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Motivating Future Youth Entrepreneurs Through Experience: Entrepreneurship Project Based Learning at Higher Education

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Abstract

It is crucial that entrepreneurship education be acquired through an experiential learning method. Even though there have been several studies on experiential learning, there hasn't been much discussion on the actual methods used in university entrepreneurship programs. This study aims to investigate the students' views on entrepreneurial projects conducted at the university in entrepreneurship education learning, known as the MAFEST-Marketing Festival on Heritage Food, and to verify the importance of experiential learning that might affect the entrepreneurship education structure. The contents of the event are then discussed, along with the entrepreneurial activities they entailed, and the researchers employed students' perspectives on entrepreneurship learning to ascertain the outcome of entrepreneurial intention, competences, and self-development. Based on the overall review from the respondents, this study advocates that students should be exposed to practical learning experiences by managing an innovative entrepreneurial event at the university. This would assist in the enhancement and strengthening of the theoretical learning that takes place in the classroom. Our study provides evidence that entrepreneurship education based on experience may affect entrepreneurial competencies and intentions in the early stages before the students pursue their career as entrepreneurs in the future.

Keywords: Entrepreneurship, Education, Experiential Learning, Project-Based, Entrepreneurial Intention

Introduction

Recently, there has been a growing interest in entrepreneurship among undergraduates globally, with a particular focus on Malaysia (Voda and Florea, 2019). The Malaysian government has implemented several initiatives to promote innovation and entrepreneurship, especially among young people, as a means of supporting the country's economic development (Mahmood et al., 2020). Thus, the various supporting structures and systems highlight how important entrepreneurship is to the Malaysian economy. Due to this scenario, entrepreneurship education plays a vital role in developing enterprising skills among undergraduates through enhancement of the knowledge they learned from their experience and commitment in class (Wei et al., 2019). It helps in improving their innovative skills,

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providing business contacts, and teaching them about organizations and money-related assets (Del Rio-Rama et al., 2016). Entrepreneurship education also influences students' perspectives on facing obstacles while starting a new business and recognizing viable opportunities. (Ahmad, 2013). Based on Ibrahim et al (2017), universities should participate actively in entrepreneurial development in order to commercialize the knowledge acquired by students. They also must provide incubator offices and mentor projects and systems for undergraduate students.

Additionally, the expansion of entrepreneurial education in the nation and increasingly outside has been acknowledged (Katz, 2003; Kuratko, 2005; Torrance, 2013). Beyond those enrolled in business schools, a plethora of entrepreneurship programs, credentials, experiential learning opportunities, and extracurricular activities have become available to undergraduate students in a wide range of academic fields over the past two decades. Programs can take the form of majors, minors, or certificates and can originate from a variety of academic institutions, employ tenured academics, nontenured faculty, or practitioners (Duval, Shartrand, & Reed-Rhoads, in press; Shartrand, Weilerstein, Besterfield-Sacre, & Golding, 2010). The conversation on the importance of entrepreneurship education has grown on the far side of venture creation as a result of including students from a wide range of academic fields. Realizing that launching a business is not a quick process Overall, entrepreneurship education empowers students' inspiration and mentality to consider becoming entrepreneurs.

Experiential Learning in Entrepreneurship Education

According to Haynie, Shepherd, Mosakowski, and Earley (2010); Neck & Greene (2011), there is insufficient consensus among academics on how to define the knowledge domain of entrepreneurship or how it should be taught. Possible specified significance from a set of terms, skills, and competencies that students learn to the development of an "entrepreneurial mindset" that enables them to recognize opportunities and be more proactive. There is uncertainty about how outcomes should be measured using various pedagogical techniques. Students' awareness and interest, skills and knowledge, entrepreneurial intention, venture creation innovation, growth and development of enterprises, and community impact are just a few of the numerous measures for entrepreneurship education that have been implemented (Falkang & Alberti, 2000; Fayolle et al., 2006; Pittaway et al., 2009; Vesper & Gartner, 1997; Wyckham, 1989).

