Experiential Learning in Online Entrepreneurship Education: Lessons from an Undergraduate Entrepreneurship Course

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1 Introduction

The global Coronavirus pandemic and its ravaging effects on human lives have led to a heightened urgency for educational institutions to adopt e-learning and reduce face-to-face instruction (FTFI). Since the first reported case in December 2019 in Wuhan, China, the pandemic had claimed two million, four hundred forty-six thousand and eight

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lives as of 20th February 2021 (World Health Organisation, 2021). Following the discovery of direct human contact as a primary transmission mode, world bodies and national governments have sanctioned protocols, including reduction in face-to-face interactions, as part of measures to halt the spread of the virus and mitigate its negative impact on society. Compliance with this directive is much more urgent in the education sector, especially in entrepreneurship education, where FTFI, rather than e-learning, has largely been the norm.

In entrepreneurship education, scholars allude to the limited use of e-learning and advocate for research to address the near absence of the much-needed insights for effective online teaching and learning (Liguori & Winkler, 2020). FTFI normally accounts for as high as between 60–80% time and focus in entrepreneurship education (Dhliwayo, 2008; Liguori & Winkler, 2020). Liguori and Winkler (2020) concur to scholarly arguments that online entrepreneurship education "…has failed to gain widespread adoption, in part, because contemporary approaches to entrepreneurship education stress the need for deliberate practice, real-world immersion, and experiential approaches" which lend themselves much more to FTFI (p. 348).

Globally, the use of experiential pedagogical techniques has been found to have positive impact on learners' entrepreneurial intention, acquisition of entrepreneurial skills and involvement in entrepreneurial activity (Boahemaah et al., 2020; Noyes, 2018). As the global pandemic forces entrepreneurship educators to adopt e-learning, the question of how to foster experiential learning arises, particularly, at the undergraduate level, where learners are mostly young and less experienced (Muduli et al., 2018). Kolb's experiential learning theory (ELT) postulates that knowledge and skill gaining is most effective when it is based on personal and environmental experiences (Kolb, 1984; Kolb & Kolb, 2017; Olokundun, 2018). Consistent with the ELT, this research adopted Hockerts' (2018) definition of experiential learning as learning from reflections on one's actual experiences resulting from interactions with instructors, other learners and the real world.

In light of the uncertainty associated with experiential learning in online entrepreneurship education, the purpose of this study was to explore the feasibility of experiential learning in online entrepreneurship education and how it can occur. The study relied on data from an undergraduate entrepreneurship course that was delivered online from 2nd July 2020 to 30th July 2020, at the University of Cape Coast (UCC), Ghana.

Prior to the pandemic, UCC, like other educational institutions in Ghana, relied heavily on FTFI. Although UCC had an online learning management system (LMS), it was not fully operationalised until April, 2020 when the government of Ghana directed all tertiary education institutions to close down and use e-learning in course delivery. The dawning reality is that e-learning has come to stay and will form an important part of the medium of instruction in Ghana's education system. Finding answers to the question of how to foster experiential learning in online entrepreneurship education is very much timely.

The next section is a review of related literature. This is followed by the research methodology and results. Discussions are presented together with a proposed model of online experiential learning in entrepreneurship education. The paper ends with conclusions together with recommendations, limitations and suggestions for future research.

2 Literature Review

Experiential Learning Theory

Learning is the process whereby knowledge is created through the transformation of experience (Kolb, 1984). According to Miettinen (2000), the concept of experiential learning is a cognitive enterprise in the field of adult education which is best illustrated in Kolb's (1984) experiential learning model (ELM). The model illustrates four main learning abilities of concrete experience (CE), reflective observation (RO), abstract conceptualisation (AC) and active experimentation (AC). Miettinen (2000) elaborates the ELM by stating that for learners to engage in effective learning, they must be able to involve themselves fully, openly and without bias in new experiences (CE); reflect on and observe their experiences from many perspectives (RO); create concepts that integrate their observations into logically sound theories (AC); and use these theories to make decisions and solve problems (AE).

Although Kolb developed his ELM from prior theories including that of Dewey, the ELM emphasises personal cognitive experience in the classroom, whereas Dewey's theory of reflective thought and action goes beyond personal and psychological experience to also embrace real-life experiences (Miettinen, 2000). Similar to Kolb (1984), Rogers (1969)

stressed personal and cognitive involvement as the key elements of experiential education while Wolfe and Byrne (1975) accentuated the inductive nature of experiential learning using the trial and error concept.

