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Experiential Learning: A Systematic Review of Approach And Learning Models

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ABSTRACT

The Present review paper focuses on how experiential learning and experience learning-based approaches are the best way to learner-centeric approach. To fulfill the purpose of the present paper, the author reviewed studies conducted on experiential learning and also reviewed the model of experiential learning developed by David A. Kolb. Experiential learning is a learner-centric approach that develops all the domains of learning (Cognitive, affective, and Psychomotor) while other approaches focus only on cognitive development and few approaches stress on cognitive and psycho-motor development. The present review paper is based on how experiential learning copes with students with real-world problems and how they use their learning to solve these problems. In NEP 2020, exclusively stresses on experiential learning at each and every stages of education. Central Board of Secondary Education (CBSE) also focuses on how the Indian education system moves towards experiential learning except rote learning.

Keywords: Experiential Learning, Kolb's model, Domains of learning, student-centered learning

Introduction

In the 21st century aim of the whole education system is for the holistic development of a child, which means the development of 3H (Heart, Hand, and Head). Experiential learning is an educational approach that emphasizes personal or practical experience in the acquisition of knowledge, skills, values, and attitudes. Students are encouraged to develop a passion for learning and a thirst for knowledge by engaging in authentic experiences that allow them to learn what they need to know. Experiential learning is a student's centered learning approach. The prevailing education system emphasizes on cognitive development leaving the affective and psychomotor faculties aside. This leads to a lopsided development of a child and in turn of society. These may be due to the traditional teacher-centered methods of teaching. Thus, the present condition demands a change in pedagogical approaches i.e. a paradigm shift from teacher-centered methods to learner-centered methods. One of the student-centered methods is experiential learning.

Experiential learning is an approach that prioritizes student engagement and active participation, emphasizing the learning process over its outcomes. It fosters an environment where learners can reflect on their experiences and integrate them into real-life contexts.

1. EXPERIENTIAL LEARNING

Experiential learning is a type of education that emphasizes personal or practical experience in the development of knowledge, skills, values, and attitudes. By engaging in authentic experiences that allow learners to learn what they need to know, students are encouraged to develop a passion for learning and a thirst for knowledge.

Experiential learning is a creative and activity-based endeavor in the field of education, wherein children learn through hands-on experiences. This type of learning experience is capable of developing self-belief, a positive attitude, decision-making, and problem-solving skills.

2. Definitions of Experiential Learning

3. "Share information with me, and it might not stick. Demonstrate concepts, and I might retain them. Involve me actively, and I'll truly comprehend." —Attributed to Confucius, circa 450 BC

4. Experiential education serves as both a philosophy and a method where educators intentionally immerse learners in hands-on experiences and thoughtful reflection, aiming to enhance knowledge, cultivate skills, and clarify values.

5. In the experiential learning process, children actively participate in activities, stimulating their thinking, exploration, questioning, decision-making, and application of acquired knowledge. (Source: 4-H Cooperative Curriculum System)

6. Experiential Learning, as defined by David A. Kolb (1984), is the dynamic process wherein knowledge emerges through the transformation of experiences.

7.

8. Historical Background of Experiential Learning

The concept of experiential learning was seen by several distinguished scholars in 4th-century. The roots of experiential learning are profound. They go ahead from Aristotle to Buddha, from biological phenomena to treading the right pathway in daily life by leaving the customary path. Psychologists (Watson, 1913; Piaget, 1936; Dewey, 1933/1998; Bruner, 1990; Piaget, 1972; Hergenhahn and Olson, 2000 as cited in Caulfield and Woods, 2013) believe that learning occurs through conditioning. They emphasized an interactive learning environment for effective learning (Caulfield, 2011). John Dewey mainly contributed to experiential learning by emphasizing 'learning by doing' or 'learning by experience'. Dewey wrote in 'Democracy and Education' (1916) and 'Experience and Education' (1938), that in a democratic set-up, everybody is free to interchange their ideas which leads to the development of knowledge and experience helps in giving direction and meaning to the process of learning.

