

Teaching Approaches and Bridging the Classroom-Reality Gap in Higher Education

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Abstract

In today's ever-changing modern world, traditional educational settings often struggle to keep pace with the evolving needs of the workforce. As academic institutions strive to equip students with practical skills, there is a growing recognition of the need to connect classroom learning to real-world situations. This study examined the relationship between teaching approaches and bridging the classroom-reality gap in higher education in Nigeria. In particular, it draws on Experiential Learning Theory (ELT), which posits that meaningful learning is achieved through direct experience, reflection, and active engagement rather than passive absorption of information. By emphasizing learning as a process where knowledge is created through the transformation of experience, ELT underpins the study's exploration of experiential learning as a key pedagogical strategy. A structured survey was used to gather quantitative data for the study. The lecturers in Nigeria's public universities were the target population. SPSS and SmartPLS tools were used to analyze the data. The findings suggest that effective management of teaching approaches such as experiential learning, technology integration, and career preparation in higher education institutions significantly influences the gap between the classroom and reality. The study's findings show a statistically positive and significant association between experiential learning, technology integration, career preparation approaches, and bridging the classroom-reality gap in higher education. By bridging the gap between theoretical knowledge and practical implementation, the findings of this study contribute to the ongoing dialogue on pedagogical practices in higher education and workforce development, aiming to better prepare students for the challenges they will face in their future careers.

Keywords: *Experiential learning; Technology integration; Career preparation, Approach; Gap*

INTRODUCTION

The need for skills in the rapidly changing global workforce goes beyond traditional schooling. The Future of Jobs Report 2023 from the World Economic Forum highlights the importance of having "work-ready" skills as well as the vital role that experiential learning models play in developing flexible professionals. Teaching approaches include the decisions and choices teachers make when establishing the role of the students, how students solve problems, asking questions, explaining concepts, assigning homework, lecturing, teaching mini-lessons, giving demonstrations, setting up learning experiences and activities, and facilitating projects. The methods used greatly impact results. The teaching methods are handed down from generation to generation through a cultural code that is present in most classrooms. This code is the main reason why changing teachers does not automatically produce changes in teaching. This finding is significant for an instructional leader to understand because there is a great need to help teachers learn more about teaching from their own experience and work in the classroom. As far as we know, the younger class of pupils has been surrounded by electronic devices, including computers, video games, digital music players, cell phones, and an assortment of digital toys. Students nowadays look very different. The people that our educational system was intended to teach are not the same as

the students of today. In light of this, teachers ought to familiarize themselves with these contemporary technologies so they can take advantage of them as teaching aids.

Conventional classroom training falls short of offering more involvement, quicker evaluations, and an instantaneous learning environment. On the other hand, technology and digital learning tools fill this gap. Traditional learning approaches cannot match some of the efficiencies offered by this technology. Given the growing public popularity of smartphones and other wireless technology devices, it makes sense for educational institutions like schools to effectively use them by integrating technology into the classroom. Indeed, the versatility and non-intrusive nature of today's technologies make education more appealing to the younger generation. But because traditional teachers are reluctant to use modern technology and gadgets in the classroom and see them as distractions rather than as wise teaching tools, it could be a difficult strategy to use at first (Vakaliuk et al., 2021). This reluctance is often compounded by limited technological training, fears of classroom management challenges, and adherence to traditional notions of teacher authority.

Nevertheless, the widespread adoption of smartphones and wireless technologies presents a powerful opportunity for educational reform. Effectively integrating technology into teaching practices could significantly enhance students' learning experiences and help bridge the divide between academic training and workforce expectations. Addressing both the persistent skills gap and the cautious adoption of technology is therefore essential for fostering more relevant, dynamic, and future-oriented higher education in Nigeria. Several research studies have explored how to bridge the gap between classroom and real-world experiences. Chand (2024) focused on bridging the gaps in quality education. Corinne et al. (2018) conducted *Creating a bridge between postsecondary experiences and classroom realities* to prepare competent educators. The gap can be closed and graduate instructors can be effectively prepared for the teaching field by using contextualized learning strategies in teacher preparation programmes, such as situated learning theory. This study examined the topic outlines of the core final year subjects and conducted surveys with one cohort (n=154) following a four-year initial teacher education programme and again six months after graduation. According to the study, the program's last year successfully contextualized the graduates' postsecondary education, combining theory and practice, and incorporating the fundamentals of situated learning theory. This helped the graduates become ready for the realities of the teaching profession. Resch & Schrittmesser (2021) treatise on bridging the knowledge gap in teacher education by utilizing the Service-Learning approach. The study investigates the use of service-learning in Austrian teacher preparation. It is based on a set of semi-structured interviews with thirteen teacher educators who use this style of instruction in collaborative projects with educational institutions. According to the research, teacher educators should differentiate between five service-learning orientations (i.e., connecting theory and practice, engagement, job-related skills, community needs, and learning outside of the classroom), assume different expert and support roles, and recognize a variety of benefits from service-learning.

This study highlights the significance of service learning for inclusive education and the benefit of exposing pre-service teachers to real-world issues that face schools to better prepare them for working with different student populations. While these studies provide valuable insights into bridging gaps in teacher preparation and educational quality, the present study differs in its broader focus on the Nigerian higher education context across multiple disciplines, not limited to teacher education. Furthermore, it expands the inquiry beyond contextualized learning alone to also examine the role of experiential learning, technology integration, and career preparation strategies in bridging the classroom-reality gap. By focusing on a wider set of pedagogical variables and applying a large-scale survey of lecturers across public universities, this study aims to provide a more comprehensive understanding of how higher education institutions in Nigeria can better align academic training with the dynamic demands of the contemporary workforce.

Furthermore, it is worth noting that none of the authors cited in this study specifically examined the relationship between teaching approach and bridging the classroom-reality gap in higher education institutions in Nigeria. Additionally, previous studies did not emphasize the importance of experiential learning, technology integration, and career preparation as critical variables to measure managing the teaching approach. The great variety in the geographic locations and regions covered by the available studies is another important gap that prompted this investigation. Therefore, the purpose of this study is to close the gaps left by previous researchers. This study aims to explore several key relationships in

the context of bridging the gap between the classroom and real-world experiences. First, it seeks to determine the relationship between different teaching approaches and the effectiveness of bridging this gap. Second, it examines how experiential learning contributes to closing the divide between academic instruction and practical application. Third, it investigates the relationship between the integration of technology in education and its role in narrowing the classroom-reality gap. Finally, the study aims to examine how career preparation efforts within educational settings impact the ability to connect classroom learning with real-world demands.

Related Literature Review

In today's rapidly changing world, the role of teaching extends beyond simply transmitting knowledge. Teaching is increasingly recognized as the dynamic process of passing on knowledge to another individual and assisting them in adopting a specific behaviour. The goal of the activity is to raise awareness of meaningful learning using a pedagogically and morally sound approach (Abdullahi, 2020). To effectively instruct students, a teacher must use a methodology that respects their cognitive integrity while enabling the instructor to provide instruction without feeling like they have to. Any teaching strategy's efficacy is contingent upon the subject matter, the learning environment, and the resources at hand. Teaching methods that work in metropolitan schools with enough resources, for example, could be very different from those that work in rural schools with little access to technology. Examining how certain teaching strategies, particularly experiential learning, technological integration, and career preparation, can more effectively close the ongoing gap between classroom instruction and practical application becomes crucial in light of this.

