International Journal of Creative Future and Heritage (TENIAT)
Vol. XIV (1): 70-90
https://doi.org/10.47252/teniat.v13i2.1511
e-ISSN: 2716-6430

A Systematic Review to Identify the Experiential Learning Elements That Could Enhance Engagement And Effective Learning

Lee Cheng Liang *

Mohamad Shahfik Afendi Bin Abdul Ghani **

Tan Tse Guan ***

c22d031f@siswa.umk.edu.my (Correspondng Author)*, afendi.ag@umk.edu.my**, tan.tg@umk.edu.my***

Abstract

The aim of this review is to identify and explore elements of experiential learning that can enhance engagement and effective learning. A systematic search strategy was used across Scopus, Web of Science and Google Scholar, focusing on articles published between 2020 and 2023. Studies were selected using specified inclusion and exclusion criteria, followed by structured data extraction and analysis. The findings show that experiential learning has been successfully applied in a variety of sectors, including health, education, tourism, and pharmacy, using Kolb's experiential learning cycle and other related models. Key elements identified include reflection, feedback and engagement, all of which support deep learning and learners' engagement. There are several areas that could be investigated in further research. First, investigate the impact of cultural and contextual factors on the effectiveness of experiential learning in various educational settings. Second, look at how emerging technologies such as virtual reality and artificial intelligence can be incorporated into experiential learning strategies.

Keywords: Experiential Learning, Engagement, Effective Learning

Submitted: 22 January 2026 Revised: 22 June 2026 Published: 31 March 2026

* Postgraduate Student at the Faculty of Creative Technology and Heritage, Universiti Malaysia Kelantan, 16100 Bachok, Kelantan, Malaysia.

** Senior Lecturer at the Faculty of Creative Technology and Heritage, Universiti Malaysia Kelantan, 16100 Bachok, Kelantan, Malaysia.

*** Associate Professor at the Faculty of Creative Technology and Heritage, Universiti Malaysia Kelantan, 16100 Bachok, Kelantan, Malaysia.

International Journal of Creative Future and Heritage (TENIAT)
Vol. XIV (1): 70-90
https://doi.org/10.47252/teniat.v13i2.1511
e-ISSN: 2716-6430

Satu Tinjauan Sistematik untuk Mengenal Pasti Elemen Pembelajaran Berasaskan Pengalaman yang boleh Meningkatkan Penglibatan dan Pembelajaran yang Berkesan.

*Lee Cheng Liang **

*Mohamad Shahfik Afendi Bin Abdul Ghani ***

*Tan Tse Guan ****

c22d031f@siswa.umk.edu.my (Correspondng Author), afendi.ag@umk.edu.my**, tan.tg@umk.edu.my****

Abstrak

Matlamat kajian ini bagi mengenal pasti tentang elemen pembelajaran pengalaman mampu meningkatkan penglibatan dan keberkesanan pembelajaran. Metodologi penyelidikan melibatkan strategi pencarian secara sistematik melalui pangkalan data Scopus, Web of Science, and Google Scholar, dengan menggunakan kriteria inklusi dan eksklusi yang telah ditetapkan. Proses ini turut merangkumi pengekstrakan dan analisis data secara berstruktur. Kesemua item tersebut digunakan semasa kajian dilaksanakan. Bahagian dapatan kajian pula menunjukkan bahawa pembelajaran pengalaman telah berjaya diterapkan dalam pelbagai sektor seperti Kesihatan, Pendidikan, pelancongan, dan farmasi, dengan menggunakan kitaran pembelajaran pengalaman Kolb dan model-model berkaitan yang lain. Elemen utama yang dikenal pasti termasuk refleksi, maklum balas, dan penglibatan aktif, yang memainkan Peranan penting dalam meningkatkan pembelajaran mendalam dan penglibatan pelajar. Selain itu, terdapat beberapa bidang yang boleh dijadikansebagai bahan penyelidikan pada masa depan. Pertama, menyiasat kesan budaya dan faktor kontekstual terhadap keberkesanan pembelajaran pengalaman dari pelbagai sudut persekitaran Pendidikan. Seterusnya, mengkaji cara teknologi Baharu seperti reality maya dan kecerdasan buatan boleh digabungkan ke dalam strategi pembelajaran pengalaman.

Kata Kunci: *Pembelajaran Berasaskan Pengalaman, Penglibatan, Pembelajaran Berkesan*

Dihantar:22 Januari 2026 *Disemak: 22 Jun 2026* *Diterbit: 31 Mac 2026*

* *Pelajar Pascasiswazah di Fakulti Teknologi Kreatif dan Warisan, Universiti Malaysia Kelantan, 16100 Bachok, Kelantan, Malaysia.*

** *Pensyarah Kanan di Fakulti Teknologi Kreatif dan Warisan, Universiti Malaysia Kelantan, 16100 Bachok, Kelantan, Malaysia.*

*** *Profesor Madya di Fakulti Teknologi Kreatif dan Warisan, Universiti Malaysia Kelantan, 16100 Bachok, Kelantan, Malaysia.*

1.0 Introduction

Experiential learning has received much attention in recent years as an educational strategy due to its ability to increase engagement and facilitate effective learning. This pedagogical theory places the learners at the center of the educational process, emphasizing practical experience and reflection as critical components in knowledge development. Experiential learning is an instructional strategy that goes beyond regular classroom learning by engaging learners in practical activities such as drills, simulations, fieldwork, and problem-solving exercises (A. Y. Kolb & Kolb, 2005). According to (Winsett et al., 2016) experiential learning focuses on the individual's learning process, actively engaging them and leading to increased physical, cognitive, and emotional engagement. Experiential learning theory presents a fundamentally different perspective on the learning process compared to behavioral learning theory (D. A. Kolb, 1984). In addition, (Nurunnabi et al., 2022) stated that learning through experience further enriches interpersonal dynamics in team or groups and is a highly effective educational method (Chan, 2022).