Experiential Learning Theory (ELT)

9. ELT encompasses the scholarly contributions of educational figures such as John Dewey, Kurt Lewin, and Jean Piaget, as detailed by Kolb (D.A., 1984). In the ELT framework, learning is defined as the acquisition of knowledge through firsthand experience (Kolb, A.Y., 2005). According to Kolb's ELT model, there are two modes of responding to learning: Concrete Experience (CE) and Abstract Conceptualization (AC). These are complemented by two ways of transforming experience into knowledge such as Reflective Observation (RO) and Active Experimentation (AE). The former is referred to as the perception continuum, while the latter is seen as the performing continuum.

10. ELT introduces a cyclical learning process: (1) concrete experience; (2) observation and reflection; (3) formation of abstract concepts; and (4) testing in new situations (Kolb, D.A.). The learning cycle elucidates how immediate concrete experiences (CE) provide the foundation for observation and reflection (RO), wherein the experience is subsequently integrated into abstract conceptualization (AC). Furthermore, from AC, the experience is shaped into active experimentation (AE) with the world. Consequently, AE not only concludes the learning cycle but also initiates a new cycle by generating fresh experiences (Kolb, D.A.).

11. Models of Experiential Learning

Kurt Lewin's Model of Experiential Learning

Lewin (1951) worked in the area of organizational behavior and group dynamics by considering that learning is effective when the theoretical aspect is combined with the practical. The concept of 'Action Research' is also credited to Kurt Lewin. The model emphasizes on subjective experience which acts as a foundation for

experiential learning. Before giving experiences to a learner, the learner must be aware of the theoretical background. Lewin's model consists of providing a set of concrete experiences so that the learner can make one's interpretations and give Chapter 1: Introduction 9 suggestions about an idea so that a conceptual framework is made in a generalized situation. The various phases of the model are linked to each other.

12. John Dewey's Model of Experiential Learning

Dewey, J. (1938/1997) gave importance to the concept of 'learning by doing', a philosophy of the pragmatic school of thought. He emphasized on needs and interests of the child, while a teacher should focus on various skills that help in developing problem-solving skills among learners. Dewey countered the notion of teaching that was based on a 'one size fits all' philosophy. He felt that both traditional and progressive education systems were not enough for learning. While traditional education was too rigid and concerned only with the curriculum, progressive education was too impulsive and focused only on students' interests. So, Dewey expounded on a novel educational approach that advocated the contribution of experience toward education.

13. Jean Piaget's Model of Experiential Learning

Piaget's (1970) theory states that intelligence is formed by experience, and that Intelligence is not an inborn or innate quality, but a product of the interaction between heredity and surroundings environment.

Piaget's model of experiential learning is a basic fundamental process in the concept of learning as schema, assimilation, accommodation, and equilibrium. A schema is a kind of knowledge and the process of obtaining that knowledge.

14. Carl Rogers' Model of Experiential Learning

Rogers (1959) categorized learning into cognitive and experiential. The cognitive aspect is concerned only with memorizing the facts while the latter refers to applied knowledge that comes from doing. Experiential learning is possible if common conditions are followed like learners' personal involvement, self-initiated behavior, persistent nature, self-evaluation, and learning essence

Rogers believed that actualizing tendency is natural to all people and acts as a motivation towards realization, success, and fulfillment. The sense of actualization is achieved through various factors like organismic valuing, positive regard, positive self-regard, and real self. The organismic valuing process is to guide ourselves and is concerned with development. With development, awareness arises for good and bad lessons for individuals. For example, in the state of hunger, one needs food, but only that type of food is required which is good in taste, and that good taste of food is an evolutionary lesson for food. The positive satisfaction of organismic valuing leads to actualization.

