Enabling Undergraduate Student Entrepreneurs to Structure Their own Experiential Learning Course

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Abstract: The one-semester undergraduate course "Applied Entrepreneurship" allows student entrepreneurs to investigate their own business idea while following a course structure that they design for themselves under the mentorship of an entrepreneurship professor. The course is available to all students across campus, regardless of degree program or year of study. No prior courses in entrepreneurship are required (indeed the only students excluded are those already enrolled in the Management School Entrepreneurship Major). The course is based on a widely held teaching principle for entrepreneurship education -- getting the students out of the classroom and into the real world. Students bring their own business idea to the course, which can be at any stage of development from ideation, through launch, operation and even sale of their business. Each student develops a personal course workplan of eight modules including a mix of structured learning and primary and secondary research appropriate for their own personal development as entrepreneurs and about their business idea. A short write-up is prepared by the student for each module, including evidence of the work they have done. They conclude the course by presenting a summary of the work they have done and a personal reflection. As the course progresses, the instructor provides individual feedback and counselling to each student as they submit their modules. Student feedback on the course is highly positive, on the education experience, improvement of their business idea and on their personal development.

Keywords: instructional design, engagement, flipped classroom, personal learning, experiential learning

1. Introduction

Just as entrepreneurship education has moved from being a peripheral activity to an important discipline in many universities, there has been significant and increasing dialogue on whether and how entrepreneurship should be taught as an academic subject. Indeed, the role of the University in the wider entrepreneurial ecosystem has also been a subject of significant debate with questions raised as to whether that role should address the delivery of entrepreneurship classes, the development of Faculty and Student entrepreneurs, the establishment of incubators and accelerators and the support of industry. For some universities, playing a role in the local entrepreneurial community is seen as a key element of the university strategy. In practice, however, the level and commitment to entrepreneurship education varies widely from institution to institution.

Thus, it is hardly surprising that there has been significant debate on both the content and the delivery of entrepreneurship education. A significant part of this debate comes from the contribution of "practitioner-scholars" who combine interests in pedagogy and actual entrepreneurial activities. Nowhere is this more evident than in the examination of Lean Launchpad approaches and the use of business models (Blank, 2013, Shepherd and Gruber, 2021).

2. Good practices in entrepreneurship education

University-level teaching, especially at the undergraduate level, is often subject to criticism, with the traditional lecture widely recognised as a flawed approach for many subjects, often producing inferior results (Grant and Gedeon, 2019). Courses are often built around standard textbooks, with lectures supported by publisher-provided slides.

Current "good practice" thinking tends to centre around several key concepts -- a focus on ""learning" rather than "teaching", building courses around curriculum-related learning outcomes, increasing student engagement with active learning techniques and at least some consideration of student learning styles and student-centred learning.

In what is still often considered good pedagogical practice in most business disciplines, curriculum and course development largely focuses on broadly accepted topics and content, with learning outcomes established to demonstrate the competence students gain through taking the relevant courses, frequently using a framework such as Bloom's Taxonomy (Armstrong, 2019). While the curriculum may build towards the beginning of a

professional accreditation (such as accounting) there is no particular expectation that the formal education goes beyond the imparting of discipline knowledge and the development of basic skills in the application of the knowledge. Sometimes, in an effort to make the work less structured and to require more active student commitment, problem-based learning is proposed, allowing students to bring a variety of approaches and background experiences to examine ill-structured problems (Bell, 2008). However, entrepreneurship education is frequently expected to go well beyond this expectation.

Many authors across several disciplines provide evidence of the contribution of active learning to improving student learning outcomes (Lambert, 2012, Freeman et al., 2014, Bonwell and Eison, 1991). In particular, active learning approaches are seen as having a significant effect in entrepreneurship education (Lassas-Clerc et al., 2008, Curtis et al., 2020). One form of active learning seen as particularly relevant for entrepreneurship education is experiential learning, where students learn in the field, applying knowledge in a real world context to develop new skills and new ways of thinking (Lewis and Williams, 1994), ideally, aligning the learning activities with the entrepreneurial process (Bell and Bell, 2020). As Bell and Bell suggest, this requires going beyond teaching *about* entrepreneurship to teaching *for* entrepreneurship and even teaching *through* entrepreneurship. This is often done through some form of "learning-by-doing", engaging students by having them deal with real world entrepreneurial challenges, whether from some form of secondary field study or even by developing their own business idea within a classroom environment.