In addition, experiential learning has been successfully implemented across a variety of educational settings. For example, Jacob & Boyter (2023) show how tutor feedback enhances pharmacy student's learning in practical situations. Similarly, Van den Beemt et al. (2023) found that remote laboratory experiences enhance student engagement in engineering education. These examples demonstrate that experiential learning is a well-established and widely accepted strategy in both traditional and technology-enhanced learning environments.

Although the benefits of experiential learning are widely recognized, there is still a need for systematic investigation into the specific elements of experiential learning that contribute to its success and the quality of increased engagement. This study focuses on experiential learning in a variety of educational settings, including traditional classrooms, digital learning, and online environments. This systematic review aims to address this gap by identifying and synthesizing the key elements of experiential learning that have been shown to increase engagement and promote effective learning outcomes. By identifying these elements, educators and institutions can better develop and implement experiential learning opportunities that optimise learners' engagement and learning. The objective of this paper is then to identify and analyze the elements of experiential learning that are most optimized to increase engagement and promote effective learning outcomes.

1.1 Purpose of the Review

This review aims to identify and explore the elements of Experiential Learning that can enhance engagement and learning effectiveness. The theoretical framework of Experiential Learning and the impact of engagement on the learning process will be examined in the review. The methodology section will describe the search methods, exclusion criteria, and methods used in data extraction and analysis during the study. The review will then explore different elements of experiential learning, such as role-playing, collaborative learning, real-world application, active engagement, reflection, and feedback. It will also investigate the definitions and measurement of engagement, factors that influence effective learning, and the relationship between engagement and effective learning. The findings from this review will highlight elements of experiential learning that enhance engagement and foster effective learning. Finally, the review will address the

limitations of the study and conclude with a list of references (S. C. Cheng et al., 2019; James et al., 2020).

1.2 Significance and Scope of the Review

Experiential learning is increasingly recognized as a valuable educational approach that goes beyond traditional classroom instruction (Radović, Hummel, et al., 2021). Its ability to promote engagement and facilitate effective learning is of paramount importance in an era characterized by a dynamic information landscapes and diverse learning needs. As education adapts to keep up with the demands of the era, it becomes increasingly important to understand the complexities involved in learning through experiences. The scope of this systematic review is to identify elements of experiential learning that can enhance engagement and promote effective learning. This systematic review explores aspects of this teaching method to uncover the components that contribute to its effectiveness. Doing so offers invaluable information to educators and institutions to adapt their teaching methods to align with the diverse needs and expectations of contemporary learners.

1.3 Research Question

This paper is based on a number of key considerations, including (i) the need to identify core elements of experiential learning that influence engagement and learning effectiveness, (ii) the diverse educational contexts in which these elements are applied, and (iii) the relationship between experiential learning elements and theoretical frameworks such as Kolb's Experiential Learning Cycle.

The research objectives of this study are listed below:

1. Identify the core elements of experiential learning that are used in diverse educational contexts.

2. To investigate how these components influence effective learning outcomes and engagement.

3. To understand the theoretical alignment, map the results to Kolb's Experiential Learning Cycle.

The main research question is:

What experiential learning elements have been consistently associated with improved engagement and promoting effective learning?

This question involves a variety of strategies, including reflection, feedback, real-world applications, collaborative learning, and role-playing. By synthesizing the literature, this review aims to provide educators and practitioners with a practical understanding of the most valuable elements in creating engaging and meaningful learning experiences.

2.0 Methods

This systematic review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to identify and select relevant studies. The research methodology began with an overview of the search strategy, including the database searched, the keywords that were used, and the inclusion and exclusion criteria applied. After that, the screening procedure was described. The selected studies were screened in two stages, first for titles and abstract and then for their full text. Studies that did not meet the inclusion criteria or were duplicates were excluded. The data extraction process was then discussed, including the information collected from each included study. The approach used to assess study quality and potential bias was also discussed. The data synthesis process was also discussed, with details of how the findings of the included studies were combined and analyzed.

2.1 Search Strategy

In this section, the search strategy for the systematic review is outlined. This section provides a detailed explanation of how relevant studies were found and selected to be part of the review. A comprehensive literature search was conducted using major academic databases and search engines such as the Scopus, Web of Science, and Google Scholar database. The search focused on peer-reviewed journal articles published between 2020 and 2023 that examined experiential learning in educational settings. Keywords such as "experiential learning," "engagement," and "effective learning" were used to refine the search results. Boolean operators (AND, OR) were used to combine these keywords in various ways, using search strings such as: "experiential learning" AND ("engagement" OR "commitment") AND "effective learning". Inclusion and exclusion criteria were set to ensure that only the studies that met the study objectives were included. Articles that were (i) peer-reviewed, (ii) published in English, and (iii) focused on experiential learning in an educational setting will considered. Studies that did not focus on experiential learning or did not provide clear outcomes or conclusions were excluded. The search process also included filtering identified articles for relevance based on their title, abstract, and full text.