15. Maria Montessori's Model of Experiential Learning

Montessori (1917) is considered the founding mother of experiential education. Montessori's method of learning has two stages: the first is the introduction stage in which a child is motivated to learn in a new learning environment and the second stage where the child works with the given material daily, day after day or at regular intervals (Smith and Knapp, 2011).

16. Experiential Learning Model by David Kolb

Kolb (1984) expostulates learning to be a sequential process that generates knowledge via the transformation of experiences. Six basic characteristics that underline experiential learning, according to Kolb, are:

a) Learning is process-centered rather than outcome-centered.
b) Learning is a persistent process that stems from experiences.
c) The learning process attempts to resolve contradictions between models of adaptations to the world that are dialectically opposite to one another.
d) Learning is a comprehensive process of adapting to the world.
e) Learning comprises interaction among individuals and their surroundings.
f) Learning is an activity that culminates in the generation of knowledge.

Four major characteristics need to be applied for a type of learning to qualify as experiential, Those characteristics defined based on Kolb experiential learning are:

Fig.1 Experiential Learning Cycle

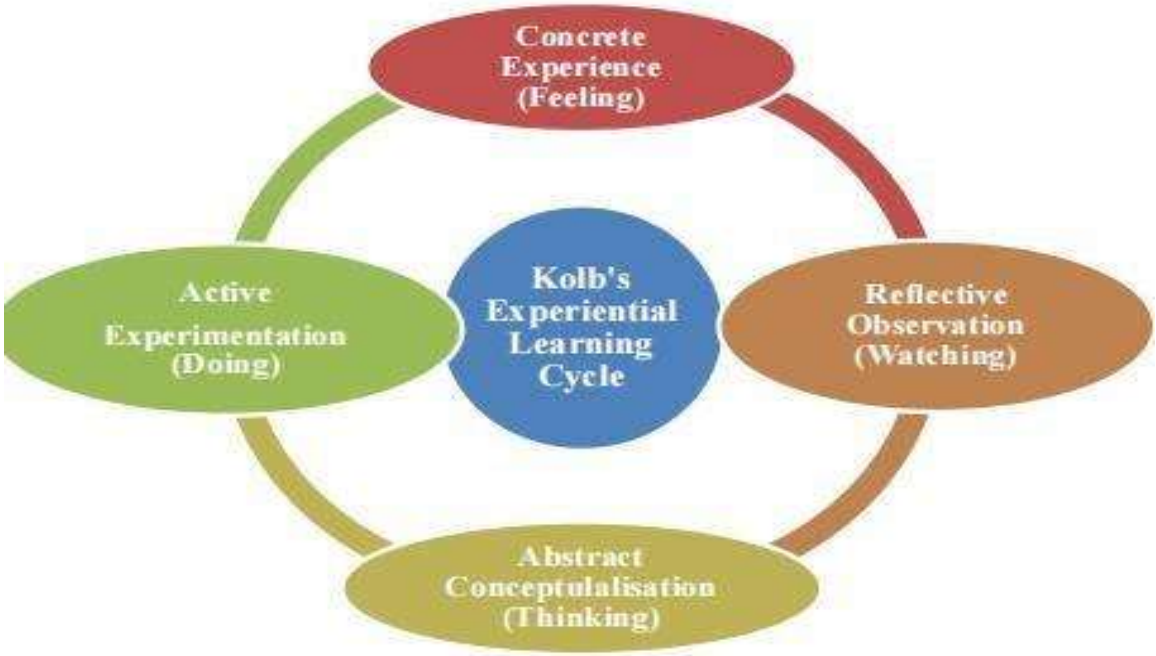

Fig.1 Kolb's Learning Cycle

Through this learning cycle, one discovers what it means to learn and what learning can do for what one has encountered.