Learning through action is not enough, it needs to be accompanied by appropriate reflection (Schön, 1983) which can even lead to transformative learning (Mezirow, 1997). It is also argued that students' learning styles can impact the effectiveness of different pedagogies and that experiential learning can help counter this challenge (McCarthy, 2010).

This paper describes an entrepreneurship course that builds on the preceding discussion to provide a transformative educational experience for its students. The course adopts a highly innovative and flexible approach to develop undergraduate student entrepreneurs. It combines flexible learning approaches, including flipped classroom sessions, with customised field experiences. It provides many of the elements of an incubator experience within a for-credit course that is designed by the student to meet their specific needs to develop their business idea and improve their capabilities to implement it. It should be of interest to all entrepreneurship educators and is implementable in many settings.

3. Institutional background and course conceptualisation

Toronto Metropolitan University[1] is recognised as Canada's leading innovation and entrepreneurship university (Grant and MacRitchie, 2021). Toronto Metropolitan is an urban university in a large cosmopolitan city with an overall strategy to be a key part of its community, adopting what is often described as the "third mission" of universities, going beyond the long-established twin missions of teaching and research (Shattock, 2009).

Much has been written on entrepreneurial ecosystems, with some discussion on what might constitute a university entrepreneurial ecosystem (Bedő et al., 2020). While most universities today have adopted some aspects of entrepreneurial education, this is often limited to a small number of entrepreneurship-related courses, perhaps some form of student incubator/innovation centre, and some approach to commercialisation of faculty research.

At Toronto Metropolitan University, the entrepreneurial ecosystem is much more developed and embedded across the university. Key elements include:

▪ Many active programs and courses in entrepreneurship

▪ *Two masters degrees (MBA and Engineering)*

▪ *Two undergraduate Majors*

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[1]Toronto Metropolitan University, formerly called Ryerson University, was renamed in April 2022, as part of the University's response to Canada's Truth and Reconciliation process, addressing the tragic impact of the Canadian residential schools system on its Indigenous peoples. Egerton Ryerson while well recognised as a 19th Century leader in the development of education in Ontario, was also involved in the development of residential schools.

- *Two undergraduate Minors*
- *Four Certificates*
- *More than 50 entrepreneurship courses*
- A dedicated Department of Entrepreneurship & Strategy, with some 25 faculty, teaching students from across the whole university
- Ten on-campus incubators (called "Zones"), supporting more than 300 startups at any given time
- Several informal pre-incubator resources, available to support students and the wider Toronto community

The 10 Zones are part of a complete set of extracurricular activities, called Zone Learning, open to all Toronto Metropolitan University students, faculty and members of the wider community. To give an idea of scale, the Zones have hosted more than 6,000 members creating more than 3,500 startups, with more than 14,000 students being included in more general Zone Learning activities.

A key educational challenge faced by all universities developing entrepreneurial programs Is the disinclination of young entrepreneurs to take part in regular classroom activities to achieve course credit, they just want to "get going". However it was recognised early on that some form of structured learning was needed to support both the Zone Learning participants and, more generally, young entrepreneurs across campus who might not have the inclination or option to take regular entrepreneurship classes. To meet this need, a co-curricular activity called Start-up School was established several years ago. This provides access to just-in-time modular learning to meet young entrepreneurs' educational needs. Since its inception, every academic year, some 20 workshops are delivered. Start-up School was somewhat disrupted by the pandemic, first switching to online virtual presentations and, most recently, to providing students with access to a library of recorded presentations. The Content Library of Startup School is shown in Figure 1 and contains some 50 sessions.

Despite the wide range of options available to support student entrepreneurs, many students with business ideas or embryonic start-ups do not have access to any of the Zones and may find the entrepreneurship courses offered, although applied and experiential in nature, not a perfect match for them to help develop themselves and their business. It was decided to introduce a new course that would allow students to develop their own course structure, to work on their own business idea, drawing, in part, on such structured learning activities as Start-up School.

This new course was launched in 2018, with the title of "Applied Entrepreneurship".

