

Experiential Learning in Higher Education

SM Mamatha

Department of Commerce and Management, Sahyadri Commerce and Management College (Constituent College of Kuvempu University), Shivamogga-577203, Karnataka, India.

Article Info

Article history:

Received 24 September 2020

Received in revised form

28 February 2021

Accepted 5 August 2021

Available online 15 September

2021

Keywords: Experiential learning, higher education, Kolb's learning cycle, teaching and learning.

Abstract: India's higher education system is the world's third largest in terms of students, next to China and the United States. In future, India will be one of the largest education hubs. India's Higher Education sector has witnessed a tremendous increase in the number of Universities/University level Institutions & Colleges since independence. The role of colleges and universities in the higher education system in the new millennium has become more complex and challenging due to the emerging scientific research on understanding how people learn is utmost important to justify the quality of higher education. As India need well skilled and highly educated people who can drive our economy forward and also to transfer our country from a developing nation to a developed nation. For attaining this goal, higher education system should make student competencies go beyond the content knowledge, prepare them to direct their own learning, solve problems of academic significance and to move beyond controlled information containment. Ideas must be explored, developed, integrated, and resolved within the context of a particular assignment as knowledge construction at advanced levels take on new meaning. Higher education rather than being the source of content expertise, should be facilitators of knowledge and motivation of action learning preceded by a driving question. Unlike assignments of passive learning, experiential approach recognizes and values unpredictable outcomes. Experiential learning is an approach in which students decide themselves to be personally involved in the learning experience, students are actively participating in their own learning and have a personal role in the direction of learning. Experiential learning is popular with students as it is considered more enjoyable and leads to deeper learning when compared to didactic approaches. Employers prefer hiring students who have learned experientially and yet emerging research indicates that the use of experiential learning in higher education institutions remains limited. The present paper aims to highlight the concept of experiential learning, its importance & advantages, challenges and to point out the opportunities to implement experiential learning in Indian higher education system based on the review of available literature in the field of study.

1. Introduction

From the past two decades, the reform in the higher education system has focused on increasing the range of students' interests as well as their conceptual understanding of disciplinary content (DeCorte, Greer, & Verschaffel, 1996; National Council of Teacher of Mathematics, 1980; Schmidt, McKnight, & Raizen, 1997). One of the curricular and instructional models that address these two aspects is experiential learning. Experiential learning is the process of learning through experience, and is more specifically defined as "learning through reflection on doing". Hands-on learning is a form of experiential learning but does not necessarily involve students reflecting on their product. Experiential learning is a way of educating based on experience, where skills, awareness and understanding are acquired outside of the traditional classrooms. The activities may include internships, lectures abroad, excursion trips, field study, and service-learning job. It reflects a learner-centered environment that concentrates on students' use of disciplinary concepts, tools, experiences and technologies to answer questions and solve real-world problems (Krajcik & Blumenfeld, 2006; Markham, Larmer, & Ravitz, 2003). While progressive institutions have begun using experiential learning as an effective instructional model, some institutions in the higher education system has been much slower in adopting experience based learning, despite original work with inquiry processes that has occurred in colleges and universities. While experiential learning can contribute to liberal learning, the outcome of experiential learning requires careful structuring and supervision of out-of-classroom student experiences. Studies of service learning have shown that poorly structured programs that do not integrate service with the academic curriculum make little contribution to student learning, even though they may help students develop in other ways (Vogelgesang and Astin 2000; Eyler and Giles 1999). Literature on internships, cooperative education, and school-to-work programs also mentions the integration of experience learning with curricular