2.2 Data Collection

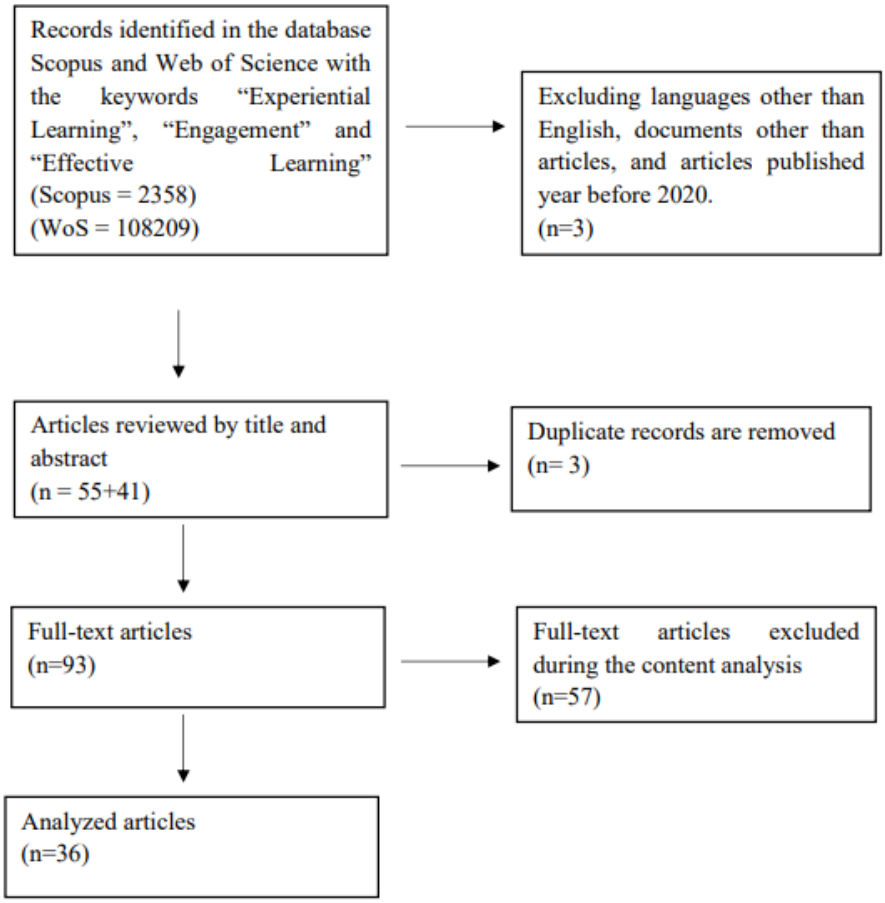

Figure 1: PRISMA Diagram

The research literature was collected through a systematic exploration of the Scopus and the Web of Science database, which involved a data abstraction and analysis process, as shown in Figure 1. The keywords "experiential learning", "engagement" and "effective learning" were used to guide the search. Only articles published between 2020 and 2023 were selected. This three-year period was chosen to capture the latest developments in experiential learning, especially given the significant changes in education due to the COVID-19 pandemic. During this period, many institutions rapidly adopted or revised experiential learning approaches to adapt to remote, hybrid, or digitally enabled formats, a highly relevant period for investigation.

Table 1: Screening Criteria

Criteria	Inclusion	Exclusion
Publication Timeline	2020-2023	Before 2020
Document Type	Peer-reviewed journal articles	Non-peer-reviewed publication
Language	English	Non-English

2.3 Inclusion Criteria

The selection criteria stated that data extraction should focus on experiential learning as the main topic. Questions for qualitative analysis were developed to extract potential articles from the digital database and served as a guide for collecting materials relevant to the research. The qualitative analysis questions used in the analysis and screening procedure of the articles are presented in Table 2 below. Analysis questions Q1, Q2, Q3, and Q4 were used to screen and select each article that was collected.

Table 2: Questions for Qualitative Analysis

Questions	Answers
Q1: Does the article focus on experiential learning as a primary topic?	Yes/No
Q2: Does the article identify specific elements or components of experiential learning?	Yes/No
Q3: Does the article provide empirical data or findings related to experiential learning and its effect on engagement and learning outcomes?	Yes/No
Q4: Is the article relevant to the research on experiential learning elements that could enhance engagement and effective learning?	Yes/No

3.0 Findings

Table 3: The number of articles discovered through the systematic search

Authors	Title	Data Base	Q1	Q2	Q3	Q4	Themes
(Jacob & Boyter, 2023)	"*Having Students is Entirely Necessary*": Tutors' Feedback of experiential learning in an MPharm program (TELL Project)	ELSEVIER	N	Y	N	Y	Pharmacists
(Van den Beemt et al.,	Remote labs in higher engineering education: engaging students with	Springer	Y	Y	Y	Y	Engineering education

2023)	active learning pedagogy						
(Ssekamatte et al., 2022)	Using Kolb's experiential learning cycle to explore the extent of application of one health competencies to solving global health challenges; a tracer study among AFROHUN-Uganda alumni	BMC	N	Y	N	Y	Health
(Zaharatos et al., 2023)	Experiential Learning: Conferences as a Tool to Develop Students' Understanding of Community-Engaged Research	MDPI	Y	Y	N	Y	Learning
(Hwang et al., 2023)	Conceptions of the metaverse in higher education: A draw-a-picture analysis and surveys to investigate the perceptions of students with different motivation levels	ELSEVIER	N	N	N	Y	Computers & Education
(Maynard et al., 2021)	Experiential Learning in the Energy-Based Classroom	Paper	Y	Y	Y	Y	Learning
(Radović, Firssova, et al., 2021)	Improving academic performance: Strengthening the relation between theory and practice through prompted reflection	SAGE	Y	Y	Y	Y	Learning
(Layer et al., 2023)	Classroom or online learning? Impact of experiential learning in business process management education	ERIC	Y	Y	Y	Y	Learning
(Buzzelli & Asafo-Adjei, 2023)	Experiential learning and the university's host community: rapid growth, contested mission, and policy challenge	Springer	Y	Y	N	Y	Education
(Jacobs,	The benefits of experiential learning during a service-	AJHPE	Y	Y	N	Y	Health

