

Relationship between Engagement in Learning Entrepreneurship Education and Entrepreneurial Intention among Vocational College Students

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ABSTRACT

This study's principal objective is to investigate the relationship between student engagement in learning entrepreneurship education and entrepreneurial intention among students in a vocational college. The selected vocational colleges are located in Selangor, Negeri Sembilan, and the Federal Territory of Kuala Lumpur. A quantitative approach method was employed where questionnaires were distributed among first-year students enrolled in diploma courses offered by 16 vocational colleges. A sample of 244 students was chosen through stratified random sampling to participate in the study. The descriptive analysis results show that the entrepreneurial intention and student engagement in learning entrepreneurial education among vocational college students were both at a moderate level. The correlational analyses show a moderate-level, positive, and significant relationship between engagement in learning entrepreneurship education and entrepreneurial intention. Among the six variables, only engagement in learning, engagement with academic staff, and engagement in communities predict entrepreneurial intention with an explanation

of 84.7%. This indicates that engaging students in the learning of entrepreneurial subjects and skills are essential in fostering their internal motivation and help to build confidence toward starting a business venture and becoming their boss rather than hunting for jobs after college.

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INTRODUCTION

The need to strengthen Technical and Vocational Education and Training (TVET) remains a primary focus of many countries to drive human capital development for its productivity and economic growth. It is interesting to note that under the 11th Malaysia Plan 2016-2020, the Malaysian government decided to stream according to disciplines in schools and expand access to vocational education to overcome the public stigma and mindset that vocational courses are a second choice second-class option (Economic Planning Unit, 2017). Further, the government reaffirmed its commitment to strengthening vocational education by announcing that the Vocational Education Transformation in 2012 provided opportunities for students, targeting those with low and average academic performance (Omar et al., 2011), to pursue skills-based courses at lower secondary education of Form 1 to Form 3.

A vocational program called Basic Vocational Education (PAV) has been introduced as a system of education geared towards admission into vocational colleges for Certificate or Diploma levels or entry into the workforce. There is even a pathway option for the students to enter higher education with working experiences. The Ministry of Education Malaysia (MOE) is also committed to strengthening vocational education identified under the first wave of the Malaysian Education Blueprint 2013-2025 (MEB 2013-2025). Since then, vocational education has undergone tremendous changes in curriculum as it

lays more focus on developing the practical knowledge of the students (70% vocational skills training, and 30% academic education) (Ministry of Education, 2013) to meet the challenges of Industrial Revolution 4.0 (IR 4.0). Besides, the students are also being trained in soft skills needed at the workplace, such as communication, leadership, critical thinking, problem-solving, teamwork, and entrepreneurial skills (Azmi & Hisyam, 2012).

As planned by the Ministry of Education (2013), vocational colleges are responsible for producing 10 percent of entrepreneurs by providing entrepreneurship modules and activities. These entrepreneurial activities present a range of benefits, for example, creating jobs, generating wealth, and growing the national economy (Ahmad & Xavier, 2012). Entrepreneurship offers opportunities for vocational college graduates to generate good income using the skills learned and more resilience to life challenges (Sabouripour & Roslan, 2015).

The relevant skills and work-based experience have provided an added value and have given them an edge to become entrepreneurs. The tendency to be involved in the entrepreneurial field can be increased with engagement in entrepreneurship activities. According to Gerba (2012), students undergoing entrepreneurial education (EPE) have better entrepreneurial intentions than students without EPE. Exposure to EPE may lead to a growing interest in an entrepreneurial career (Izquierdo & Buelens, 2011), thus increasing the level of entrepreneurial intention to

become a full-fledged entrepreneur (Barba-Sánchez & Atienza-Sahuquillo, 2018). Entrepreneurial intention is a person's desire to have their own business or start an enterprise (Bacq & Alt, 2018). The intention has been used to describe a person's self-prediction to engage in a behavior and is identified as the best predictor of good behavior (Ajzen & Fishbein, 2000). Socio-psychological studies consider the intention to be the best predictor of actual behavior (Zaremohzzabieh et al., 2019). Identifying opportunity is planned; therefore, entrepreneurial behavior is planned behavior that involves one's intention.

Much research in Malaysia has been conducted to identify the level of entrepreneurial intention, especially among students. Akmaliah and Hisyamuddin (2009) found that entrepreneurial intention among secondary school students was moderate. Furthermore, Bahrein et al. (2016) and Norhatta et al. (2015) found the same moderate level of entrepreneurial intention among public and private university students. Another study conducted by Nuringsih et al. (2019) among private college students demonstrated that the level of entrepreneurial intention was high. The same finding was reported by Wan Nur Azlina et al. (2015) when they investigated entrepreneurial intention among students from technical and vocational training institutes. Entrepreneurial intention studies among university students were also conducted in the United States and Turkey by Ozaralli and Rivenburgh (2016). The findings showed the same moderate level

of intention among Turkish and American students. In other words, when the intention is formed, the behavior will be shown by the individual. The intention is the cognitive structure encompassing goals and plans. To achieve goals, individuals define and determine the goals, followed by developing the plans (Ajzen, 2017). For example, one will express the desire to venture into business first before determining the type of business the person wants to venture into. In this study, therefore, entrepreneurial intention is defined as the will or desire of a person to start their own business at some point later in their life.