The teaching approach generally refers to the pedagogical framework and instructional strategies that educators employ to help students acquire the necessary knowledge and skills. These strategies are influenced by the learner's characteristics as well as the subject matter to be taught. A given teaching strategy must take into account both the type of learning it is intended to promote and the qualities of the learner to be effective and acceptable. Various methods are used in schools to teach different subjects. Strategies that work well in one subject area within a school might not work in another. For instance, a different teaching strategy would be needed in a rural school with a set schedule of courses and programming than in a school with well-equipped audio-visual learning aids and a plan for individually prescribed learning programmes. The teaching approach in this study refers to experiential learning, technology integration, and a career preparation approach.

Experiential learning is redefining education by connecting the dots between theory and practice. Practical skills are offered in real-world circumstances through immersive technologies like VR and AR, as well as coding boot camps (Duchatele et al., 2024; Alice & David, 2022). These learnings put pragmatism and adaptability first in the face of global concerns. Experiential learning shines as a ray of hope in the vast tapestry of global employment, forming a workforce prepared for the future (Culhane et al., 2018). This implies that it is a learning strategy that emphasizes the attainment of knowledge, understanding, and skill through active engagement in the learning process or real-world tasks. Experiential learning embodies Kolb's (1984) approach by leading students through tangible experience, reflective observation, abstract conceptualization, and active experimentation through active engagement in learning that closely resembles real-life circumstances. Therefore, by involving students directly in the learning process, experiential learning is an essential tool for closing the gap between the classroom and real life.

Technology integration is the application of technology to improve and facilitate the learning environment. By giving students the option to finish assignments on computers rather than traditional pencil and paper, technology integration in the classroom can also enhance learning (Abedi, 2023). Personalized learning experiences that are tailored to the needs and learning preferences of specific students are now possible through technology. To guarantee that every student obtains a customized education, adaptive learning platforms and intelligent tutoring systems evaluate students' progress and offer content that is specifically tailored to them. Improved academic results are the consequence of this individualized strategy, which promotes self-directed learning and aids learners in understanding subjects more fully. By bridging the gap between the classroom and real life, the incorporation of

technology in the classroom has completely changed the learning process. Teachers can empower students to become lifelong learners and succeed in an increasingly digital world by embracing technology and creating inclusive, engaging, and personalized learning environments (West & Malatji, 2021).

Lastly, efforts to prepare students for the workforce are a direct way to match educational experiences with real-world job demands. Career preparation includes organized procedures like self-evaluation, career discovery, goal-setting, action planning, and ongoing assessment (Nameirakpam & Das Mohapatra, 2017; Mustafa & Mustafa, 2017). These activities give students wider life skills, including resilience, flexibility, and goal-directed conduct in addition to occupational skills. The stages of experiential learning are actively integrated into career-oriented programs, internships, and industry projects by offering opportunities for applied theoretical knowledge in real-world situations, structured reflection opportunities, and concrete experiences.

A combination of technological integration, career preparation, and experiential learning provides complementary means of bridging the gap between academic education and the real-world demands of the workforce. The current study develops a more comprehensive framework based on Kolb's Experiential Learning Theory, suggesting that these three characteristics cooperate to improve the relevance and impact of higher education, whereas earlier research has frequently looked at these components separately. The study's tested hypotheses are based on this integrated methodology.

Bridging the Gap Between Classroom and Reality

A bridge is essentially a structure that spans a physical gap to provide access where direct passage would otherwise be challenging or impossible. Similarly, in education, bridging the gap is a way of addressing the disparities between the ideas and abilities that are recommended for learning and the population's capacity to meet the demands of the assignment within the allotted time frame (Abdullahi, 2021). The educational gap frequently appears when students' expectations for their education do not match their capacity to fulfill professional obligations, particularly within the constrained periods of conventional curricula. Setting specific, reachable goals and committing to active, hands-on learning methods that connect expectations and reality are necessary to close this gap. Educational gap also refers to more general structural injustices, like differences in access to educational materials and technology, especially in poorer nations (Corinne et al., 2018). Traditionally, classrooms have provided organized spaces with specific learning objectives, well-defined curricula, and evaluation techniques to transmit theoretical information. However, knowledge must be applied in real-world situations where there is ambiguity, uncertainty, and conflicting stakeholder interests. While intellectual comprehension is emphasized in the classroom, real-world situations call for adaptability, critical thinking, and the fusion of theoretical and practical knowledge. Therefore, closing the gap between the classroom and the real world requires giving students the tools they need to apply and modify their basic knowledge in intricate, changing contexts.

To meet these demands, educational strategies need to go beyond traditional instructional models. Methods like experiential learning directly address this need by putting students in real-world scenarios through hands-on, authentic tasks that help them develop the skills they need to be adaptable and solve problems. Technology integration also improves the learning experience by offering dynamic, individualized learning environments that reflect the digital demands of the modern workforce. Career preparation programs like internships, mentorships, and industry partnerships also help students make this transition by providing structured pathways for applying what they have learned in real-world, professional settings.

Building on these viewpoints, this study investigates how experiential learning, career preparation, and technology integration might all work together to close the gap between classroom instruction and real-world situations in Nigerian higher education. By doing this, it hopes to support continued initiatives to better match academic instruction with the changing demands of the global job market. Based on this framework, the following hypotheses are put forth.

Research Hypotheses

The following hypotheses were created and put to the test:

H1: There is no significant relationship between experiential learning and bridging the classroom-reality gap

H2: There is no significant relationship between technology integration and bridging the classroom-reality gap

H3: There is no significant relationship between career preparation and bridging the classroom-reality gap

H4: There is no significant relationship between the teaching approach and bridging the classroom-reality gap

Theoretical Framework

The theoretical framework of this study is based on Experiential Learning Theory (ELT) proposed by Kolb (1984). The experiential learning model is a cyclical process of learning experiences. For effective learning to transpire, the learner must go through the entire cycle. The four-stage learning model depicts two polar opposite dimensions of grasping experience, concrete experience (CE) and abstract conceptualization (AC), and two polar opposite dimensions of transforming experience, reflective observation (RO) and active experimentation (AE). Experiential learning is a process of constructing knowledge that involves a creative tension among the four learning abilities. Kolb's model is directly reflected in experiential learning, an independent variable in this study that emphasizes practical exercises, problem-solving assignments, and real-world applications that motivate students to progress through the cycle's stages. By establishing immersive digital environments where students can actively experiment (AE) with new tools, reflect on their experiences (RO), and develop abstract conceptual understandings (AC) based on concrete digital interactions (CE), technology integration exemplifies the principles of experiential learning. The experiential learning cycle is also mirrored by career preparation programs like internships, industry projects, and work-integrated learning opportunities, which provide students with opportunities to test their skills in real-world situations (AE), conceptualize professional practices (AC), engage in structured reflection processes (RO), and gain authentic experiences (CE). This study provides a thorough framework for comprehending how educational practices might close the gap between the classroom and reality by connecting all three pedagogical methods to the stages of experiential learning.