"There are two goals in experiential learning. One is to learn specific of a particular subject, and the other is to learn about one's learning process." -David A. Kolb

17. Application and usefulness of "Kolb's Model of Experiential Learning"

Numerous scholars have contributed to the advancement of experiential learning methodologies, as demonstrated by Kolb's cyclical model (1984), which encompasses concrete experience, abstract conceptualization, reflective observation, and active experimentation. In 1972, David Kolb introduced the Learning Style Inventory, a tool for evaluating individual learning preferences, which includes four distinct styles: diverging, assimilating, converging, and accommodating (referenced by Kolb & Kolb, 2017). Kolb's framework has also been applied within mathematical contexts, classifying students as allegorizers, integrators, analyzers, and synthesizers (referenced by Chesimet, 2016).

Boud & Walker (1992), as cited by Beaudin (1995), introduced two critical elements to experiential learning: experience and reflection. Furthermore, Dean (1993) suggested a six-stage approach for creating and executing experiential learning exercises within classrooms, comprising planning, engagement, internalization, reflection, generalization, application, and follow-up (referenced by Beaudin, 1995). While some scholars favored Kolb's framework, others embraced Laura Joplin's five-phase model, which includes focus, action, support, feedback, and debriefing (referenced by Beaudin, 1995).

Kolb's educational framework has been widely adopted across a range of disciplines, including mathematics (Avelino, 2017; Chesimet, 2016; Davidovitch, 2014), clinical environments (Sand, 2014), agriculture (Baker, 2012), and science and technology (Parahakaran, 2017). Furthermore, studies related to this pedagogical model cover various demographics, such as primary school pupils (Falloon, 2019), middle school students (Chesimet, 2016; Tuyen, 2018), secondary school students (Weinbern, 2011), college students (Mendoza, 2019), and aspiring educators (Girvan et al., 2016; Efstratia, 2014; Katranci & Bozcus, 2014). "Kolb's model of experiential learning" helps attain learning experiences through social interaction in groups and these activities inspire and motivate all members of a group by contributing significantly in solving the problem or inventing

something new.

i. This model provides an understanding of unfamiliar and undiscovered facts of content which helps the students to incorporate it in real-life situations. This leads to the development of self-confidence and self-belief among students.
ii. It acts as a means for nurturing and developing logical reasoning and creativity.
iii. Various techniques and strategies used in "Kolb's model of experiential learning" help in broadening the attitudinal perspectives of students toward science learning.
iv. Exploration, learning new facts by doing, and generating new ideas make teaching-learning joyful. Hence, Kolb's model of experiential learning makes the process of learning delightful and interesting.

Review of the studies

This section shows the process for obtaining data by searching for information in different databases and a metasearch engine where it was necessary to look at and introduce keywords and variables to find the required information. Most of the researches are taken from the Education stream. The studies were taken from databases like ERIC (Educational Resources Information Centre), Google Scholar, Shodhganga (Reservoir of Indian Theses), ResearchGate, etc. Those websites were considered because they contained scientific, academic, and technical articles of great prestige with the possibility of finding open access studies; here some distribution of the studies which are reviewed by the researcher is ….

(i) Method wise distribution of the study
(ii) Database wise distribution of the study
(iii) Year wise distribution of the study

(i) Method Wise Distribution of The Studies

Method-wise distribution of studies in a review paper on experiential learning provides valuable insights into the diverse approaches used to investigate this dynamic educational concept. By categorizing studies based on their methodologies, such as experimental research, case studies, Phenomenological research, and qualitative analysis, researchers can offer a comprehensive overview of the various ways experiential learning is studied and understood. This structured approach allows for a deeper exploration of the effectiveness, challenges, and best practices associated with experiential learning across different contexts and disciplines.

Database	Case study	Experimental	Survey	Phenomenological
ERIC	6	3	4	2
Google Scholar	4	2	2	1
Research Gate	5	3	3	2
Shodh-Ganga	2	6	4	2

Tab. 1 Method-wise Distribution

(ii) Database-wise study distribution

The researcher reviews the 41 research/articles/review papers in educational research at various levels (primary to higher level) to fulfill the purpose of the present paper. The researcher reviewed 17 studies from ERIC (Educational Resources Information Centre),14 study from Google Scholar,13 studies from Shodhganga, and 7 studies from Research Gate.