Student engagement is defined as the amount of physical and psychological energy students contribute to the academic experience (Ajzen, 2017). Students who are more involved in academics and social experiences gain more learning outcomes. Astin (1999) discussed that student engagement could be considered the formation of motivation, emphasizing behavioral conditions. Astin's (1999) Student Involvement Theory emphasizes that student engagement is high if the student uses more energy to study, spends more time in school, is more active in any student association, and interacts more often with classmates or peers. Involvement in the campus community will significantly impact their psychological development throughout their campus life. In the context of this study, the researchers decided to adapt a student engagement model by Fauziah et al. (2012), which is similar to that of Astin's (1999) Student Engagement Model. The

Student Engagement Model divided student involvement into four dimensions: student academic engagement, student engagement with academic staff, student engagement with peers, and student engagement in communities.

Until now, many studies consider student engagement as one of the predictors of academic achievement and soft skills development. Students who are more engaged in the learning environment achieve higher academic performance and show more holistic self-development (Fauziah et al., 2012). Student engagement can also be a benchmark that indicates the quality of effort and commitment level (Kuh, 2009). As student engagement in planned learning activities has a positive relationship with academic performance (Kuh et al., 2008), it can help the administrators to identify activities that enhance student involvement and areas for improvement (Kuh & Hu, 2001). According to Nor Aishah (2013), EPE is a structured environment that provides individual potential development related to all aspects of entrepreneurship through the management and implementation of pedagogical curriculum and assessment. Therefore, student engagement is essential to achieve learning objectives and attract and retain students' attention (Coates et al., 2009). Zaidatol and Habibah (2002) believed that teaching and learning entrepreneurship should be practical to achieve a higher degree of student engagement to help build students' potential through experience. Student engagement in learning has a relationship with student achievement and

considers the role of engagement in EPE towards entrepreneurial intention; therefore, this study aimed to determine the link between students' engagement in learning entrepreneurship.

Technical and Vocational Education and Training (TVET)

Technical and Vocational Education and Training (TVET) has been credited for driving productivity among individuals and employers, thus expanding human resource development (HRD). At the individual level, educated workers, especially those highly trained in their profession, are considered an essential human capital factor that necessitates national development (Ansari & Wu, 2013). As a system, HRD is effective only when it acts as a gateway to job opportunities, and it has emerged as the main conduit in reducing poverty and gender inequality. Thus, prioritizing investments in education and skills development is very important to close the gap between knowledge-based workers and low-skilled workers (Ansari & Wu, 2013). According to a study by Sekerin et al. (2018), HRD contributes to economic development in producing technically trained personnel into all levels of the workforce to meet the socio-economic requirements for industrial growth, without which capital would be wasted. Hence, education for HRD can help people obtain relevant skills and knowledge to address industrial workforce issues that the society or country may face.

TVET students should be shaped to perform in the working life spectrum: serving as employees, working in cooperatives,

pursuing self-employment and start-up ventures, or community development work (Omar et al., 2011). Given this, it is argued that vocational graduates can benefit from a broader range of employment opportunities with EPE. This is mainly because TVET (at all levels of education) is more closely interrelated to EPE compared with general education. First, TVET institutes are already in partnerships with enterprises of all sizes to secure student and trainee training and internship placements. Valuable experiences such as these expose students to entrepreneurship practiced in real-life settings, thus allowing them to gauge the viability of self-employment or starting up a business as an employment alternative. Second, some of the TVET's occupational courses are pathways to self-employment and the establishment of small and mid-size enterprises (SMEs).

TVET should be well prepared to acquire the vital skills needed to minimize the negative effects of the COVID-19 pandemic as well. The pandemic demonstrated the critical importance of many practical service sector jobs. These essential employees include, but are not limited to, logistics workers, ICT support technicians and staff, and health professionals. TVET emphasis on practical skills and its ability to provide short-term, tailored and modular training can be leveraged to quickly upgrade staff in key industries and to enable individuals to participate in emergency response. TVET's focus on work-readiness could also imply that TVET students could relatively easily be involved in the emergency response.

Finally, most TVET curricula already integrate EPE skills development, such as teamwork, problem-solving, and innovative thinking. Therefore, it is widely viewed that EPE is a crucial component among the TVET community, consisting of students, trainees, teachers, and other educational personnel (Badawi, 2013).

As one of the key skills, entrepreneurship is "highly relevant to many professions to which TVET leads, but in traditional vocational programs have often been neglected" (OECD, 2010). In this regard, the critical challenge is recruiting teachers to teach entrepreneurial behaviors and provide guidance to entrepreneurial aspirant students (Fini et al., 2012). Researchers have also highlighted the valuable entrepreneurship element of TVET, which ignites growth in suburban and rural areas (Garlick et al., 2007). The conventional development methods in suburban and rural areas collapsed, pushed by the Australian government, simply because macroeconomic and external economic circumstances were not considered. There are global capitalism, regional economic conditions, and the interrelationships between business organizations (Lerner, 2012). However, enterprising human capital is a significant driver for expanding businesses in the region. Given this, TVET could take center stage as a developer of entrepreneurial competencies through establishing deep and grounded relationships with local businesses.