Also, teaching entrepreneurship in a conventional education system only focuses on covering topics relating to start-ups. Nevertheless, more recent methods demonstrate that experience in entrepreneurship is essential to being a successful entrepreneur. Specifically, these strategies better prepare students for upcoming obstacles in their careers and/or self-employment activities. Additionally, in order for students to gain experience, researchers have found that they must actively participate in the entrepreneurial process (Read et al., 2011; Sarasvathy, 2008; Lackéus and Williams Middleton in press; Lackéus and Williams Middleton in press). Other scholars also agreed that learning to be an entrepreneur has to be experiential and practice the real thing (Cope and Watts 2000; Pittaway and Cope 2007). Moreover, the prominence of the term "experiential learning" by Solomon, Duffy, and Tarabishy (2002) reveals that an individual is motivated to learn entrepreneurship more through experience than a schematic teaching method in a classroom.

Besides, Haase and Lautenschläger (2011) supported the idea that teaching entrepreneurship at universities should take place outside of the classroom and be supplemented with the idea

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of "learning by doing" in order to nurture students' desire to become successful entrepreneurs. This approach can help students acquire entrepreneurial "know-how" and strengthen their perception of how desirable it is to start a new business. It is clear from this that a variety of experience-based learning methods, including an incubation program with entrepreneurs, industrial training in commercial companies, entrepreneurial projects, and start-up enterprises, should be adopted.

Project-based learning is a way of learning that integrates academic ideas with practical application (Mantawy et al., 2019). According to Havice et al. (2018), project-based learning enables students to practice skills like critical thinking, communication, presentation, teamwork, time management, data investigation, and problem-solving. As a result, project-based learning is suitable for management and teaching, particularly at higher educational levels (Alamri M., 2021). For more difficult activities or tasks that students probably had the least experience executing in practice or completing, project-based learning was proven to be beneficial. Project-based learning also demonstrated benefits in facilitating interaction with materials and learning resources outside of the classroom at the university (Randazzo, Priefer, & Khamis-Dakwar, 2021).

Since there was an argument that students should learn through experience in entrepreneurship education (Gibb, 2002), UiTM needed to prepare the incubator facilities and provide assistance for students to initiate their ideas for a new start-up on campus. Pertinent to this issue, it is vital for University Technology MARA (UiTM) Melaka Branch to explore in depth the motivational determinants of students to engage in entrepreneurship even after their graduation and the importance of experiential learning approaches in entrepreneurship education to achieve the primary objective of being an "Entrepreneurship University" in Malaysia. On the other hand, many studies use short-term measures of selfefficacy and career intention to assess the effects of entrepreneurship education programs due to difficulties with longitudinal research; however, longitudinal studies on entrepreneurship education have shown positive impact (Charney & Libecap, 2003; Lange, Marram, Jawahar, Yong, & Bygrave, 2011). Since 2013, the entrepreneurship education project (Vanevenhoven & Liguori, 2013) has been gathering longitudinal, cross-cultural quantitative data to track students' careers, motivations, and identities in order to provide insight into how educational practices affect student outcomes. However, there is limited research focused on the motivations of students studying entrepreneurship and how they intend to use it during the course of their careers, as well as the time frame involved. Also, there are still few studies that discuss in detail the requirements of assessment with regard to experiential learning in entrepreneurship (Wenninger, 2019). Not only that, there are limited results, which are not yet to be disclosed, that focus on successful experiential approaches to entrepreneurship education.

Thus, a case study of experiential learning among UiTM students through an entrepreneurship project-based view during the Week-Without-Wall (WWW) was conducted to facilitate more in-depth discussions in describing the overall perception of experiential knowledge that will lead to entrepreneurial intention in the future. Consequently, this paper serves to fulfill the following objectives:

- To ascertain the students' views on entrepreneurial projects conducted at the university in entrepreneurship education and learning
- To verify the importance of experiential learning that might affect the entrepreneurship education structure.