4. The Course

4.1 Calendar description: ENT 100 applied entrepreneurship

Students work with their course instructor to identify, select and complete twelve entrepreneurship modules and assignments that support their specific entrepreneurial project. Potential modules include customer identification, stakeholder analysis, market segmentation, lean startup, design thinking, agile methods, business-model design, business planning, or financial analysis. This highly flexible course is designed to support independent student projects, startups and Zone Education. This is an experiential applied course, and students must engage with the entrepreneurial ecosystem both within and outside Toronto Metropolitan University

This course was developed drawing on foundational theories, such as Kolb's theory of experiential learning (Kolb, 1984) and Schön's reflection- in-action (Schön, 1983), in general following the constructivist approach to education, where learning is largely situation-specific and context-bound (McInerney, 2013), with the learner being guided by the educator in a personal voyage of discovery and learning. It adopts elements of the student self-regulated learning approach to problem-based learning as suggested by English and Kitsantis (2013). The reflection approach also draws on a scaffolding technique (Coulson and Harvey, 2013), where the students' reflective capacity is built through a series of class activities, starting with the development of their personal learning outcomes for their course workplan. It recognises the constraints identified by Huxtable-Thomas and Hannon (2018), who suggest that the learner "can only be influenced, not dictated, by what the teacher teaches" and emphasises the need to provide a diverse menu of learning opportunities that goes beyond standard methods of teaching and feedback and provides for potentially advantageous intangible and unintended learning outcomes.
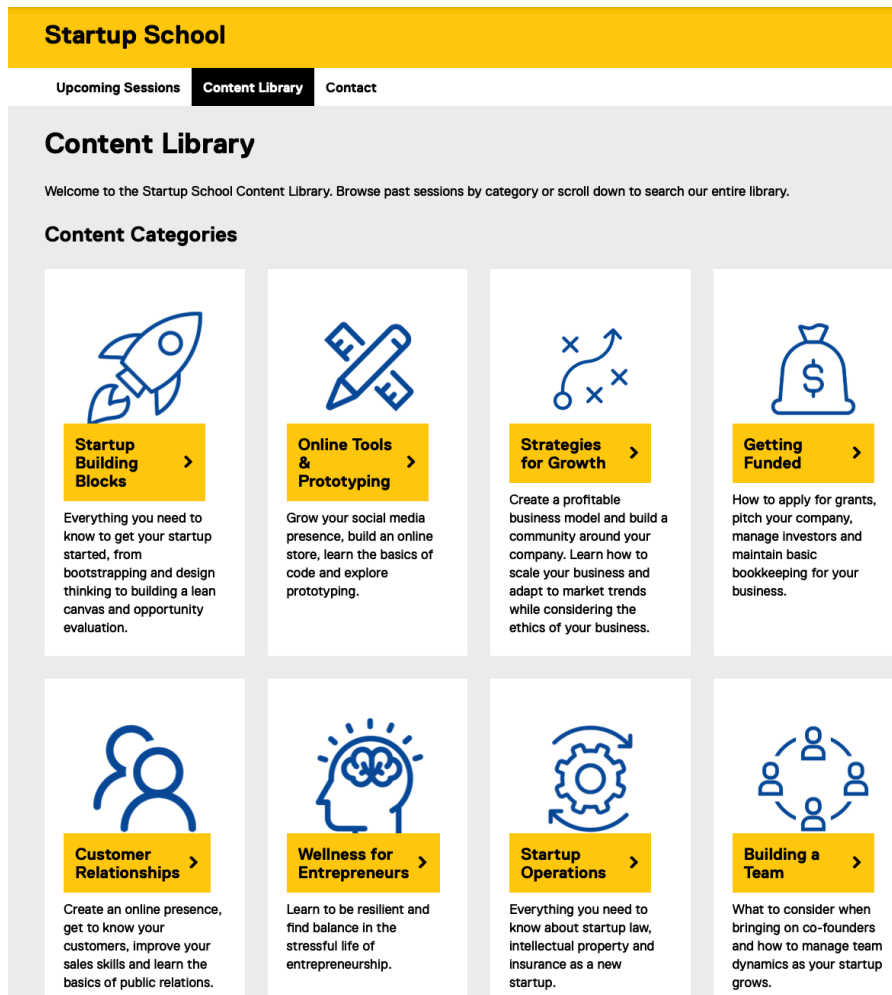
Figure 1: Startup school content library

4.2 The course structure

The overall course structure is shown in Figure 2, which also shows the grade allocation for each component.