2020)	learning engagement in child psychiatric nursing education						
(Marougkas et al., 2023)	Virtual Reality in Education: A Review of Learning Theories, Approaches and Methodologies for the Last Decade	MDPI	N	Y	Y	Y	Learning
(Kong, 2021)	The Role of Experiential Learning on Students' Motivation and Classroom Engagement	frontiers	Y	Y	N	Y	Learning
(Watkins & Poudyal, 2021)	Influence of Experiential Learning Activities in a Natural Resource Policy Course on Student Learning and Civic Engagement	OXFORD	Y	Y	Y	Y	Learning
(Glover et al., 2021)	Advocating for Engagement: Do Experiential Learning Courses Boost Civic Engagement?	Routledge	Y	Y	N	Y	Learning
(Kana et al., 2020)	Experiential-Learning Opportunities Enhance Engagement in Pipeline Program: A Qualitative Study of the Doctors of Tomorrow Summer Internship Program	Journal	Y	Y	N	Y	Health
(Kofinas & Tsay, 2021)	In Favor of Large Classes: A Social Networks Perspective on Experiential Learning	SAGE	Y	Y	Y	Y	Learning
(Yoon et al., 2021)	The Virtual Team Member: Remote Engagement of Medical Students in COVID-19 Care	Springer	N	Y	N	N	Health
(Munoz-Carpio et al., 2020)	Doctoral Colloquium-Exploring the Benefits of Using 360 Video Immersion to Enhance Motivation and Engagement in System	IEEE	N	Y	N	N	Learning

	Modelling Education						
(Cridland et al., 2021)	Ten best practices for taking experiential learning online	WILEY	Y	Y	N	Y	Learning
(Clancy et al., 2021)	Student Engagement With Experiential Learning in Large Classes	SAGE	Y	Y	N	Y	Learning
(Everett & Bischoff, 2021)	Creating Connections: Engaging Student Library Employees through Experiential Learning	Routledge	Y	Y	N	Y	Learning
(Donovan & Hood, 2021)	Experiential Learning in the Large Classroom Using Performative Pedagogy	SAGE	Y	Y	N	N	Learning
(Scarparolo & Mayne, n.d.-a)	Mixed-reality simulations as a tool to enhance parent-teacher conferencing in initial teacher education	AJET	N	Y	N	N	Learning
(O'Connor et al., 2022)	Theories informing Technology enhanced learning in Nursing and Midwifery Education: A Systematic Review and Typological classification	ELSEVIER	N	N	N	N	Review Paper
(Bouhazzama & Mssassi, 2021)	The impact of Experiential Learning on Environmental Education during a Moroccan Summer university	ICIES	Y	Y	N	Y	Learning
(Clack et al., 2021)	Experiential Training of Hand Hygiene Using Virtual Reality	ETH Library	N	Y	N	Y	Learning
(Almalag et al., 2022)	Evaluation of a Multidisciplinary Extracurricular Event Using Kolb's Experiential Learning Theory: A Qualitative Study	Dove press	N	Y	N	N	Health
(Hsu et al., 2021)	Is It Possible for Young Students to Learn the AI-STEAM Application with	MDPI	N	Y	N	N	Learning

	Experiential Learning?						
(M. M. Cheng et al., 2021)	Culturally Responsive Teaching in Technology-Supported Learning Environments in Marine Education for Sustainable Development	MDPI	N	Y	N	N	Learning
(Kuczera, 2021)	Experiential learning in simulated conditions.	ScienceDirect	Y	Y	N	Y	Learning
(Murakami & Lehrer, 2022)	Experiential learning and pedagogical content knowledge in a graduate food studies program	Routledge	Y	Y	N	Y	Food and agriculture
(Radović et al., 2022)	Design-based research with mARC ID model: designing experiential learning environments	Springer	Y	Y	Y	Y	Learning
(Black et al., 2021)	Multisource Feedback as an Experiential Learning Enabler in Large-Format Management Classes	SAGE	Y	Y	Y	Y	Learning/ Education
(Cincera et al., 2020)	Outdoor environmental education program leaders' theories of experiential learning	Routledge	Y	Y	N	Y	Learning
(Ramirez, 2021)	Cultural Exposure as a Creative Experiential Learning Intervention	Routledge	Y	Y	Y	Y	health
(Yang et al., 2021)	Challenges and Benefits of Experiential Learning: The Case of Overseas Exchange Programs	ERIC	Y	Y	N	Y	Tourism

Table 3 presents the selected studies identified through the systematic literature review process. This table summarizes the authors, article titles, databases, qualitative analysis results (Q1-Q4), and thematic classification of each study. This overview provides a structured comparison of the literature included in the review and helps illustrate how the selected studies contribute to the identification of elements of experiential learning that enhance engagement and effective learning.