Kolb defines this kind of learning as the process by which experience is transformed into knowledge (Suksela, 2023). The first phase of the Kolb learning paradigm is concrete experience. It requires the learner to place themselves in a specific situation. One needs to be open-minded because they are facing a novel challenge (Lamya & Mohammed, 2020). Rethinking their learning experiences often leaves them feeling quite nervous about the initial decisions they make. Supervisors should constantly ensure that students fully understand a given situation. Kolb's learning theory is cyclical, meaning that one can join the process at any stage in the cycle.

However, the cycle should then be carried out fully to confirm that effective learning has occurred (Suksela, 2023). Every step must be finished to obtain new knowledge, and each level is dependent on the others.

Application of this theory in an educational setting. When a learner completes each step of the four-stage cycle, which consists of having a concrete experience, observing and reflecting on it, and then forming abstract concepts (logical analysis) and generalizations (conclusions) that can be used to test hypotheses in new situations, new experiences, and so on, effective learning takes place. In contrast to other classroom-confined methods, real-world problem-solving activities can be made using this pedagogical strategy. Instructors in a variety of education courses can instruct students using the experiential learning cycle. Teachers can help students become more adept problem solvers by

educating them about this educational strategy. The learning cycle can also help students comprehend concepts and ideas better.

This study is anchored on Experiential learning theory because it is paramount for students as it fosters hands-on engagement, facilitating a deeper understanding of concepts beyond mere memorization. By immersing themselves in real-world scenarios, students refine critical thinking, problem-solving, and decision-making skills, preparing them for the dynamic challenges of the professional realm. Additionally, experiential learning cultivates adaptability and resilience, enabling students to thrive in diverse environments and effectively collaborate with peers. Ultimately, it bridges the gap between theoretical knowledge and practical application, empowering students to become lifelong learners capable of navigating the complexities of their chosen fields with confidence and competence.

METHODS

Research Design

In this study, a quantitative research design is employed. Quantitative data analyses are those that make use of numerical data to forecast future events or characterize the current situation. This type of analytical process can be used to establish facts about a subject that are pertinent to a wider audience. The ability to analyze quantitative data is one advantage of using statistical analysis. Scientists consider statistics to be logical and objective because it is a mathematical science (Cresswell and Cresswell, 2017; Dillman et al., 2014).

Quantitative methods may overlook contextual factors, personal motivations, and the nuanced realities that qualitative approaches are better suited to explore. Therefore, even though the findings of this study offer valuable insights into general trends and associations, they should be interpreted with an awareness of these limitations. Statistical analysis can reveal patterns and relationships between variables, but it often lacks the depth needed to fully capture the complexities of human behaviour and educational experiences.

Population and Sampling Procedure

A total of 500 undergraduate students from the Faculty of Education, University of Ilorin, Kwara State, North-Central Nigeria, were sampled, and 435 participants responded to the survey. By carefully determining where the subset should be drawn from, the researchers were able to ensure that there was no systematic bias in the sample size selection process. Some questions were eliminated during data cleaning because they were deemed inappropriate for use. Eventually, 420 questionnaires were used for this study. The questionnaire for this study consisted of 25 questions. Based on this, the study progressed with 420 correctly answered questionnaires, yielding a response rate of 84% for the final assessment of the study hypotheses.

The sampling approach involved purposive sampling within the Faculty of Education, with efforts made to ensure a broad cross-section of students across programs and academic levels (e.g., 100–400 level) to reduce systematic bias. However, the study did not employ a stratified random sampling method, and as such, there may still be limitations in terms of intra-faculty representativeness. Students were recruited through class announcements with voluntary participation, and informed consent was obtained before data collection.

Although the sample size is statistically adequate, caution should be exercised when generalizing the findings. The study was confined to a single faculty within one university and does not capture the diversity of Nigeria's higher education sector, including students in fields such as engineering, medicine, or social sciences. Moreover, there was no collection of demographic data such as gender, age, socioeconomic background, or geographical origin (urban vs. rural), which further constrains the ability to assess the diversity and representativeness of the sample. Future research should consider a multi-institutional and multi-disciplinary approach, incorporate federal, state, and private universities, and include a clearer sampling framework with stratification based on demographics, academic disciplines,

and year of study. This would allow for more nuanced insights and enhance the external validity of the findings.

Data Analysis

A structured questionnaire was developed and administered via an online Google Forms survey. The instrument was designed to measure four main constructs: experiential learning, technology integration, career preparation, and bridging the classroom-reality gap, using a total of 25 adapted items. Each construct was assessed through a set of specific items drawn from validated scales in previous research. Two experts from the Department of Educational Management and the Department of Test and Measurement reviewed the instrument for content validity to ensure clarity, relevance, and alignment with the research objectives. For experiential learning, six items were adapted from the work of Walker & Rocconi (2021). Sample items included statements such as "Supports lifelong learning skills by helping learners develop conceptualization and reflection" and "Experiential learning enhances knowledge retention and understanding," capturing both active experimentation and reflective observation dimensions of experiential learning. Also, technology integration was measured using five items adapted from Rosemarie (2023), with examples such as "Technology is effectively integrated into my learning process" and "I use digital tools to complete academic assignments." These items captured students' perceptions of how technology facilitated and personalized their educational experiences. For career preparation, six items were adapted from Azhenov et al (2023), Nameirakpam & Das Mohapatra (2017), and Serbes & Albay (2017). Sample items included "My courses have helped me develop career-related skills" and "I have received guidance on career planning during my studies," reflecting components of self-assessment, career exploration, and action planning.

Finally, the assessment of bridging the classroom-reality gap was conducted using eight items adapted from Abdullahi (2021). Items included "My education has prepared me to solve real-world problems" and "There is a strong connection between what I learn in class and real-world applications," focusing on the perceived effectiveness of education in preparing students for practical challenges beyond the academic setting. All items employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), following recommendations from Mayer (2013), Miller et al. (2013), and Diamantopoulos et al. (2012) that a five-point scale offers an efficient and reliable response format, reducing respondent fatigue compared to longer scales. No formal subscales were created within each variable; rather, each construct was treated as a unidimensional measure based on its operational definition in prior literature.

Data Collection

To gather data for this study, Google Forms was utilized to create online surveys that were sent to participants over WhatsApp. In the introduction, the goals and procedures of the study were explained to each participant. The survey contains an ethical approval form, which participants must sign to respond to the questionnaire. Participants in this study might leave at any moment and without explanation, and participation in it was entirely voluntary. Because the participants' data was kept private and covert, their identities remained anonymous. This strategy was adopted following the guidelines provided by (Choy, 2014; Neuman, 2013).