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Methodology

In this study, 120 UiTM undergraduate students who undertake the Fundamentals of Entrepreneurship subject were interviewed based on their experiences learning entrepreneurship through project-based learning. They were required to sell food products and were involved in the entrepreneurial project for the semester. A qualitative analysis was used to analyze their written narratives and their views. The project that has been organized is known as the Marketing Festival on Heritage Foods (MAFEST). This event aims to provide real-life entrepreneurship learning experiences to the students and to encourage them to become entrepreneurs and start their own ventures in the future. Hence, this project-based method is an effective way to develop the skills and knowledge required to start and run a successful business that focuses on practical, hands-on experience, allowing students to apply what they learn in real-world situations (Blenker et al., 2011; Mitchelmore and Rowley, 2010; Morris et al., 2013; Ulvenblad et al., 2013). In fact, the students work in teams to identify a problem, develop a solution, and implement it. Also, this approach allows students to learn by doing, which is essential for entrepreneurship. Through the project, it fostered creativity and innovation among students, which also helped to develop an entrepreneurial mindset.

Project Design

As part of their coursework, students were tasked with running a business project centered on Malaysian Heritage Food. The project required students to work in groups of four or five and consult with their lecturer on their business ideas before selecting the best local suppliers of heritage food at the lowest cost.

To ensure that the menu choices matched the theme of Malaysian Heritage Food and did not clash with other groups, the lecturer had to approve each group's ideas. Students were given the freedom to prepare their heritage food menu from scratch, which involved more difficult tasks. All the rules and regulations in food preparation and safety were monitored properly, and students were encouraged to promote their businesses through social media, specifically through WhatsApp groups, before the event started.

Additionally, the project had two motivating factors for each of the groups to boost their sales. First, the profit generated would be donated to any charity group of their choice. Second, the event was a competition, and each of the groups needed to target the highest profit prize. This demonstrated a successful drive for the students to maximize their profits, and it also had a visible and enormous impact on the creative selling technique of each participating group.

Concerning presentation, students were evaluated by the lecturers, and there were two panels of juries appointed on that day according to the total profit generated by each group. Meanwhile, the presentation of heritage food encompassed the marketing mix theories of the 4 P's (product, price, place, and promotion), and the evaluation form used the current subject rubric that was conducted through an updated method, which was a Google form. Finally, the winning groups for the competition were acknowledged with prizes and certificates. Students also submitted group reports at the end of Week 14. Overall, this project contributed to 40% of their overall marks for the course.

Results

Financial Value

Generally, all students agreed that through their experiences with MAFEST, they were able to assist small entrepreneurs in increasing their sales of heritage foods and produce their own

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income while studying at university. Here is the students' feedback on the income generation opportunity from the event:

- S1: "From MAFEST, I learned how a business can help me generate my personal income without only depending on my parents to pay everything for my studies.".
- S2: "This event helps me to develop and gain knowledge on how to create our source of income based on the profit generated".
- S3: "I learn to generate income by selling the heritage food with different skills, and it is not easy, but I really make it".

Thus, it was undeniable that MAFEST ascertained successful financial value, and the other effects of learning experiences among students were discussed further in this study.

Experiential Learning Values

There are possible consequences of learning by doing through MAFEST, as the students were competently practicing the theories that they had learned in the class. This event is so-called an experiential learning project that truly provides a platform for the students to be exposed to the experience of starting a small business in the real world.

MAFEST had encouraged the students to implement the theories of entrepreneurship (identifying opportunity, financing, creativity and innovation, problem-solving methods) and marketing (selection of food products, pricing, promotion, and searching for suppliers). The following are some of the excerpts from students involved in the event:

- S1: "We applied the concept of 4P's to promote and sell our product to target customers".
- S2: "This project benefited me by helping me understand some of the concepts of entrepreneurship better".
- S3: "I was delighted in this event as it increased my understanding of the theories I learned in class".
- S4: "It is really a great real experience that is different from the class-earning session".
- S5: "I get new exposure on how to open a business and how to market the products".

These statements highlight that classroom learning obviously had some constraints that needed to be combined with real experience so that the students could have a better understanding of the theories and then apply them effectively in doing business.

Entrepreneurial Competencies

MAFEST builds up the entrepreneurial skills among students, which they learned on how to conduct a business properly and serve the target customers well through their own creativity. From the interview, some groups revealed their sights based on three specific areas:

Table 8.2 Excerpts from interview

Areas		Responses
1.	Customer- center approach	S1: "We think that our customer satisfaction will always come first. We learned that customer satisfaction would lead to our satisfaction too." S2: "We learned how to deal with customers and we have to listen to customers first to get their attention". S3: "We learned how to build customer

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attention through variety marketing skills".