In the first week, each student in the course starts by watching three short, pre-recorded video lectures and then develops a Workplan in conjunction with their professor for their individual course, that helps them investigate their business idea (which can be at any stage of development from ideation, through launch, operation and even sale of their business) as well as work on personal development. An initial Workplan is submitted and then a revised version is produced, following feedback from the instructor. They are then expected to complete eight approved modules that are a mix of structured learning (which involves attendance at or watching a workshop/lecture, following which they do specific tasks that apply the workshop/lecture content to their business idea), primary research (where they do field work that might include idea validation, customer discovery, online surveys, and competitor visits) and secondary research (such as market and customer research). They prepare a written report for each module, describing what they did, how they applied their time (the minimum time commitment expectation is about six hours per module) and provide evidence to demonstrate they did carry out the planned work. They conclude the course by preparing a final report and a personal reflection. In total 12 assignments are submitted (two Workplan Drafts, eight Modules, a Final Report and a Personal Reflection. Throughout the course the professor provides in-office and online coaching and support to each student.
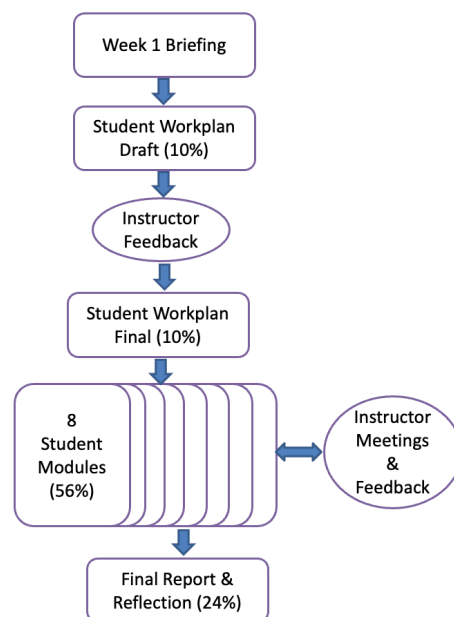
Figure 2: Course structure

The Workplan: students develop a Workplan that includes an introduction to themselves, their business idea and their motivation. They explain the stage of their idea/business, propose a set of personal learning objectives for the course and then describe eight study modules they will execute to complete the course. They are provided with detailed instructions and examples of Workplan content from previous students (anonymized and used with permission). They develop their first draft Workplan and submit it. The instructor then provides detailed feedback on the draft Workplan, possibly including individual discussions with the students. Each student then submits a revised work plan for final approval. Occasionally, a third cycle is required. Completed Workplans are typically about 1,500 -2,000 words in length.

The Student-designed Modules: Students design eight modules relevant to their project and experience. Figure 3 shows the three types of module they are expected to execute. Each module includes active learning, application of theoretical concepts and, often, interacting with the wider entrepreneurial ecosystem. Students have the freedom to select modules most relevant to their own situation, prior learning and business idea. To assist students in getting going, two outline modules are available for them to use if they lack experience. One presents the Lean Launchpad approach and the development of a Business Model Canvas, the other addresses competitor analysis. Students are free to choose their own source material, although guidance as to suitable material is provided for major topic areas. Specifically, students are encouraged to use Start-up School lectures and videos (which are available in a library) as the foundation for their Structured Learning activities, but they need not do so if they find better material relevant to their situation.   In addition to Startup School, students frequently use material from LinkedIn Learning, the work of Steven Blank (2022) and other sources more specific to their business idea, including YouTube videos. Also, before the imposition of-COVID-19 restrictions, they would attend live sessions provided in the Toronto area, including those offered by MaRS, one of North America's largest urban innovation hubs, located close to Toronto Metropolitan University.