Data Analysis

SMART PLS 4.0 was utilized to examine the information gathered for this investigation. It was chosen because SMART PLS has several tools and subroutines for both structural models and formative and reflective assessments, such as the heterotrait-monotrait (HTMT) criterion, bootstrap-based significance testing, PLS prediction, and goodness of fit. It enables additional statistical investigations,

such as the confirmation of tetrad analysis. Higher-order models, importance-performance map analysis, and latent class segmentation are some of the techniques used. The measurement model had to be completed using SMARTPLS, and discriminant validity, convergent validity, construct validity, and reliability tests had to be performed first. Secondly, a structural model is created to test the hypotheses (Hair et al., 2019). The structural model is evaluated in the second stage, which entails computing effect sizes, assessing the model's predictive relevance, and figuring out how well endogenous factors account for variance.

RESULT AND DISCUSSION

Table 1 presents the findings indicating that the internal consistency reliability of the items concerning the constructs is reliable. In this study, the average variance extracted (AVE) value was analysed to assess the convergent validity of the measurement model. The measurement model was first evaluated to establish the reliability and validity of the constructs. Content validity was ensured through expert review by faculty from the Departments of Educational Management and Test and Measurement, which led to refinements of item clarity and alignment with conceptual definitions. Constructs were assessed for convergent validity using Average Variance Extracted (AVE), with all constructs exceeding the 0.50 threshold (EL = .567, CP = .619, TI = .530, BGBCR = .573), confirming that over half of the variance in each construct's indicators was explained by its latent variable (Hair et al., 2019).

Composite reliability (CR) values for each construct also exceeded the 0.70 benchmark (ranging from .847 to .914), indicating satisfactory internal consistency. Most item loadings exceeded 0.70, though a few (e.g., TI2 = .673) were slightly lower but retained for theoretical coherence. Discriminant validity was confirmed using both the Fornell-Larcker criterion and HTMT values (all below 0.85), indicating that each construct was statistically distinct. While these psychometric indicators confirm the instrument's robustness, a deeper examination of the items revealed important nuances. Within Experiential Learning (EL), items that referenced project-based tasks and group reflection (e.g., EL2, EL5) had higher loadings, suggesting students found these experiences especially impactful in helping them connect classroom learning with real-world applications. In contrast, items focused on passive observation (e.g., EL1) contributed less strongly. This indicates that active engagement, rather than simply exposure, drives experiential learning effectiveness. For Career Preparation (CP), items related to internships, skill-building workshops, and mentorship (CP3, CP4, CP5) were most strongly endorsed by students. These findings suggest that structured professional experiences provide clearer pathways to career readiness than general career counselling alone.

In contrast, the Technology Integration (TI) construct presented a more complex picture. While certain items (e.g., TI4, "I used digital tools to collaborate with peers") had reasonable factor loadings, others related to infrastructure use and software access (TI1, TI3) performed weaker. This reflects the ongoing uneven integration of technology in Nigerian higher education. Despite theoretical support for technology's role in bridging classroom and real-world learning, practical implementation remains constrained by inconsistent access, limited training, and underutilized platforms (Abedi, 2023; West & Malatji, 2021).

Figure 1 presents the construct measurement model used in this study, illustrating the relationships between four latent constructs, Experiential Learning (EL), Career Preparation (CP), Technology Integration (TI), and Bridging the Gap Between Classroom and Reality (BGBCR), and their respective observed variables (indicators). Each construct is represented as a latent variable (circle), with arrows pointing to its corresponding observed items (rectangles), consistent with a reflective measurement model. The standardized factor loadings are displayed along each path, indicating the strength of the relationship between each construct and its indicators. All loadings were statistically significant at $p < 0.01$, with most exceeding the recommended threshold of 0.70, thereby demonstrating acceptable indicator reliability.

For Experiential Learning, high-loading items reflected practices such as hands-on projects, real-world simulations, and reflective activities. Career Preparation indicators included items related to internship opportunities, employability workshops, and mentorship. In the case of Technology Integration, while most items met reliability thresholds, a few exhibited moderate loadings, suggesting

variability in how students experienced or accessed technological tools. Lastly, BGBCR was measured using items capturing students' perceptions of how well classroom learning prepared them for real-world application.

Table 1 Summary of measurement model (construct reliability and validity) ($p < 0.01$)

Constructs	Cronbach's Alpha	Composite Reliability	Average Extracted	Variance
Experiential Learning (EL)	.844	.886	.567	
Career Preparation (CP)	.877	.907	.619	
Technology Integration (TI)	.777	.847	.530	
Bridging Between classroom reality (BGBCR)	.893	.914	.573	