Corresponding Author,

E-mail address: mamathasm2008@gmail.com

Cell:+91-8722534662

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Goals-learning through doing-but often there is a mismatch between the stated goals of programs and the actual experiences of students (Moore 1981; Parilla and Hesser 1998). Internships are often run like independent studies with little faculty oversight or opportunity for structured reflection. Therefore, the concept to combine formal teachings in the classroom with direct learning experiences in selected environments was proposed. The philosophy of "learning-by doing" not only allows learning to become more immediate, it also allows the students to test their theories and symbols learned in classroom into the practical situations of real life. Hence, the integrated experience learning was shown to provide a vital interactive learning component to complement formal learning in the higher education. The concept of experiential learning might look new, but in fact it was embedded way back in the Indian education system. Gurukul was the quiet essential experiential learning format — a learning initiated by an interaction between the learner and his environment. In the olden days, the gurukul system imparted key aspects of education to students in the form of various activities undertaken in an open environment under the supervision of a guru. Experiential learning, in the digital world, is a blended form of learning which essentially has rich content including field trips, experiments, simple videos, robotics and much more including series of experiences in the real-world setup. The experiences in learning being more engaging from cognitive, emotional, and physical standpoints. Unlike written curriculum learning, experiential learning may happen in a wink, or over days, weeks or months, depending on the topic.

2. Conceptual Framework

The concept of experiential education draws together the work of several notable 20th century scholars who were valued for their theories of human learning and development (Kolb, 1984). The Association for Experiential Education (N.D) has summarised the key findings of their work into a set of key experiential learning principles: Experiential learning occurs when carefully chosen experiences are supported by reflection; critical analysis and synthesis. Experiences are structured to require the student to take initiative, make decisions; and accountable for results. Throughout the experiential learning process, the students will be actively engaged in posing, questions, investigating, experimenting, being

curious, solving problems, assuming responsibility, being creative and constructing meaning. Students are engaged intellectually, emotionally, socially, soulfully and/or physically. This involvement produces a perception that the learning task is authentic. The results of the learning are personal and form the basis for future experience and learning. Experiential learning involves learning from experience. The theory was proposed by psychologist David Kolb who was influenced by the work of other theorists including John Dewey, Kurt Lewin, and Jean Piaget. According to Kolb, this type of learning can be defined as 'the process whereby knowledge is created through the transformation of experience. Knowledge results from the combinations of grasping and transforming the experience'. Experiential learning is simply learning by doing -- but there is more to the process. Not only do learners take action, but they reflect on, learn from, and take new action based on experience. Kolb and Fry describe experiential learning as a four-part cycle: (1) having a concrete experience followed by (2) observation of and reflection on that experience which leads to (3) the formation of abstract concepts (analysis) and generalizations (conclusions) which are then (4) used to test hypothesis in future situations, resulting in new experiences.

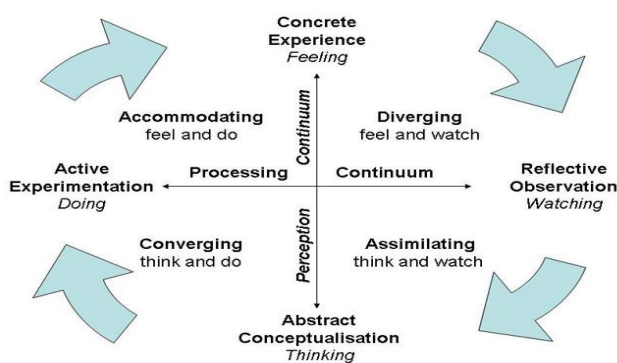


Fig. 1: The Lewinian experiential learning model according to Kolb (1984: 21)

Experiential learning can be used in higher education as a powerful tool for effective learning because it provides the real life experience and cognitive ability to reflect, develop new ideas, and take positive action. It also provides students with the real-world experience they need to place their new skills in context and to develop new ideas about how to implement their skills. This is particularly true when real-world skills are taught in a classroom context. On the other hand, experiential learning has very specific limits. It is only useful when the content being taught is content that will be used in a real-world setting. So, for example, it is very difficult to provide experiential learning relative to literature, history, or philosophy. Yes, it is possible to take field trips to relevant locations or museums -- but field trips are quite different from experiential learning. But in management educations experiential learning will be very useful as it is used in real life situations.

3. Review of Literature

Kolb & Fry (1975) in practice the learning cycle is more like a spiral learning process where theory and practice are conceptualised and reconceptualised, with each spiral deepening the student's understanding.

Walker (1985) presented the implications for the development of curricula as critical reflection and reflective practice are not innate skills and students needed to be taught these skills alongside core discipline knowledge. And also suggested that conventional teaching methods are not effective for developing students' reflective practice skills and approaches such as role models, observation of competent practitioners, self-practice and mentors should be utilised instead Concrete experience (CE) Reflective observation (RO) Abstract conceptualisation (AC) Active experimentation (AE).