Experience and reflection are two important aspects of experiential learning. Experience according to Dewey (1925 as cited in Hohr, 2013) refers to feeling, enliving and conceiving. Hohr (2013) draws upon Dewey's conceptualisations and defines feeling as the basic mode of experience where action, emotion, cognition and communication constitute an original unity. According to Hohr (2013), enliving is aesthetic experience and constitutes the lifeworld, as a person-in-world experience, whereas conceiving refers to the isolating and abstracting understanding of the world with even greater distance between action, emotion and cognition.

On the other hand, reflection according to Boud et al. (1993, p. 9 as cited in Beaudin & Quick, 1995) "…consists of those processes in which learners engage to recapture, notice and re-evaluate their experience, to work with their experience, to turn it into learning". Beaudin and Quick (1995) opine that reflection is a process that needs to be actively pursued after every learning experience and, in some cases, during the learning event. Hockerts (2018) also cautions on the need for in-class reflections after student's experiences in real-life situations to ensure that effective learning takes place.

Bergsteiner et al. (2010) stress that in experiential learning, individuals create knowledge from experience rather than just from received instructions. Therefore, in line with constructivism, learners should have the opportunity to learn from personal and group experiences as well as from feedback. Miettinen (2000) argues that reflection on group experiences provides rich learning experiences. Kolb (1984) also emphasises the importance of feedback in the ELM, for example, in the re-collections of participants which he describes as here and now experience. According to Beaudin and Quick (1995), experiential learning can occur in multiple settings—namely in real-life situations, in the learner's day-to-day life experiences and in classroom settings.

In that regard, various activities and teaching methods have been found to be associated with experiential learning on a continuum of learning typologies starting from concrete/active phase to abstract/passive stage, specifically, doing an activity, watching an activity, hearing about an activity and reading an activity (Bergsteiner et al., 2010). Elucidation of Kolb's ELM by Bergsteiner et al. (2010) and Byker (2016) shows

that activities such as lecture examples, laboratories, readings, writings, fieldwork and audio-visuals foster CE. RO is achieved, for example, through thought questions, case studies, group discussions, presentations and written-response activities (Neck & Greene, 2011; Olokundun, 2018). Furthermore, AC can occur through lecture, text readings, model building and critiquing, projects and discussions (Bergsteiner et al., 2010; Kolb & Kolb, 2017). Lecture examples, projects (e.g. storytelling and movie making), laboratories, fieldwork and case studies have been found to foster AE (Bergsteiner et al., 2010; Olokundun, 2018). The categories are not mutually exclusive. For example, instructional methods recommended for active experimentation can also give students the opportunity to have concrete experience, reflect and conceptualise learned experiences.

Experiential Learning in Entrepreneurship Education

In entrepreneurship education, scholars interpret experiential learning differently with one school of thought emphasising Dewey's position on real-life experiences (Dhliwayo, 2008; McCarthy & McCarthy, 2006; Noyes, 2018) while another school gives priority to both personal cognitive experiences and real-life experiences (Neck & Greene, 2011; Olokundun, 2018). For example, McCarthy and McCarthy (2006) stress that in experiential learning, students must have direct personal encounter with the phenomenon that is being studied and must make real decisions rather than merely thinking about it. Similarly, Noyes (2018) explains experiential learning with emphasis on direct experience and action outside the classroom. On the contrary, Hockerts (2018) draws upon Kolb (1984) to define experiential learning as learning from reflections on one's actual experiences resulting from interactions with teachers and other learners, in addition to interactions with the real world.

The varied interpretations of experiential learning have resulted in disparities in what constitute experiential instructional approaches in entrepreneurship education. For researchers like Dhliwayo (2008), whose major pre-occupation is to produce practicing entrepreneurs, lecturing is simply inappropriate for entrepreneurship education and must be changed. However, Hägg et al. (2016) caution that experience is a philosophical construct as well as a common everyday practice; hence, it is both a theoretical and existential concept. Blenker et al. (2008, p. 55) also argue that "No matter whether the teaching is for or about entrepreneurship, some sort of theoretical foundation is useful…" because theory

advances knowledge and improves practice (Fiet, 2001). The onus lies with the educator to ensure an appropriate blend of theory and practice and the degree of self-directed/student-centred learning in entrepreneurship education, as informed by the educator's instructional philosophy (Muduli et al., 2018).