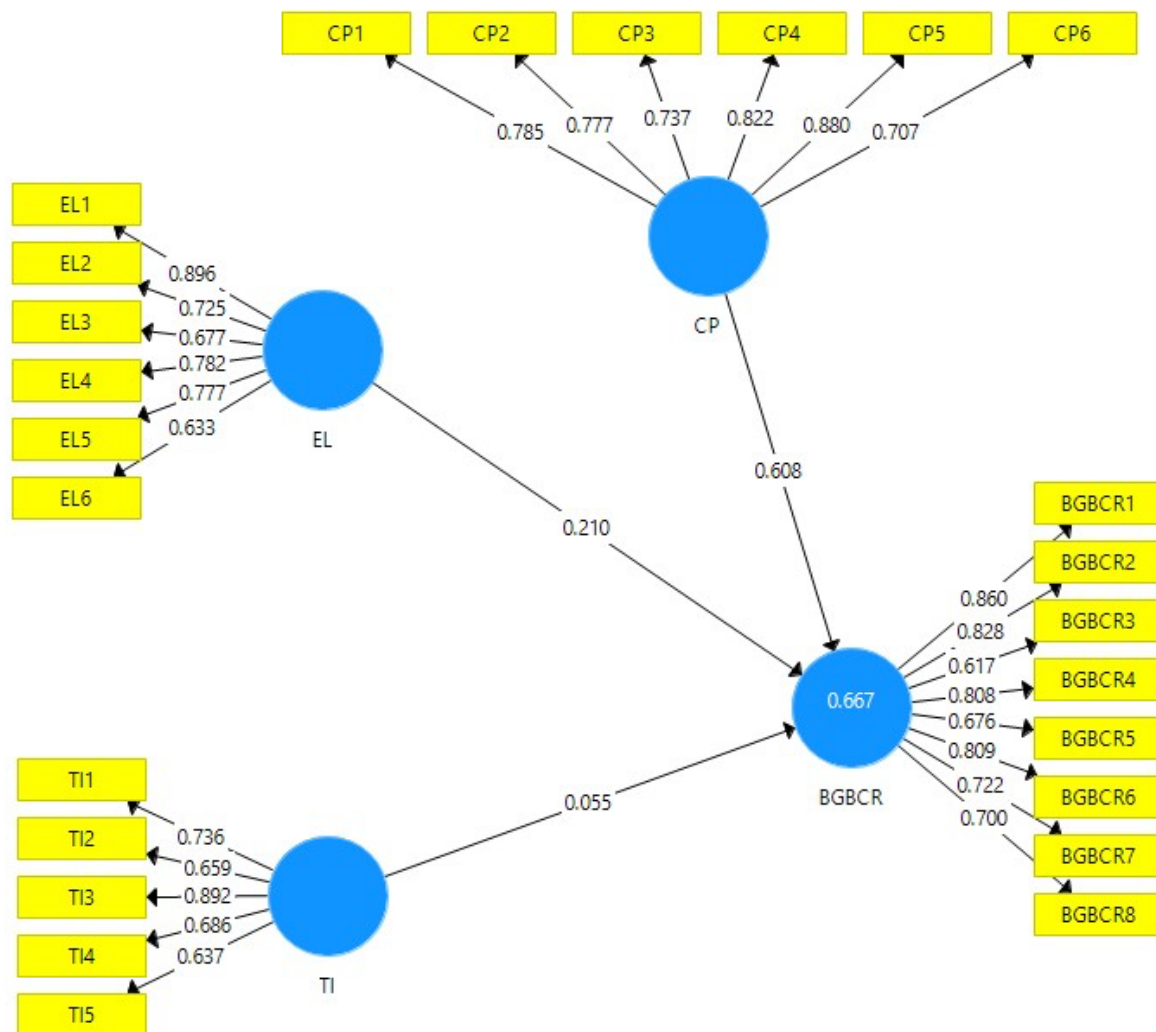


Figure 1 Construct measurement model

The model confirms strong convergent validity, as each construct shows high internal consistency and explains a significant proportion of variance in its indicators. It also provides the basis for assessing discriminant validity and for proceeding with the structural model analysis to test hypothesized relationships between constructs. Figure 1 visually affirms the adequacy of the measurement model, showing that each latent construct is reliably and validly measured, forming a robust foundation for further structural equation modeling.

Factor loadings are essential for evaluating the measurement model to show reliability. Essentially, higher average loading levels will lead to increased reliability (Sarstedt et al., 2021). When each item's loading estimate is more than 0.6 of the factor's loading, a measurement model shows adequate indicator reliability. However, depending on the underlying reasoning, this threshold may vary, such that when the AVE of the constructs is more than 0.50 for the entire sample, there is no need to delete factor loading (Flake et al., 2022). Table 2 displays the factor loadings for each of the four constructs. Most Factor loadings of the 25 items (observed variables) varied with positive values, indicating greater than 0.6 and significant at the 1% level. As a result, every item used in this investigation has an acceptable degree of indication dependability.

In a structural equation model, discriminant validity ensures that a measurement for a concept is unique and precisely captures the elements of interest that were not previously covered by other measurements (Hair et al., 2021). Put differently, discriminant validity is mostly utilized to assess and confirm whether or not there is a substantial multicollinearity problem with the variables. Henseler et al. (2015) observed the broad use of the Heterotrait-Monotrait Ratio (HTMT) for the same goal, while Hair et al. (2021) suggested the Fornell-Larcker criterion as the conventional approach frequently employed for assessing discriminant validity.

Table 2 Summary of measurement model (construct reliability and validity) ($p < 0.01$)

Constructs	Items	Factor loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Experiential Learning (EL1)	Experiential learning supports lifelong learning skills by helping learners develop conceptualization and reflection.	0.896	.844	.886	.567
EL2	Promotes the development of complementary skills such as problem-solving, teamwork, critical thinking, and adaptability.	0.725			
EL3	Equip learners with practical knowledge and versatile skills essential for academic success	0.677			
EL4	Fosters emotional and social growth by encouraging confidence, communication, and collaboration.	0.782			
EL5	Fosters ownership and deep interest in the subject matter	0.777			
EL6	enhances knowledge retention and understanding.	0.633			
Technology Integration (TI1)	Technology integration facilitates higher-order thinking skills	0.736	.777	.847	.530
TI2	Provide students with access to a personal academic dashboard	0.659			
TI3	supports diverse learning styles through media for auditory and visual learners.	0.892			
TI4	Helps to develop digital literacy and related skills	0.686			
TI5	provides flexibility to meet various learners' needs and allows continuity of education through disruptions	0.637			
Career Preparation (CP1)	Career preparation helps individuals better understand their strengths, skills, interests, and values	0.785	.877	.907	.619
CP2	Enhances decision-making skills	0.777			

continued

CP3	Helps reduce the uncertainty and overwhelming feelings often associated with selecting a career path	0.737			
CP4	Supports goal-setting and skill development necessary for successful transitions from education to employment	0.822			
CP5	Encourages exploring a wide range of occupations and fields, opening up more opportunities and helping avoid premature or limiting choices	0.880			
CP6	Help learners make choices based on facts rather than assumptions or external pressures.	0.707			
Bridging the Gap Between Classroom and Reality Gap (BGBCR1)	Enhances engagement and motivation	0.860	.893	.914	.573
BGBCR2	Promotes deeper learning and understanding.	0.828			
BGBCR3	Inspires self-reflection and self-regulated learning.	0.617			
BGBCR4	Prepares students for successful futures.	0.808			
BGBCR5	Makes learning more meaningful and interesting, boosting student enthusiasm and participation.	0.676			
BGBCR6	Encourages students to reflect on their learning processes and outcomes, fostering independent and lifelong learning habits.	0.809			
BGBCR7	Makes education more relevant to students' lives.	0.722			
BGBCR8	prepares learners for the demands of the workforce and society.	0.722			

Note: Each item is typically rated on a 5-point Likert scale from "Strongly disagree" to "Strongly agree."

The most recent set of standards for assessing discriminant validity is called HTMT. According to Henseler et al. (2015), HTMT is suitable when it is less than 0.85. Table 3 shows that the HTMT findings were within the set criterion of less than 0.85 as suggested by Ab Hamid et al. (2017). The findings show a satisfactory degree of validity. Furthermore, based on both internal and external correlation, it can be concluded that the data was gathered accurately and does not have any issues with discriminating or convergent validity because the HTMT is less than 0.85.

Table 3 HTMT values of the construct

Construct	BGBCR	CP	EL	TI
BGBCR	.79			
CP	.76	.79		
EL	.70	.74	.75	
TI	.60	.63	.73	.77

Note: EL: Experiential Learning, CP: Career Preparation, TI: Technology Integration; BGBCR: Bridging Gap Between classroom and reality

Discriminant validity, according to Fornell and Larcker (1981), is demonstrated when a latent variable explains a larger percentage of the variance in the indicator variables it is associated with than it does with other constructs in the same model. This needs to be satisfied by comparing the squared correlations between the average variance extracted (AVE) for each construct and the other constructs in the model (Henseler et al., 2015). The ability of the construct to self-distinguish from others is consistent with the requirements for discriminant validity proposed by Henseler et al. (2015). According to the Fornell-Larcker criterion results in Table 4 are derived from the square root of the constructs. Overall, the measurement model shows that the reliability and validity of the survey instrument's items are reliable.

Table 4 Fornell and Lacker's criterion

Construct	BGBCR	CP	EL	TI
BGBCR	.757			
CP	.799	.787		
EL	.705	.744	.753	
TI	.600	.628	.777	.728

Note(s): The diagonal is the square root of AVE, while the off-diagonal numbers are the correlations between latent variables.

