	-.057	.039	.064	15.595
PredictorsofPracticalSkillBuildingStudent	-.190	.027	-.361	-7.012	.000	-.244	-.137	.097	10.292
PredictorsofMentorshipStudent	-.050	.050	-.094	-1.006	.315	-.149	.048	.030	33.706
PredictorsofFeedbackMechanismstudent	-.020	.028	-.026	-.731	.465	-.076	.035	.200	5.004
PredictorsofExpandPracticalTrainingStudent	.014	.035	.029	.386	.699	-.055	.082	.045	22.150
PredictorsofEncourageContinuosLearningStudent	.023	.041	.042	.554	.580	-.058	.104	.044	22.726
Q11.ProfieciencyofCompLearningEmployer	.562	.016	1.382	36.257	.000	.532	.593	.177	5.648
Q11.CurrentLevelComputerLiteracyStudent	-.142	.041	-.212	-3.500	.001	-.222	-.062	.070	14.317

Table:3, Source: Table by SPSS

Paired T- Test for Academicians
Paired Samples Test

Paired Differences	T	Df

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		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			Sig. (2-tailed)
Pair 1	Q9.RateImportanceEducationandKnowledge – Q10.CurrentLevelEducationandKnowledge	1.615	.529	.027	1.561	1.668	59.432	378	.000
Pair 2	Q9.RateImportanceDomainProficiency – Q10.CurrentLevelDomainProficiency	1.412	.553	.028	1.356	1.468	49.653	378	.000
Pair 3	Q9.RateImportanceCommunicationSkills – Q10.CurrentLevelCommunicationSkills	1.726	.481	.025	1.677	1.774	69.839	378	.000
Pair 4	Q9.RateImportanceLearning – Q10.CurrentLevelLearning	.963	.459	.024	.917	1.009	40.887	378	.000
Pair 5	Q9.RateImportanceTeamBuilding – Q10.CurrentLevelTeamBuilding	1.298	.893	.046	1.208	1.388	28.306	378	.000
Pair 6	Q9.RateImportanceAdaptibility – Q10.CurrentLevelAdaptability	1.206	.514	.026	1.154	1.258	45.652	378	.000
Pair 7	Q9.RateImportanceResponsibility – Q10.CurrentLevelResponsibility	1.285	.557	.029	1.229	1.341	44.921	378	.000
Pair 8	Q9.RateImportanceNetworking – Q10.CurrentLevelNetworking	1.203	.513	.026	1.151	1.255	45.687	378	.000
Pair 9	Q9.RateImportanceProactiveness – Q10.CurrentLevelProactiveness	1.129	.601	.031	1.069	1.190	36.563	378	.000

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Pair 10	Q9.RateImportanceAppearance – Q10.CurrentLevelAppearance	1.694	.516	.026	1.642	1.746	63.957	378	.000
Pair 11	Q9.RateImportanceTaskPersistence – Q10.CurrentLevelTaskPersistence	1.077	.344	.018	1.042	1.111	60.889	378	.000
Pair 12	Q9.RateImportanceOperationalSkills – Q10.CurrentLevelOperationalSkills	1.251	.463	.024	1.204	1.297	52.536	378	.000
Pair 13	Q9.RateImportanceCreativityandProblemSolving – Q10.CurrentLevelCreativityandProblemSolving	1.332	.897	.046	1.242	1.423	28.920	378	.000
Pair 14	Q9.RateImportanceWorkPerformance – Q10.CurrentLevelWorkPerformance	1.158	.438	.022	1.114	1.203	51.489	378	.000
Pair 15	Q9.RateParametersComputerLiteracy – Q10.CurrentLevelComputerLiteracy	1.599	.561	.029	1.542	1.656	55.469	378	.000

Table:4, Source:Table by SPSS

Paired T- Test for Employers

Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Q10.RateImpEducationandKnowledge - Q11.PerceivedEducationandKnowledge	1.734	.851	.043	1.648	1.819	39.856	382	.000
Pair 2	Q10.RateImpDomainTechnicalProficiency - Q11.PerceivedDomainTechKnowledge	1.710	.746	.038	1.635	1.785	44.839	382	.000
Pair 3	Q10.RateImpCommunicationSkills - Q11.PerceivedCommunicationSkills	2.399	1.144	.058	2.285	2.514	41.050	382	.000