S4: "We have to accept the customer's perception of our product".

- S1: "I enjoy and happy to become an entrepreneur of business".
- S2: "We felt the burden and hardship that the entrepreneurs had faced in doing a business.
- S3: "I learned the tough processes of the entrepreneurs to go through to sell the products successfully".

S4: "I learned the difficulty to find and deal with the best supplier for the heritage food to be sold".

3. Teamwork management

- S1: "With good partners in a team, assisted me a lot to run the business well".
- S2: "Having strong teamwork relationship in a business provides a smooth and successful experience".
- S3: "I learned to work in a team and the cooperation is a key to make the business successful".
- S4: "I learned a lot about teamwork, communication, and leadership skills. As a group, we had to work together to plan and execute the event successfully. We had to communicate effectively with each other and with the vendors to ensure that everything was in order".

Entrepreneurial Intention

Entrepreneurial intention is an individual's decision to pursue starting a new venture or establishing new value within existing companies (Fini et al., 2009). Apparently, this project was intended to expose the students to the real experience of doing business and facilitate their becoming entrepreneurs in the future. MAFEST was a good benchmark to inspire them to start a small business and cultivate their intention towards entrepreneurial action, which they might appreciate as an opportunity for their career selection. Some groups recognized that although MAFEST was conducted only on campus, there was a huge potential for this business to endure because the authentic tastes of heritage food could be the new fascination to be marketed. They have already captured the customer's attention and motivated the students to grab this opportunity to be involved in business. The student's intention to start their business immediately after the event could be seen from the following comments:

- S1: "I have the intention to open a business in the future, especially during my life at university, so that it would help my finances a lot". "MAFEST helps me to make my dreams come true by owning a business."
- S2: "I see a strong potential for us to open a food business in the future." "I think I'm more likely to start a business because it is really fun and easy."

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S3: "I believe I can successfully build a new business after I have graduated." "MAFEST gave me a positive view and the potential for me to plan an apparel business with my friends."

S4: "I believe there are more entrepreneurs among students aroused by this successful event."

So, from the statements given, they definitely supported the idea that experiential learning through project-based learning would enhance the probability of the students having a positive intention to get involved in the entrepreneurship process in the future.

Self-Development

In addition, students also realized that MAFEST had improved their self-development through working together in teams. The students were actively participating in organizing this valuable event, and this ultimately increased their interpersonal skills. Most of them stated that this project enriched their communication skills and self-confidence because they had to successfully convince customers to purchase the heritage food they sell during MAFEST. Their statements were described below:

- S1: "I had developed my interpersonal skills and communication skills through this project.
- S2: "I had overcome my fears of communication and selling."
- S3: "I learned how to make decisions, deal with others, and sell the product in a better way".
- S4: "I am confident enough to deal with new customers."

Discussion and Practical Implication

From this study, it can be concluded that project-based learning in entrepreneurship helps students develop their problem-solving skills. As students work on projects, they encounter challenges and obstacles that they must overcome. This process helps students learn how to identify problems, analyze them, and develop solutions. These problem-solving skills are essential for entrepreneurship, as business owners must be able to identify and solve problems quickly and effectively. Other than that, MAFEST, which focuses on experiential learning, has successfully enhanced social skills and promoted teamwork among students (Ghavifekr, 2020). By engaging in hands-on projects, students are able to develop critical thinking, problem-solving, and communication skills.

Additionally, project-based learning encourages collaboration and cooperation among team members, which is essential in today's workforce. Moreover, through this experiential learning, it can boost the level of self-efficacy by giving students the opportunity to experience entrepreneurship through their eyes and by fostering positive emotional responses (Karimi et al., 2013). Also, this will contribute to the development of success in future entrepreneurial decisions. According to the interview with students, the majority (over 80%) believe that project-based learning is an effective way to learn about entrepreneurship. They appreciate the opportunity to work on real-world projects and to collaborate with peers who bring different perspectives and skills to the table. Many students also value the teamwork exposure, which can help them refine their ideas and strategies with team members (Lynch et al., 2015). Likewise, according to Eckardt et al. (2018), students can also learn planning, critical thinking, task management, problem-solving, and practice techniques.

