ABSTRACT

The purpose of the literature review is to identify and explore relevant work relating to experiential e-learning and entrepreneurship education. Generally, entrepreneurship education is not offered as part of the core curriculum for secondary students. Yet, out of necessity many young people in developing nations will begin a business venture. This literature review will focus on Experiential Learning Theory, e-learning, e-learning, and entrepreneurial literacy. After looking at these different areas, there appears to be a gap in the research where experiential learning and the use of technology to teach entrepreneurial literacy converge. Experiential e-learning could be an effective way to impart entrepreneurial and business literacy to youths.

INTRODUCTION

International organizations, governments and educational institutes emphasize the importance of small business, as the driver of job and wealth creation. According to the International Labour Organization’s Global Employment Trends for Youth 2015 report, almost 43% of the global youth labour force is either unemployed or working, yet living in poverty (ILO GET Report, 2015). Out of necessity, many young people will begin a venture with little to no knowledge about entrepreneurship, business or financial literacy. Yet, there is a lot riding on their success. According to Ernst & Young in a report prepared for the G20, the jobs we need to create will come neither from large corporations nor from government in the 21st century; rather, it will be primarily entrepreneurs who provide these jobs as they represent 66% of job creation within the OECD (Ernst & Young, 2012).

Students need the tools, techniques and theories to help them to be successful in their navigation of the world. In a 2013 survey of more than 1,500 young entrepreneurs from the G20 countries, 66% agreed that entrepreneurial skills should be specifically taught (Ernst & Young, 2012). Control of knowledge is a form of oppression when only certain groups have access to certain knowledge. Entrepreneurial and business literacy education is lacking. This becomes even more of a concern when for many people this knowledge will be their only chance at avoiding poverty. In Mexico, only 27% of the adult population reported having a good job, which Gallup defines as 30 or more hours of work per week for an employer who provides a regular paycheck (Gallup World Poll, 2015). How can we reach students that have limited access to entrepreneurial competencies due to curriculum shortcomings?

Experiential e-learning could be an effective way to impart entrepreneurial and business literacy. In Mexico, 79.9% of the population between the ages of 12 to 17 uses the Internet (INEGI, 2014). Can experiential e-learning help students to improve their entrepreneurial literacy? Is there a connection between high entrepreneurial and business literacy and high economic development in emerging markets? If the methods of experiential e-learning were coupled with the theory and competencies of entrepreneurship education at an early age, perhaps more people would express an entrepreneurial attitude.

LITERATURE REVIEW

EXPERIENTIAL LEARNING THEORY

Kolb developed the Experiential Learning Theory (ELT) drawing on theories from 20th century scholars who gave experience a principle role in their work on human learning and development, especially John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers and others (Kolb & Kolb, 1999).

Kolb postulated that knowledge is continuously gained through both personal and environmental experiences (Millwood, 2013). By synthesizing the three learning models of Lewin, Dewey, and Piaget, which emphasize direct experience, Kolb (1984) asserted that for the learner to be effective in gaining knowledge or skill, he or she has to fully engage in four main stages: (1) concrete experience (CE), (2) reflective observation (RO), (3) abstract conceptualization (AC) and (4) active experimentation (AE) (Baasanjav, 2013, p. 576).

ELT is based on the following six propositions (Kolb & Kolb, 2005, p. 5):

1. LEARNING IS BEST CONCEIVED AS A PROCESS, NOT IN TERMS OF OUTCOMES

Experiential Learning Theory acquired core concepts from Dewey’s (1938) principles of the continuous interplay between experience and learning. According to Dewey, learning is best understood as a process. “Education must be conceived as a continuing reconstruction of experience... the process and goal of education are one and the same thing” (Kolb & Kolb, 2005, p.4). The principle of continuity suggests that one learns from experience learns which changes the quality of their future experiences (Dewey, 1938).

