

Entrepreneurship Education in the Caribbean: Learning and Teaching Tools

Paul A. Pounder

University of the West Indies, Barbados

Abstract

This article reports on research that took place over two academic years (September 2013 - April 2015). It provides a rich understanding of entrepreneurship education based on experiential knowledge and best practices from five entrepreneurship educators who have all worked as consultants to entrepreneurs, advisors to the government on entrepreneurship, and have taught entrepreneurship at the tertiary level for several years in the Caribbean. The findings illustrate that experiences, sense of purpose, reflective practice, lecturer's passion, mentoring, simulation and practice are seen to collectively offer a significant contribution to learning. Further, the findings support the view that teachers of entrepreneurship should draw upon highly developed techniques in their range of teaching methods that demonstrate aptitude for the subject matter. The participants agreed that ideally, the ultimate course goal is to support students in remembering techniques learned in an entrepreneurship class that contribute to gaining confidence in setting up their own venture and that assist with avoiding pitfalls. The purpose of the research article is to provide methodical insight that will improve the entrepreneurial orientation of students in entrepreneurship classes.

Keywords: entrepreneurship, education, learning, teaching, Caribbean

Dr. Paul Pounder is known in the Caribbean region for his research in the fields of entrepreneurship and project management. He is a Lecturer at the University of the West Indies, and teaches courses on business strategy and entrepreneurship. He has published in a series of international journals; with his current research focusing on entrepreneurial education, social entrepreneurship, competitiveness and project evaluation.

Email: paul.pounder@cavehill.uwi.edu

Considerable pedagogical research focuses on the concepts surrounding entrepreneurship education. Prior research reflects on how courses are taught and places emphasis upon the importance of learning from: real situations; interactions by role play and use of projects; business plan development and presentations (Gibb, 2002; Levie, 1999). There is now consensus in the literature (e.g. Elmuti, Khoury, & Omran, 2012; Field, 2014; Henry, Hill, & Leitch, 2005; Kuratko, 2003) that entrepreneurship (or at least some aspects of it) can be taught. As such, the debate has now shifted to what should be taught and how it should be taught (Lourenco and Jones, 2006). Educators are challenging the design of effective learning opportunities for entrepreneurship students (Solomon, 2007). Educators and policy makers are questioning the techniques used in teaching entrepreneurship education in the Caribbean. This is because entrepreneurship education is perceived to benefit students from all socioeconomic backgrounds and fosters unconventional thinking and skillsets.

The present article reports on research that was conducted over two academic years (September 2013 – April 2015) at the University of the West Indies in the Caribbean, with entrepreneur educators. The purpose is to highlight a variety of quality teaching and learning methods, that can be used to meet the learning needs of students. The goal of this research is to investigate the teaching practices of leading entrepreneur educators to arrive at an understanding of how their approaches are linked to both traditional and innovative learning theories. The main research question is as follows: Which of the themes identified in entrepreneurship education are grounded in five learning theories - behaviorism, cognitivism, constructivism, transformative, and connectivism?

Context of the Document Analysis - Curriculum

The University of the West Indies in the Caribbean is a thought-provoking case for studying entrepreneurship education as the courses combine rigorous academic study with practical coursework; while providing business and non-business students with the unique skills and experiences necessary to start a new venture. In this regard, I argue that entrepreneurship education should be taught through experiences, sense of purpose, reflective practice, lecturer's passion, mentoring, simulation and practice. I analyse curriculum elements used in the entrepreneurship program at the University such as: Course content; teaching methods, and assessment methods. This approach gives important insights regarding the variety of pedagogical approaches used in teaching entrepreneurship. I seek to highlight practical teaching techniques utilized by lecturers in the Caribbean setting. The article also provides a discussion on teaching entrepreneurship education to non-business students.

Enhancing entrepreneurial behavior is the overarching goal of any entrepreneurship course or program (Fayolle, Gailly, & Lassas-Clerc, 2006; Gorman, Hanlon, & King, 1997). Previous research conducted in the USA among a number of universities at both undergraduate and post-graduate levels has found that activities surrounding the dissemination of entrepreneurship education usually involve presentations by guest lecturers, student consultations with practicing entrepreneurs, games and simulations, the writing of business plans and actually starting businesses as part of the coursework (e.g. Honig, 2004; Klatt, 1988; Kuratko, 2003; Neck & Greene, 2011, Solomon, 2007).

Further, the process taken in the development of the entrepreneurship curriculum has shown varying teaching strategies (e.g. Hynes & Richardson, 2007; Jones & English, 2004; Kent, 1990; Kourilsky, 1995; Plaschka & Welsch, 1990; Van Vuuren & Nieman, 1999). The participants of the

present study provide particular insights about teaching and learning entrepreneurship in the Caribbean setting, which contribute to the debate of integrating innovative teaching practices for non-business students.

Literature Review

Entrepreneurship Education

The concept of entrepreneurship education is highly contested. Earlier studies narrowly define entrepreneurship education as education that provides the needed skills for setting up new business ventures (Alberti, Sciascia & Poli, 2004; Cho, 1998; Vesper, 1993). While the definition of entrepreneurship education has survived over the years, it only provides a basic understanding of what entrepreneurship education really is, what it comprises, and its impact (Rideout & Gray, 2013).

An expanded view raised by Martin (as cited in Birdthistle, Hynes & Fleming, 2007) suggested that entrepreneurship education involves the creation of entrepreneurial attitudes and skills and not simply training for business start-up. Jones and English (2004) referred to entrepreneurship education as “the process of providing individuals with the ability to recognise commercial opportunities and the insight, self-esteem, knowledge and skills to act on them” (p. 416). Jones and English further posited that entrepreneurship education incorporates content from traditional business disciplines such as management, marketing and finance. This perspective challenges Kirby’s (2002) position that entrepreneurship education is different from traditional management studies as the traditional management education may impede the development of the necessary entrepreneurial quality and skills.