Students get credit for each module by submitting a report that describes what they did in the module and what they learned from it, linking this to their stated learning outcomes for their Workplan. This discussion is typically a 400-to-500-word piece. It is supported by an Appendix containing appropriate evidence that demonstrates that they did carry out the work. For example, they might provide notes taken while watching a lecture, work products produced after taking part in some structured learning (e.g. a Business Model Canvas for their business), a summary of results from a field survey or a competitor analysis. They receive feedback on both the assignment itself and on any aspect of the development of their business idea that merits comment or advice.
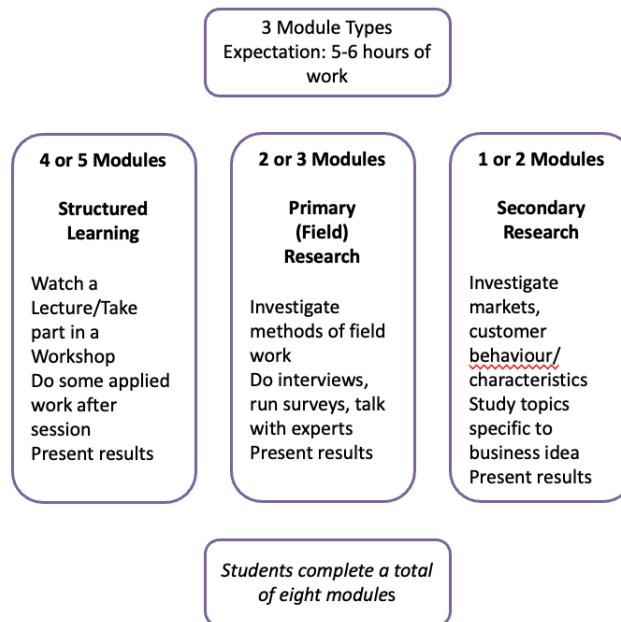
Figure 3: Study module design

The Final Report and Reflection: Completed at the conclusion of the course after all modules have been submitted, this is done in two parts. The first is a Course Review, where the student briefly summarises all work done during the course, discusses how well they met their personal learning objectives and considers the progress they made in developing their business idea. The second is a Personal Reflection, where the student describes their personal development and how they have grown as an entrepreneur and as an individual. They are asked to discuss what they might do differently in the future, based on their experience in the course. A simple reflection framework is provided to help them in doing this. Each of these reports is typically in the 1,000-1,500 word range.

5. The impact of the course on the participating students

The University has a standard measurement instrument where students in each course are asked to provide feedback on various aspects of the courses taken, including the instructor, course content and delivery, assessment, et cetera. The students who complete this assessment do provide high ratings, but the instrument is not really geared to the assessment of a self-developed and managed course.

However, in the course's first assignment, the Workplan, and the final Report and Reflection assignments -- do provide a rich dialogue on the student initial intentions and experience in the course.

The Course typically has between 20 and 30 participants in each offering and is offered twice per year.

An examination of the Workplans prepared over the last three years suggests that some 60% of the course participants were at the ideation stage, meeting the minimum course expectation that the students bring a fairly well fleshed-out business idea to build upon during the course. About 30% were in the early stages of setting up and running their business, possibly on a part-time basis. Finally, about 10% were running established businesses, looking to expand or grow. Interesting examples included:

- One undergraduate student entrepreneur who had launched a successful men's custom tailoring business, using pop-up stores on university campuses, ran this business for two years before using this course as a framework in which to plan their successful exit and sale to tie in with graduation with their business degree.

- Another student used the course as a framework to support their entry in the first Red Bull Basement University challenge, eventually winning both the Canadian and the Global competition! (Red Bull, 2019)

A few of the business ideas had significant growth potential, most would likely be personal or SME businesses. While the range of business ideas was very broad, several themes stood out:

- Fashion-related, including manufacturing, retail, recycling and environmentally friendly concepts

- Professional services, such as agencies, production and publication support

- Personal services, including grooming, business advice and investment management

- Food-related, including establishing restaurants, food curation and waste minimisation

- While most were planning physical businesses, a significant number were looking at technology enabled businesses, including app development

- Most intended to launch their businesses in Canada, however some had an international focus, planning businesses in Bangladesh, Peru, the Ukraine and Egypt

Students are given a framework to use for their personal reflection, asking for discussion in three areas:

- What did they do/experience?

- What did they learn from the experience?

- What will they do differently in the future because of the experience?

Examination of the students' comments in the course summary and personal reflection assignments prepared at the end of the course provided some good evidence as to the impact of the course on the students. The quality of reflection was, in general, quite high, showing good personal insights and learning.

Almost all the students expressed significant personal satisfaction in being able to complete their modules and achieve their personally set learning outcomes. Most mentioned that they found the entrepreneurial experience to be very satisfying and very beneficial in the development of both their own business idea and themselves as potential entrepreneurs. Other areas mentioned frequently included personal skills development, facing challenges and being able to overcome fears and setbacks. Challenges in meeting deadlines and managing their time were also frequently discussed.