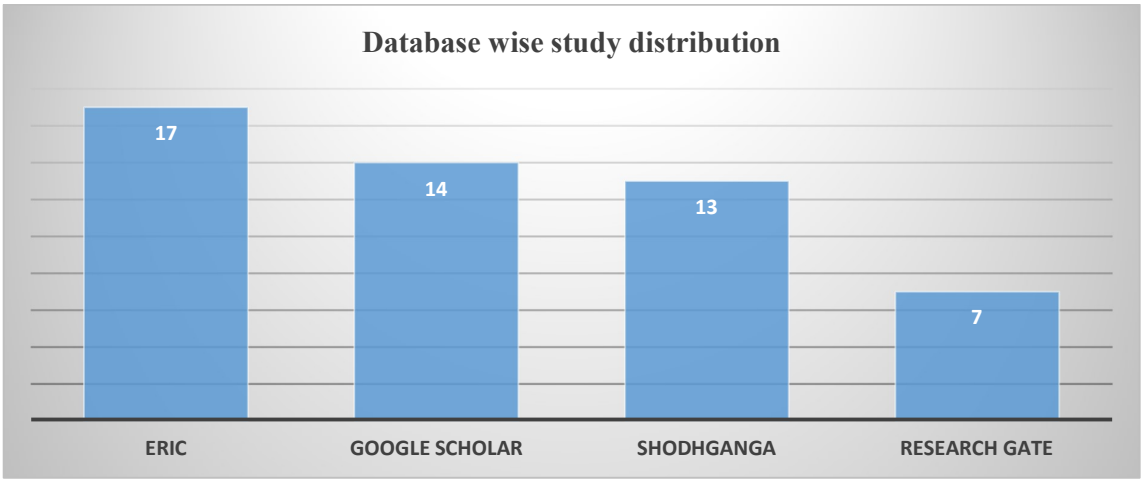

Fig.2 Database wise study distribution

(iii) Year-Wise Distribution of The Study

In the present study, the researcher reviewed the study between 2018-2023 of education discipline through various databases**.** The year-wise distribution of studies in a review paper on experiential learning enhances our understanding of the historical context, development, and current state of knowledge within the field. By contextualizing findings within a temporal framework, researchers can provide valuable insights into the evolution and future directions of experiential learning research, contributing to its continued advancement and relevance in educational practice.