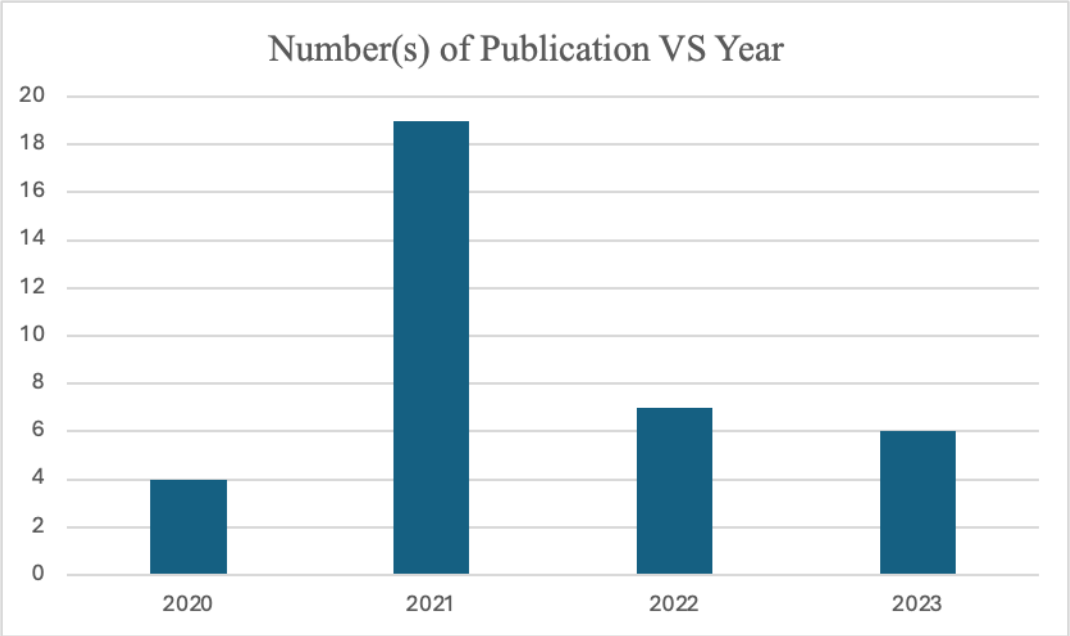

Figure 2: Number of publications vs year

Figure 2 shows the publication count from 2020 to 2023. The year 2021 saw the peak in the number of publications with 19 articles, while 2020 had the fewest with only 4 articles. The years 2022 and 2023 had 7 and 6 articles respectively. The number of publications on the theme of experiential learning showed a signficant increase in the frequency of events only from 2020 to 2021. After 2021, the frequency of the event decreases in 2022 and further in 2023.

4.0 Discussion

This section discusses the experiential learning elements found in the 36 chosen studies in order to answer the research question presented in section 1.3:

[Q1] What experiential learning elements have been consistently associated with improved engagement and promoting effective learning?

Experiential learning is a robust teaching strategy in which learners actively participate in activities, reflect on their experiences, and gain insights to integrate new knowledge (Ghose, 2010). It encourages learners to take initiative, make decisions, and take responsibility for their learning outcomes by learning not only from their successes but also from the consequences and natural mistakes (Aquino & Plump, 2022). According to Table 3, experiential learning has found successful applications across a variety of fields such as health, education, tourism, pharmacy, and several others.

Among the 36 reviewed studies, seven explicity used Kolb's experiential learning cycle as a guiding framework (e.g., M. M. Cheng et al., (2021); Clancy et al., (2021); Hsu et al., (2021); Jacob & Boyter, (2023); Kuczera, (2021); Ssekamatte et al., (2022); Yang et al., (2021). These studies structured experiential learning activities using Kolb's four stages: concrete experience,

reflective observation, abstract conceptualization, and active experimentation. For example, Jacob & Boyter, (2023) emphasized the need of feedback in pharmacy education, while Hsu et al., (2021) integrated AI-STEAM tools to provide students with immersive, hands-on learning experiences. Even in studies that do not specifically mention Kolb's model, several used its fundamental elements through role-playing, simulation, teamwork, and reflection, which indicate implicit theoretical alignment.

The analysis of experiential learning elements across selected studies shows a consistent pattern. As shown in Table 4 and Figure 3, the most frequently used elements are reflection (n=18), feedback (n=8), and involvement (n=8). Reflection emerged as a dominant elements, highlighting its importance in helping learners critically evaluate and understand their experiences. This is closely related to Kolb's Reflective Observation stage, which promotes self-awareness and deep learning. Feedback appears in eight studies and supports Kolb's Abstract Conceptualization stage, in which learners make sense of their experiences and adjust future behavior based on external input. Active participation, or involvement, aligns with the Concrete Experience stage, in which learners work directly on meaningful real-world projects.

Overall, 29 articles did not explicity mention Kolb's theory but still used various elements of experiential learning. The presence of methods such as collaboration (n=4), simulation (n=1), role-playing (n=1), and authenticity (n=1) indicated that experiential learning is multifaceted and context-independent. The importance of reflection and feedback indicates that educators consider internal cognitive processing and timely external input as important enhancers of engagement and effective learning.

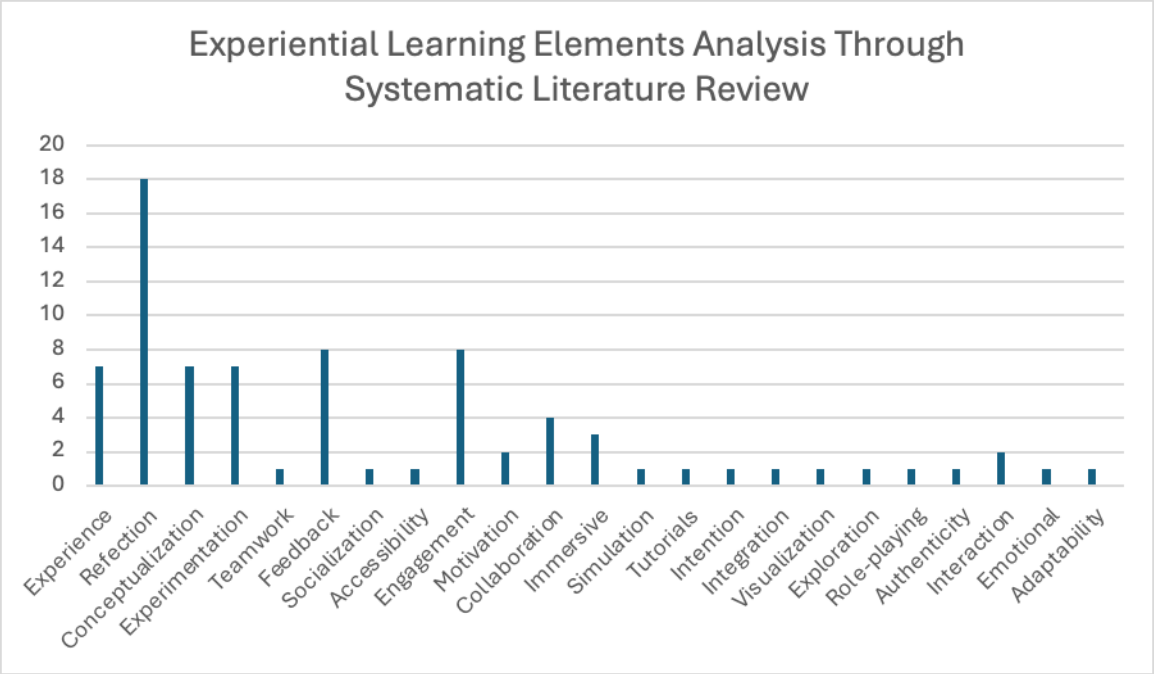

Figure 3: Analysis of the frequency of experiential learning elements based on the collected articles