Although experiential learning is said to originally be a domain of adult learning (Miettinen, 2000), its effectiveness at the undergraduate level is well-established (Boahemaah et al., 2020; Tete et al., 2014). To achieve learning effectiveness, Beaudin and Quick (1995) stress the need for instructors to discriminate in the kind of experiences they create for learners by deciding on the appropriate experiential delivery methods and creating conditions that positively influence the quality of the learner's future experiences. There is also a general concern that reflection is seldom encouraged in entrepreneurship education (Hägg et al., 2016; Hockerts, 2018). Therefore, Hägg et al. (2016) entreat instructors to give adequate attention to student's reflection since it is through reflection that actual learning occurs.

Nonetheless, the physical classroom setting has been a major teaching and learning environment in entrepreneurship education with limited online activities (Hockerts, 2018; Liguori & Winkler, 2020). The Coronavirus pandemic has heightened the exigency of online entrepreneurship education but there remains the unanswered question of how experiential learning can occur in virtual entrepreneurship courses/programmes. This study seeks to contribute to the emerging research on experiential online entrepreneurship education.

3 Methodology

The study adopted a qualitative research approach to understand the dynamics involved in promoting experiential learning in an online undergraduate entrepreneurship course. Dana and Dana (2005) emphasise the need for such deep-level investigations in entrepreneurship research because they lead to a holistic understanding of concepts under investigation. Specifically, the narrative research design (Wolgemuth & Agosto, 2019) was employed. This design involved pulling together information from recorded online lecture videos and discussion forums on the UCC LMS to tell the story of undergraduate students' exposure to experiential learning in an online entrepreneurship course.

The e-learning course was aimed at equipping final-year undergraduate business students with fundamental competencies necessary for pursuing intrapreneurship and new venture creation in the short, medium or long term. It was a required course for the students. Enrollment in the course was 29. The course was originally designed to be delivered via FTFI. Nevertheless, events surrounding the outbreak of the Coronavirus pandemic necessitated a transition to an e-learning delivery mode comprising synchronous and asynchronous teaching methods. Thus, the implementation of the course on the LMS was a first-time experience for both students and the facilitator.

The structure of the course involved five online lectures conducted over a period of five weeks, via Google meet. Prior to the commencement of the course, self-study resources comprising five lecture slides and six subject-related videos were uploaded onto the UCC LMS. Students were required to review the uploaded documents as part of preparations for the online lectures. For each week, students participated in a two-hour lecture. During the lectures, students engaged with the course by watching visual aids such as lecture slides and photographs, listening to the facilitator and peers and speaking about issues discussed. Students were also required to complete activities on UCC's LMS for four hours. Students also participated in three online discussion forums following the completion of specific offline exercises, namely self-assessment exercise, creativity exercise and resource mobilisation exercise, in real-life situations.

Using feedback from a self-completed questionnaire, the self-assessment activity required students to think deeply about their entrepreneurial traits; and to make decisions on how they will capitalise on their strengths and overcome their weaknesses, moving forward. The creativity exercise involved the application of innovation concepts learnt in the online lecture to real-life problem-solving. Students were required to identify an existing product that, in their opinion, fell short of market expectations, give reasons for their choice and offer an innovative solution that could serve as an entrepreneurial opportunity. The resource mobilisation activity involved students' assessment of the resource needs for a chosen business concept and the creation of a resource mobilisation plan to secure the resources from individuals in their network. Students were tasked to identify individuals on their mobile phones and contact them with regard to their intention to start the chosen entrepreneurial initiative for which they needed resources.

A document review guide served as the main data collection instrument. Table 1 depicts how experiential learning was operationalised in the guide. In total, four categories of documents were reviewed including course participation report, activity completion report and discussion forum posts generated from UCC's LMS as well as recordings of the online lectures. These documents were chosen by taking into account the characteristics of "authenticity, credibility, representativeness and meaning" suggested by Scott (1990). All recorded online lectures and forum posts were considered for the analysis.