2. ALL LEARNING IS RE-LEARNING

In his Cognitive Constructivist Theory, Piaget suggested that people construct new knowledge and understanding from what they already know and believe (Kolb, 2005). Jung (1931) compliments this idea with his mention of the cycle of learning. Jung compared the learning cycle to a mandala (Kolb & Kolb, 2008). Mandala signifies circle, a continual process where endings become beginnings repeatedly.
3. LEARNING REQUIRES THE RESOLUTION OF CONFLICTS BETWEEN DIALECTICALLY OPPOSED MODES OF ADAPTATION TO THE WORLD

Experiential Learning Theory also borrows from Freire's (1970) ideas about dialectical interactions between students and teachers. A careful analysis of the teacher-student relationship reveals its essentially narrative nature (Freire, 2000). This relationship involves a narrating subject (the teacher) and patient, listening objects (the students) (Freire, 2000, p. 21). The narration leads to a banking concept of education, where students are filled up with knowledge that the teacher (or system) deems important. The banking concept of education regards men as adaptable, manageable beings. The result of this interplay leads students to be less critical and less likely to transform their world (Freire, 2000).

According to Freire (2000), education should begin from the point of view that those involved are simultaneously both teachers and students. Problem-posing education can encourage students to work with the situation that is available, and any critical reflections may lead to positive change. Freire claimed that political action on the side of the oppressed must be pedagogical action, and, therefore, action with the oppressed (Freire, 2000, p. 16).

Freire’s ideas about education compliments Foucault’s discussion of power. Foucauld contended that discourse is constructed and promoted by those who have the power and mode of communication (Pitsoe & Letseka, 2013). Thus, discourse serves to control not just what but how subjects are (Pitsoe & Letseka, 2013). For example, those who are in control decide who we are by deciding what we discuss. These discourses and practices have not only been used to change us in various ways but are also used to legitimize such changes, as the knowledge gained is deemed to be ‘true’ (Ball, 2013).

Discourses are made up of both exclusions and inclusions, what can and cannot be said (Pitsoe & Letseka, 2013). Control of knowledge is a form of oppression when only certain groups have access to certain knowledge. Financial literacy education is lacking. We are expected to operate in a world where money is our medium of exchange, yet we are given little guidance to flourish.

According to Foucault, the task for the educator is to discover the patterns and distribution of power that influence the way in which a society selects, classifies, transmits and evaluates the knowledge it considers to be public. Foucault stated that power is omnipresent and exceeds agency or structure (Pitsoe & Letseka, 2013). Therefore, it does not make sense within a Foucauldian framework to speak of obliterating power. The issue instead is how students can possess power or resist it effectively (Cheshier, 1999).

4. LEARNING IS A HOLISTIC PROCESS OF ADAPTATION

William James postulated that everything begins and ends in the unending flow of experience. His philosophy of was based on two related ways of knowing the world, knowledge based on direct perception and knowledge based on mediating conception (Kolb & Kolb, 2005). Learning is not just cognition, but also knowing, feeling and perceiving. In some cases, we learn by direct experience and in other cases we learn through others people’s experiences. Regardless, learning is the how we go about adapting to our world.

5. LEARNING RESULTS FROM SYNERGETIC TRANSACTIONS BETWEEN THE PERSON AND THE ENVIRONMENT

The idea of learning space is derived from Kurt Lewin’s field theory and his concept of life space. For Lewin, the person and environment are interdependent variables. The is a concept Lewin translated into a mathematical formula, B=f (p,e) where behavior is a function of person and environment and the life space is the total psychological environment which the person experiences subjectively (Kolb & Kolb, 2005, p. 8).

ELT borrows from Vygotsky’s (1978) activity theory that views learning as an exchange between the person and the social environment (Kolb & Kolb, 2005). Piaget and Dewey asserted that the teacher’s role involves shaping learners’ experience from the environment, and knowing what surroundings may aid experiences that lead to growth (Hunks & Ornstein, 1998). Furthermore, Vygotsky and Dewey ascertained that learners do not learn in isolation from others (Petraglia, 1998, p. 32). People naturally learn and work together in their lives.

Freire (2000) developed an approach to education that links the identification of issues to positive action for change and development. Freire stated that the interests of the oppressors lie in changing the consciousness of the oppressed, not the situation which oppresses them; for the more the oppressed can be led to adapt to that situation, the more easily they can be dominated (Freire, 2000, p. 23). Therefore, it is essential that students link knowledge to action so that they actively work to change and develop (Freire Institute, 2016). Here, there is an opportunity for students to learn by facing problems related to their world, and thereby feeling compelled to act (Freire, 2000).