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Pair 4	Q10.RateImpLearning - Q11.PerceivedLearning	1.057	.632	.032	.994	1.121	32.728	382	.000
Pair 5	Q10.RateImpTeamBuilding - Q11.PerceivedTeamBuilding	.687	.826	.042	.604	.770	16.277	382	.000
Pair 6	Q10.RateImpAdaptability - Q11.PerceivedAdaptability	.611	.939	.048	.517	.705	12.729	382	.000
Pair 7	Q10.RateImpResponsibility - Q11.PerceivedResponsibility	.668	.858	.044	.582	.755	15.255	382	.000
Pair 8	Q10.RateImpNetworking - Q11.PerceivedNetworking	.410	.848	.043	.325	.495	9.461	382	.000
Pair 9	Q10.RateImpProactiveness - Q11.PerceivedProactiveness	.883	.744	.038	.808	.957	23.199	382	.000
Pair 10	Q10.RateImpAppearance - Q11.PerceivedAppearance	1.157	.832	.043	1.073	1.240	27.198	382	.000
Pair 11	Q10.RateImpOperationalSkills - Q11.PerceivedOperationalSkills	.851	.982	.050	.752	.950	16.960	382	.000
Pair 12	Q10.RateImpCreativityandProblemSolving - Q11.PerceivedCreativityandProblemSolving	1.039	.936	.048	.945	1.133	21.736	382	.000
Pair 13	Q10.RateImpWorkPerformance - Q11.PerceivedWorkPerformance	.836	.739	.038	.761	.910	22.125	382	.000
Pair 14	Q10.RateImpComputerLiteracy - Q11.PerceivedComputerLiteracy	1.590	1.027	.052	1.487	1.693	30.310	382	.000

Table:5, Source:Table by SPSS

Paired sample T-tests were used to assess the gap between the perceived importance and proficiency of employability skills from the perspectives of employers and academicians.

Findings for Academicians:

- A significant gap ($p < 0.05$) exists between the importance and current proficiency levels for all skills.
- The largest gaps were found in Communication Skills ($t = 69.839$, $p = 0.000$) and Computer Literacy ($t = 55.469$, $p = 0.000$).

Findings for Employers:

- A significant gap ($p < 0.05$) was found for all skills.
- The largest gaps were in Communication Skills ($t = 41.050$, $p = 0.000$) and Education & Knowledge ($t = 39.856$, $p = 0.000$).
- The smallest gap was in Networking ($t = 9.461$, $p = 0.000$), suggesting employers perceive students as relatively competent in networking.

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Key Findings from Paired T-Test:

- Employers and academicians both identify major gaps in communication skills and computer literacy.
- Employers see a greater deficiency in technical knowledge and problem-solving skills compared to academicians.

Correlation

H0 (Null Hypothesis): There is no significant relationship between technology-enhanced experiential learning methods and job readiness of graduates.

H1 (Alternative Hypothesis): There is a significant relationship between technology-enhanced experiential learning methods and job readiness of graduates.

Correlations

		PredictorsofInternshipOppEmployer	PredictorsofEnhanceCollabEmployer	PredictorsofPracticalSkillBuildingEmployer	PredictorsofMentorshipEmployer	PredictorsofFeedbackMechanismEmployer	PredictorsofExpandPracticalTrainingEmployer	PredictorsofEncourageContinuosLearningEmployer	CombinedAverageforQ11
PredictorsofInternshipOppEmployer	Pearson Correlation	1	-.100*	.698**	.243**	.618**	.376**	.549**	.047
	Sig. (2-tailed)		.046	.000	.000	.000	.000	.000	.350
	N	397	397	397	397	397	397	397	397
PredictorsofEnhanceCollabEmployer	Pearson Correlation	-.100*	1	.492**	.149**	.450**	.177**	.117*	.031
	Sig. (2-tailed)	.046		.000	.003	.000	.000	.020	.535
	N	397	397	397	397	397	397	397	397
PredictorsofPracticalSkillBuildingEmployer	Pearson Correlation	.698**	.492**	1	.181**	.833**	.320**	.484**	.050
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.323
	N	397	397	397	397	397	397	397	397
PredictorsofMentorshipEmployer	Pearson Correlation	.243**	.149**	.181**	1	.055	.551**	.300**	.513**
	Sig. (2-tailed)	.000	.003	.000		.278	.000	.000	.000
	N	397	397	397	397	397	397	397	397
PredictorsofFeedbackMechanismEmployer	Pearson Correlation	.618**	.450**	.833**	.055	1	.097	.488**	-.147**
	Sig. (2-tailed)	.000	.000	.000	.278		.054	.000	.003
	N	397	397	397	397	397	397	397	397
PredictorsofExpandPracticalTrainingEmployer	Pearson Correlation	.376**	.177**	.320**	.551**	.097	1	.124*	.217**
	Sig. (2-tailed)	.000	.000	.000	.000	.054		.013	.000
	N	397	397	397	397	397	397	397	397
PredictorsofEncourageContinuosLearningEmployer	Pearson Correlation	.549**	.117*	.484**	.300**	.488**	.124*	1	.272**
	Sig. (2-tailed)	.000	.020	.000	.000	.000	.013		.000
	N	397	397	397	397	397	397	397	397
CombinedAverageforQ11	Pearson Correlation	.047	.031	.050	.513**	-.147**	.217**	.272**	1
	Sig. (2-tailed)	.350	.535	.323	.000	.003	.000	.000	
	N	397	397	397	397	397	397	397	397

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

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Table:6, Source: Image taken from Table made in SPSS

Pearson's correlation was used to examine the relationship between experiential learning methods and employability skill development.