Assessment of the Structural Model

After the measurement model as a whole has been assessed, the structural model is investigated using SmartPLS analysis. The structural model technique is typically employed to ensure that significant analytical components are considered when evaluating the proposed research hypotheses. Furthermore, to gather important data and evaluate the model's quality, this phase analysis is required (Hair et al, 2019). The primary objective of this research phase is to pinpoint critical factors for testing the proposed research hypotheses, as shown in Figure 2. To evaluate the model's applicability and make meaningful findings, this analytical approach is necessary. Among the crucial metrics taken into account in this context are the coefficient of determination (R^2), effect size (f^2), model fit, path coefficients, predictive relevance or cross-validated redundancy (Q^2) for endogenous components, and the significance levels of t -values and p -values.

Figure 2 illustrates the structural model of the study, developed and tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) with bootstrapping set at 5,000 resamples. The model examines the hypothesized relationships among three exogenous (independent) constructs, Experiential Learning (EL), Career Preparation (CP), and Technology Integration (TI), and one endogenous (dependent) construct, Bridging the Gap Between Classroom and Reality (BGBCR). Each arrow in the figure represents a hypothesized path between constructs, annotated with standardized path coefficients (β values) and t -values, which were generated from the bootstrapping procedure. The significance of each relationship is indicated, typically with asterisks denoting statistical thresholds (e.g., $p < 0.05$, $p < 0.01$).

The path from Experiential Learning to BGBCR shows a moderate positive relationship, indicating that students who engage in active, hands-on, and reflective learning experiences are more likely to perceive a meaningful connection between academic content and real-world applications. The strongest path in the model is from Career Preparation to BGBCR, with a high β value, suggesting that structured career development initiatives, such as internships, mentorship programs, and skill workshops, have the most substantial impact on students' readiness for post-graduate life and employment. In contrast, the path from Technology Integration to BGBCR is non-significant, as reflected by a low path coefficient and a t -value below the critical threshold. This implies that, within the studied context, the presence or use of digital tools and platforms did not significantly influence students' perceptions of real-world readiness, possibly due to inconsistent access or ineffective implementation. Additionally, the R^2 value for the endogenous construct (BGBCR) is shown in the diagram, indicating the proportion of variance in "bridging the gap" that is explained collectively by the

three predictor variables. An R^2 value in the moderate to substantial range (e.g., >0.50) would suggest that the model provides a meaningful explanation of the outcome variable. Therefore, Figure 2 confirms two of the three hypotheses proposed in the study and offers empirical support for the importance of experiential learning and career preparation in enhancing the practical relevance of university education. The use of bootstrapping adds robustness to the estimates, ensuring that the findings are statistically reliable and not sample-specific.

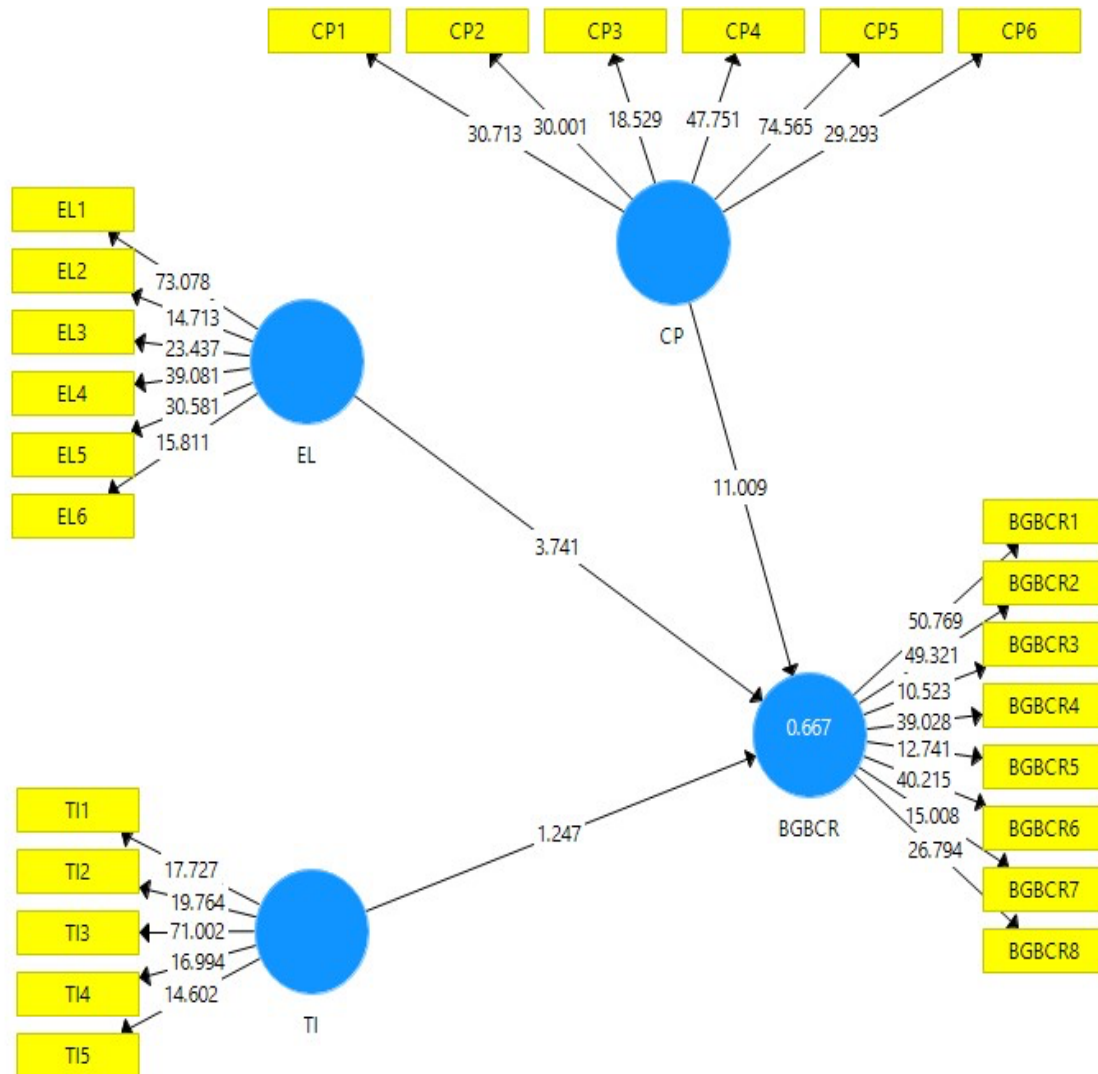


Figure 2 Structural model of the study (Bootstrapping @5000)

The next step in the structural model study should be to do a goodness-of-fit test for the suggested model, as advised by the researchers. It helps identify and remove unnecessary data and anomalies while displaying the model's fitness. Standardised Mean Square Residual (SRMR) and RMS-theta are used by SMART-PLS to assess goodness of fit. Studies show that an SRMR cut-off value is considered desirable if it is less than or equal to 0.80 (Tuksino, 2016), which is the value in its absolute state. Similarly, it will be deemed well-fit if its values are less than or equal to 0.80. Furthermore, for good fitness, the RMS-theta value should be less than or equal to 0.70 (Steiger, 2007). Also, A value of CFI should be greater than or equal to 0.90 (Hair et. Al, 2019), and a value of TLI should be greater than or equal to 0.90 (Awang, 2015).