6. LEARNING IS THE PROCESS OF CREATING KNOWLEDGE

ELT proposes a constructivist theory of learning whereby social knowledge is created and re-created with experiences, becoming part of the learner’s personal knowledge (Kolb & Kolb, 2005). Cranton explains that when one realizes they hold a limited view, and is willing to open up to alternative views to the extent where their perception could change, he/she has transformed how he/she constructs knowledge (Cranton, 2002).

PROMOTION OF EXPERIENTIAL LEARNING IN EDUCATION

Kolb created the following principles for the promotion of experiential learning in education (Kolb & Kolb, 2005, p. 117):

1. Learners and their prior knowledge are valued by increasingly transferring control of learning to learners within the developmental sequence and pathways of the learning design;
2. Learners should interact to build knowledge from what is known thereby raising the their propensity to determine their learning paths towards intended learning outcomes;
3. Learners are supported to make decisions using reflection and critical judgment;
4. Learners should engage in problem solving, risk-taking and self-correction to build confidence and motivation for acquiring new knowledge; and
5. Learning is based on ethical and moral considerations of the individual and collective thereby fostering thoughtfulness and holistic thinking.
APPLICATION OF ELT IN ENTREPRENEURIAL EDUCATION

Currently, there is a rising interest in the entrepreneurial learning research field (Harmeling & Sarasvathy, 2013). The consensus of the literature review by Henry et al. is that there are features of entrepreneurship that can be taught (Henry et al., 2005). There is evidence that entrepreneurs may learn less from the conventional didactic approaches typical of much of the educational sector, and some indication that a task-oriented approach focused on real business problems would be beneficial (Henry et al., 2005). According to the research, it appears that experiential learning is appropriate for the effective development of entrepreneurship skills (BIS Research Report, 2015).

An entrepreneur is “someone who has the ability to see and evaluate business opportunities; gather the necessary resources to take advantage of them, and initiate appropriate action to secure success” (Henry et al., 2005, p.99). Whereas Carver et al. stated that business education “involves studying applications of mathematics, economics and behavioral sciences to problems in the production and distribution of goods and services” (Carver et al., 1986, p. 6). The applied nature of business education might be a befitting discipline for the use of experiential learning pedagogies.

ENTREPRENEURSHIP COMPETENCIES

There is a large debate about what should be taught with regards to entrepreneurship competencies. Generally, competency includes knowledge, skills, attitudes and behaviors needed to complete an activity successfully (Morris et al., 2013). The OECD highlights the usefulness of a new set of entrepreneurship skills (BIS Research Report, 2015). These include strategic thinking, positive orientation to change and innovation, ability to network and build strategic alliances, risk assessment, opportunity identification and motivating others around a common goal (BIS Research Report, 2015, p.14). Mitchelmore and Rowley proposed a structure which established six principle entrepreneurial skills: identification and definition of a feasible market niche, development of products or services appropriate to the firm’s market niche/ product innovations, idea generation, environmental scanning, recognizing and envisioning taking advantage of opportunities and formulating strategies for taking advantage of opportunities (Mitchelmore & Rowley, 2013). Despite the recommended skills sets being similar, there are a number of competing views of the entrepreneurship process that may have differing implications for our understanding of entrepreneurship skills (Chell, 2013).