While, a number of policy makers, practitioners and educators in developed economies still believe that entrepreneurship education should only be concerned about the creation of new ventures and new jobs (Fayolle & Gailly, 2008). Samwel Mwasalwiba (2010) suggests that entrepreneurship education stakeholders, such as policymakers, academician, and students, have an interest in this field of study due to the ‘perceived socio-economic benefits’ that can be achieved both at the individual and societal level’ (p. 21), this speaks to the potential impact that entrepreneurship education has on society. According to Raposo & Do Paço (2011):

Entrepreneurship education seeks to propose people, especially young people, to be responsible, as well as enterprising individuals who became entrepreneurs or entrepreneurial thinkers who contribute to economic development and sustainable communities...through entrepreneurship education, students learn how to create business, but they also learn a lot more. (p. 454)

Many universities have entrepreneurship classes as part of their business schools’ programmes. This format leads to the marginalization of the needs of non-business school students as Standish-Kuon and Rice (2002) put forward; introducing engineering and science students to entrepreneurship requires better understanding, while even less is known about teaching entrepreneurship in non-technical disciplines such as nursing, law and the educational sciences. Entrepreneurship education needs a different teaching pedagogy. This premise has been explored through assessing the relationship of entrepreneurship education to work related learning (Dwerryhouse, 2001); experiential learning (Kolb, 1984); action-learning (Smith, 2001), and entrepreneurial training (Gibb, 1999). As this research seeks to highlight aspects of pedagogy

observed at the University of the West Indies, the next section of this article focuses on the learning theories as a core part of the development of the pedagogy of entrepreneurship education.

Learning Theories

Learning theories help describe how people learn and thus help in identifying best practices for teaching (Pounder, 2014). In the case of entrepreneurship education the author suggests using an approach that integrates and allows the processing of knowledge through inductive and deductive reasoning (respectively known as "bottom up" approach which is more open-ended & exploratory and "top-down" approach which is more focussed and linked to proving hypotheses), practice based learning, stakeholder-driven assessment priorities and also through meaningful shared experiences (Blenker, Dreisler, & Kjeldsen, 2006; Charney & Libecap, 2000; Duval-Couetil, 2013; Neck & Greene, 2011; Nelson & Johnson, 1997). In this regard, similar to Neergaard, Tanggaard, Krueger & Robinson (2012), the author seeks to contribute to the development of entrepreneurship education teaching pedagogy, as suggested by Yu Cheng, Sei Chan, & Mahmood (2009).

Behaviorism

Behaviorism offers a particular perspective on how learning occurs and how teaching influences the process. The main pedagogical reason for teaching entrepreneurship using behaviourism is that it encourages learning of 'facts'. In addition, it addresses the content of that which is being taught such as skills and tools which include business plans, and simulations with regard to decision making (Neergaard, Tanggaard, Krueger, & Robinson, 2012). The focus of behaviorism is on observation of movement and activities in response to external stimuli (Alzaghoul, 2012; Tomic, 1993; Williams, 1986). It stresses the importance of specific, measurable, attainable and observable performance and the impact of the environment on the learning experience (Brown & Green, 2006; McLeod, 2003; Pham, 2011; Shield, 2000). Thus, it embraces the 'learning about' entrepreneurship, representing the traditional way of understanding learning (Neergaard, Tanggaard, Krueger, & Robinson, 2012).

To benefit from behaviourism theories in entrepreneurship teachings, students should be guided to connect with the learning process by positive reinforcement from the lecturer to reinforce positive actions of engagement, contributions, feedback and questioning. Although numerous entrepreneurship courses still tend to invoke behaviourist methods, in many universities it has been replaced by more experiential approaches (Neergaard, Tanggaard, Krueger & Robinson, 2012).

Cognitivism

Cognitivism as a learning theory takes a different pathway than behaviourism, where in this particular pedagogy learning is understood to be structural and computational (Clarke, 2013). The focus of cognitivism is based on evaluating, processing and memory; as it is concerned with the internal workings of the brain and how the mind processes information to endorse effective learning (Cooper, 1993; Ally, 2004; Siemens, 2004). Kohler (1947) in his research emphasized that some information is retained while part is lost during the initial learning process as it is only stored in short term memory. It is then up to the teacher to institute active learning which allows the student to engage in learning experiences that create long-term memory. Bruner (1976)

developed a set of principles adapted by the individual which speak to acquiring initial new information, transforming the information, and then evaluating the information. From an entrepreneurial perspective on education the learner requires assistance to develop prior knowledge and integrate new knowledge to identify and take advantage of opportunities.

Constructivism

Constructivism learning theory bases its principles on aiding learning rather than controlling learning as is the case with behaviourism (Lober, 2006). This is especially relevant where the learning outcome is not predictable, which is potentially the case with entrepreneurship education. In the teachings of entrepreneurship, students develop a level of insight and confidence from practicing methods for navigating unknown territories and from experiencing success and failure as in the real world.

Entrepreneurship education allows for constructivist methodologies, given the innovative and active nature of entrepreneurship, where students engage as active agents in the learning process, requiring them to do and reflect upon meaningful learning activities (Romero, 2013; Solomon, Duffy, & Tarabishy, 2002). Kohler (1947) hypothesized that learning occurs when an individual has insight that shows a relationship between two distinct components of a larger system or problem. Thus as Lober (2006) suggested, the constructivist approach needs a special learning environment that has to be created by the teacher, who is not the governor of the student's learning process, but more so supports and facilitates learning from a student-centred point of view. From an entrepreneurial perspective this encourages a speculative approach to new venture development as high risks are involved at this stage; but the entrepreneur must be trained to spot and handle these opportunities as they arise.

Transformative

Principles of transformative theory focus on effective change and the application and transfer of learning into action (Cranton, 1996; Mezirow, 1991, 1996). Dyson (2010) emphasized the importance of teacher education and bases this on the theory of transformative learning. The transfer of learning into a decision making form is the main focus of such learning techniques. Caffarella (2002) defined transfer of learning as the effective application by program participants of what they learned as a result of attending an education or training program. It should also be noted that there is a natural barrier highlighted in transformative theory, as research has shown that there is little match between the learning environment and the implementation and execution phases of entrepreneurship.