In vocational education, the entrepreneurship curriculum has been a

mainstay where the principal focus is on managerial knowledge, followed by skills development (Meyer, 2018). For example, the Shanghai TVET Consensus claims that entrepreneurship training is crucial for an effective transition from school to work, given the scale of youth unemployment and vulnerable jobs (Ananiadou, 2013). Broadly, one general agreement is that entrepreneurship can transform globalization challenges into opportunities: “most analysts will now accept that an entrepreneurial spirit is one of the key factors in which societies can address the challenges posed by global changes effectively” (Salzano et al., 2006). Significant academics suggest that the entrepreneurial model can be seen as a crucial way of dealing with uncertainty and difficulty for organizations and individuals, but also as a tool for them to develop and grow on it (Gibb & Hannon, 2006). Similarly, one of the references made in the World Economic Forum (Volkman et al., 2009) was that “innovation and entrepreneurship offer a way forward to address the 21st century’s global challenges, construct sustainable development, create jobs, stimulate renewed economic growth, and advance human well-being” (p. 12).

As innovation is a vital factor for entrepreneurship, it plays a key role in the growth and survival of SMEs, where the entrepreneur and his team of employees are the primary sources of innovation. Innovation is defined as not just doing something new in a different approach but also adding value to business stakeholders,

including the community that benefits from its use (Seet et al., 2018). TVET is in the best position to collaborate with SMEs in three ways to support their business processes and development (Curtin et al., 2011). First of all, vocational training, such as innovation and flexibility, will include general yet basic skills. Secondly, the new core skills of the profession should be presented so that students are well trained to be creative agents. Finally, TVET functions as part of the more extensive production system where its innovation contribution is via continued engagements with the industry. As a result, TVET graduates are in demand among high-tech SMEs (Badawi, 2013). Evidence in Australia also suggests that TVET graduates have a higher tendency to establish SMEs compared to non-vocational graduates (Obwoye & Edwin Obwoye, 2016; Sabouripour & Roslan, 2015).

Toner (2011) described two types of innovation. The first is radical innovation - with a significant investment from the government, this innovation unleashes significant technology, economy, or social landscape. Incremental innovation is the second type where it spawns minor changes to existing processes or products. Toner (2011) suggested that radical innovation was the pivotal agent that tipped the scale of productivity growth. Audretsch and Fritsch (2003) supported this by further stating that big companies’ research and development (R & D) was no longer the most important source of innovation, as previously thought. Innovation today is

mostly contributed by SMEs because they are more adaptable from ideas developed by other companies: This effect is known as the spillover of information. In this context, in the information economy, “entrepreneurship takes on new significance because it serves as a key mechanism by which knowledge produced in one company is commercialized in a new enterprise” (p. 10).

According to Dawe and Guthrie (2004), when examining and discussing the concept of innovation, studies should separate it from scientific discovery. Instead, innovation should be conceptualized as a continuous learning process. Reyes-García et al. (2016), a popular researcher on the cultural roots of human cognition, argued that cultural learning could be seen as a driver of creativity in the context of social cooperation - a community of creative people tackling a problem in which one person could not solve on his / her own. In this respect, Cultural Historical Activity Theory (CHAT), the third generation of activity theory, is useful to examine innovation and entrepreneurial behaviors as an expansive learning process within and between organizations (Yamagata-Lynch, 2007). CHAT is useful because it provides a framework for analyses of the individual entrepreneur within a social collective activity system. Second, used as an intervention theory, studies can examine the triggering event needed to plant the seeds of an entrepreneurial spirit among individuals. Given this, an intervention can be developed based on the theories and

methodologies of activity and intervention to study entrepreneurship.

As discussed above, TVET, rather than other institutes, is the likely prolific hub of innovative ideas. Given the critical relationship between TVET and workplaces, this study focuses on students’ competencies when undergoing work experiences. What is evident in this paper is that entrepreneurship is not just about setting up and operating businesses. It is essentially about grounding a mindset that serves as a resource for individuals to be entrepreneurial throughout their life across multiple lived domains. Correspondingly, to assess the awareness, skills, and attitudes associated with initiating entrepreneurship, innovation, the willingness to work in project teams, the understanding of their limitations and strengths, and self-confidence, the European key competencies in a sense in initiative and entrepreneurship have been selected. Transforming ideas into reality is the key skill in all its endeavors (Morselli et al., 2016). It is broadened to focus on the necessary knowledge, skills, and attitudes that enrich a lifelong learning perspective. The onus is on the individual and their corresponding capabilities rather than their job titles. It is interesting to note that an individual’s capabilities make the connection between people, education, and the workplace as they identify the cultural, social, and economic resources as a means for the individual to develop, be creative, establish autonomy, and exercise informed judgments (Rami et al., 2018; Wheelahan et al., 2012).

Student Engagement in Learning and Entrepreneurial Intention

Student engagement in learning is one of the critical predictors of entrepreneurial intention. At the individual level, student engagement is expressed as students' combined time and energy devoted to learning. At the institutional level, student engagement is the effort that institutes make to increase educational practices (Kuh et al., 2008). Researchers have proposed that to achieve meaningful engagement in entrepreneurship courses, institutes need to adopt the idea that the occurrence of deep learning is underpinned and supported by commonly agreed to learn objectives, student motivation, focus on task-based rather than assessment-based learning, and the interaction between students and the faculty (Biggs, 2003). This paper proposes the use of Astin's Student Engagement Theory to identify success factors for vocational students' entrepreneurial intentions.

