

Experiential Learning as a Pedagogical Tool at the National University of Samoa

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Abstract

The supposition by the Lecturers of the National University of Samoa's Faculty of Technical Education Refrigeration and Air Conditioning Courses (RAC) Team has customarily leaned towards the adoption of experiential learning (EL) as a pedagogical tool in linking education and experience, which has set the foundation for a successful transition at the workplace. This scholarship provides the synopsis of the existing practices (curricula, assessments, methodologies and workplace assessment components) and enlightens on the challenges. This scholarship has selected four (4) RAC courses and highpoints the tensions in the curricula. An attempt has been made to pronounce some of the achievements and challenges, the significant learning over the duration of the assignment and how learning experiences during the pedagogical reflection can be transferred to teaching. The scholarship provides implications for experiential learning as a pedagogical tool.

Keywords: Experiential learning, Refrigeration and Air Conditioning Courses, Pedagogical.

Introduction: What is Experiential Learning (EL)?

Experiential learning is a concept that was developed by Kolb in 1984 and is conceived as a paradigm for solving the paradox between how knowledge is gathered and how it is applied. The emphasis of EL is on learning through experience and assesses learners in lieu of their prior experiences (Sternberg and Zhang, 2014). The paradigm emphasizes the significance of learners' participation in all the learning processes and confronts the idea of how experience promotes learning (Zhai et al., 2017). EL is a teaching method that permits learners to learn while they "Do, Reflect, and Think and Apply" (Butler et al., 2019). Students take part in real/tangible experiences (Do), replicating that experience and other evidence (Reflect), fostering theories in line with practices and information (Think), and formulating an assumption or elucidating a problem (Apply). It is a powerful mechanism for creating positive adjustments in academic scholarships which permits learners to apply what they have learned in theory to real-world problems (Guo et al., 2016). This type or form of learning necessitates that learners have greater influence and responsibility, and are absolutely engaged in their learning process inside the learning environment or space. Additionally, it urges learners to be adaptable learners, integrating all feasible learning approaches into a full-cycle of learning, and brings about valuable skills and meta-learning abilities (Kolb and Kolb, 2017).

Literature Review: Importance of EL and Its Benefits for Educators and Learners

EL is a popular teaching method that facilitates active learning by providing real-world practices in which learners' network and analytically evaluate course material and become involved with a topic being taught

(Boggu and Sundarsingh, 2019). Based on the teaching theory of Socrates, this model relies on research-based strategies which permit learners to utilize their classroom knowledge to real-life situations to foster active learning, which consequently brings about a better retrieval (Bradberry and De Maio, 2019). It is proven that EL brings about higher student engagement (Woods et al., 2019). Moreover, via EL, learners become extraordinarily more accountable for their learning which synchronizes a stronger correlation between the learning involvement, practices, and realism (Salas et al., 2009) that are key roles in learning motivation. Huang and Jiang (2020) state that to ensure learners gain the requisite knowledge and actual training, they must be allowed time to develop their know-how and apply it in the real context. This implies more hands-on training and skills development, rather than just imparting the theoretical knowledge (Green et al., 2017). The importance of EL lies in its capacity to accelerate relations between undergraduate scholarship and professional experience (Earnest et al., 2016), leading to an enhanced connection among the university and the industry (Friedman and Goldbaum, 2016) to bridge the gap amid theory and practice.

The positive effect of EL has genuine implications for educators who are thinking of applying this method in their courses. Anwar and Qadir (2017) illuminates on the importance and impetus towards being a member of the learning evolution. By learners' dynamic involvement in experiential activities, the educator can activate their ability to retain knowledge that leads to their intrinsic motivation and interest in the course material (Zelechowski et al., 2017). Learners wholeheartedly contribute in psychological, emotional, and social interactions during the learning process within EL (Voukelatou, 2019). In addition, learners are inspired to think rationally, find resolutions, and take appropriate action in relevant situations. This kind of instruction not only offers prospects for discussion and clarification of concepts and knowledge, but also offers response, assessment, and transfer of knowledge and abilities to new contexts. EL practices have been recognized by Kuh (2008) as contributing to increased student retention and engagement. Other student outcomes often linked with EL include: increased student readiness for self-directed learning (Jiusto and Diabiasio, 2006); self-confidence (Knecht-Sabres; 2010; Lee and Dickson, 2010; Simons, et al., 2012); personal, civic, and professional development (Aldas et al., 2010; Simons et al., 2012); increased working relationships and partnership among faculty and students (Retallick and Steiner, 2009); and experiences that help students acquire work such as professional networking contacts (Hart, 2008; Lee and Dickson, 2010; Simons, et al., 2012). Overall, the positive impacts of EL has implications for both educators and learners.

Methodology

This study follows from an inquiry-based and exploratory approach utilising desk and online reviews of journals and books to comprehend the conjectural underpinnings of EL. The study had selected four RAC courses in the Faculty of Technical Education in which the author has drawn their reflective practice to assess the curricula, methodology and assessments and evaluate the beneficial aspects of EL coupled with the challenges in practice. An attempt has been made to indicate the differences in practice elsewhere.