Connectivism

Connectivism's focus is on recognition and bonding (Clarke, 1997). Recognition implies the identification of something as having been previously seen, heard, and/or known. The recognition and exploitation of business opportunities in the market are core functions of entrepreneurship (Casson, 1982; Hills & Shrader, 1998; Kirzner, 1979; Schumpeter, 1971). Whereas bonding speaks to the emotional and physical attachment occurring between student and the information shared, and is the basis for further emotional affiliation. In addition, connectivism bases its principles on knowledge, which is distributed across an information network and can be stored in a variety of

digital formats (Kop and Hill, 2008). One way in which students of entrepreneurship can be distinguished is by the style with which they engage the entrepreneurial learning and their interaction with existing entrepreneurs, as this is an effective way of gathering experiential knowledge.

Methods

The author uses a thematic qualitative research design which allows for a systematic subjective approach to describe experiences of faculty and give them meaning. The approach examines the uniqueness of faculties' teaching and learning situations with each faculty member having their own reality. The approach further emphasizes identifying, assessing, and highlighting themes; with additional assessment observing their linkages to the learning theories.

Interviews were conducted among five entrepreneurship faculty members to gain insight: explore the depth, richness, and complexity inherent in their teaching practices. The interview questions focused on areas related to the philosophy of education, teaching techniques, and evaluation. The rationale for the questions on teaching philosophies was to gather as much information on how faculty members view the ways a student prefers to learn and to identify what teaching practices they have found to be successful. The justification for questions on teaching techniques was to identify best practices and how to incorporate them in classroom sessions. The reason for the questions on evaluation was to gain insights on how faculty members gauge their performance. This led to further probing and selecting themes, which are of interest, and reporting on them (Tuckett, 2005).

The selection of the interviewees for this study was driven by the researcher's belief that each respondent would bring about worthwhile information to entrepreneurship education, which was a core part of the study under investigation. The interviewees came from a variety of backgrounds that make up the entrepreneurship ecosystem and were faculty members teaching entrepreneurship. They also had a reputation for promoting and developing youth entrepreneurship curricula. The current study seeks answers to the following research question: RQ: Which of the themes identified in entrepreneurship education are grounded in the five learning theories?

Feedback Instrument

Interviews and feedback forms were facilitated by the author of the research. Components of the feedback instrument included: background information on lecturer and classes taught, lecturer's philosophy on teaching entrepreneurship and teaching techniques utilized in sessions. Thematic analysis, which is a widely-used qualitative analytic method (Boyatzis, 1998; Roulston, 2001, & Tuckett, 2005) was conducted and seven techniques utilized in teaching entrepreneurship resulted: experiences, sense of purpose, reflective practice, lecturer's passion, mentoring, simulation and practice.

Participants

The faculty interviewed had an average age of 45 years old and were relatively young for University Faculty, but each member had over 15 years working in the entrepreneurship ecosystem. Table 1 gives a profile of the faculty members and their assorted teaching expertise. The two part-time faculty members worked for the Government offering technical assistance and various forms of financing to entrepreneurial ventures.

Table 1

Profile of the faculty members and their expertise

	<u>Lecturer A</u>	<u>Lecturer B</u>	<u>Lecturer C</u>	<u>Lecturer D</u>	<u>Lecturer E</u>
Expertise	Entrepreneurship Operations Management Engineering	Entrepreneurship Law International Business	Entrepreneurship Marketing	Entrepreneurship Operations Management	Entrepreneurship Finance
Education	Bachelor Degree – Entrepreneurship Doctor of Philosophy	Bachelor Degree – Law Master’s Degree – International Business Doctoral candidate	Bachelor Degree – Management Doctor of Philosophy	Bachelor Degree – Management Master’s Degree – Engineering Doctoral candidate	Bachelor Degree – Economics and Accounting Master’s Degree – Entrepreneurship
Fulltime/Part-time	Full Time	Full Time	Full Time	Part Time	Part Time
Previous Experience	Business Development Services	Legal Services Trade	Business Development Services	Business Development Services	Finance Services

Description of Data Collection and Analysis

Feedback was collected through interviews with entrepreneurship faculty members. The interview questions focused on areas related to the philosophy of education, teaching techniques, and evaluation. Opportunities to elaborate their responses, and follow up face-to-face or phone interviews were conducted to expand on teaching styles. In some instances, this was thought to bring about important insights into what entrepreneurship education methods entailed. Major trends and patterns were highlighted and synthesized in the findings as they became apparent. From the analysis of the reviewed literature and methods of teaching used, a conceptual discussion of the themes and their integrated approach to entrepreneurship education and the learning theories was presented. The analysis and conclusion discusses where the themes identified in entrepreneurship education are grounded in the five learning theories.

Ethical Considerations

Consideration was given to the position of the University of the West Indies Ethics Committee and policy for ensuring that the research conformed to approved principles and conditions. Each lecturer was made aware of the study through a phone call or face-to-face contact; and then offered a chance to participate in the research. A brief outline of the research study was discussed prior to the research being conducted. Lecturers were also informed of how much time they will be expected to give and what use will be made of the information they provide. It was noted that where the researcher observed any direct use of lecturers' material, the confidentiality policy of the University of the West Indies would be respected.

Findings and Discussion

The findings are presented in this section and documented based on the major themes coming out of the research. The research question below is also emphasized in this section: RQ: Which of the themes identified in entrepreneurship education are grounded in the five learning theories?