Data were collected within a period of two weeks from 16th to 29th November 2020. However, the researchers occasionally re-visited UCC's LMS and the recorded videos to verify information throughout the data analysis process, which lasted for a month. Thematic data analysis was

Table 1 Operationalising experiential learning

Dimensions	*Variables*	*Sources*
Learning through the senses: by sight, hearing, feeling	Watching and listening to audio-visuals Listening to lecture examples Reading an activity/text Reacting to issues raised in group discussions/expressing oneself in discussions	Kolb (1984) Miettinen (2000) Bergsteiner et al. (2010) Kolb and Kolb (2017)
Learning through cognitive action	Critiquing projects and discussions Asking questions and making follow-ups Answering thought questions Engaging in written-response activities Doing presentations Solving problems Creating concepts, plans Contributing to group discussions and debriefing/reflection sessions, etc.	Bergsteiner et al. (2010) Hägg et al. (2016) Hockerts (2018) Olokundun (2018)
Learning through physical involvement in real-life activities	Fieldwork	Bergsteiner et al. (2010) Neck and Greene (2011) Olokundun (2018)

Source Authors' Compilation (2020)

carried out (Creswell, 2014; Grbich, 2007). It was done manually by reducing the data through open and axial coding, displaying the data using tables to identify emerging themes and drawing of conclusions (Miles & Huberman, 1994; Schutt, 2012).

4 Results

The feasibility of experiential learning in online entrepreneurship education was evaluated by examining the extent and nature of students' participation in the course through the senses, mind and the real world. Two virtual learning environments were explored: namely online lecture and online discussion forums.

Online Lecture

Analysis of the extent to which students accessed the uploaded lecture slides prior to the online lecture revealed that students accessed the slides more in comparison to subject-related videos. Most students, ranging from 13 to 18 per week out of 29 enrolled students, downloaded the lecture slides each week. Nevertheless, students' participation with regard to accessing the self-study resources was generally low in week four.

Students' participation in the online lectures varied with a minimum attendance of 11 students in week one and a maximum of 19 students in week two. Aside attendance, students engaged with the course by watching visual aids such as lecture slides and photographs, listening to the facilitator and peers and speaking about issues discussed. Generally, few students asked questions with a range of three to seven students speaking, except in one lecture where no student asked a question.

Despite the low number of students who spoke in class, findings showed that students who spoke, mostly did so voluntarily. Between two to five students contributed willingly to general discussions on the topic. While five students readily responded to questions posed by the facilitator, two students only answered questions when called upon by the facilitator. Overall, there was evidence to suggest some student–student and student–facilitator interaction. In one example, a student was able to make a decision about the creative behaviour of an individual in photographs displayed. However, several follow-up comments and questions yielded no change in the student's ability to offer a convincing justification for her decision until another student jumped in to bail her out.

Online Discussion Forums

Three online discussion forums were used to encourage experiential learning. Each of these online discussion forums was based on different activities; namely, entrepreneurial self-assessment, resource mobilisation and creativity exercises (see Sect. 3 above for more details).

Self-Assessment Exercise

A total of 23 out of 29 students visited the online self-assessment discussion forum. Results showed that the number of views fluctuated between two and 52 views per student with one student recording 92 views throughout the course. Of the number that visited the forum, 17 posted the outcome of their assessment on the discussion forum. Posts on the forum totalled 28 with the number of posts per student alternating from one to three on average. However, one student was observed to have nine different posts on the forum. Posts comprised students' submissions on forum activities (new posts) as well as questions and comments on the submissions of other students and that of the facilitator (follow-up posts). Findings showed that most of the self-assessment posts (17 out of 28) were new posts. Follow-up posts totalled 11.

Submissions were generally thoughts on the assigned task with one person observed to have used the platform to ask a question. All but one of the follow-up posts comprised comments and questions made by the facilitator to students. The only follow-up post submitted by a student was a response to the facilitator's follow-up question. Further, one of the submissions identified was discovered by the facilitator to be plagiarised text. Although the facilitator through two follow-up posts drew the student's attention to this, there was no feedback or re-submission of the post by the student.

Most students (14 out of 16) in reflecting on their entrepreneurial traits made reference only to the scale of the self-assessment questionnaire. For instance, forum submissions from two students were: "Considering a total score of 74% on the self-assessment, I have satisfactory ability to be an entrepreneur"; "With a score of 66% I fall into the assessment category of having a satisfactory ability to be an entrepreneur". Almost all of the respondents (15 out of 16) justified their arguments making reference to specific line items in the questionnaire. One student expounded: "I believe my assessment summarises my ability to maintain high standards for customer service and responsiveness that will

be reflected in the results of my work". Another student stated: "my strength in terms of entrepreneurship includes determination, relationship building, risk-taking and hardworking".