Jaynes and Perkus (1990) have identified six common features that are inherent in effective experiential learning opportunities: (1) they

are learner-centred and student directed, (2) they are structured to have an increased emphasis on problem solving, discovery and inquiry, (3) they focus on practical applications of course content, (4) they focus on holistic understanding of a discipline, (4) they are perception based, and (6) the emphasis is on the heuristic process -- learning about learning.

Bandura, (1991) discussed the experiential learning, based on the importance of personal experience in the educational process. Individuals can possess an unlimited amount of information, but may be unwilling to engage in tasks, where that information can be employed productively when they have no experience in doing so. Experiential learning provides students the opportunity to directly apply the information they possess in order to build self-efficacy and learn from the experiential undertakings.

Cantor (1997) presented the shift of role of the educators that reflect on their practice and pedagogical approach. Evidence-based frameworks have been developed to understand the educators to take a systematic approach to designing experiential learning activities, however institutions may need to offer targeted staff development opportunities to support educators in applying and adapting the frameworks to their specific teaching contexts. And finally concluded that educators will need to consider professional accreditation requirements for experiential learning, numbers of students to be taught, and materials and resources needed and available. Kolb and Kolb (2006) concluded that experiential learning is an effective educational approach. Specifically, they note that experiential learning is effective in increasing students' meta-cognitive abilities, enhancing their ability to apply information to actual situations, and giving them the ability to become self-directed learners.

Wurdinger & Carlson (2010) identified the qualities of experiential learning in which students decide themselves to be personally involved in the learning experience (students are actively participating in their own learning and have a personal role in the direction of learning). Students are not completely left to teach themselves; however, the instructor assumes the role of guide and facilitates the learning process. In experiential learning, the instructor guides rather than directs the learning process where students are naturally interested in learning. The instructor assumes the role of facilitator and is guided by a number of steps crucial to experiential learning as noted by (Wurdinger & Carlson, 2010, p. 13) be willing to accept a less teacher-centric role in the classroom; approach the learning experience in a positive, non-dominating way; identify an experience in which students will find interest and be personally committed; explain the purpose of the experiential learning situation to the students; share your feelings and thoughts with your students and let them know that you are learning from the experience too; tie the course learning objectives to course activities and direct experiences so students know what they are supposed to do; provide relevant and meaningful resources to help students succeed; Allow students to experiment and discover solutions on their own; find a sense of balance between the academic and nurturing aspects of teaching and clarify students and instructor roles.

Cooper et al., (2010) presented the notions of experiential learning underpin many of the teaching and learning activities used in higher education contexts. Examples include work-integrated learning, work-based learning, laboratory teaching, simulations and service learning experiences. In each of these activity types, learning begins with experiences that allow participants to observe, review and reflect on what they have practised, and then critically reflect to consciously link their experiences to theory or previous experiences. Turesky & Gallagher (2011) the strengths of individuals with this learning style lie in their ability to set goals solve problems and make decisions they prefer to learn by "first hand" techniques such as experimenting, simulating, and using practical applications for what they have learned.

It is evident from the review of pertinent literature that the experiential learning in higher education has value far beyond building the kind of social skills, work ethic, and practical expertise

that are important in professionally oriented programs. In fact, experiential learning in education can also lead to more powerful academic learning and help students achieve intellectual goals commonly associated with liberal education, including a deeper understanding of subject matter than is possible through classroom study alone; the capacity for critical thinking and application of knowledge in complex or ambiguous situations; the ability to engage in lifelong learning, including learning in the workplace. Experiential education also identifies the practices necessary for achieving these outcomes, particularly the use of structured reflection to help students link experience with theory and, thereby, deepen their understanding and ability to use what they know.