In addition, they can apply the knowledge and abilities they acquire in the classroom to their own self-employment endeavors (Granado-alc et al., 2020). Students also gain entrepreneurial education, practice being entrepreneurs, boost their confidence as entrepreneurs, and bolster their entrepreneurial spirit through the competition. Participating in competitions can simultaneously strengthen interpersonal ties and promote collaborative

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commercial ventures. The emphasis and goal of the competitions in MAFEST is to assist participants in acquiring the necessary abilities, information, drive, and financial resources to address challenging business issues. They can learn how to establish and manage businesses as a result. Through real experiential learning, students would benefit from prompt feedback and evaluations and then have the intention to become entrepreneurs in the future (Spanjaard & Stegemann 2018).

However, some students also expressed concerns about project-based learning. For example, they worry that it can be difficult to balance the demands of multiple projects and assignments or that they may not have enough support or guidance from instructors. Others feel that project-based learning may not be as effective for certain types of learners or for those who prefer more traditional classroom instruction. Overall, though, it seems that project-based learning is a popular and effective approach to teaching entrepreneurship among university students. By providing hands-on experiences and opportunities for collaboration and feedback, it can help students develop the skills and mindset they need to succeed in the business world. It is also an effective way to prepare students for success in their future careers as entrepreneurs.

Conclusion

Consequently, MAFEST is viewed as a successful event that had been exposed the students to a real-life scenario of starting a small busines, but also succeeded in fostering entrepreneurial purpose among them and developing their interpersonal communication skills. When the students learned through a real-life experiences, they could generate income through their own initiatives, and they could also donate their revenues to any charity of their choice. Their potential as future leaders was also enhanced through the delegation of decision-making authority.

Therefore, universities and educational institutions play a critical role in promoting experiential learning in entrepreneurship education. It can provide students with the knowledge, skills, and resources that they need to pursue start-up businesses. By supporting entrepreneurship education especially through experiential learning, universities and educational institutions are helping to create a more vibrant and innovative economy. Moreover, universities should also develop a learning atmosphere that is supportive, stimulating, proactive, and capable of boosting students' confidence to launch their own businesses. This will help the students achieve good self-assurance, which will raise their entrepreneurial intentions . Other than that, the services, which include capital, locations, guidance, and training, will also have favorable effect on entrepreneurial intention (De-peng and Bao-shan, 2017).

Most importantly, this study emphasizes that experiential learning is very crucial to the entrepreneurship education structure. Students should be exposed to the real experience of learning entrepreneurship since starting a business is a viable career route for university graduates who will shortly enter the workforce. Lastly, for future research, quantitative analysis can be a valuable tool as it allows researchers to measure and analyze the data in a systematic and objective way. This can also provide a foundation for further research by identifying the areas which are more detailed and concrete.