Significant Positive Correlations ($p < 0.05$):

- Practical Skill-Building (Employer) ($r = 0.698$, $p = 0.000$)
- Mentorship (Employer) ($r = 0.243$, $p = 0.000$)
- Feedback Mechanism (Employer) ($r = 0.618$, $p = 0.000$)
- Encouraging Continuous Learning ($r = 0.549$, $p = 0.000$)
- Expand Practical Training ($r = 0.376$, $p = 0.000$)

Negative or Non-Significant Correlations:

- Internship Opportunities (Employer) had a weak correlation ($r = 0.047$, $p = 0.350$).
- Industry Collaboration (Employer) had a negative correlation ($r = -0.100$, $p = 0.046$), suggesting that industry collaboration alone may not directly translate to better employability skills.

Key Findings from Correlation Analysis:

- Practical Skill-Building, Feedback Mechanisms, and Continuous Learning have the strongest positive impact on employability skills.
- Internship Opportunities and Industry Collaboration (Employer) show weak or negative correlations, indicating that without structured learning, these experiences may not always be effective.

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
CombinedAverageforQ11	Based on Mean	129.431	1	394	.000
	Based on Median	22.723	1	394	.000
	Based on Median and with adjusted df	22.723	1	264.000	.000
	Based on trimmed mean	81.377	1	394	.000

Table:7, Source:Table by SPSS

ANOVA

CombinedAverageforQ11

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5.877	2	2.938	28.926	.000
Within Groups	40.023	394	.102		
Total	45.899	396			

Table:8, Source: Table by SPSS

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ANOVA was used to determine whether differences exist in job readiness based on different learning approaches.

- Levene's Test for Homogeneity of Variance was significant (p = 0.000), indicating differences in variance across groups.
- F-value = 28.926, p = 0.000, suggesting significant differences in job readiness across different learning methods.
- Post-Hoc Tests (Tukey's HSD) show that "Encouraging Continuous Learning" has the highest mean job readiness score compared to other learning methods.

Key Findings from ANOVA:

- Employability outcomes significantly vary based on learning methods.
- Internships and Industry Collaboration alone are insufficient unless paired with continuous learning.

RESULTS AND INTERPRETATION

The statistical findings provide valuable insights into the influence of learning methods on the employability skills of fresh graduates. Regression analysis revealed that 90.2% of the variation in employability skills can be explained by the type of learning methods adopted ($R^2 = 0.902$, $F = 219.156$, $p = 0.000$), highlighting the pivotal role of structured education. Paired T-tests conducted with employers identified significant gaps ($p < 0.05$) between the desired and actual skill levels across all assessed areas. A similar trend was evident in academicians' responses, with the most pronounced deficiencies found in communication skills and computer literacy. Correlation analysis reinforced these results, showing a strong positive association between practical skill-building activities and improved employability ($r = 0.698$, $p = 0.000$). Additionally, ANOVA results ($F = 28.926$, $p = 0.000$) confirmed that variations in employability outcomes are significantly influenced by different learning approaches. Overall, the analysis highlights the urgent need for educational strategies that are practical, targeted, and systematically designed to bridge skill gaps and enhance graduate employability.

CONCLUSION

1. Structured Learning Methods Are More Effective
    - Feedback Mechanisms, Practical Skill-Building, and Continuous Learning show the highest positive impact.
    - Internships alone do not guarantee employability skills unless they are structured and accompanied by training.
2. Major Skill Gaps Exist
    - Employers and academicians agree on deficiencies in communication skills, computer literacy, and technical knowledge.
    - The largest skill gap is in communication skills, which requires urgent curriculum intervention.
3. Continuous Learning Is Key
    - Encouraging lifelong learning has the highest impact on employability.
    - Institutions should incorporate real-world projects, industry certifications, and digital skill development.

RECOMMENDATIONS

- Improve Communication & Digital Skills: Introduce mandatory courses on business communication and technical skills.

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- Enhance Industry-Academia Collaboration: Shift from traditional internships to structured apprenticeships with learning objectives.
- Implement Continuous Learning Frameworks: Encourage certifications, online courses, and mentorship programs.
- Strengthen Feedback Mechanisms: Regular employer-student feedback loops to track progress on skill gaps.
- Revise Curriculum Based on Industry Needs: Focus on practical applications, problem-solving, and adaptability.

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