International organizations such as OECD, European Union (Interreg panel on entrepreneurship) and GEM offered useful insights to entrepreneurial education. In their reports, they state that it is evident that interventions that include experiential learning are most likely to advance entrepreneurship skills successfully (BIS Research Report, 2015). The discussion of entrepreneurial learning is focused on the idea of gaining entrepreneurial skills through experience that entrepreneurs gain from learning by doing (Cope & Watts, 2000), routinized activities (Cope, 2005), contingencies, non-continuous events (Harmeling & Sarasvathy, 2013), failure (Minniti & Bygrave, 2001), and reflecting (Cope, 2005) from experience gained through live events (Sirelkhatim, F. & Gangi, 2015). Klapper & Tegtmier (2010) drawing on how entrepreneurs learn, concluded that a high proportion of active learning is crucial to enable problem solving, self-reliance and self-reflection (Sirelkhatim, F. and Gangi, 2015, p. 4). As a result, the methods recommended by entrepreneurial learning literature are scenarios, role playing and real business experiences (Corbett, 2005), case studies’ discussions and business simulations (Chang & Rieple, 2013), live projects that combine traditional teaching with talks from business people (Heinonen & Poikkijoki, 2006), peer assessment, primary data gathering and reflective accounts (Chang & Rieple, 2013).

Many articles discuss what should be taught, and conclude that experiential learning should be applied; however, fewer articles discuss the how to go about using these teaching methods. Entrepreneurial learning seems to highlight the accommodating phases of the learning cycle while strategy formulation tends to underscore the assimilating phases. Creativity accent the diverging phases while problem solving and decision-making emphasize converging. In all areas, how to teach these skills needs to be revisited with experiential learning in mind. Students should develop skills of how to move through the learning cycle while adapting to the task at hand.

ENTREPRENEURSHIP COMPETENCIES CRITIQUE

Many researchers have underlined a significant lack of studies regarding entrepreneurial education program outcomes and effectiveness (Honig, 2004). Few articles discuss the number of graduates that start or grow a business (Sirelkhatim, 2015). There is little to no evidence looking at the impact of entrepreneurial education programs (BIS Research Report, 2015).

There is an uncomfortable assumption that one should start a business after receiving an entrepreneurial education. However, I deeply disagree with this assertion. According to the International Labour Organization, the informal economy comprises half to three-quarters of all non-agricultural employment in developing countries (International Labour Organization, n.d.). In many countries, one becomes an entrepreneur because of need not necessarily, due to an innate entrepreneurial spirit. The goal should not be to start a business, but rather to have the skills should the opportunity, or the need present itself. With such a large percentage of the world’s population involved in some sort of entrepreneurial venture, why aren’t the recognized entrepreneurial competencies offered as part of student’s basic education? How can students that would most benefit from training in entrepreneurial skills get access to this education at an earlier age?

Perhaps, experiential e-learning could be an effective way to offer entrepreneurial education. Thereby, allowing students that would get the most benefit from training in entrepreneurial competencies to have access to this education at an earlier age. In Mexico, 79.9% of the population between the ages of 12 to 17 uses the Internet (INEGI, 2014).

E-LEARNING

E-learning is an approach to learning that uses “instructor-led pedagogy with all the flexibility that asynchronous, multi-party contribution can bring” (Andrews & Haythornthwaite, 2007, p. 19). Horton (2001) defines e-learning simply as “the use of Internet and digital technologies to create experience that
educate fellow human beings” (Anderson, 2008). E-learning changes the nature of learning. It creates a web of networked communities that in themselves generate learning; however, in combination they offer a more comprehensive opportunity to learn (Anderson, 2008).

Bourdieu (2000) postulated that schools as they are create a distance between the campus and the community. He referred to this distance as “intellectualocentric”, and criticized that it frustrates discipline’s influence on students and society (Trevitte & Eskrow, 2007). Illich furthered this argument by claiming that schools were intrinsically hostile to experience. In his view, schools were the stewards of a consumer society that operated to commodify learning (Illich, 1970). Dewey emphasized reschooling rather than deschooling which helps us to appreciate the potential of e-learning (Trevitte & Eskrow, 2007). Moreover, Bruner (1966) asserted that technology is a powerful tool for instruction, and that education should stress the importance of skills, especially those related to technologies. Technologies are cognitive tools that help learners to elaborate on what they are thinking and to engage in meaningful learning (Jonassen, 2000).

Unless we can determine what we value in education, we cannot rationalize the choices we make with e-learning technologies. “Thoughtful practitioners know not only what they do, but why they are to do it. Experience combined with reflection leads to purposeful and informed action” (Darkenwalk & Merriam, 1982, p. 37). At this moment, the existing theories of learning do not account fully for what happens in e-learning (Andrews, 2011). Therefore, educators must combine theories to create e-learning materials. As research advances, new theories will surface. A recent example is the connectivist theory (Ally, 2004).