Discussion

Based on the appreciative enquiry approach of identifying good practices via reflective practice and through discovery and design, some of the key strengths identified in the EL within the four courses were as follows:

- Utilisation of different types of experiential learning such as practicum. Practicum provided the hands-on within the educational setting itself.
- The field experience of the educator which provided a guide to learning over the entire course. Those that were already in the field were engaged in peer assessments and co-practicum sessions to share their prior knowledge and work experiences.
- Constant reassessments: This enabled the class to learn from their experience.
- Experiencing/Exploring ie: “Doing”: Learners were performing few sessions hands-on in practicums with little or no help from the educator. This included diagnosing the issues in RAC. A key facet of EL was what the learners learnt from the experience rather than the quantity or quality of the experience.
- Sharing/Reflecting ie: “What Happened?”: Within the courses, the educator provided the platform for knowledge sharing and communities of practice whereby the students shared the results, reactions and observations with their peers.
- Processing/Analyzing “What’s Important?”: The students had the opportunity to discuss, analyze and reflect upon the experience. Describing and analyzing their experiences allowed students to relate them to future learning experiences. They were able to relate how one diagnosis led to a particular solution and how other diagnoses were related.

The key challenges in the four courses included the following:

- Design of the curricula: The curricula itself overlaps and there is a need to revisit the learning outcomes and alignment to capstone courses.
- Methodology and assessment: In the methodology and assessment, educators ought to examine the assessment techniques that assess more than just the skill to remember information.
- Field work experience: The level one and two courses lack field work experience. Field work experiences (work attachments) allow students to explore and apply content learned in the classroom in a specified field experience away from the classroom. This is a useful mechanism in aligning the educational experiences with real work settings.
- Internship Experiences: Internships that can be paid could be useful method of sharing job-related content and availing students and job changers with an opportunity to test the waters in a career field and also gain some valuable work experience.
- Service Learning Experiences: This is EL in which job is performed within the community and there is serious reflection by the student. Service learning involves assisting NGOs, homes and orphanages in repairing RAC components and functions. The key goal is to

ensure that students become aware of good citizenship in learning how to help solve some of society's problems.

- Other Challenges: Challenges in conducting practicum courses are insufficient educational space ie: up to date OSH workshop, lack of resources such as equipment and tools for practicums and lack of reflective practice within the team to debrief learning.

Conclusion and Implications

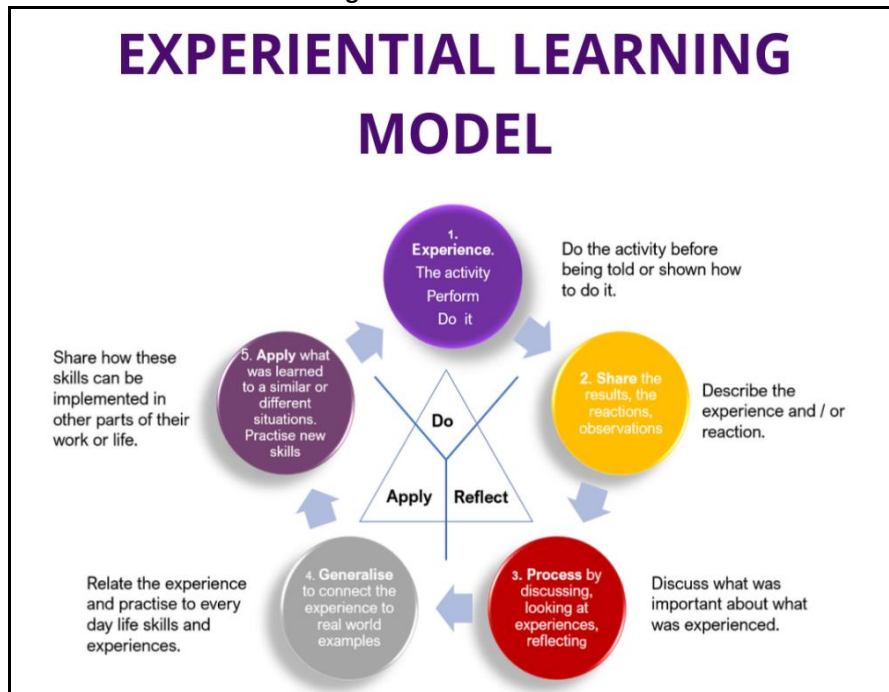
EL has gained recent momentum in the higher education sector. Driving this shift is the acknowledgement that the purpose of 21st century education is to research into how experiential learning processes assist students in constructing academic knowledge and theories, based on previous practical experiences.

As investigated in this study, offering experiential learning opportunities has a positive influence and key strengths have been noted. Given the key challenges based on reflective practice, it is pertinent that educators in designing the educational framework ie: curricula, make EL a key pedagogical tool.

Learners' reflection and assessment are crucial parts to the effectiveness of EL in the learning process. EL ought to be a continuous process that has to be supported through resources and resourcing in place.

The EL framework below is pertinent in application.

Figure 1: EL framework



The implications are that more resources need to be invested for tools and equipment to facilitate smooth transition in the practicum itself. Future research can assess the impact on student learning outcomes and replicate the study across other courses in FoTE. The same study can be replicated in other disciplines to collect cross-comparative data for institutional analysis and pedagogical improvements.

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