Experiences

The experiences of the students and the lecturer as they interact with entrepreneurs are a good basis for teaching and learning aspects of entrepreneurial learning. Based on student experiences and within the context of behaviourism, entrepreneurship students can reproduce and reinforce appropriate entrepreneurial and enterprising behaviour observed in the business environment (Neergaard, Tanggaard, Krueger & Robinson, 2012). The constructivism learning theory is also prevalent and observed when taking student experiences into consideration as it argues that people produce knowledge and form meaning based upon their experiences. From a cognitive standpoint, students' personal mental models of what it takes to be an entrepreneur are developed during this learning process (Krueger, 2009). It is through forms of students' interaction among entrepreneurs and themselves, that a constructivist teaching approach is created through meaningful shared experiences (Blenker, Dreisler, & Kjeldsen, 2006; Charney & Libecap, 2000; Duval-Couetil, 2013; Neck & Greene, 2011; Nelson & Johnson, 1997).

The lecturers indicated that using appropriate methodologies added value to the experiences discussion. Lecturer A and C noted that they bring examples that are practical; while Lecturer B

stressed that they conduct probing when they stated "I provide context on what is going on in the environment" and then have further discussion. The constructivist theory maintains that students should learn to build their own knowledge rather than having knowledge given to them, thus supporting probing as an appropriate teaching method. Lecturers were in corroboration that discussions force students to articulate and defend positions to display their reasoning to others and to accept and respond to criticism (Christensen et al., 1991). At the end of the discussion on experiences, the lecturer should have been able to work towards a specific goal, while clarifying students' understanding and views in respect to the discussion.

Lecturer A also indicated that they focus on fashioning learning experiences for members in the class. Lecturer A further highlighted: "the more experiences that come to light, the richer the class discussion becomes", especially as students are going through the transformation process of changes in behavior which are intended to alter the desired outcome. The findings reflect thoughts of Stansberry & Kymes (2007) which show that the values of constructivism are essential to transformative learning because knowledge and meaning are a direct result of experience. As an opportunity to learn from other class members is created, the concept to agree to disagree at times is emphasized.

Lecturer B tells the class in their first session to "check all inhibitions, sensitivities and insecurity at the door". This changes the class mode to one where freedom of expression is dominant and open-mindedness is encouraged. The lecturers agreed that fostering dialogue in class or through online forums is essential to having students discuss matters related to entrepreneurship. This is in keeping with Ravenscroft (2011) who suggested that connectivism in education has given rise to a new type of dialogue through social, networked learning. Lecturer D stated "I talk about extreme cases to capture their attention." Lecturer E stated "tutorial sessions are more practical since students are usually given activities where they are either acting as a business advisor or an entrepreneur." Experiential learning is further formulated based on the student and not the teacher. The student is involved in carrying out activities, formulating questions, conducting experiments, solving problems, being creative and creating meaning from the acquired experience (Esters, 2004). Lecturer E identified a syntheses approach based on development of new concepts. The real advantage here is that the experiential learning practice is a learner-centred approach that caters to individual learning styles.

Sense of Purpose

The teaching methods utilized for entrepreneurship were focused on the purpose of the activity which gives rise to behaviorism (Tomic, 1993; Alzaghoul, 2012). The rationale behind most students wanting to take entrepreneurial classes is that it develops their understanding of the entrepreneurial business process and how they might become involved in those processes in their future careers. It is necessary to relate the course work not just to creating entrepreneurs but also to supporting entrepreneurs. The goal here is to have students identify their entrepreneurial interests through a combination of exploration, role-play, readings, and close interaction with successful entrepreneurs and service providers. This technique gave students a sense of purpose as they gained the courage to envisage and pursue opportunities in a constructivist way. This form of constructivism aligns with Solomon, Duffy, & Tarabishy (2002) and Romero (2013) who state that students who are engaged as active agents in the learning process (requiring them to do and reflect upon meaningful learning activities) are taking part in active learning. Lecturer D stated: "I

make students present on topics after further research." The willingness to go after things and take on role play showed the benefits of behaviourism and constructivism in the classroom.

All the Lecturers have recognized the importance of exposing students to guest lecturers that represent varying forms of the entrepreneurship ecosystem e.g. successful entrepreneurs, informal sector entrepreneurs, serial entrepreneurs, social entrepreneurs and service providers. The theory of behaviorism and exposing students to appropriate entrepreneurial and enterprising behaviour showed positive for student learning (Neergaard, Tanggaard, Krueger, & Robinson, 2012). What is also noticeable is that Lecturers A,B, C, D and E as specialist in their own right also facilitate guest lecturers for each other. The fact that knowledge is distributed across a network of faculty, the guest lecturing among faculty members meant that an account of connectivism was showcased within the department through recognition of in-house talents and bonding (Clarke, 1997).

For lasting benefits, each interactive teaching method must be designed around the intentions and desired outcomes. While all the Lecturers use some form of interactive teaching method, Lecturers A and B specifically utilize games and simulations that showcase entrepreneurship behaviour, opportunity and finance issues like cash flow. These simulations showcase a connectivism approach. The activities must instil a newfound purpose within the student. Lecturer C creates purpose in telling the class "Everyone should leave here with marketable skills," while Lecturer A states "I am preparing you for the test of the world."

From a teaching perspective, faculty engaged students' sense of purpose by exposing them to relevant current readings and case studies to allow for closer interaction on topical areas. All Lecturers were also involved in developing Caribbean case studies for teaching. All Lecturers identified some seminal readings and prolific authors of entrepreneurship that they were exposed to that they in turn exposed students to as well. International authors like Jeffrey Timmons, Peter Drucker and Donald Kuratko provided much of the seminal readings for original thought. Faculty also engaged guest speakers as part of panel discussions and presentation process; students found this style more engaging than watching video clips, which they thought were more removed from their current situation.