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References

- Ahmad, K. (2013) Leadership and Work Motivation from the Cross Cultural Perspective. International Journal of Commerce & Management, 19, 72-84.https://doi.org/10.1108/10569210910939681
- Alamri, M. (2021). Using blended project-based learning for students' behavioral intention to use and academic achievement in Higher Education. Educ. Sci., 11(5), 3–11. https://doi.org/10.3390/educsci11050207
- Blenker, P., Korsgaard, S., Neergaard, H., & Thrane, C. (2011). The questions we care about: paradigms and progression in entrepreneurship education. Industry and higher education, 25(6), 417-427.
- Charney, A. H., & Libecap, G. D. (2003). The contribution of entrepreneurship education: An analysis of the Berger program. International journal of entrepreneurship education, 1(3), 385-418.
- Cope, J. and Watts, G. (2000), "Learning by doing: An exploration of experience, critical incidents and reflection in entrepreneurial learning" International Journal of Entrepreneurial Behaviour & Research, 6, 3, 104-124.
- De la Cruz del Río-Rama, M., Peris-Ortiz, M., Álvarez-García, J., & Rueda-Armengot, C. (2016). Entrepreneurial intentions and entrepreneurship education to University students in Portugal. Technology, Innovation and Education, 2, 1-11.
- De-peng and Bao-shan (2017). Empirical Research on the Impact of Satisfaction with Entrepreneurial Education on Entrepreneurial Behavior[J]. Journal of East China Normal University (Educational, 2017, 35(3): 103-115+171+172.
- Eckardt, P., Craig, M., & Kraemer, L. (2018). The Impact of Project-Based Learning on Student Content Knowledge in an Undergraduate, Teacher Preparation, Foundations of Education Course. J. Leadersh. Instr., 38–42.
- Falkäng, J., & Alberti, F. (2000). The assessment of entrepreneurship education. Industry and Higher education, 14(2), 101-108.(7)
- 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.
- Fini, R., R. Grimaldi, Marzocci, G. L., & Sobrera, M. (17-19 June 2009), "The foundation of entrepreneurial intention", Paper presented at the Summer Conference on Copenhagen Business School, Denmark.
- Ghavifekr, S. (2020). Collaborative learning: A key to enhance students' social Interaction. Malaysian Online Journal of Educational Sciences, 8(4), 9–21.
- Gibb, A.A. (2002), 'In pursuit of a new entrepreneurship paradigm for learning: creative destruction, new values, new ways of doing things and new combinations of knowledge', International Journal of Management Reviews, Vol 4, No 3, pp 233–269.
- Granado-alc, C., Diego, G., Herrera-guti, E., Mercedes, V., & Alonso-mart, P. (2020). Project-based learning and the acquisition of competencies and knowledge transfer in higher education. Sustainability, 12(23), 2–18. https://doi.org/10.3390/su122310062
- Granado-alc, C., Diego, G., Herrera-guti, E., Mercedes, V., & Alonso-mart, P. (2020). Project-based learning and the acquisition of competencies and knowledge transfer in higher education. Sustainability, 12(23), 2–18. https://doi.org/10.3390/su122310062.

- Haase, H., and Lautenschläger, A. (2011), 'The "teachability dilemma" of entrepreneurship', International Entrepreneurship and Management Journal, Vol 7, pp 145–162.
- Havice, W., Havice, P., Waugaman, C., & Walker, K. (2018). Evaluating the effectiveness of integrative STEM education: Teacher and administrator professional development. J. Technol. Educ., 29(2), 73–90. https://doi.org/10.21061/jte.v29i2.a.5
- Haynie, J. M., Shepherd, D., Mosakowski, E., & Earley, P. C. (2010). A situated metacognitive model of the entrepreneurial mindset. Journal of business venturing, 25(2), 217-229.
- Ibrahim, O. A., Devesh, S., and Ubaidullah, V. (2017). Implication of attitude of graduate students in Oman towards entrepreneurship: an empirical study. J. Glob. Entrep. Res. 7:8. doi: 10.1186/s40497-017-0066-2
- Karimi, S., Biemans, H. J. A., Lans, T., Chizari, M., Mulder, M., & Mahdei, K. N. (2013). Understanding role models and gender influences on entrepreneurial intentions among college students. Procedia Soc. Behav. Sci., 93, 204–214. https://doi.org/10.1016/j.sbspro.2013.09.179
- Katz, J. A. (2003). The chronology and intellectual trajectory of American entrepreneurship education 1876-1999. Journal of Business Venturing, 18, 283-300. doi: 10.1016/S0883-9026(02)00098-8
- Kuratko, D. (2005). The emergence of entrepreneurship education: Development, trends, and challenges & Entrepreneurship Theory & Practice, 29(5), 20.
- Lackéus, M. and Williams Middleton, K. (in press), "Venture Creation Programs: bridging entrepreneurship education and technology transfer" Education + Training, 57, 1.
- Lange, J. E., Marram, E., Jawahar, A. S., Yong, W., & Bygrave, W. (2011). Does an entrepreneurship education have lasting value? A study of careers of 4,000 alumni. Frontiers of entrepreneurship research, 31(6), 2.
- Lynch, C., Stein, L. A., Grimshaw, S., Doyle, E., Camberg, L., & Ben-Ur, E. (2015). The impacts of service learning on students and community members: Lessons from design projects for older adults (pp. 1–9). 2014 IEEE Frontiers in Education Conference Proceedings. https://doi.org/10.1109/FIE.2014.7044320
- Mahmood, Q. K., Jafree, S. R., and Qureshi, W. A. (2020). The psychometric validation of FCV19S in Urdu and socio-demographic association with fear in the people of the Khyber Pakhtunkhwa (KPK) province in Pakistan. Int. J. Mental Health Addict. doi: 10.1007/s11469-020-00371-4.
- Mantawy, I. M., Rusch, C., Ghimire, S., Lantz, L., Dhamala, H., et al. (2019). Bridging the gap between academia and practice: project-based class for prestressed concrete applications. Educ. Sci., 9(3), 2–16. https://doi.org/10.3390/educsci9030176
- Mitchelmore, S., & Rowley, J. (2010). Entrepreneurial competencies: a literature review and development agenda. International journal of entrepreneurial Behavior & Research, 16(2), 92-111.
- Morris, N. M., Kuratko, D. F., and Pryor, C. G. (2013). Building blocks for the development of university-wide entrepreneurship. *Entrep. Res. J.* 4, 45–68. doi: 10.1515/erj-2013-0047
- Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: known worlds and new frontiers. Journal of small business management, 49(1), 55-70.
- Pittaway, L., and Cope, J. (2007), 'Simulating entrepreneurial learning: integrating experiential and collaborative approaches to learning', Management Learning, Vol 38, No 2, pp 211–233.
- Pittaway, L., Hannon, P., Gibb, A., & Thompson, J. (2009). Assessment practice in enterprise education. International Journal of Entrepreneurial Behavior & Research, 15(1), 71-93.