CONNECTIVISM

A recently proposed theory under review is connectivism (Downes, 2008). According to Siemens (2004), the Connectivist Theory is for the digital age, where individuals learn and work in a networked environment (Siemens, 2004). Andrews affirmed that e-communities operate in a different manner. They include virtual meeting spaces such as social networking sites, virtual learning environments, and email or chat sessions (Andrews, 2011). These learning communities operate regardless of place. They function alongside and in addition to real world communities. Whether people are openly involved in these communities or are just on the periphery, these communities offer interesting information about e-learning.

As a result, Siemens postulated that we do not have control over what we learn since others in the network continually change information, and that requires new learning, unlearning old information, and/or learning current information (Siemens, 2004). Siemens (2004) explained that because of the networked society, globalization, and the constant changes to information, educators need to develop new ways to produce learning materials (Ally, 2004).

Other researchers contend that new theories are not necessary. Instead, what is needed is a model that integrates the different theories to guide the design of online learning materials (Ally, 2004). The online developer must understand different approaches to learning in order to choose the most pertinent strategies. Strategies should be selected to motivate learners, facilitate learning, build the whole person, cater to individual differences, promote meaningful learning, encourage interaction, provide relevant feedback, facilitate contextual learning, and provide support during the learning process (Ally, 2004).

It is important to use existing theories while recognizing the principles of connectivism to guide the development of effective learning materials. The goal is not to replicate a classroom setting. The focus should be on developing an e-learning design to increase the effectiveness of e-learning. When considering online learning environments, the question of compatibility is always influenced by the previous pedagogical influence. Which tools and techniques from the classroom do we keep, and which new possibilities emerge in this new environment?

EE-LEARNING

The term experiential e-learning, or ee-learning, refers to the possibility of bringing together everyday experience and communication technologies (Beard et al., 2007; Carver et al., 2007; Murphrey, 2010; Riedel et al., 2007; Trevitte & Eskrow, 2007). Experiential e-learning theory weaves electronic-learning and experiential learning, and emphasizes the professional and practical experience of learners (Carver et al., 2007; Murphrey 2010; Riedel et al., 2007; Trevitte & Eskrow, 2007). The objective is to allow learning environments to promote everyday experience as well as reflective thought on the part of students, and ee-learning offers a vital means of achieving this goal.

Ee-learning involves creating a different kind of structure for learning and teaching. The technology is the tool to achieve an alternative structure. As a result, the focus should be on the ee-learning and course design, and not on the technology. There are certain areas that are critical to the effectiveness of ee-learning: the course designs, the student-student/student-teacher interaction and student motivation. Critical pedagogues like Freire (2000), Kincheloe (2005), McLaren (2007) and Dewey (1938;1997) expressed the importance of teaching philosophies, essentially highlighting those crucial aspects of student-teacher interactions and dispositions that Ash (2009), Coombs-Richardson (2007), Kirtman (2009) and Shin and Lee (2009) agree, are important to successful online learning situations (Lalonde, 2011).

Coombs-Richardson (2007) concluded that personalizing the online interaction processes, allowed for successful learning experiences (Lalonde, 2011). Furthermore, McCrory et al. (2008) and Swan Dagen & Ice (2008) emphasize the importance of fostering student online involvement with all stakeholders, which supports Freire’s (1970) notion of dialectical relationships and Dewey’s (1938) view of interaction (Lalonde, 2011).

Schott et al. (2003) asserted that the e-learning success rate was very dependent on students’ abilities to be self-directed and internally motivated. It is therefore reasonable for Rivera and Rice (2002) to comment that learners who are not self-motivated will find online learning disappointing (Wong, 2007). Ee-learning design should pay particular attention to student’s needs throughout the course. In anticipation of this threat, certain programs use Kolb’s model of experiential learning in their course design in order to reduce frustration and the effects
of transactional distance.