Figure 3 and Table 4 below summarize the frequency and distribution of experiential elements. For clarity and better visual comparison, Figure 3 is presented as a bar chart, with elements arranged from most to least frequently observed, reflecting their relative prominence in the studies reviewed.

Table 4: Analysis of experiential learning elements through systematic literature review

	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
	Adaptability	Emotional	Interaction	Authenticity	Role-Playing	Exploration	Visualization	Integration	Intention	Tutorials	Simulation	Immersive	Collaboration	Motivation	Engagement	Accessibility	Socialization	Feedback	Teamwork	Experimentation	Conceptualization	Reflection	Experience
(Jacob & Boyter, 2023)																		/		/	/	/	/
(Van den Beemt et al., 2023)																		/	/				
(Ssekamatte et al., 2022)			/																	/	/	/	
(Zaharatos et al., 2023)																/	/						
(Hwang et al., 2023)																							
(Maynard et al., 2021)															/								
(Radović, Firssova, et al., 2021)																						/	
(Layer et al., 2023)													/		/								
(Buzzelli & Asafo-Adjei, 2023)													/										
(Jacobs, 2020)															/							/	

(Marougkas et al., 2023)												/						/				
(Kong, 2021)																					/	
(Watkins & Poudyal, 2021)											/										/	
(Glover et al., 2021)														/								
(Kana et al., 2020)														/							/	
(Kofinas & Tsay, 2021)																	/					
(Yoon et al., 2021)																	/					
(Munoz-Carpio et al., 2020)												/		/	/							
(Cridland et al., 2021)										/												
(Clancy et al., 2021)														/								
(Everett & Bischoff, 2021)								/	/												/	
(Donovan & Hood, 2021)																	/					
(Scarparolo & Mayne, n.d.-b)	/	/												/								
(O'Connor et al., 2022)																						
(Bouhazzama & Mssassi, 2021)																			/	/		

(Clack et al., 2021)						/	/											/				/	
(Almalag et al., 2022)					/								/									/	
(Hsu et al., 2021)																				/	/	/	/
(M. M. Cheng et al., 2021)																				/	/	/	/
(Kuczera, 2021)																				/	/	/	/
(Murakami & Lehrer, 2022)														/									/
(Radović et al., 2022)				/									/									/	
(Black et al., 2021)			/														/					/	
(Cincera et al., 2020)																						/	/
(Ramirez, 2021)											/											/	
(Yang et al., 2021)																						/	/

These findings suggest that effective experiential learning requires more than active participation. The integration of action, reflection, and feedback, as mapped into Kolb's learning cycle, transforms experiences into lasting knowledge. Educators designing experiential learning activities should prioritize these elements to maximize engagement and learning outcomes in diverse educational environments.

5.0 Limitations and Future Research

This systematic review identified key elements of experiential learning that consistently contribute to enhanced engagement and effective learning. The findings reinforce that experiential learning is a widely recognized educational strategy, and the synthesized elements may provide useful direction for educators seeking to personalize instruction and enrich learners' learning experiences.

However, several limitations must be considered. First, not all included studies had robust evaluation frameworks or comprehensive outcome data, and the methodological quality varied across the sample. This variance may have had an impact on the validity and generalizability of the conclusions. Second, the review may have been influenced by publication bias, as studies with positive or significant findings are more likely to be published and indexed in academic databases. Third, only English-language articles were considered, which may have lost valuable insights from non-English-language studies, particularly articles from culturally diverse educational backgrounds. In addition, the review focused on articles published between 2020 and 2023, which may have overlooked earlier foundational work.

Future research should investigate how cultural and environmental factors influence the effectiveness of experiential learning in a variety of educational settings. Additionally, reseachers could investigate how emerging technologies, such as virtual reality and artificial intelligence, can be effectively integrated into experiential learning methodologies to create immersive and engaging learning experiences. The strength and inclusiveness of future reviews could be improved by adding formal quality assessment tools and expanding the scope to include non-English and non-peer-reviewed sources.

6.0 Acknowledgment

This research was funded by the Ministry of Higher Education, Malaysia, through the Fundamental Research Grants Scheme (FRGS) [grant numbers: FRGS/1/2022/WAB01/UMK/03/1]. The project, titled “Modeling a Framework of User Experience Assessment for Malaysian Cultural Heritage Using Virtual Museum Technology,” is categorized under the research domain of Natural and Cultural Heritage.