First developed in 1984, Astin's (1999) Student Involvement Theory has often been used as a framework in discussing student engagement. Fundamentally, it posits that as students invest more physical and psychological energy in their learning process, they will be more engaged in their academic life. This theory also describes the behavior of highly-engaged students as those who use more energy to study, spend more time on campus, become actively involved in any student association, and frequently interact with their peers and faculty members. Correspondingly, this complex behavior is anticipated among

entrepreneurship students as this very complex process exists in their academic life. When drawing up entrepreneurship courses, many practitioners in the field seek to achieve the desired engagement and the consequent positive learning outcomes by referencing Kolb's experiential learning cycle and styles (Kolb et al., 2001). According to Astin's (1999) Student Involvement Theory, student involvement should be measured using four dimensions: (i) student academic engagement, (ii) student engagement with academic staff, (iii) student engagement with peers, and (iv) student engagement in communities.

Student academic involvement refers to students' academic plans, strategies, and focus during the study period. This engagement is intended to achieve its primary academic goals. Student engagement with academic staff is the interaction between students and academic staff, either in the classroom or outside the classroom, during teaching, or outside teaching hours. This participation refers to the experience of school with student self-development. Student interaction with peers applies to all activities where students collaborate with their peers, including cooperation inside or outside the classroom to complete their assignments or projects, class presentations, and use of electronic media. The engagement of students with events in schools, societies, clubs, and groups in which students are involved in student participation in communities (Gasiewski et al., 2012; Sabouripour & Roslan, 2015).

These four dimensions shed light on primary-level student engagement since they offer a detailed description of the types of campus events in which students engage. They provide insights as to whom students are involved with, where and when the activities occur, and the purpose of involvement. As entrepreneurship is the principal focus in the country's development and economic reform (Nabi et al., 2017),

it is appropriate to study entrepreneurial intention and its relationship with student engagement. As illustrated in Figure 1, this study has examined student engagement in learning EPE based on four dimensions: student academic engagement, student engagement with academic staff, student engagement with peers, and student engagement in communities.

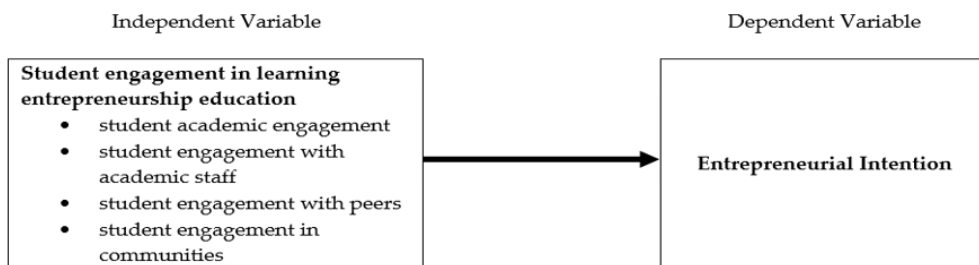


Figure 1. Conceptual framework

METHODOLOGY

For this research, the quantitative approach was used to analyze the relationship between student engagement in learning entrepreneurship education (EPE) and entrepreneurial intent among college vocational students using a survey questionnaire. The study's location had focused on the central zone of Peninsular Malaysia, which covered Selangor, the Federal Territory of Kuala Lumpur, and Negeri Sembilan. The study population consisted of Malaysian Vocational Diploma Year 1 students who took the compulsory entrepreneurship course (UES 2012) in the short semester at vocational training

colleges. Students were given exposure to entrepreneurship's basic concepts, creative and innovative thinking in entrepreneurship, preparing a business plan, and small business management. This course equips students with basic knowledge and concepts of entrepreneurship to plant the seeds and ignite early interest in entrepreneurship. This course also aims to cultivate values to pursue entrepreneurship as a career option. Lessons are in the form of sharing entrepreneurial experiences, discussing and conducting case studies, partake in business simulations, and presentations. The end goal is to shape students' entrepreneurial mindset and for them to be able to demonstrate their entrepreneurial skills in their life.

To determine the sample size, the researchers used Cochran's (2007) formula. A stratified random sampling technique was then used for selecting 267 out of 2883

respondents at 16 vocational colleges in the three states. The demographic profile of the respondents is shown in Table 1.

Table 1
Study demographics (n = 267)

Details of the respondent	N (%)
Age	
19 years old	100
Gender	
Male	53.3
Female	46.7
State	
Selangor	46.7
F.T Kuala Lumpur	15.7
Negeri Sembilan	37.7

The survey questionnaire was adapted from two sources. The Entrepreneurial Intention Questionnaire (EIQ) by Liñán and Chen (2009) was employed for measuring entrepreneurial intention, which consisted of 6 items. On the other hand, the Malaysia University Student Learning Involvement Scale (MUSLIS) by Fauziah et al. (2012) was chosen for measuring student engagement by taking into consideration that this instrument was built based on the profile of Malaysian students, and the items were similar to Astin's (1999) instrument. This scale consists of four dimensions of student engagement: academic engagement, student engagement with academic staff, student engagement with peers, and student engagement with the community. Each item was adapted according to the context

of student involvement in EPE, and the total number of questions was 14. All 20 items were translated into English using the back-to-back strategy and were validated by language and content experts. The 5-point Likert scale was used to measure each item ranging from scale 1 "Never" to scale 5 "Very often." The pilot study shows a high level of reliability with a Cronbach Alpha score of 0.93 for entrepreneurial intention and 0.96 for student engagement in learning EPE. The overall Alpha Cronbach's alpha was 0.916, which indicated a high degree of reliability.