4. Discussion

There are numerous experiential learning opportunities in higher education that can be found in most disciplines. The following is a list of these experiences as noted by (George Mason University, 2011; Loretto, 2011; Northern Illinois University OTC, 2011). Experiential learning provide students an opportunity to try out a job usually with an experienced professional in the field to act as a mentor. Transfer of knowledge requires deep understanding. Recall and reproduction of material taught in the classroom do not constitute understanding. For the usable knowledge, it has to be acquired in a situation. Otherwise, it is segregated from experience and unlikely to be remembered or transferred to new experiences. Well-understood material can be retrieved from memory and used in new situations because it is linked with multiple experiences and examples and not isolated from other experience and knowledge. Students cannot apply even recently learned information to new situations. Modern cognitive scientists describe this as inability to apply what is learned to a failure to conditionalise knowledge; the learners don't see the relevance and cannot access what they know when confronted with an opportunity for transfer (Bransford, Brown, and Cocking 2000). Life is not organised by chapter, with tests to signal what information to apply. Unless students learn explicitly to recognize when their knowledge might be useful, can recall that knowledge, and know how to apply it, they will fail to transfer what they know; their understanding is incomplete. Therefore implementation of experiential learning practice in higher education institutions certainly ensure the students to apply the learned information to new real life working situations.

4.1 Benefits experiential learning to students

Experiential learning is important in the curriculum development of higher education from the following reasons:

- Accelerates Learning: Repetitive Learning or learning by rote has long been replaced by 'Learning by Doing.' Experiential Learning methodology uses critical thinking, problem solving and decision making to deliver a training module. This has become an established method to accelerate learning.
- As alternative mode of learning: The integration of conceptual learning in the classroom and actual application in the work place may provide more meaning and relevance to the learning process.
- Makes realistic understanding of the profession: Work experiences and reports give the student an understanding of his/her profession and its practice in the work place. This may enable the student to develop realistic conceptions about the world of work.
- Bridges the gap between theory and practice: By moving beyond theory to the realm of 'learning by doing,' the trainee gets firsthand experience of practicing what has been taught. This plays a crucial role in retaining concepts and ideas.
- Enables Personalized Learning: In order to enable personalized learning, every program needs to enable a journey through the following phases: Assessment, teaching and learning strategy, and curriculum choice. Experiential learning methodology is highly effective in meeting these requirements to enable personalized learning. It is a radical departure from traditional learning methods and takes the learning beyond the classroom. The participants set their own

learning pace. By combining technology and simulations with experiential learning, companies are making this concept available anytime and anywhere, across multiple devices. This has introduced the concepts of flipped classroom, where the learning goes to the students and not the other way.

- Development of reflective practice habits: The gold standard in education is the person who can self-monitor the effectiveness of his plan, anticipate outcomes and develop contingency plans. We often refer to these people as "experts." They are expert because they have had more experiences and have received more coaching than a non-expert and have incorporated certain thinking disciplines into everyday practice. Experiential learning helps accelerate the journey from novice to expert.
- Accomplishments are obvious: Learners can improve, and know they have improved, in as little as an hour because of the feedback loop created by problem solving, feedback and practicing again. In a traditional classroom setting, learners often do not know if they are on the path to success until they take an exam and get a score.
- Ability to immediately apply knowledge: Experiential learning is an opportunity for learners to apply what they've been taught to solve real-world challenges. Learners test their understanding of underlying principles, processes and procedures and can experiment and adapt their practice to achieve best outcomes.
- Guide the students toward Careers goals- Many experiential learning projects are career-oriented, because they are, by nature, grounded in "real-world" activities. Through these activities, students start to discover and develop their own skills, aptitudes and passions. This discovery in turn sets them on a more defined path to college and careers.
- Prepares students for real life- Most experiential learning activities are communal in nature, with students working in groups. Through these team projects, students learn to work more effectively together, developing a plan of action, and utilizing the unique qualities of each team member. In turn, the students learn real-life leadership skills, as well as how to apply critical thinking and adapt to changing circumstances.