References

Almalag, H. M., Saja, M., Abouzaid, H. H., Almater, L., Alothman, L., Alzamel, F., Aljuffali, L., & Alzamil, H. (2022). Evaluation of a Multidisciplinary Extracurricular Event Using Kolb’s Experiential Learning Theory: A Qualitative Study. Journal of Multidisciplinary Healthcare, 15, 2957–2967. https://doi.org/10.2147/JMDH.S389932

Aquino, K. C., & Plump, C. M. (2022). Supporting Experiential Learning Opportunities for Students With Disabilities. Journal of College Student Development, 63(3), 255–268. https://doi.org/10.1353/CSD.2022.0022

Black, S. L., DeGrassi, S. W., & Sweet, K. M. (2021). Multisource Feedback as an Experiential Learning Enabler in Large-Format Management Classes. Journal of Management Education, 45(3), 479–517. https://doi.org/10.1177/1052562920987292

Bouhazzama, M., & Mssassi, S. (2021). The impact of experiential learning on Environmental Education during a Moroccan summer university. E3S Web of Conferences, 234. https://doi.org/10.1051/e3sconf/202123400031

Buzzelli, M., & Asafo-Adjei, E. (2023). Experiential learning and the university's host community: rapid growth, contested mission and policy challenge. Higher Education, 85(3), 521–538. https://doi.org/10.1007/s10734-022-00849-1

Chan, C. K. Y. (2022). Ethics in Assessing Experiential Learning. In Assessment for Experiential Learning (pp. 210–222). Routledge. https://doi.org/10.4324/9781003018391-7

Cheng, M. M., Lacaste, A. V., Saranza, C., & Chuang, H. H. (2021). Culturally responsive teaching in technology-supported learning environments in marine education for sustainable development. Sustainability (Switzerland), 13(24). https://doi.org/10.3390/su132413922

Cheng, S. C., Hwang, G. J., & Chen, C. H. (2019). From reflective observation to active learning: A mobile experiential learning approach for environmental science education. British Journal of Educational Technology, 50(5), 2251–2270. https://doi.org/10.1111/bjet.12845

Cincera, J., Johnson, B., & Kroufek, R. (2020). Outdoor environmental education programme leaders' theories of experiential learning. Cambridge Journal of Education, 50(6), 729–745. https://doi.org/10.1080/0305764X.2020.1770693

Clack, L. ;, Hirt, C. ;, Kunz, A. ;, & Sax, H. (2021). ETH Library Experiential Training of Hand Hygiene Using Virtual Reality. https://doi.org/10.3929/ethz-b-000475540

Clancy, A., Cullen, J. G., Hood, A., & McGuinness, C. (2021). Student Engagement With Experiential Learning in Large Classes. Journal of Management Education, 45(3), 340–343. https://doi.org/10.1177/10525629211008636

Cridland, C., Drape, T., Marine, S., & Gillaspy, G. (2021). Ten best practices for taking experiential learning online. Biochemistry and Molecular Biology Education, 49(1), 9–14. https://doi.org/10.1002/bmb.21477

Donovan, P., & Hood, A. (2021). Experiential Learning in the Large Classroom Using Performative Pedagogy. Journal of Management Education, 45(3), 344–359. https://doi.org/10.1177/1052562920965625

Everett, J. B., & Bischoff, M. (2021). Creating Connections: Engaging Student Library Employees through Experiential Learning. Journal of Library Administration, 61(4), 403–420. https://doi.org/10.1080/01930826.2021.1906543

Ghose, N. (2010). Enhancing Global Competitiveness Through Experiential Learning: Insights Into Successful Programming. In American Journal of Business Education (Vol. 3).

Glover, R. W., Lewis, D. C., Meagher, R., & Owens, K. A. (2021). Advocating for Engagement: Do Experiential Learning Courses Boost Civic Engagement? Journal of Political Science Education, 17(S1), 599–615. https://doi.org/10.1080/15512169.2020.1831932

Hsu, T. C., Abelson, H., Lao, N., & Chen, S. C. (2021). Is it possible for young students to learn the Ai-STEAM application with experiential learning? Sustainability (Switzerland), 13(19). https://doi.org/10.3390/su131911114

Hwang, G.-J., Tu, Y.-F., & Chu, H.-C. (2023). Conceptions of the metaverse in higher education: A draw-a-picture analysis and surveys to investigate the perceptions of students with different motivation levels. Computers & Education, 203, 104868. https://doi.org/10.1016/j.compedu.2023.104868

Jacob, S. A., & Boyter, A. C. (2023). “Having Students is Entirely Necessary”: Tutors’ feedback of experiential learning in an MPharm programme (TELL Project). Studies in Educational Evaluation, 76. https://doi.org/10.1016/j.stueduc.2022.101234

Jacobs, A. C. (2020). The benefits of experiential learning during a service-learning engagement in child psychiatric nursing education. African Journal of Health Professions Education, 12(2), 81. https://doi.org/10.7196/ajhpe.2020.v12i2.1214

James, N., Humez, A., & Laufenberg, P. (2020). Using Technology to Structure and Scaffold Real World Experiential Learning in Distance Education. TechTrends, 64(4), 636–645. https://doi.org/10.1007/s11528-020-00515-2

Kana, L. A., Noronha, C., Diamond, S., Pun, M., Broderick, M. T., Finks, J., & Sandhu, G. (2020). Experiential-Learning Opportunities Enhance Engagement in Pipeline Program: A Qualitative Study of the Doctors of Tomorrow Summer Internship Program. Journal of the National Medical Association, 112(1), 15–23. https://doi.org/10.1016/j.jnma.2019.11.006

Kofinas, A. K., & Tsay, C. H. H. (2021). In Favor of Large Classes: A Social Networks Perspective on Experiential Learning. Journal of Management Education, 45(5), 760–785. https://doi.org/10.1177/10525629211022819

Kolb, A. Y., & Kolb, D. A. (2005). Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education Experience-Based Learning Systems.

Kolb, D. A. (1984). Experiential Learning: Experience As The Source Of Learning And Development How You Learn Is How You Live View project Learning Sustainability View project. http://www.learningfromexperience.com/images/uploads/process-of-experiential-learning.pdf!