In terms of impact on their business, some confirmed that while this was an interesting idea to investigate, they did not intend to take it further, with others stating that they definitely intend to launch or expand their businesses going forward.

6. Conclusions and the contribution of this paper

As Pittaway, Huxtable and Hannon (2018) have identified, approaches to the education of entrepreneurs has evolved significantly over the last 20 years or so. They suggest that practice lags the evolution of theory development in this area. While their work is more focused on experienced entrepreneurs, their arguments also hold true for young nascent entrepreneurs at universities. This paper describes a practical effort to advance knowledge and capacity of young entrepreneurs, building on a theoretical foundation.

Further, although it has been developed within a large university ecosystem that places considerable emphasis on entrepreneurship education, the course approach and structure could easily be implemented within a smaller university with limited resources. It provides a way of integrating structured education with real world experience that could complement basic entrepreneurship courses and a lack of incubators. It can also use teaching resources available from outside the University, allowing students to access the knowledge of experts from the wider entrepreneurial ecosystem.

7. Lessons learned and areas for improvement

As currently structured, ENT 100 provides a high-quality personal experience for those students who completed (who all provide high-quality feedback on what they have done). However, it has experienced a significant early dropout rate in the first two weeks, primarily due to the students' need to prepare and design their own educational journey for the course, which is developed in conjunction with their professor and forms the basis of the remainder of the work in the course.

Managing time and keeping up with their scheduled workplan is also an issue with a significant number of students. Given that modules are individual and may not neatly fit into one elapsed week, the weekly due dates for each module are more of a guideline than an absolute. As a result, some students fall significantly behind in the submission of their work, in most cases catching up with their submissions by the end of the course. As a

result, the instructor frequently has to chase up/encourage students to catch up with their submissions. In discussions with students who fall behind, they frequently cite the pressure of deadlines in other courses they are taking (which are usually firm in due dates). In their reflection discussions, students often identify this as a learning experience, pointing to a need to improve their time management skills and self-discipline.

Students use of the available meeting hours with the instructor is varied. These meetings are typically of two types. The first is with those students who are passionate about their idea and seek discussions about elements of the idea that have come up during the course, perhaps from their Module work, and they wish for further guidance or clarification. The second tends to be with students who have fallen behind and need coaching on how to complete specific modules and catch up with their Workplan. A significant number of students do not make use of this opportunity, either simply accepting the feedback provided in their assignments or asking further questions through email exchanges. Students do sometimes make changes in the work plan, asking for approval either through emails or through a visit in meeting hours.

The prior discussion, along with observation of the student participants over several years, as well as the feedback provided by students who do complete the course (through their personal reflection assignment) indicates that, while the concept of a flexible course designed by the student is achievable by the more committed of the students, more structure is needed to help those who are less certain about their idea and their abilities to encourage them to continue.

Thus, consideration is being given to the provision of some additional structure, and support tools, included pre-recorded material, that will ease student efforts in the design and execution of their personal course while still leaving them the freedom to pursue their individual needs. While scaffolding techniques can be used to ease the students into the course, care must be taken to ensure that they still have freedom to explore their own ideas rather than falling back into the safer suggestions made by the instructor. One possibility is to insist that each student must meet one or twice with the instructor during the scheduled meeting hours for the class, to assist in their course progress.

Finally, in the future, it is hoped to carry out a follow-on survey of all the participants in the course since its establishment to determine to what degree it had an impact on their subsequent entrepreneurial activities.

References

Armstrong, P. 2019. *Bloom's Taxonomy* [Online]. Center For Teaching, Vanderbilt University. Available: Https://Cft.Vanderbilt.Edu/Guides-Sub-Pages/Blooms-Taxonomy/ [Accessed September 30th, 2019 2019].

Bedő, Z., Erdős, K. & Pittaway, L. 2020. University-Centred Entrepreneurial Ecosystems In Resource-Constrained Contexts. *Journal Of Small Business And Enterprise Development,* 27.

Bell, J. R. 2008. Utilization Of Problem-Based Learning In An Entrepreneurship Business Planning Course. *New England Journal Of Entrepreneurship,* 11.