Reflective Practice

Reflection is the active process of witnessing one's own experience in order to take a closer look at it every now and then to direct attention to it briefly, but often to explore it in greater depth. This is a cognitivist approach based on structural and computational actions (Clarke, 2013) and a heightened activity that some lecturers use when teaching entrepreneurship. Reflecting on what is learned is a sure way to make students own their own knowledge (Banner et. al., 1993, p. 32). This highlights a behaviourists approach, as students are motivated by success and place more importance on reflection of acceptance and extrinsic rewards. Reflection can be done in the midst of an activity or as a separate activity in itself. Through reflective practice, students should reflect frequently, bringing a high level of awareness to their thoughts and actions, perhaps stopping occasionally to consider what could be learned by exploring their patterns of thinking across different entrepreneurial situations. Lecturer C uses early feedback as a means of engaging reflection. Lecturer D states "students reflect on course through their life experiences". Lecturer B uses role playing as part of a reflection exercise. Encouraging reflection along with the activity structure has proven to be an effective component of the cycle for students (Miettinen, 2000). Role-playing is also viewed as a level of connectivism as shown by its focus on bonding (Clark, 1997). This is in alignment with cognitivists, as they emphasize the motivating affect of learners as

problem solvers or information seekers. Especially where learning is understood to be structural and computational (Clarke, 2013), Lecturer A highlights the use of a reflection journal as a core learning strategy.

Lecturer's Passion

When entrepreneurship is taught, the type of person whom the educator is, will emerge. The findings show that the lecturer's passion must reflect positive and enterprising behaviourism to be successful and this is in alignment with Neergaard, Tanggaard, Krueger, and Robinson (2012). The lecturer must try to instil a culture that allows the learning of entrepreneurship to take place without prejudice tutoring. The lecturer's principles need to be in tune with the course of teachings. Ironically, many of the same characteristics that make a good entrepreneur make a good entrepreneurship teacher: being resilient, adding value, willingness to explore, seeking opportunity, visionary planning, ability to adapt to change easily, and understanding the customer. Lecturers need to think about curriculum and lesson plans like entrepreneurs and entrepreneurial support groups think about business development. Such teaching plans will only enhance the student experience and improve the entrepreneurial educational experience. The lecturer's passion and being a good teacher is challenging, as the topics surrounding entrepreneurship are very complex. The critical issue here is creating a connectivist learning environment inside and outside the classroom (Kop and Hill, 2008) that enhances the students' ability to really understand the material and to stimulate an interest in the entrepreneurship process. This stimulated interest of the student is in agreement with effective change highlighted by transformation theory (Mezirow, 1991; 1996).

The lecturer's passion is what makes students want to study more. Lecturer A stated, "I let students see how classroom topics apply to the world beyond the classroom." A passionate entrepreneurship lecturer will get students interested and even excited about what they are learning. Lecturer B states "I have individual heart-to-heart discussions where students express fears, expectations and tensions," it was also mentioned that sessions undertake some psychological and spiritual components. Further to this, teachers can encourage entrepreneurship speakers as guest lecturers to make presentations or join online discussions; this method would allow students to draw on famous and successful entrepreneurs who visit the educational institution to discuss ideas, opportunities and new venture management. This form of information networking and digital format is harmonious with connectivism as defined by Kop and Hill (2008).

It was the view of the entire faculty that before individuals can teach entrepreneurship, they must have a passion and love for the topic. They must also be willing to share this passion with the students. Each faculty member highlighted their level of passion for teaching entrepreneurship through various perspectives. Lecturers A and B facilitate site visits and this usually highlights entrepreneurs and other key people doing what they love. Words like "obsession," "infatuation," and "enthusiasm" have been used to describe the teaching philosophy of the faculty interviewed. Lecturers B and C talked about using local vernacular to spark discussion in classes.

Mentoring

Mentoring and connecting directly with someone practicing in the field is a worthwhile strategy to be pursued in entrepreneurship classes. This is supported by the connectivism theories for bonding (Clarke, 1997); and for knowledge sharing over information network (Kop and Hill,

2008). Mentoring is the establishment of a personal relationship for the purpose of professional instruction and guidance, which is supported by behaviorism. Mentors support students in improving problem solving and social skills, which supports cognitivism, and to achieve the attitudinal and behavioral change which aligns with the behaviorist approach and the transformative approach. In education, the value of mentoring has been recognized in the use of teachers and other professionals in one-on-one instruction of students for vocational education, science, and reading (Evenson, 1982). To be able to enlist the experiences and advise of a practitioner to complement learnt principles discussed in the text and the classroom can add a feature that creates a more interactive learning experience. As an interactive system, mentoring benefits the mentor, the student, as well as adds value to the teaching system. Getting the buy-in from mentors is key and can be seen as easy, as mentors gain the satisfaction of being able to transfer skills and knowledge accumulated through extensive professional practice (Krupp, 1984).

In most cases, the mentor sees their contribution as a part of their corporate social responsibility and a philanthropic way of developing their legacy. Lecturers A and B see factory visits as part of the mentoring process as students interact with entrepreneurs. Lecture B also stated "I help build confidence through one-on-one sessions." Lecturer E stated that they also offer guidance to students who completed previous courses. Emphasis should be placed on building a relationship that last beyond the course of study and such strategies can be rewarding well into the life of the student. Entrepreneurship teachers therefore should advise students to build meaningful relationships through connectivism (Clarke, 1997); as they may want to rely on their mentors for help long into the future. Role models have been recognized in general as an important source of vicarious learning (Bandura, 1986). As role models, Lecturers A, B and C (fulltime staff) facilitate many past students with references to undertake future endeavours.

The faculty views mentoring as a positive exercise that is critical in developing confidence. They saw mentoring as a necessary piece of the pie to offer guidance and opportunities for entrepreneurial growth. Lecturers allowed students to build up trusting one-on-one relationships that focused students on developing individual strengths and interests. Outside of individual faculty a general concern was not being able to get more mentors from outside the teaching system. Lecturer A stated "I recognize mentoring to be a key piece of the puzzle in teaching entrepreneurship but it is also a very difficult puzzle piece to find." Mentoring seemingly is an area for concern as entrepreneurship is not a classroom exercise. In the Caribbean, there is definitely a need for entrepreneurship to be highlighted in the media and other forms if more persons are going to recognize what their contribution as a mentor can do to develop the entrepreneurial system. Overall the faculty believes that mentoring is an essential part of teaching and learning.