Kong, Y. (2021). The Role of Experiential Learning on Students’ Motivation and Classroom Engagement. Frontiers in Psychology, 12. https://doi.org/10.3389/fpsyg.2021.771272

Kuczera, K. (2021). Experiential learning in simulated conditions. Procedia Computer Science, 192, 4186–4193. https://doi.org/10.1016/j.procs.2021.09.194

Layer, M., Yuan, B., Wang, M., & Moormannm, J. (2023). Classroom or online learning? Impact of experiential learning in business process management education. Knowledge Management & E-Learning: An International Journal, 214–234. https://doi.org/10.34105/j.kmel.2023.15.012

Marougkas, A., Troussas, C., Krouska, A., & Sgouropoulou, C. (2023). Virtual Reality in Education: A Review of Learning Theories, Approaches and Methodologies for the Last Decade. Electronics, 12(13), 2832. https://doi.org/10.3390/electronics12132832

Maynard, C., Garcia, J., Lucietto, A., Hutzel, W., & Newell, B. (2021). Experiential Learning in the Energy Based Classroom. International Journal of Engineering Pedagogy, 11(6), 4–26. https://doi.org/10.3991/ijep.v11i6.16539

Munoz-Carpio, J. C., Cowling, M., & Birt, J. (2020). Doctoral Colloquium-Exploring the Benefits of Using 360 Video Immersion to Enhance Motivation and Engagement in System Modelling Education. Proceedings of 6th International Conference of the Immersive Learning Research Network, ILRN 2020, 403–406. https://doi.org/10.23919/iLRN47897.2020.9155100

Murakami, C. D., & Lehrer, N. (2022). Experiential learning and pedagogical content knowledge in a graduate food studies program. Food, Culture and Society, 25(1), 149–171. https://doi.org/10.1080/15528014.2021.1884424

Nurunnabi, A. S. M., Rahim, R., Alo, D., Mamun, A. Al, Kaiser, A. M., Mohammad, T., & Sultana, F. (2022). Experiential Learning in Clinical Education Guided by the Kolb's Experiential Learning Theory. International Journal of Human and Health Sciences (IJHHS), 6(2), 155. https://doi.org/10.31344/ijhhs.v6i2.438

O'Connor, S., Kennedy, S., Wang, Y., Ali, A., Cooke, S., & Booth, R. G. (2022). Theories informing technology enhanced learning in nursing and midwifery education: A systematic review and typological classification. In Nurse Education Today (Vol. 118). Churchill Livingstone. https://doi.org/10.1016/j.nedt.2022.105518

Radović, S., Firssova, O., Hummel, H. G. K., & Vermeulen, M. (2021). Improving academic performance: Strengthening the relation between theory and practice through prompted reflection. Active Learning in Higher Education. https://doi.org/10.1177/14697874211014411

Radović, S., Hummel, H. G. K., & Vermeulen, M. (2021). The mARC instructional design model for more experiential learning in higher education: theoretical foundations and practical guidelines. Teaching in Higher Education. https://doi.org/10.1080/13562517.2021.1872527

Radović, S., Hummel, H. G. K., & Vermeulen, M. (2022). Design-based research with mARC ID model: designing experiential learning environments. Learning Environments Research, 25(3), 803–822. https://doi.org/10.1007/s10984-021-09394-7

Ramirez, S. (2021). Cultural Exposure as a Creative Experiential Learning Intervention. Journal of Creativity in Mental Health. https://doi.org/10.1080/15401383.2021.1949420

Scarparolo, G., & Mayne, F. (n.d.-a). Mixed-reality simulations as a tool to enhance parent-teacher conferencing in initial teacher education. In Australasian Journal of Educational Technology (Vol. 2022, Issue 5).

Scarparolo, G., & Mayne, F. (n.d.-b). Mixed-reality simulations as a tool to enhance parent-teacher conferencing in initial teacher education. In Australasian Journal of Educational Technology (Vol. 2022, Issue 5).

Ssekamatte, T., Isunju, J. B., Nalugya, A., Mugambe, R. K., Kalibala, P., Musewa, A., Bikaako, W., Nattimba, M., Tigaiza, A., Nakalembe, D., Osuret, J., Wafula, S. T., Buregyeya, E., Tsiouris, F., Michaels-Strasser, S., Kabasa, J. D., & Bazeyo, W. (2022). Using the Kolb's experiential learning cycle to explore the extent of application of one health competencies to solving global health challenges; a tracer study among AFROHUN-Uganda alumni. Globalization and Health, 18(1). https://doi.org/10.1186/s12992-022-00841-5

Van den Beemt, A., Groothuijsen, S., Ozkan, L., & Hendrix, W. (2023). Remote labs in higher engineering education: engaging students with active learning pedagogy. Journal of Computing in Higher Education, 35(2), 320–340. https://doi.org/10.1007/s12528-022-09331-4

Watkins, C., & Poudyal, N. C. (2021). Influence of Experiential Learning Activities in a Natural Resource Policy Course on Student Learning and Civic Engagement. Journal of Forestry, 119(6), 564–573. https://doi.org/10.1093/jofore/fvab037

Winsett, C., Foster, C., Dearing, J., & Burch, G. (2016). The Impact of Group Experiential Learning on Student Engagement.

Yang, C. Y., Xie, D., & Wong, J. W. C. (2021). Challenges and Benefits of Experiential Learning: The Case of Overseas Exchange Programs. Advanced Education, 19, 79–88. https://doi.org/10.20535/2410-8286.239232

Yoon, C., Lee, J., Fong, E., & Lee, J. I. (2021). The Virtual Team Member: Remote Engagement of Medical Students in COVID-19 Care. Medical Science Educator, 31(6), 1831–1838. https://doi.org/10.1007/s40670-021-01422-8

Zaharatos, M., Meyer, C. T., & Hernandez-Webster, J. (2023). Experiential Learning: Conferences as a Tool to Develop Students' Understanding of Community-Engaged Research. Social Sciences, 12(6), 352. https://doi.org/10.3390/socsci12060352