None of the respondents explored the question of why they ranked themselves strong or weak in specific entrepreneurial traits. In a few cases, students made reference to past experiences, their motivations for having an interest in entrepreneurship and the implications of their weaknesses; but these illustrations were not clear. For one student, further details, on a previous entrepreneurial engagement, were only provided in response to follow-up questions by the facilitator.

Creativity Exercise

Findings from the study showed that 22 out of 29 students participated on the discussion forum via views. Out of this number, 18 students posted on the forum. While number of views per student ranged from two to 52, number of posts per student varied from one to five. Posts on the forum totalled 20, most of which were new posts (17 out of 20) with only a few follow-up posts (3 out of 20). Follow-up posts comprised two posts from students and one post from the facilitator. One of the student follow-up posts was in response to the facilitator's question while the second was initiated by the student to express his lack of understanding of a given task. There was no evidence of the facilitator responding to the student's query. One of the submissions on the forum was later found to be plagiarised text.

More than half of the students (13 out of 18) who contributed to the forum on the creativity exercise exhibited a fair ability to apply knowledge acquired in class to the assigned task. For these respondents, findings showed links between the solutions mentioned and several of the innovation types discussed in class. In student responses, emphasis was placed on describing the characteristics of the product with a few adding text on the uses and health benefits. Despite this, most responses (12 out of 18) either offered no explanation on what the problem was with the identified product or gave explanations of the problem but were unclear. Only in a few cases (3 out of 18) were respondents able to address the issue of fit of solution with the identified problem. This was evidenced in one example where the student proposed an idea of pureeing and packaging pepper as a solution to a supply side problem of short shelf-life; a solution which related to the product and marketing innovation concepts learnt in class.

Results showed that some follow-up posts by the facilitator led to improvements in the depth of students' reflection. One student's initial submission was very generic and appeared to be plagiarised text which the facilitator did not identify. Nevertheless, follow-up questions by the facilitator on the submission led the student to re-think and provide more details. Therefore, while the initial submission mentioned generally that "a new market will be considered so as to gain competitive advantage", follow-up questions led to the provision of details that "the product will be targeted to nursing mothers with a targeted market share of 70%". Justifications were also given for why these individuals will be interested in the offering.

Resource Mobilisation Exercise

Results from the analysis indicated that 21 out of 29 students visited the resource mobilisation discussion forum. More than half of the students who viewed the forum (17 out of 21) posted a comment or question. Number of views per student stretched from one to 45, while number of posts per student extended from one to eight. In total, 17 new posts were observed, one of which was found to be plagiarised text. Follow-up posts also totalled eight, five of which were by the facilitator. The remaining three follow-up posts were submitted by students in response to follow-up posts by the facilitator. Only two out of the five students responded to queries made by the facilitator.

Most submissions on the resource mobilisation activity (14 out of 17) reflected a poor understanding of the resource needs of the chosen businesses as students' submissions were shallow. For example, one student lumped all the required resources under three categories, namely physical, human and financial resources with no details on what the specific needs were. Additionally, students' list of resources required for pursuing their identified business opportunities focused mainly on operational resources such as utensils, raw materials, equipment, with a few students highlighting cash and explicit job roles which fall under financial and human resources, respectively. Most of the resource mobilisation plans presented on the forum (15 out of 17) lacked deep thinking about the objectives, targets, strategies and timelines associated with the proposal.

It was observed that there were resource mobilisation plans that could be considered fairly well thought through. One respondent explained: "Madam Amishawu, who deals in purchasing and selling of groundnut,

has agreed to supply me with groundnut on credit to be paid in installments for the next six months while Mr. Razak has agreed to give me an interest free loan of GHC 20,000 to be paid back in two years". Another student highlighted: "The poultry farmer is willing to give me GHC 40,000 in return for 200 bags of maize after harvesting which will be used in managing the farm. Additionally, the regional best farmer, Mr. Kwakye, is willing to offer his farm inputs such as the planter, harvester and tractor at a fee of GHC 200 each per acre". These quotes and others on the online discussion forum showed that students who exhibited a deeper level of thinking emphasised timelines and conditions under which the resources sought would be given; for example, interest rate, type of financing option and discounts for repeat purchases. Some of these details were provided only after further probing by the facilitator through follow-up posts.