Simulation and Practice

Simulation and practice are vital in the teaching of entrepreneurship. Elements of modelling can be found in role-play exercises and simulation. Noticeably, both of these tools are representative of behaviourism as suggested by Peltier (2001) and connectivism (Kop and Hill, 2008). It is clear that entrepreneurship is not based on a read and repeat model. The key advantage of simulations is that they mimic real life situations as closely as possible. As a lecturer in entrepreneurship one has to be careful to create a simulation, which is underpinned by a sense of reality of what is happening in the world of business or should create a brand new reality for a changed environment. This setting can quite easily be created through connectivism; which is an approach based on interactions within networks (Downes, 2012). Ideally, it should be relevant to

the lives and interests of the students who are in entrepreneurship class. The entrepreneurship teacher, after offering guidance, should unobtrusively supervise the actions and note students' ability to handle situations. This feature of simulation increases students' autonomy and motivation, and lowers their anxiety levels since they are interacting as equals within a small group of their peers rather than performing for the teacher. This form of transformative learning is a route to the development of critical thinking. The final outcome is the model used to evaluate their performance. It is assumed that with repeated practice a student will develop in such a way that they can make decisions faster and enhance their outcomes through different learning experiences. Realism can be enhanced, particularly for longer-term simulations, by adapting the classroom so that it simulates the environment in which the exercise is said to be taking place. Lecturers B and C use market place simulation as a means to provide a valuable platform for assessing a number of learning objectives.

Some faculty found it difficult to formulate simulation exercises among students. The thinking behind simulations was that it is supposed to represent an event or situation made to resemble real world experiences and that perspective was found hard to emulate in the class room. This shortcoming in teaching entrepreneurship through simulation exercises meant that application and integration of knowledge, skill development and critical thinking was lacking in most entrepreneurial classroom sessions. Lecturer A indicated that it is difficult to run a full simulation in a semester long 12-week session. Further to this, the Caribbean tertiary teaching system for entrepreneurship is at the crossroads in this regard and may need to engage student learning through more complex skills via simulation; especially as technology is advancing rapidly. This comment supports the view that connectivism is a useful approach to technology-enabled learning (Cormier, 2008). Essentially, simulation sessions need to be incorporated into the curriculum of all entrepreneurship courses at the tertiary level.

Conclusion

The learning theories classify into five general groups: behaviorism, cognitivism, constructivism, transformative and connectivism. This conclusion discusses each of them relative to the themes identified for entrepreneurship education. In general, the author concludes that the themes align with at least two or more of the theories and this is desirable and useful for grounding the learning and teaching tools.

The behaviourist theory focuses on means of observation, response to external stimuli and the impact of the environment (Alzaghoul, 2012; Neergaard, Tanggaard, Krueger, & Robinson, 2012; Pham, 2011). This theory was seen as a very successful method as it was established in all the themes identified: 'experiences,' 'sense of purpose,' 'reflective practice,' 'lecturer's passion,' 'mentoring,' 'simulation and practice.' It is viewed as a broad-based approach to teaching entrepreneurship and has demonstrated usefulness in facilitating teaching in this field.

The cognitive theories are an effective method for exploring problem solving, processing, encouraging and motivating (Clarke, 2013). They are a virtuous foundation for teacher-student relationship as they open the way for the development of the students. They have demonstrated effectiveness in "sense of purpose" and "reflective practice".

The constructivist theories are a proficient process for teaching which allows for building on prior knowledge (Romero, 2013). In this case faculty used "experiences" and "sense of purpose" as building blocks to aiding learning in this field. This allowed for meaningful learning to take place as this system allows the learner to go beyond what is already known and create new ideas.

The transformative theories are modern. They were seen as an effective way to change the application and transfer of learning into an implementable and executable form (Cranton, 1996; Mezirow, 1991, 1996). The relation of this theory to learning is more noteworthy than the other traditional learning theories because this theory develops applicability of skill sets specific to entrepreneurship. Several of its principles can be used to improve the teaching and learning process. This theory was seen as a very useful method as it was established in the themes identified: 'experiences,' 'lecturer's passion,' and 'simulation and practice.'

The connectivism theory is also a modern theory which focuses on recognition and bonding (Clarke, 1997). It is important in formulating the relationship chain that is key to accessing new information, communicating and networking within the entrepreneurship eco-system. It is essential in the necessary interaction between teacher and the learner. Another key point is that it gives a chance for relating in a relevant social-cultural context. This theory was seen as a very useful method that was showcased in the themes: 'experiences,' 'sense of purpose,' 'lecturer's passion,' 'mentoring,' and 'simulation and practice.'

In summary, using a variety of learning strategies in entrepreneurship education can be desirable and useful. The study provides a repertoire of proven soft-skill approaches that have been successfully implemented strategically by entrepreneurship teachers in the Caribbean and can be used by other educators in their pursuit to educate students in the entrepreneurship process. The author highlights a series of themes related to entrepreneurship education that positively impact a learner in a wide number of circumstances. This may explain why there are such a wide variety of learning strategies, all of which can provide important outcomes to the student learner engaged in an entrepreneurship education program.

Limitations

One of the limitations of this study is that it was only conducted among five faculty members that teach entrepreneurship at the University of the West Indies. The findings are based solely on the way faculty perceive their practices. Faculty only gave relative strengths within their individual teaching experiences and not in relation to others. A better knowledge and understanding of learning styles may become increasingly critical as students come from across varying faculties. The context in other geographical locations around the world may vary and therefore require further investigation into the learning theories. Nevertheless, this study acknowledges the role lecturers play and the tools they use in teaching entrepreneurship education.