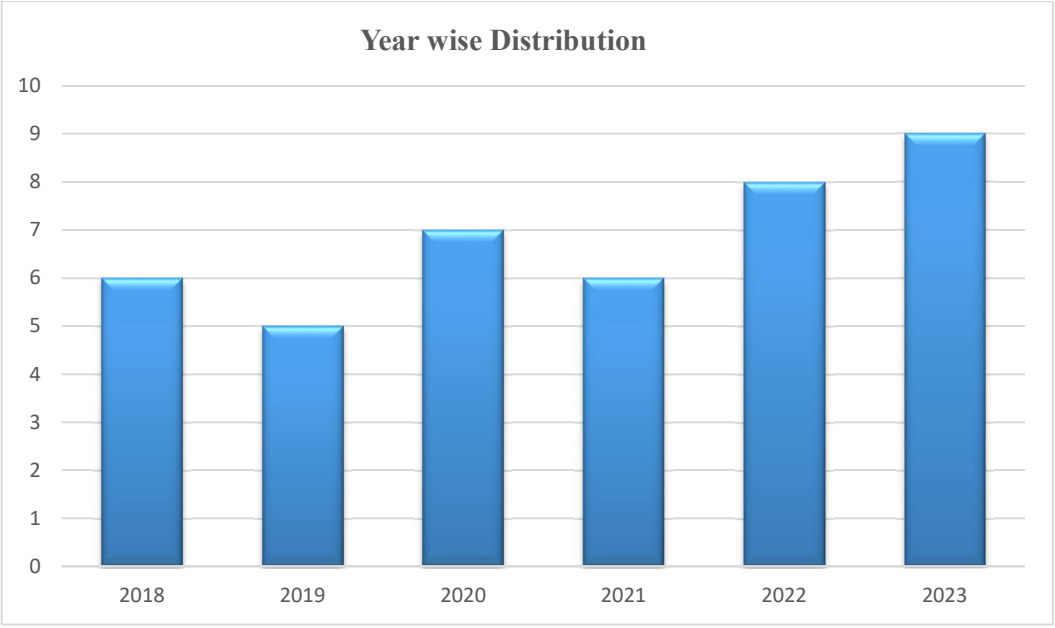

Fig.3 Year wise Distribution

Some Studies and Findings

Author and Year	Title	Findings
laratne, W., Dissawa, L. H., Ekanayake, T., & Ekanayake, J. B. (2022).	veloping and Delivering a Remote Experiment based on the Experiential Learning	dents' performance was compared before and after the online mode of delivery, and it was found that students' performance was improved when the

	framework during COVID-19 Pandemic	laboratory activity was conducted as described in this paper.
ng, D. T., Loc, N. P., Uyen, B. P., & Cuong, P. H. (2020).	plying Experiential Learning to Teaching the Equation of a Circle: A Case Study	e findings indicated that the experimental group outperformed the control group in terms of mathematical outcomes, and also demonstrated a favorable attitude towards learning, displaying keen interest in the subject matter.
laikah, M., Degeng, I. N. S., Sulton, & Murwani, F. D. (2020)	e Effect of Experiential Learning and Adversity Quotient on Problem-Solving Ability	e experiential learning improved the student's problem-solving ability on both of the students with high and low adversity quotients.
Suvanna Trongtorsak, Kobkiat Saraubon, Prachyanun Nilsook (2021)	llaborative Experiential Learning Process for Enhancing Digital Entrepreneurship	e collaborative experiential learning process aimed at bolstering digital entrepreneurship consists of five stages encompassing 15 distinct processes, namely: 1) inspiration, 2) exploration, 3) engagement, 4) presentation, and 5) utilization. The evaluation of the suitability of this process by experts yielded an overall assessment at the highest level of effectiveness.
un, C. & Uygun, K. (2022).	e Effect of Simulation-Based Experiential Learning Applications on Problem-Solving Skills in Social Studies Education	the findings of the study, it has been reached that simulation-based experiential learning applications enhance students' problem-solving skills
e, J., Kobia, C., & Son, J. (2023)	proving global competence in classroom-based experiential learning activities	s research is significant in terms of providing an empirical example of how to increase global competence in classroom-based courses. Additionally, scholars and teaching practitioners can gain insights from this study on how to improve global competence for the future workforce in a global economy.
loon, G. (2019	18. Using simulations to teach young students science concepts: An Experiential Learning theoretical analysis	summary, the study suggests that with adequate teacher guidance and meticulous selection and evaluation, simulations can effectively introduce elementary students to basic physical science principles and enable them to participate in more advanced cognitive processes.

Conclusion

After reviewing the studies, the researcher found that Experiential Learning pedagogy has many benefits for students globally. The Experiential Learning approach involves the interaction between students and the subject matter. In the present review paper, the author found that experiential learning studies with many variables, and in most studies experiential learning gave a significant result. It provides immersive experiences to the learners, thereby helping in understanding abstract concepts more clear. So, the researcher concludes that experiential learning enhances the various aspects or domains (cognitive, affective, and psychomotor) of the learner and increases the active participation in classroom activities. Experiential learning is the best approach for 21st-century learning because the 21st century is the century of learner-centered education where teachers play a secondary role in the whole educational process.

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