5 Discussion of Findings

Focusing on the extent of participation and the nature of student interactions in two virtual learning environments, the results of the study demonstrate the feasibility of experiential learning in online entrepreneurship education. It is evident from the results that the online lecture and the online discussion forums provided opportunities for experiential learning by students through active participation in new experiences, reflection on and observation of the experiences from many perspectives, integration of observations into logically sound theories and use of the theories to make decisions and solve problems (Kolb, 1984; Miettinen, 2000). The learning experience was made possible through students' engagement in online learning activities via sight, hearing, speaking and writing, with feedback from the facilitator (Bergsteiner et al., 2010; Hockerts, 2018).

The occasions for learning by sight in the online lectures were mainly through lecture slides and illustration cards which the facilitator used in the course of the lectures. Hearing occurred by listening while students spoke by asking or answering questions and making contributions to discussions. Downloading of self-study resources is also an indication of students' physical involvement by sight and hearing as they had to review uploaded lecture slides and reading materials and watch subject-related videos as part of preparations for the online lectures. These insights show that students had primary experience in the form of material interaction

with the physical and social environment (Miettinen, 2000). Thus, online lecture, in contrast to arguments by Dhliwayo (2008), has the potential to foster both theoretical and practical learning in line with arguments by Hägg et al. (2016).

Experiential learning theory postulates that student-centred/self-directed learning is paramount to experiential learning because learners gain new experiences by doing an activity, watching an activity, hearing about an activity and reading an activity in a classroom setting or in real-life situations (Bergsteiner et al., 2010; Byker, 2016; Hockerts, 2018). According to findings from this study (e.g. comparison of the number of downloads of self-study resources with the attendance at online lectures), students engaged in self-directed learning (Hägg et al., 2016) as much as they did in online lectures.

Nevertheless, not all students engaged in the online lectures by speech, that is, by asking questions, responding to questions or making comments. This means that they may have missed opportunities of enriching their experience as Byker (2016) illustrates that speaking, for example, through presentations deepens an individual's ability to understand and reflect on issues. In addition, the results that students engaged in forum discussions and jumped into discussions, in the online lectures, to help each other to understand concepts, reinforces the importance of group discussions and group reflections. Miettinen (2000) argues that reflection on group experiences provide rich learning experiences. Similarly, Byker (2016) identifies group discussions and presentations as valuable activities for encouraging concluding actions under reflective observation.

The findings on students' engagement on the forums showesd that not all students who visited the online discussion forums posted on the forums. Thus, students who visited the forums may have had the opportunity to learn via sight, that is, by reading the submissions of others. However, the experience of those who did not post will fall short of the experience that one gains by participating via text (posting on the platform). According to illustrations by Bergsteiner et al. (2010) and Byker (2016), writing enhances one's reflection in ways that sight or hearing may not be able to achieve.

It is also evident from the findings that students' learning process entailed opportunities for personal and group reflections through discussions. It is well-established that actual learning takes place through reflection (Beaudin & Quick, 1995; Hägg et al., 2016). Therefore, results

on the limited discussions among students and the low quality of students' personal reflections on the forum point to limited learning experiences of students in the study. It is possible that missing details on the rationale behind their forum submissions would have emerged through extensive discussions with the facilitator and with peers, making group reflection also necessary.

In relation to the finding on multiple views, it can be argued that the online discussion forums provided an environment that allowed for easy reference and re-collection by students. That is students could re-look at their own submissions, that of their colleagues and that of the facilitator, permitting recall in the learning process. This form of reflection on action, as well as reflection on feedback from the facilitator, is important in fostering experiential learning (Hägg et al., 2016; Hockerts, 2018).

The multiple posts by students also meant that the facilitator had to address a lot more people on the forum than in the online lecture. However, there were differences in the number of follow-ups by the facilitator in each of the forums. It was observed that forums that occurred in the early parts of the course had more follow-ups than those that were set up later in the course. This situation may be due to factors such as time constraint and fatigue considering the personalised nature of addressing issues on the platform and the number of students who engaged on the platform. This may be a reason why the results show that some students' plagiarism skipped the attention of the facilitator.

Findings on improvements in some students' reflection due to the facilitator's follow-ups highlight the importance of effective oversight and positive reinforcement by the facilitator (Kolb, 1984; Miettinen, 2000). There were opportunities for this kind of reinforcement in the online lecture through questioning by the facilitator. Nevertheless, feedback from the facilitator and the asynchronous nature of the forum appear to have enabled more students to engage in discussions on the forum in comparison to the online lectures as there were more posts on the forum than students' contributions in the lectures.