The return of the questionnaire was 94.4 percent. After the data cleaning process, 14 questionnaires were removed due to extreme values, which only left 244 completed questionnaires accepted for analysis.

Descriptive analysis was conducted to determine the level of entrepreneurial determination and entrepreneurial attitude. Using a 5-level mean score developed by Pallant (2020), the mean was interpreted as in Table 2.

Correlation analysis was also conducted to examine the relationship between student engagement in learning EPE and entrepreneurial intention. The relationship's value was interpreted based on Salkind and Rainwater (2006), as shown in Table 3.

Table 2

Interpretations of the mean score

Mean score	Interpretation
1.0 to 2.33	Low
2.34 to 3.67	Moderate
3.68 to 5.00	High

Table 3

Interpretations of the mean score

Size of correlation	Interpretation
0.01 to 0.19	Very Weak
0.20 to 0.39	Weak
0.40 to 0.59	Moderate
0.60 to 0.79	Strong
0.80 to 0.99	Very Strong
1.00	Perfect

RESULTS

Level of Entrepreneurial Intention and Student Engagement in Learning Entrepreneurship Education

Descriptive analysis was used to determine the level of entrepreneurial intention and student engagement in learning EPE. The findings show that both entrepreneurial intention and student engagement in learning EPE were at a moderate level. The

same results were also found for all the dimensions of student engagement. The highest mean score was student engagement with peers, while the lowest was student academic engagement. This indicates that student academic engagement was given the least commitment among vocational college students compared to other engagements. The mean and standard deviations are shown in Table 4.

Table 4

Mean and standard deviation

Variable	Mean	SD	Interpretation
Entrepreneurial intention	3.63	0.85	Moderate
Engagement in learning entrepreneurship education	3.17	0.78	Moderate
Engagement with peers	3.34	0.86	Moderate
Engagement with academic staff	3.20	0.86	Moderate
Academic engagement	3.19	0.85	Moderate
Engagement in communities	3.08	1.08	Moderate

Relationship between Student Engagement in Learning Entrepreneurship Education and Entrepreneurial Intention

This study used a Pearson correlation to measure student engagement’s corresponding strength in learning EPE and entrepreneurial intention. The result indicates a moderate and positive link between student engagement in learning EPE and entrepreneurial intention. Similar results were also found for the dimensions of student engagement of peers and academic engagement. On the

other hand, student engagement with academic staff and communities had a weak but positive correlation. The weak correlation shows a lower likelihood of a connection between entrepreneurial intention and the two dimensions - academic staff and communities. The results displayed that students are less likely to become entrepreneurs and start their own business after graduation since the academic staff has less influence and dedication to the decision of graduates to pursue a career in entrepreneurship. The results are shown in Table 5.

Table 5

Calculation of correlation coefficient

Variable	Entrepreneurial intention		Interpretation
	<i>r</i> coefficient	<i>p</i> -value	
Engagement in learning Entrepreneurship education	.437	significant	Moderate
Engagement with peers	.438	significant	Moderate
Academic engagement	.405	significant	Moderate
Engagement with academic staff	.348	significant	Weak
Engagement in communities	.336	significant	Weak

Multiple regression was performed to determine the predictive strength of the independent variables (engagement in learning, entrepreneurship education, engagement with peers, academic engagement, engagement with academic staff, and engagement in communities) towards the dependent variable (entrepreneurial intention). Table 6 shows the coefficient table of the predictor results.

Based on Table 6, the results of the regression reveal that the six predictors

explained 84.7% of the variance ($R^2 = .85$, $F(6, 237) = 106.64$, $p < .05$). Table 6 shows that engagement in learning ($\beta = .184$, $p > .05$), engagement with academic staff ($\beta = .268$, $p > .05$), and engagement in communities ($\beta = .580$, $p > .05$) predict entrepreneurial intention. However, entrepreneurship education ($\beta = .031$, $p > .05$), engagement with peers ($\beta = -.010$, $p > .05$), and academic engagement ($\beta = -.041$, $p > .05$) did not significantly predict entrepreneurial intention.

Table 6
Multiple linear regression results

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	.681	.159		4.274	.000
Engagement in learning	.219	.049	.184	4.437	.000
Entrepreneurship education	.024	.237	.029	.099	.921
Engagement with peers	-.008	.138	-.010	-.057	.954
Academic engagement	-.024	.048	-.041	-.498	.619
Engagement with academic staff	.204	.071	.268	2.882	.004
Engagement in communities	.434	.030	.580	14.231	.000

Note. Dependent variable: Entrepreneurial intention

DISCUSSION

This study examined the relationship between student engagement in learning entrepreneurship education and entrepreneurial intention among vocational college students. This study found that the overall level of the entrepreneurial intention of vocational college students

was moderate. In this study, the findings explained that vocational college students intended to become entrepreneurs, and they would be more likely to start their own business. Based on further analysis by item, it was reported that the item with the highest mean score was “I am determined to open my own business in the future.”

Meanwhile, the second highest is “I will work hard to set up my own business.” These are clear indications of students’ initial and seeded intention to venture into entrepreneurship. However, the intention is lower, which remains insufficient to give the final push to run their own business. The item supports this observation “I am ready to be an entrepreneur,” which had the lowest mean score. It shows that students have not seriously considered becoming entrepreneurs despite having the intention to get involved in the business world.