- Randazzo, M., Priefer, R., & Khamis-Dakwar, R. (2021). Project-Based Learning and Traditional Online Teaching of Research Methods During COVID-19: An Investigation of Research Self-Efficacy and Student Satisfaction. Frontiers in Education, 6, 1–16. https://doi.org/10.3389/feduc.2021.662850
- Read, S., Sarasvathy, S. D., Dew, N., Wiltbank, R. and Ohlsson, A.-V. (2011), Effectual Entrepreneurship, Routledge, London.
- Sarasvathy, S. D. (2008), Effectuation: Elements of Entrepreneurial Expertise, Edward Elgar, Cheltenham, UK.
- Shartrand, A., Weilerstein, P., Besterfield-Sacre, M., & Golding, K. (2010, June). Technology entrepreneurship programs in US engineering schools: An analysis of programs at the undergraduate level. In 2010 Annual Conference & Exposition (pp. 15-1198).
- 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), pp. 1–22.
- Spanjaard, D., Hall, T., & Stegemann, N. (2018). Experiential learning: Helping students to become 'career-ready'. *Australasian Marketing Journal (AMJ)*, 26(2), 163-171.
- Torrance, W. E. F. (2013). Entrepreneurial Campuses: Action, Impact, and Lessons Learned from the Kauffman Campuses Initiative. Ewing Marion Kauffman Foundation Research Paper.
- Ulvenblad, P., Berggren, E., & Winborg, J. (2013). The role of entrepreneurship education and start-up experience for handling communication and liability of newness. International Journal of Entrepreneurial Behavior & Research, 19(2), 187-209
- Vanevenhoven, J., & Liguori, E. (2013). The impact of entrepreneurship education: Introducing the entrepreneurship education project. Journal of small business management, 51(3), 315-328.
- Vesper, K. H., & Gartner, W. B. (1997). Measuring progress in entrepreneurship education. Journal of Business venturing, 12(5), 403-421.
- Voda, A. I., and Florea, N. (2019). Impact of personality traits and entrepreneurship education on entrepreneurial intentions of business and engineering students. Sustainability 11:1192. doi: 10.3390/su11041192
- Wei Z, Zhao Z and Zheng Y (2019). Following the Majority: Social Influence in Trusting Behavior. Front. Neurosci. 13:89. doi: 10.3389/fnins.2019.00089
- Wenninger, H., Krasnova, H., & Buxmann, P. (2019). Understanding the role of social networking sites in the subjective well-being of users: a diary study. European Journal of Information Systems, 28(2), 126-148.
- Wyckham, R. G. (1989). Assessing the impact of entrepreneurial education: Canada and Latin America. Journal of Small Business & Entrepreneurship, 6(4), 7-19.