There is always a challenge in providing a quality experience in e-learning while meeting the needs of multiple students in multiple communities (Baasanjav, 2013). As the development of the learning technology will be time consuming, it will be important that it can be used over again in order to maximize it’s impact (Baasanjav, 2013). From an institutional perspective, one of the greatest features of immersive learning simulations is their reusability and scalability. A significant problem in education is that too many hours are spent developing lessons that reach too few students. In contrast, once created, these simulations can be reused anytime, anywhere and can be improved and modified over time (Baasanjav, 2013).

AREAS OF OPPORTUNITY

There are many opportunities for geographically dispersed students to work together with experiential learning. These synergies are boundless when reflective pedagogy and experiential learning combine with technology-based systems that enable broad access to educational opportunities (Guthrie, 2010). Many young people have access to the Internet, even if they don’t have access to a school based entrepreneurship course. E-learning in entrepreneurship may be able to make a difference in their communities.

There is evidence that demonstrates a positive link between education and entrepreneurship (Do Paco et al., 2008; Muller, 2008). Research indicates that education has the most profound effect on the disposition of students to start a business (Raposo et al., 2008) and that entrepreneurship education encourages entrepreneurial intentions (Florin et al., 2007).

Furthermore, some research contends that early formal entrepreneurship education affects the attitudes of students, which in turn direct them towards certain future careers (Do Paco et al., 2008). Lewis (2005) supports this link by maintaining that while technological skills can be attained during tertiary education, the attitudinal and motivational aspects of entrepreneurship need to be developed earlier (Steenkamp et al., 2011). There is little evidence in countries to show that institutions, organizations, or governments target youth in the public school system.

The research suggests that there are five key elements that are likely to enable the successful delivery of entrepreneurial skills initiatives: (1) experiential rather than didactic learning, underpinned by appropriate theoretical knowledge; (2) involvement of both the individual and the enterprise; (3) group learning that involves teams (4) delivery as part of wider business support programs, rather than as stand-alone training courses; (5) the encouragement of some degree of commitment from participants (BIS Research Report, 2015, p. 27).

One interesting point raised in The Association to Advance Collegiate Schools of Business (AACSB) Task Force Memorandum is that, as an alternative or possibly a supplement to an increased use of experiential learning in the business curriculum, business schools should emphasize the benefits of the extracurricular activities of students. The Memorandum suggests that business schools should promote student clubs, which involve student participation so that their conversational, interpersonal, and goal-setting abilities are enhanced (Gentry, 1990).

According to Murphrey (2010), little research has been done focusing on the intersection of both experiential learning and the use of technology (Baasanjav, 2013). As technologies are increasingly integrated into curricula, there is a growing need for the development of strategies which mobilize ways to create collaborative, interactive and relevant applications specifically within the framework of experiential learning (Guthrie, 2010). However, Kirschner et al. (2006) is quick to point out that without a meaningful framework and support, students may become discouraged. Therefore, further work needs to be done on how this theory can be used by educators to design and develop learning materials (Kirschner et al., 2006).

CONCLUSION

Entrepreneurship and business literacy education is by all intents and purposes a taken-for-granted need. The OECD declared that the best method of providing individuals with entrepreneurship and business education is through schools (Messy, 2011). However, at this moment there is a lack of entrepreneurship competencies in many country’s secondary curriculum. From preliminary research, e-learning has not been used to delivery entrepreneurial and business education programs (OECD, 2013). Little research has been done focusing on the intersection of both experiential learning and the use of technology to teach entrepreneurial literacy to youths.

Going forward, it is my intention to create new knowledge about how experiential e-learning can be used to teach entrepreneurial literacy in Central Mexico. As the majority of the participant population uses the Internet in Mexico (INEGI 2014), it appears that e-learning may be a valid option to disseminate information. However, it will be important to recognize that the entrepreneurial education requires a mixture of tools, techniques and theories in order to enable students to flourish. Entrepreneurial literacy education needs to connect formal knowledge and the informal knowledge that emerges from being in the world (Dall’Alba and Barnacle, 2007). It is imperative that students are provided a space in the form of an experience to apply the knowledge that they obtain so that this knowledge becomes theirs. This research will provide information to help inform policy imperatives about entrepreneurial and business literacy in Mexico.

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