Bell, R. & Bell, H. 2020. Applying Educational Theory To Develop A Framework To Support The Delivery Of Experiential Entrepreneurship Education. *Journal Of Small Business And Enterprise Development,* 27.

Blank, S. 2013. Why The Lean Start-Up Changes Everything. *Harvard Business Review*.

Blank, S. 2022. *Steve Blank* [Online]. Available: Https://Steveblank.Com [Accessed May 10th, 2022 2022].

Bonwell, C. C. & Eison, J. A. 1991. Active Learning: Creating Excitement In The Classroom, 1991 Ashe-Eric Higher Education Report No. 1. Washington, D.C.: The George Washington University.

Coulson, D. & Harvey, M. 2013. Scaffolding Student Reflection For Experience- Based Learning: A Framework. *Teaching In Higher Education,* 18**,** 401-413.

Curtis, V., Moon, R. & Penaluna, A. 2020. Active Entrepreneurship Education And The Impact On Approaches To Learning: Mixed Methods Evidence From A Six-Year Study Into One Entrepreneurship Educator's Classroom. *Industry And Higher Education,* 35**,** 443-453.

English, M. & Kitsantis, A. 2013. Supporting Student Self-Regulated Learning In Problem- And Project-Based Learning. *Interdisciplinary Journal Of Problem-Based Learning,* 7**,** 128-150.

Freeman, S., Eddy, S., Mcdonough, M., Smith, M., Okoroafor, N., Jordt, H. & Wenderoth, M. 2014. Active Learning Increases Student Performance In Science, Engineering, And Mathematics. . *Proceedings Of The National Academy Of Sciences,* 111**,** 3410-3415.

Grant, K. A. & Gedeon, S. A. 2019. Chapter 7: Teaching And Learning In The 21st Century University. *In:* Remenyi, D., Grant, K. A. & Singh, S. (Eds.) *The University Of The Future.* Academic Conferences And Publishing International Ltd.

Grant, K. A. & Macritchie, J. 2021. Ryerson: Canada's Innovation University. *In:* Remenyi, D. (Ed.) *Excellence With University Leadership And Management.* Uk: Academic Publishing International, Uk.

Huxtable-Thomas, L. & Hannon, P. D. 2018. Chapter 4: Beyond Content And Pedagogy: The Role Of Self And Place In Entrepreneurial Leadership Development. *In:* Fayolle, A., Kariv, D. & Matlay, H. (Eds.) *The Role And Impact Of Entrepreneurship Education.* Elgar.

Kolb, D. A. 1984. *Experiential Learning: Experience As The Source Of Learning And Development,* Englewood Cliffs, Nj, Prentice-Hall, Inc.

Lambert, C. 2012. Twilight Of The Lecture. *Harvard Magazine.* Boston: Harvard University.

Lassas-Clerc, N., Delmar, F. & Fayolle, A. 2008. Entrepreneurship Education Initiatives: Does Active Learning Really Make Difference? (Summary). *Frontiers Of Entrepreneurship Research,* 28.

Lewis, L. H. & Williams, C. J. 1994. Experiential Learning: A New Approach. *In:* Jackson, L. & Caffarella, R. S. (Eds.). San Francisco: Jossey-Bass.

Mccarthy, M. 2010. Experiential Learning Theory: From Theory To Practice. *Journal Of Business & Economics Research,* 8**,** 131-140.

Mcinerney, D. M. 2013. *Educational Psychology: Constructing Learning*, Pearson Higher Education.

Mezirow, J. 1997. *Transformative Learning: Theory To Practice*.

Pittaway, L., Huxtable, L. & Hannon, P. 2018. Learning And Educational Programs For Entrepreneurs. *Sage Handbook For Entrepreneurship And Small Business.*

Red Bull. 2019. *Winners Of Red Bull Basement University Global Final Revealed* [Online]. [Accessed May 1st, 2022 2022].

Schön, D. A. 1983. *The Reflective Practioner: How Professionals Think In Action,* London, Temple Smith.

Shattock, M. (Ed.) 2009. *Entrepreneurialism In Universities And The Knowledge Economy: Diversification And Organizational Change In European Higher Education,* Maidenhead, Uk: Open University Press.

Shepherd, D. A. & Gruber, M. 2021. The Lean Startup Framework: Closing The Academic–Practitioner Divide. *Entrepreneurship Theory And Practice,* 45**,** 967-998.