4.2 Benefits of experiential learning to the Institutions

Experiential learning offers a number of benefits for the institutions that can potentially enhance teaching/learning, research and service:

- Experiential learning in education ensures that students have a deeper understanding of key course concepts.
- Experiential education can be a means for integrating current issues in the course thereby creating more interest on the part of the student.
- Experiential learning in education engages students as active learners, fostering a higher degree of participation and relevant student contributions to class discussion.
- Certain forms of experiential learning in education foster the establishment of community contacts that may be useful for future research collaborations and student projects may generate ideas for future research projects that can help to solve social problems.
- Experiential learning in education provides an opportunity for connecting teaching, research and community service through the teaching role.
- Deepens student experience and engagement with course work, and possibly increases student retention
- Improves the reputation of the Institution, as a result of community engagement, from both teaching and research collaborations.
- Experiential learning consolidates the civic role and responsibility of the institution.
- Multiplies the opportunities to reconnect and maintain relationships with alumni through partnerships with their workplaces and enterprises.

4.3 Benefits of experiential learning for the Community

Community engagement requires the negotiation of mutually beneficial projects that meet the particular learning outcomes of the course while at the same time responding to specific needs as defined by the community partner. These principles of reciprocity and mutual accommodation are necessary for the long-term sustainability of the partnership. From the perspective of the community partner the following benefits can result from these partnerships:

- Improved ability to complete projects they might otherwise have to postpone due to lack of time and limited resources.
- Strengthening of relationships with the institution, which can be leveraged to validate community knowledge and needs when applying for funding, when seeking support, and when reporting to different stakeholders.
- Agencies may benefit from student curiosity, energy, initiative and motivation.
- Source of volunteers, board members, and even potential hires (i.e., students who have worked with a partner are vetted and partially trained candidates).
- An opportunity for community partners to inform the curriculum (from the perspective of 'what is happening on the ground').
- Community partner staff develop coaching and mentoring skills as they supervise the student working in their organisation.
- As the students deepen their understanding of and engagement with community issues, the students can relay voices from the community to the classroom

4.4 Educational Implications

Kolb's (1984) learning stages and cycle could be used by teachers to critically evaluate the learning provision typically available to students, and to develop more appropriate learning opportunities in higher education. Educators should ensure that activities are designed and carried out in ways that offer each learner the chance to engage in the manner that suits them best. Also, individuals can be helped to learn more effectively by the identification of their lesser preferred learning styles and the strengthening of these through the application of the experiential learning cycle. Ideally, activities and material should be developed in ways that draw on abilities from each stage of the experiential learning cycle and take the students through the whole process in sequence. As higher education continues to adapt to new expectations from students, experiential learning in business and accounting programs has become more important. For example, Clark & White (2010) point out that 'a quality university business education program must include an experiential learning component'. With reference to this employers note that graduating students need to build skills in "professionalism" – which can be taught via experiential learning. Students also value this learning as much as industry. Learning styles also impact business education in the classroom. Professional education applications, also known as management training or organizational development, apply experiential learning techniques in training employees at all levels within the business and professional environment. Interactive, role-play based customer service training is often used in large retail chains. Training board games simulating business and professional situations such as the Beer Distribution Game used to teach supply chain management, and the Friday Night at the ER game used to teach systems thinking, are used in business training efforts. Experiential learning is most easily combined with academic learning, the process of acquiring information through the study of a subject without the necessity for direct experience. While the dimensions of experiential learning are analysis, initiative, and immersion, the dimensions of academic learning are constructive learning and reproductive learning.^[32] Though both methods aim at instilling new knowledge in the learner, academic learning does so through more abstract, classroom-based techniques, whereas

experiential learning actively involves the learner in a concrete experience.

5. Conclusions

The teaching method of experiential learning may be done by using games, assistive devices, and creating learning situations, so that students personally operate themselves, more clearly understand the actual construction and operation, and then transfer into memory. Experiential learning experiences help to complete students' preparation for their chosen careers which reinforce course content and theory. Students learn through student-rather than instructor-centered experiences by doing, discovering, reflecting and applying. Through these experiences students develop communication skills and self-confidence and gain and strengthen decision making skills by responding to and solving real world problems and processes. It can also work as powerful tool for young learners because they have the life experience and cognitively ability to reflect, develop new ideas, and take positive action. It also provides adults with the real-world experience they need to place their new skills in context and to develop new ideas about how to implement their skills. This is particularly true when real-world skills are taught in a classroom context. On the other hand, experiential learning has very specific limits. It is only useful when the content being taught is content that will be used in a real-world setting.

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