The fit statistics indicate adequate fit between the hypothesized model and the data ($\chi^2/df = 3.46$, $d_G = .06$, $d_{ULS} = .06$, $NFI = .94$, $TLI = 0.94$, and $RMSEA = .05$, $SRMR = .06$). The current study's model fits values fall within the acceptable range, demonstrating the model's good fit for the investigation and potential prediction of the components and their interactions. Table 5 illustrates the values for the goodness of fit.

Table 5 Quality of fits

Goodness of fit	Value	Threshold	Justification	Interpretation
SRMR	.06	<.08	Hair, et. al (2019)	Fulfill
RMS-theta	.05	<.07	Steiger (2007)	Fulfill
NFI	.97	>.90	Hair, et. al (2021)	Fulfill
TLI	.96	>.90	Awang et al. (2015)	Fulfill
d_{ULS}	.06	<.08	Hair, et. al (2019)	Fulfill
d_G	.08	<.10	Hair, et. al (2019)	Fulfill
Chisq/df	3.46	<5.0	Awang (2015)	Fulfill

After assessing the goodness of the structural model, the bootstrapping procedure was employed to evaluate the hypothesized relationships between the effects of latent constructs to determine the statistical significance of the parameters within the structural model. The Smart PLS 4.0 tool was used to conduct the bootstrapping procedure, which allowed for the generation of t-statistics for significance testing. Then, perform bootstrapping @ 5,000 as suggested by Ramayah et al. (2016). Figure 3 and Table 5 summarize the hypothesized relationship from the bootstrapping procedure.

Figure 3 presents the final structural model of the study, demonstrating the tested relationships among the key constructs: Experiential Learning (EL), Career Preparation (CP), Technology Integration (TI), and Bridging the Gap Between Classroom and Reality (BGBCR). This model was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to evaluate both the strength and significance of hypothesized paths. The diagram displays direct paths from each independent variable, EL, CP, and TI, to the dependent variable, BGBCR. Along each path, standardized beta coefficients (β) are presented, indicating the magnitude of influence each predictor has on the outcome variable. The model also includes the R^2 value for BGBCR, representing the proportion of variance in students' perceived readiness for real-world challenges that is explained by the three predictors.

Key observations from the model include: A moderate positive effect from Experiential Learning (EL) to BGBCR, suggesting that students who actively participate in real-world tasks and reflective learning are more likely to perceive their education as relevant to professional life. A strong positive effect from Career Preparation (CP) to BGBCR, confirming that structured career-related activities (e.g., internships, mentorship, and skills workshops) are the most influential factor in preparing students for real-world demands. A non-significant relationship between Technology Integration (TI) and BGBCR, indicating that in the studied context, the use of educational technologies does not have a measurable impact on students' perception of classroom-to-career readiness. This result highlights the limitations of technology use when it is not supported by adequate infrastructure or meaningful pedagogical integration.

The model's R^2 value for BGBCR is substantial, indicating that a large proportion of the variance in students' perceived readiness is explained by the combined effects of experiential learning and career preparation, further emphasizing the practical importance of these educational strategies. Figure 3 provides a visual summary of the study's main findings: while career preparation and experiential learning are key contributors to bridging the gap between academic learning and the real world, technology integration remains underutilized or inconsistently implemented in this context.

Table 6 and Figure 3 illustrate the findings of the structural model evaluation. Hypotheses 1 and 2 were shown to have a significant effect on bridging the gap between classroom and reality ($\beta = 0.211$, $p < 0.000$) and ($\beta = 0.617$, $p < 0.001$). However, the technology integration ($\beta = -0.043$, $p > 0.370$) did not significantly impact bridging the classroom-reality gap.

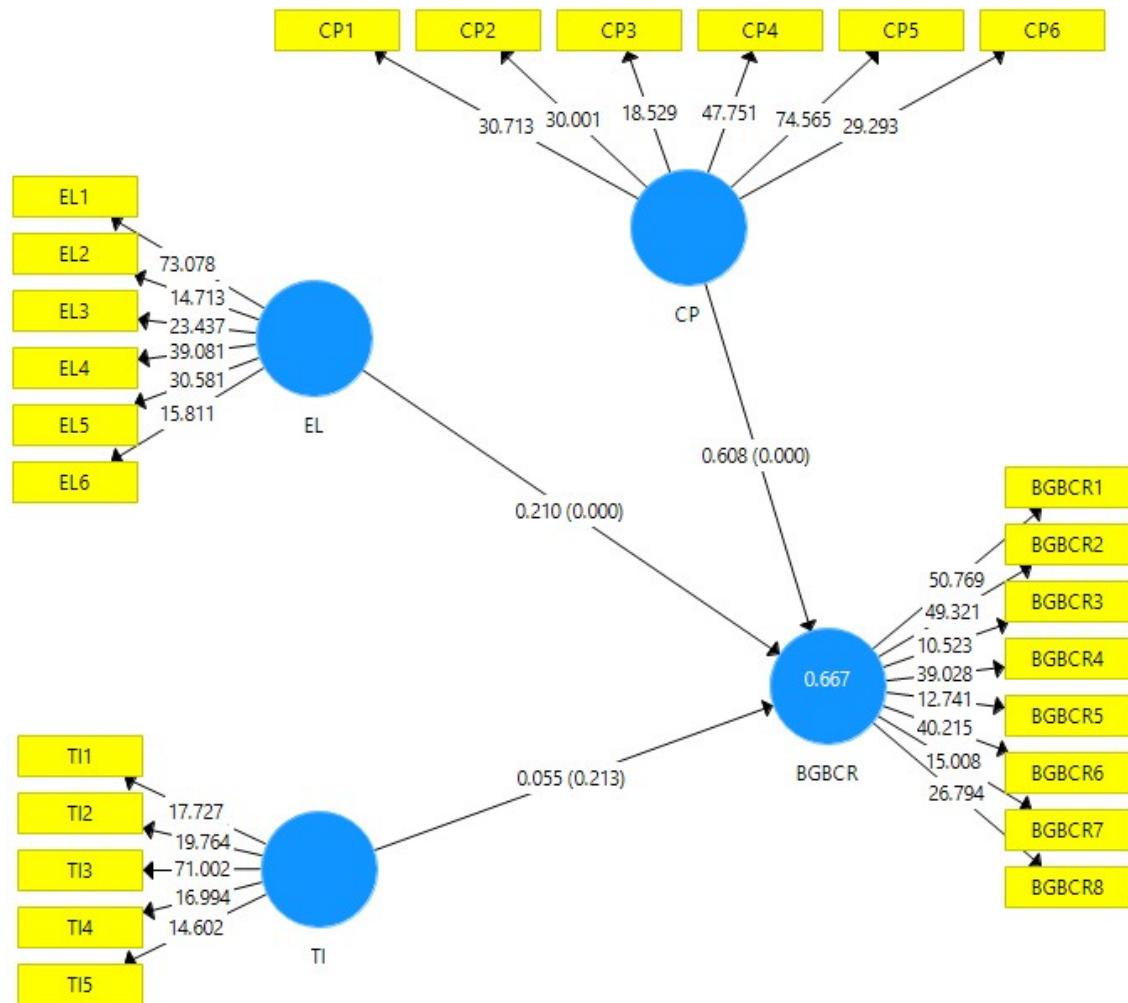


Figure 3 Structural model of the study

Table 6 Results of structural model (path coefficient)