References

- Alberti, F., Sciascia, S., & Poli, A. (2004). Proceedings from the 14th Annual IntEnt Conference: *Entrepreneurship Education: Notes on an Ongoing Debate*. Italy: University of Napoli Federico II.
- Ally, M. (2004). Foundations of educational theory for online learning. *Theory and practice of online learning*, 2, 15-44.
- Alzaghoul, A. F. (2012). The implication of the learning theories on implementing e-learning courses. *The Research Bulletin of Jordan ACM*, 11(11), 27-30.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. New Jersey: Prentice Hall.
- Banner, J., & Harold, C. (1993). *The elements of learning*. New Haven: Yale University Press.
- Birdthistle, N., Hynes, B., & Fleming, P. (2007). Enterprise education programmes in secondary schools in Ireland: A multi-stakeholder perspective. *Education + Training*, 49(4), 265-276.
- Blenker, P., Dreisler, P., & Kjeldsen, J. (2006). *Entrepreneurship education—the new challenge facing the universities*. Department of management, Aarhus School of Business, Unpublished manuscript.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Brown, A., & Green, T. (2006). *The essentials of instructional design: Connecting fundamental principles with process and practice*. Upper Saddle River, New Jersey: Pearson.
- Bruner, J. (1976). *Styles of teaching*. *New Society*, 36(708), 223-225.
- Caffarella, R. (2002). *Planning program for adult learners: A practical guide for educators, trainers and staff developers*. San Francisco: Jossey-Bass.
- Casson, M. (1982). *The entrepreneur: An economic theory*. New Jersey: Barnes and Noble.
- Charney, A., & Libecap, G. (2000). *Impact of entrepreneurship education*. Kansas City: Kauffman Center for Entrepreneurial Leadership.
- Cho, B. (1998). Study of the effective entrepreneurship education method and its process. *Business Education Research*, 2(1), 27–47.
- Christensen, R., Gavin, D., & Sweet, A. (1991). *Education for judgment: The artistry of discussion leadership*. Massachusetts: Harvard Business School Press.
- Clark, A. (1997). *Being there: Putting brain body and world together again*. MA: MIT Press.
- Clarke, T. (2013). The advance of the MOOCs (massive open online courses): The impending globalisation of business education? *Education + Training*, 55(4/5), 403-413.
- Cooper, P. A. (1993). Paradigm shifts in designed instruction: From behaviorism to cognitivism to constructivism. *Educational technology*, 33(5), 12-19.
- Cormier, D. (2008). Rhizomatic education: Community as curriculum. *Innovate*, 4(5). Retrieved from <http://www.innovateonline.info/index.php?view=article&id=550>

- Cranton, P. (1996). *Professional development as transformative learning: New perspectives for teachers of adults*. San Francisco: Jossey-Bass.
- Downes, S. (2012). *Connectivism and connective knowledge: Essays on meaning and learning networks*. Canada: National Research Council. ISBN: 978-1-105-77846-9.
- Duval-Couetil, N. (2013). Assessing the impact of entrepreneurship education programs: Challenges and approaches. *Journal of Small Business Management*, 51(3), 394-409.
- Dwerryhouse, R. (2001). Real work in the 16-19 curriculum: AVCE Business and Young Enterprise. *Education + Training*, 43(3), 153-161.
- Dyson, M. (2010). What might a person-centred model of teacher education look like in the 21st century? The transformism model of teacher education. *Journal of transformative education*, 8(1), 3-21.
- Elmuti, D., Khoury, G., & Omran, O. (2012). Does entrepreneurship education have a role in developing entrepreneurial skills and ventures' effectiveness. *Journal of Entrepreneurship Education*, 15(1), 83-98.
- Esters, C. (2004). Promoting student centred learning in experiential education. *Journal of Experiential Education*, 27(2), 141-160.
- Evenson, J. S. (1982). Workplace mentoring. *Far West Laboratory for Educational Research and Development*, 246(182).
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: A new methodology. *Journal of European Industrial Training*, 30(9), 701-720.
- Fayolle, A., & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training*, 32(7), 569-593.
- Field, R. (2014). "Disciplined entrepreneurship: 24 steps to a successful startup" by Bill Aulet. *Journal of Business & Finance Librarianship*, 19(1), 83-86.
- Gibb, A. (2002). In pursuit of a new 'enterprise' and 'entrepreneurship' paradigm for learning: Creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews*, 4(3), 233-269.
- Gibb, A. (1999). Can we build effective entrepreneurship through management development. *Journal of General Management*, 24(4), 1-21.
- Gorman, G., Hanlon, D., & King, W. (1997). Some research perspectives on entrepreneurship education, enterprise education and education for small business management: A ten-year literature review. *International Small Business Journal*, 15(3), 56-77.
- Henry, C., Hill, F., & Leitch, C. (2005). Entrepreneurship education and training: Can entrepreneurship be taught? Part I. *Education + Training*, 47(2), 98-111.
- Hills, G., & Shrader, R. (1998). *Successful Entrepreneurs' Insights into Opportunity Recognition*. MA: Babson College.
- Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning. *Academy of Management Learning & Education*, 3(3), 258-273.

- Hynes, B., & Richardson, I. (2007). Entrepreneurship education: A mechanism for engaging and exchanging with the small business sector. *Education + Training*, 49(8/9), 732-744.
- Jones, C., & English, J. (2004). A contemporary approach to entrepreneurship education. *Education + Training*, 46(8/9), 416-423.
- Kent, C. A. (1990). Entrepreneurship education at the collegiate level: A synopsis and evaluation. *Entrepreneurship education*, 111-122.
- Kirby, D. (2002). Entrepreneurship education: Can business schools meet the challenge? *Education + Training*, 46(8/9), 510-519.
- Kirzner, I. (1979). *Perception opportunity and profit*. Chicago: University of Chicago Press.
- Klatt, L. A. (1988). A study of small business/entrepreneurial education in colleges and universities. *The Journal of Private Enterprise*, 4(Fall), 103-8.
- Kohler, W. (1947). *Gestalt psychology: An introduction to new concepts in modern psychology*. New York, New York: Liveright.
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.
- Kop, R., & Hill, A. (2008). Connectivism: Learning theory of the future or vestige of the past? *International Review of Research in Open and Distance Learning*, 9(3). Retrieved from <<http://www.irrodl.org/index.php/irrodl/article/view/523/1103>>. Date accessed: 16 Jul. 2015.
- Kourilsky, M. L. (1995). Entrepreneurship education: Opportunity in search of curriculum. *Business Education Forum*, 50(1), 11-15.
- Krueger, N. F. (2009). The micro-foundations of entrepreneurial learning and education: The experiential essence of entrepreneurial cognition. In G Page West III, E. J. Gatewood, & K. G. Shaver (Eds.) *Handbook of university-wide entrepreneurship education* (pp. 35-59). Massachusetts, Edward Elgar Publishing, Inc.
- Krupp, J. (1984). *Mentor and protege perceptions of mentoring relationships in an elementary and secondary school in Connecticut*. New Orleans: American Educational Research Association.
- Kuratko, D. F. (2003). Entrepreneurship education: Emerging trends and challenges for the 21st century. *White Paper, US Association of Small Business Education*, 22.
- Levie, J. (1999). *Entrepreneurship education in higher education in England: A survey*. London: London Business School.
- Lober, H (2006). Learning entrepreneurship from a constructivist perspective. *Technology analysis & strategic management*, 18, (1), 19-38
- Lourenco, F., & Jones, O. (2006). Developing entrepreneurship education: Comparing traditional and alternative teaching approach. *International Journal of Entrepreneurship Education*, 4, 111-140.
- McLeod, G. (2003). Learning theory and instructional design. *Learning Matters*, 2, 35-43.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