The compulsory entrepreneurship course (UES 2012) may not be enough to boost students’ aspirations in entrepreneurship to the maximum and transform that aspiration to entrepreneurial intention. It is somewhat surprising because EPE has been implemented formally at every level of education. The business and entrepreneurship components are taught in primary school, and after that, through subjects at the lower and upper secondary levels. In reviewing the literature, students who go through EPE should display a more positive attitude towards entrepreneurship (Rudhumbu et al., 2016). Nevertheless, this study found that formal EPE, which started at an early stage until higher education level, was less likely to stimulate innate interest in entrepreneurship and develop students’ entrepreneurial intention to become self-employed. The moderate level of entrepreneurial intention seems to be consistent with other studies by Nor Aishah (2013), Norhatta et al. (2015), and Ozaralli and Rivenburgh (2016). However, this

result differs from some published studies among private college students, as reported by Hishamuddin (2007) and students from technical and vocational training institutes, as investigated by Wan Nur Azlina et al. (2015).

To measure student engagement in learning EPE, this study focused on four dimensions: student academic engagement, engagement with academic staff, engagement with peers, and engagement in communities. One unanticipated finding was that a moderate level was found for all four dimensions and the overall mean score. This confirms that vocational college students were not fully engaged in the learning process throughout the entrepreneurship course. Student engagement in communities and student academic engagement were the two lowest engagements compared to others. Besides, the item “I also plan entrepreneurial activities organized by clubs or classes” was found to be the lowest among all items for engagement. A possible explanation for this result may be that vocational education does not focus on academic performance, and there is only one module for entrepreneurship towards the end of the Diploma program. With limited knowledge and low involvement in ‘learning by doing,’ they are more likely to fail in developing any deep and long-lasting commitment in EPE. Middleton et al. (2014) supported this view, writing that “experience-based learning is recognized as a vital tool for training people for entrepreneurship practice.”

On the other hand, engagement with peers shows the highest mean score, which

describes heightened engagements with peers when completing assignments, doing revision, and sharing knowledge throughout entrepreneurship learning. This is because they feel more comfortable working and interacting with their peers. Several studies have found that peers can influence academic motivation and classroom engagement (Kiefer et al., 2015). Besides, the findings showed a low association of engagement between students and staff which was a key role in contributing to students' engagement with their study and the learning community as a whole was very weak among participants which are in contrast with Schreiber and Yu (2016). This mainly due to the inability of educational programs that could not create a bilateral relationship between two sides that needs to be adressed by future studies.

A moderately positive association between student engagement and entrepreneurial purpose implies that these two factors have a major correlation. One reason is that EPE exposure to practical entrepreneurial environments among vocational college students and has aroused their interest in venturing into entrepreneurship. It confirms that engagement in learning entrepreneurship can directly increase students' intention to become an entrepreneur. Therefore, students who devote their physical and psychological energy for academic and social experiences achieve more learning outcomes because students' involvement in planned learning activities has a positive relationship with academic performance (Tinto, 2017). This is very much in line with the requirements

to become an entrepreneur who will need much practice and conceptual skills to face a complicated and involved process (Toscher, 2019). This study also reveals the need to improve student engagement in learning EPE since student engagement can positively enhance students' entrepreneurial intentions (Fayolle, 2005). Therefore, the group-based learning method is more effective since students learn best and are more engaged in learning when they work together in groups (Hassanien, 2006). Besides, efforts need to be made to provide more experience for students to engage in entrepreneurship-related activities. Therefore, the entrepreneurship course (UES 2012) should be extended because the current outcome has yet to make students seriously consider starting a business after graduation. Moreover, vocational college students need to be aware of EPE's importance in providing them with the opportunities and potential for self-employment, instead of expecting a paid job.

CONCLUSION

The entrepreneurial intention of vocational college students reflects their desire to engage in entrepreneurial activities as the intention is shown through observed behaviors. Hence, a moderate level of entrepreneurial intention indicates that entrepreneurial behavior remains inadequate to ensure the students' readiness and ability to start a business. Thus, it is anticipated that the number of vocational college graduates who tend to venture into entrepreneurship fields will remain low compared to

other graduates from public universities, polytechnics, and community colleges. As a result, the Ministry's target to produce 10 percent of graduates who choose to become entrepreneurs will not be met soon. As a response, the entrepreneurial skills and knowledge among vocational college students need to be enriched by designing and organizing activities that encourage student involvement in business and entrepreneurship, both in the classroom and outside with real-world settings.

Besides, academic staff need to be smart and creative in organizing and strategizing how entrepreneurship can be taught and learned while instilling and nurturing entrepreneurial characteristics. Nevertheless, another challenge for EPE educators is delivering the practicum-based curriculum during and post Covid-19 (coronavirus). Undoubtedly, in making the dramatic change to online learning, this pandemic has greatly impacted educational cultures. It meant having to make a quick but massive transformation of the curriculum and establishing new learning styles that fit on a virtual platform. Despite the dramatic change, the community of entrepreneurship educators, especially those in the higher education sector, are still grappling in the dark about moving away from delivering the conventional curriculum that heavily relies on practical and immersive training. Thus, a future study can discuss specific ways that communities of entrepreneurship education practitioners can undertake to deal with teaching, learning, and assessments during and post the Covid-19 pandemic.