Hypotheses	Original sample (Beta)	Standard Deviation (STDEV)	t-Value	P-value	Decision
EL → BGBCR	.211	.061	3.464	0.000	Supported
CP → BGBCR	.617	.057	10.799	0.001	Supported
TI → BGBCR	.043	.047	8.978	0.370	Not Supported

Note: *t-value > $\alpha=0.05$, **t-value > $\alpha=0.01$ with two tailed test

The structural model (Figure 3) was assessed using SmartPLS, with goodness-of-fit indices confirming a well-fitting model (SRMR = .06, NFI = .97, RMS-theta = .05). Hypotheses were tested using a bootstrapping procedure (5,000 resamples). H1: Experiential Learning and Bridging the Gap (BGBCR), supported ($\beta = .211$, $p < .001$): This suggests that experiential learning strategies such as real-world simulations, reflection, and hands-on projects significantly help students integrate theoretical knowledge with practical application. This finding is in line with Dianita (2023) that experiential learning is a flexible approach that goes beyond lectures and textbooks by emphasizing practical involvement. It involves applying knowledge and skills to real-world scenarios, promoting in-depth

understanding and skill development. Also, the finding is germane to the finding of (Duchatele et al., 2024; Alice & David, 2022) that experiential learning aligns perfectly with these evolving expectations; by bridging the knowledge gap between theory and practice, it equips graduates with the skills they need to be competitive in the job. Not merely an instructional technique, experiential learning is a paradigm shift that equips students with the opportunities and challenges of the future (Dianita & Tiarani, 2023). The result supports Kolb's experiential learning theory by empirically affirming that learning is most effective when it involves concrete experiences and reflective observation.

H2: Career Preparation and BGBCR. Supported ($\beta = .617$, $p < .001$): This was the strongest predictor, indicating that structured career readiness programs, particularly internships and employability skills training, serve as a key bridge between academic instruction and the realities of the job market. This extends prior studies (Fantinelli et al., 2024) by confirming that Nigerian students, like those in other contexts, benefit from hands-on career development efforts.

H3: Technology Integration and BGBCR. Not supported ($\beta = .043$, $p = .370$): The rejection of this hypothesis suggests that, within the studied context, technology integration is not currently having a significant impact on students' readiness for real-world applications. While the study originally posited technology as a critical enabler of experiential learning, the findings reflect that implementation quality, not merely the presence of technology, is a limiting factor. Qualitative comments and low-performing items suggest that infrastructure gaps, lack of pedagogical support, and minimal student engagement with advanced digital tools likely contributed to this result. This finding contradicts the common assumption that technology is inherently transformative. It highlights the importance of intentional pedagogical design, adequate infrastructure, and digital literacy support for technology to fulfill its potential (Dianita & Tiarani, 2023; Abedi, 2023). Therefore, the study urges caution in overemphasizing the role of technology without addressing these structural barriers.

This study fills a contextual gap in the literature by applying Kolb's experiential learning theory to a Nigerian federal university setting, an underrepresented context in global experiential learning research. While Kolb emphasizes concrete experience and active experimentation, this study advances the theory by highlighting the moderating influence of institutional support mechanisms, such as internships and technological infrastructure, in the learning process. Moreover, the study contributes item-level insights that reveal which experiential practices are most valued by students. Unlike earlier works that treat constructs holistically, this analysis pinpoints that active learning strategies and direct career exposure are particularly effective in bridging the theory-practice divide. Additionally, the study challenges the assumed universality of technology's role in educational innovation by demonstrating its non-significance in a real-world institutional setting.

The implications for the present study necessitate that managing teaching approaches can positively influence and enhance bridging the classroom-reality gap. This study shows that managing teaching approaches facilitates effective experiential learning by making the learning process more engaging and memorable, and allows learners to apply theoretical knowledge to real-world situations. Furthermore, this study highlights the benefits of career preparation in bridging the classroom-reality gap by helping students set realistic goals and create actionable plans to achieve them, preparing students for the transition from school to work, as well as making students feel more confident and empowered to pursue their goals. The research also indicates that technology integration plays a crucial role in bridging the classroom-reality gap by allowing interactive and engaging learning experiences through multimedia, simulations, and educational software, enabling students to explore topics beyond traditional textbooks, and fostering independent research skills as well as preparing students for the digital workplace and problem-solving skills essential for success in the 21st century.

Based on the findings of data analysis and the conclusion of the research, this study took the three most considered managing teaching approaches indicators for bridging the classroom-reality gap. However, in the future, researchers can explore any other indicators of managing teaching approaches. Also, it is essential to carry out more research studies to explore teaching approaches, relationships, and effects in basic education and high schools. Further study is required, which should involve other areas of teaching approaches to the real world. Researchers should use a stratified sampling strategy in future studies to increase representativeness by including participants from various faculties, universities, and geographical areas throughout Nigeria. This will provide a more thorough comprehension of how technology integration, career preparation, and experiential learning affect students in many Nigerian higher education institutions.

CONCLUSION

The study concludes that effective management of teaching approaches, particularly experiential learning and career preparation, can significantly bridge the gap between classroom instruction and real-world application. Students benefit most when exposed to project-based learning, reflective exercises, and structured professional experiences such as internships and mentorship. However, despite theoretical support for the role of technology in education, technology integration did not have a statistically significant impact in this context. This outcome suggests that infrastructure deficits, insufficient training, and passive digital adoption may be hindering its educational effectiveness. The findings emphasize the need for policymakers and educational managers to invest in practical experiential programs and career development initiatives, while also addressing systemic barriers to effective technology use. Future research should expand on this model by incorporating mixed-methods approaches, exploring disciplinary differences, and ensuring geographical and institutional diversity across Nigeria to enhance the generalizability of these results.

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DATA AVAILABILITY STATEMENT

Data will be made available on request.

CONFLICT OF INTEREST

The author affirms that there were no financial or commercial ties that might be interpreted as a potential conflict of interest during the research.

DECLARATION OF GENERATIVE AI

In the declaration of generative AI and AI-assisted technologies in the writing process during the preparation of this manuscript, the author(s) used Grammarly, an AI technology. This technology was used to make the content more coherent, guarantee grammatical accuracy, and improve sentence structure. Grammarly's recommendations and edits to maximize readability and linguistic fluency helped to polish the work. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

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