A Model of Online Experiential Learning as Physical Involvement and Cognitive Involvement

On the basis of the foregoing discussions, we proffer online experiential learning (OEL) as physical involvement and cognitive involvement (Fig. 1), following Bergsteiner et al.'s (2010) advice not to mix learning

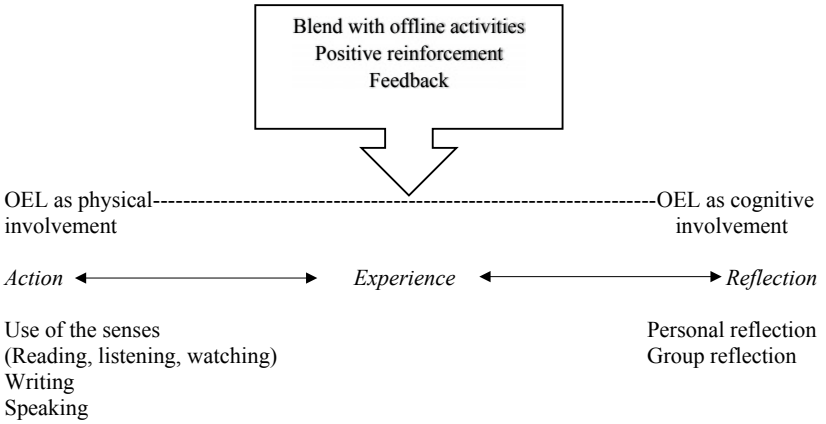

Fig. 1 Online Experiential Learning (OEL)

typologies with activity typologies since that can cause confusion and meaningless results. Physical involvement connotes action while cognitive involvement entails the use of the senses to tap into one's own experiences and those of others through, for example, reflective observation, abstract conceptualisation and active experimentation in the course of the learning process (Kolb, 1984; Miettinen, 2000).

Experiential learning theory, in its variant forms, for example, by Dewey (1925 as cited in Hohr, 2013) and Kolb (1984), underscores the importance of action, experience and reflection occurring in an interactive continuum in the teaching and learning process. Per the definition of experience by Dewey (1925 as cited in Hohr, 2013) and Hohr (2013), action is experience and comprises in-class and outside classroom activities such as listening, watching, writing and speaking (Bergteiner et al., 2010; Byker, 2016; Kolb & Kolb, 2017), all of which connote physical involvement. Opportunities for personal and group reflection via discussions entail cognitive involvement (Fig. 1).

According to the ELT, and as shown in Fig. 1, students gain experience through action, whereas actual learning takes place through reflection upon the experiences (Hägg et al., 2016; Miettinen, 2000). Nonetheless, the effectiveness of OEL would depend upon the presence of positive reinforcement, feedback and a blend of online learning experiences with experiences from real-life situations (Fig. 1). The higher role of

facilitator feedback implies lower student–teacher ratio in OEL. Reinforcement on the online forum may also require some incentives due to the asynchronous nature of the forum, which does not allow students and facilitators to engage in real time.

6 Conclusions

This study has demonstrated what counts as experiential learning and how it can occur in online entrepreneurship education. Based on the key findings, it is concluded that online experiential learning in entrepreneurship education is possible through students' physical involvement and cognitive involvement in the online teaching and learning process. However, positive reinforcement, consistent feedback and a blend of online learning experiences with experiences from real-life situations are indispensable to the effectiveness of students' experiential learning. Moreover, lower student–teacher ratio is imperative to ensuring adequate feedback on asynchronous online platforms while grading of student engagement on such platforms may be a necessary reinforcement to encourage extensive participation. This study employed a cross-sectional data and relied on only two online teaching platforms. This limits the scope of the findings. Longitudinal studies and data from multiple online platforms may also provide additional rich insights.

References

Beaudin, B. P., & Quick, D. (1995). *Experiential learning: Theoretical underpinnings*. High Plains Intermountain Center for Agricultural Health and Safety.

Bergsteiner, H., Avery, G. C., & Neumann, R. (2010). Kolb's experiential learning model: Critique from a modelling perspective. *Studies in Continuing Education, 32*(1), 29–46.