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REFERENCES

- Ahmad, S. Z., & Xavier, S. R. (2012). Entrepreneurial environments and growth: Evidence from Malaysia GEM data. *Journal of Chinese Entrepreneurship*, 4(1), 50–69. doi:10.1108/17561391211200939
- Ajzen, I. (2017). *Theory of planned behavior with background factors*. Retrieved November 24, 2020, from http://people.umass.edu/ajzen/tpb_background.html
- Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. *European Review of Social Psychology*, 11(1), 1–33. doi:10.1080/14792779943000116
- Akmaliah, L. P. Z., & Hisyamuddin, H. (2009). Choice of self-employment intention among secondary school students. *Journal of International Social Research*, 2(9), 539–549.
- Ananiadou, K. (2013). *Revisiting global trends in TVET: Reflections on theory and practice*. UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training.
- Ansari, B., & Wu, X. (2013). Development of Pakistan's technical and vocational education and training (TVET): An analysis of skilling Pakistan reforms. *Journal of Technical Education and Training*, 5(2), 1–13.
- Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 518–529.
- Audretsch, D., & Fritsch, M. (2003). Linking entrepreneurship to growth: The case of West

- Germany. *Industry and Innovation*, 10(1), 65–73. doi:10.1080/1366271032000068104
- Azmi, N. I., & Hisyam, M. H. M. (2012, September 18-20). *Soft skills implementation in basic vocational education: Transformation of Malaysian Education System*. [Paper presentation]. International Conference on Active Learning (ICAL 2012), Melaka, Malaysia.
- Bacq, S., & Alt, E. (2018). Feeling capable and valued: A prosocial perspective on the link between empathy and social entrepreneurial intentions. *Journal of Business Venturing*, 33(3), 333–350. doi:10.1016/j.jbusvent.2018.01.004
- Badawi, A. A. (2013). TVET and entrepreneurship skills. In *Revisiting global trends in TVET: Reflections on theory and practice* (pp. 276–307). UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training.
- Bahrein, A. B. A., Zakaria, M. N., Ismail, M., Yaacob, M. R., Ghazali, M. S., & Sofian, M. F. (2016). The determination of entrepreneurial intention and social entrepreneurship intention formation of university graduates. *International Scholarly and Scientific Research & Innovation*, 10(1), 175–181.
- Barba-Sánchez, V., & Atienza-Sahuquillo, C. (2018). Entrepreneurial intention among engineering students: The role of entrepreneurship education. *European Research on Management and Business Economics*, 24(1), 53–61. doi:10.1016/j.iedeen.2017.04.001
- Biggs, J. (2003). *Teaching for quality learning at University – What the student does*. Open University Press.
- Coates, H., Rainsford, T., & Tan, J. (2009). *Engaging students for success*. Australian Council for Educational Research.
- Cochran, W. G. (2007). *Sampling techniques* (3rd Ed.). John Wiley & Sons.
- Curtin, P., Stanwick, J., & Beddie, F. (2011). *Fostering enterprise: The innovation and skills nexus—Research readings*. National Centre for Vocational Education Research.
- Dawe, S., & Guthrie, H. (2004). *Vocational education and training and innovation: Research readings*. National Centre for Vocational Education Research.
- Economic Planning Unit. (2017). *11th Malaysia Plan, 2016-2020*. Prime Minister's Department. https://files.seameo.org/18_3rd%20HOM%20on%20SEA-TVET%2C%2023-25%20May%202017%2C%20Kuala%20Lumpur%2C%20Malaysia/13_Session%203_Strategies%20for%20TVET%20Transformation%20and%20Advancement%20%2823%20May%29/3_Malaysia_TVET%20AS%20GAME%20CHANGER_v2.pdf
- Fauziah, M. J., Rosna, M. J., & Tengku Faekah, T. A. (2012). Malaysian university student learning involvement scale (MUSLIS): Validation of a student engagement model. *Malaysian Journal of Learning and Instruction*, 9, 15–30. doi:10.32890/mjli.9.2012.7634
- Fayolle, A. (2005). Evaluation of entrepreneurship education: Behaviour performing or intention increasing? *International Journal of Entrepreneurship and Small Business*, 2(1), 89–98. doi:10.1504/ijesb.2005.006072
- Fini, R., Grimaldi, R., Marzocchi, G. L., & Sobrero, M. (2012). The determinants of corporate entrepreneurial intention within small and newly established firms. *Entrepreneurship Theory and Practice*, 36(2), 387–414. doi:10.1111/j.1540-6520.2010.00411.x
- Garlick, S., Taylor, M., & Plummer, P. (2007). *An enterprising approach to regional growth: Implications for policy and the role of vocational education and training (A National Vocational Education and Training Research and Evaluation*