- Mezirow, J. (1996). Contemporary paradigms of learning. *Adult Education Quarterly*, 46(3), 158–172.
- Miettinen, R. (2000). The concept of experiential learning and John Dewey's theory of reflective thought and action. *International Journal of Lifelong Education*, 19, 54-72.
- Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: Known worlds and new frontiers. *Journal of Small Business Management*, 49(1), 55-70.
- Neergaard, H., Tanggaard, L., Krueger, N. F., & Robinson, S. (2012). Pedagogical interventions in entrepreneurship from behaviourism to existential learning. *ISBE*.
- Nelson, R. E., & Johnson, S. D. (1997). Entrepreneurship education as a strategic approach to economic growth in Kenya. *Journal of Industrial Teacher Education*, 35, 7-21.
- Peltier, B. (2001). *The psychology of executive coaching: Theory and application*. New York: Brunner-Routledge.
- Pham, H. (2011). Theory-based instructional models applied in classroom contexts. *Literacy information and Computer Education Journal*, 2(2), 406-415.
- Plaschka, G., & Welsch, H. (1990). Emerging structures in entrepreneurship education: Curricular designs and strategies. *Entrepreneurship theory and Practice*, 14(3), 55-71.
- Pounder, P. (2014). Teaching entrepreneurship: Insights into the students of the SEED programme and their perceptions of its non-traditional facilitation. *Caribbean Teaching Scholar*, 4(1), 39–50.
- Raposo, M., & Do Paço, A. (2011). Entrepreneurship education: Relationship between education and entrepreneurial activity. *Psicothema*, 23(3), 453-457.
- Ravenscroft, A. (2011). Dialogue and connectivism: A new approach to understanding and promoting dialogue-rich networked learning. *The International Review of Research in Open and Distance Learning*, 12(3), 139-160.
- Rideout, E. C., & Gray, D. O. (2013). Does entrepreneurship education really work? A review and methodological critique of the empirical literature on the effects of university - based entrepreneurship education. *Journal of Small Business Management*, 51(3), 329-351.
- Romero, M. (2013). Game based learning MOOC. Promoting entrepreneurship education. *Elearning Papers, Special Edition MOOCs and Beyond*, 33, 1-5.
- Roulston, K. (2001). Data analysis and 'theorizing as ideology.' *Qualitative Research*, 1(3), 279-302.
- Samwel Mwasalwiba, E. (2010). Entrepreneurship education: A review of its objectives, teaching methods, and impact indicators. *Education + Training*, 52(1), 20-47.
- Schumpeter, J. (1971). The fundamental phenomenon of economic development. In P. Kilby (Ed.), *Entrepreneurship and economic development* (pp. 405-437). New York: Free Press.
- Shield, G. (2000). A critical appraisal of learning technology using information and communication technologies. *Journal of Technology Studies*, 26(1), 71-79.

- Siemens, G. (2004). *Connectivism. A learning theory for the digital age*. Retrieved from <http://www.elearnspace.org/Articles/connectivism.htm>.
- Smith, P. (2001). Action learning and reflective practice in project environments that are related to leadership development. *Management Learning*, 32(1), 209-224.
- Solomon, G. (2007). An examination of entrepreneurship education in the United States. *Journal of Small Business and Enterprise Development*, 14(2), 162-182.
- Solomon, G.T., Duffy, S., & Tarabishy, A. (2002). The state of entrepreneurship education in the United States: A nationwide survey and analysis. *International Journal of Entrepreneurship Education*, 1(1), 65-86.
- Standish-Kuon, T., & Rice, M. P. (2002). Introducing engineering and science students to entrepreneurship: Models and influential factors at six American universities. *Journal of Engineering Education*, 91(1), 33-39.
- Stansberry, S. L. & Kymes, A. D. (2007). "Transformative learning through teaching with technology" electronic portfolios. *Journal of Adolescent & Adult Literacy*, 50, 488-496.
- Tomic, W. (1993). Behaviorism and cognitivism in education. *A Journal of Human Behavior*, 30, 34-46.
- Tuckett, A. G. (2005). Applying thematic analysis theory to practice: A researcher's experience. *Contemporary Nurse*, 19(1-2), 75-87.
- Van Vuuren, J. J., & Nieman, G. (1999). Proceedings from the 44th ICSB World Conference: *Entrepreneurship education and training: A model for syllabi/curriculum development*.
- Vesper, K.H., (1993). Entrepreneurship Education. Entrepreneurial Studies Center, UCLA, Los Angeles, CA.
- Williams, B. A. (1986). On the role of theory in behaviour analysis. *Behaviorism*, 14(2), 111-124.
- Yu Cheng, M., Sei Chan, W., & Mahmood, A. (2009). The effectiveness of entrepreneurship education in Malaysia. *Education+ Training*, 51(7), 555-566.