Blenker, P., Dreisler, P., Færgemann, H. M., & Kjeldsen, J. (2008). A framework for developing entrepreneurship education in a university context. *International Journal of Entrepreneurship and Small Business, 5*(1), 45–63.

Boahemaah, L., Xin, L., Dobge, C. S., & Pomegbe, W. W. (2020). The impact of entrepreneurship education on the entrepreneurial intention of students in tertiary institutions. *International Journal of Management, Accounting and Economics, 7*(4), 123–146.

Byker, E. J. (2016). Assessing experience: Performance-based assessment of experiential learning activities. In D. Polly (Ed.), *Evaluating teacher education programs through performance-based assessments* (pp. 261–280). IGI Global.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Sage.

Dana, L. P., & Dana, T. E. (2005). Expanding the scope of methodologies used in entrepreneurship research. *International Journal of Entrepreneurship and Small Business, 2*(1), 79–88.

Dhliwayo, S. (2008). Experiential learning in entrepreneurship education. *Education+ Training, 50*(4), 329–340.

Fiet, J. O. (2001). The theoretical side of teaching entrepreneurship. *Journal of Business Venturing, 16*(1), 1–24.

Grbich, C. (2007). *Qualitative data analysis: An introduction*. Sage.

Hägg, G., Kurczewska, A., McCracken, M., & Matlay, H. (2016). Connecting the dots—A discussion on key concepts in contemporary entrepreneurship education. *Education+ Training,*

Hockerts, K. (2018). The effect of experiential social entrepreneurship education on intention formation in students. *Journal of Social Entrepreneurship, 9*(3), 234–256.

Hohr, H. (2013). The concept of experience by John Dewey revisited: Conceiving, feeling and "enliving." *Studies in Philosophy and Education, 32*(1), 25–38.

Kolb, A. Y., & Kolb, D. A. (2017). Experiential learning theory as a guide for experiential educators in higher education. *Experiential Learning & Teaching in Higher Education, 1*(1), 7–44.

Kolb, D. (1984). *Experiential learning*. Prentice Hall.

Liguori, E., & Winkler, C. (2020). From offline to online: Challenges and opportunities for entrepreneurship education following the COVID-19 pandemic. *Entrepreneurship Education and Pedagogy, 3*(4), 346–351.

McCarthy, P. R., & McCarthy, H. M. (2006). When case studies are not enough: Integrating experiential learning into business curricula. *Journal of Education for Business, 81*(4), 201–204.

Miettinen, R. (2000). The concept of experiential learning and John Dewey's theory of reflective thought and action. *International Journal of Lifelong Education, 19*(1), 54–72.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.

Muduli, A., Kaura, V., & Quazi, A. (2018). Pedagogy or andragogy? Views of Indian postgraduate business students. *IIMB Management Review, 30*(2), 168–178.

Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: Known worlds and new frontiers. *Journal of Small Business Management, 49*(1), 55–70.

Noyes, E. (2018). Teaching entrepreneurial action through prototyping: The prototype-it challenge. *Entrepreneurship Education and Pedagogy, 1*(1), 118–134.

Olokundun, A. M. (2018). Experiential pedagogy and entrepreneurial intention: A focus on university entrepreneurship programmes. *Academy of Entrepreneurship Journal*, *24*(2). http://eprints.covenantuniversity.edu.ng/12801/1/Experiential%20Pedagogy.pdf

Rogers, C. R. (1969). *Freedom to learn: A view of what education might become* (1st ed.). Merrill Publishing Company.

Schutt, R. K. (2012). *Investigating the social world: The process and practice of research*. Sage.

Scott, J. (1990). *A matter of record, documentary sources in social research*. Polity Press.

Tete, M. F., Limongi, R., De Almeida, M. I. S., & Borges, C. (2014). Experiential learning as teaching strategy for entrepreneurship: Assessment of a Brazilian experience. *International Journal of Innovation and Learning, 16*(4), 428–447.

Wolfe, D. E., & Byrne, E. T. (1975). Research on experiential learning: Enhancing the process. *Business Games and Experiential Learning in Action, 2*, 325–336.

Wolgemuth, J. R., & Agosto, V. (2019). Narrative research. In *The Blackwell encyclopedia of sociology*. https://doi.org/10.1002/9781405165518.

World Health Organisation. (2021). *COVID-19 dashboard*. https://covid19.who.int/?gclid. Accessed 20 February 2021.