- Program Report*). National Centre for Vocational Education Research.
- Gasiewski, J. A., Eagan, M. K., Garcia, G. A., Hurtado, S., & Chang, M. J. (2012). From gatekeeping to engagement: A multicontextual, mixed method study of student academic engagement in introductory STEM courses. *Research in Higher Education, 53*(2), 229–261. doi:10.1007/s11162-011-9247-y
- Gerba, D. T. (2012). Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia. *African Journal of Economic and Management Studies, 3*(2), 258–277. doi:10.1108/20400701211265036
- Gibb, A., & Hannon, P. (2006). Towards the entrepreneurial university. *International Journal of Entrepreneurship Education, 4*(1), 73–110.
- Hassanien, A. (2006). Student experience of group work and group assessment in higher education. *Journal of Teaching in Travel & Tourism, 6*(1), 17–39. doi:10.1300/j172v06n01_02
- Hishamuddin, H. (2007). *The relationship between selected factors and entrepreneurial determination according to students' perceptions* [Unpublished Master thesis]. Universiti Putra Malaysia.
- Izquierdo, E., & Buelens, M. (2011). Competing models of entrepreneurial intentions: The influence of entrepreneurial self-efficacy and attitudes. *International Journal of Entrepreneurship and Small Business, 13*(1), 75–91. doi: 10.1504/ijesb.2011.040417
- Kiefer, S. M., Alley, K. M., & Ellerbrock, C. R. (2015). Teacher and peer support for young adolescents' motivation, engagement, and school belonging. *Rmle Online, 38*(8), 1–18. doi: 10.1080/19404476.2015.11641184
- Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2001). Experiential learning theory: Previous research and new directions. *Perspectives on Thinking, Learning, and Cognitive Styles, 1*(8), 227–247.
- Kuh, G. D. (2009). What student affairs professionals need to know about student engagement. *Journal of College Student Development, 50*(6), 683–706. doi:10.1353/csd.0.0099
- Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *The Journal of Higher Education, 79*(5), 540–563. doi:10.1353/jhe.0.0019
- Kuh, G. D., & Hu, S. (2001). The effects of student-faculty interaction in the 1990s. *The Review of Higher Education, 24*(3), 309–332. doi:10.1353/rhe.2001.0005
- Lerner, J. (2012). *Boulevard of broken dreams: Why public efforts to boost entrepreneurship and venture capital have failed—and what to do about it*. Princeton University Press.
- Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice, 33*(3), 593–617. doi:10.1111/j.1540-6520.2009.00318.x
- Meyer, N. (2018). *South African female entrepreneurs' intention to remain in business* [Unpublished Doctoral thesis]. North-West University.
- Middleton, K. W., Mueller, S., Blenker, P., Neergaard, H., & Tunstall, R. (2014). Experience-based learning in entrepreneurship education—a comparative study of four programmes in Europe. *Proceeding RENT (Research in Entrepreneurship and Small Business) XXVIII*, 1–15.
- Ministry of Education. (2013). *Malaysia blueprint 2013-2025*. Ministry of Education.
- Morselli, D., Ajello, A., McCracken, M., & Matlay, H. (2016). Assessing the sense of initiative and entrepreneurship in vocational students using the European qualification framework. *Education + Training, 58*(7/8), 1–19.

- Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning & Education*, 16(2), 277–299. doi:10.5465/amle.2015.0026
- Nor Aishah, B. (2013). *Entrepreneurship education*. UKM Press.
- Norhatta, M., Mistima, M. S., & Salwah, C. M. (2015). A study on entrepreneurial intention among engineering technology students. *Mediterranean Journal of Social Sciences*, 6(4), 348–355.
- Nuringsih, K., Nuryasman, M. N., & IwanPrasodjo, R. A. (2019). Sustainable entrepreneurial intention: The perceived of triple bottom line among female students. *Jurnal Manajemen*, 23(2), 168–190. doi:10.24912/jm.v23i2.472
- Obwoye, M. E., & Edwin Obwoye, M. (2016). Competency-based education and training: A fresh green leaf from the Australian context for TVET in Africa. *International Education and Multidisciplinary Studies*, 3(3), 538–545.
- OECD. (2010). *Learning for jobs: Synthesis report of the OECD reviews of vocational education and training*. Organisation for Economic Cooperation and Development.
- Omar, Z., Krauss, S. E., Sail, R. M., & Ismail, I. A. (2011). Exploring career success of late bloomers from the TVET background. *Education and Training*, 53(7), 603–624. doi: 10.1108/004009111111171995
- Ozaralli, N., & Rivenburgh, N. K. (2016). Entrepreneurial intention: Antecedents to entrepreneurial behavior in the USA and Turkey. *Journal of Global Entrepreneurship Research*, 6(1), 1–32.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.
- Rami, A. M., Abdullah, R., & Ariffin, W. J. (2018). Strengthening social capital: Local leader's strategy toward developing rural community. *International Journal of Academic Research in Business and Social Sciences*, 8(1), 765–774.
- Reyes-García, V., Guèze, M., Díaz-Reviriego, I., Duda, R., Fernández-Llamazares, Á., Gallois, S., ... & Dounias, E. (2016). The adaptive nature of culture: A cross-cultural analysis of the returns of local environmental knowledge in three indigenous societies. *Current Anthropology*, 57(6), 761–784. doi:10.1086/689307
- Rudhumbu, N., Sivotwa, D., Munyanyiwa, T., & Mutsau, M. (2016). Attitudes of students towards entrepreneurship education at two selected higher education institutions in Botswana: A critical analysis and reflection. *Academic Journal of Interdisciplinary Studies*, 5(2), 83–83. doi:10.5901/ajis.2016.v5n2p83
- Sabouripour, F., & Roslan, S. (2015). Resilience, optimism and social support among international students. *Asian Social Science*, 11(15), 159–170.
- Salkind, N. J., & Rainwater, T. (2006). *Exploring research*. Pearson.
- Salzano, C., Bahri, S., & Haftendorn, K. (2006). *Towards an entrepreneurial culture for the twenty first century: Stimulating entrepreneurial spirit through entrepreneurship education in Secondary Schools*. ILO & UNESCO.
- Schreiber, B., & Yu, D. (2016). Exploring student engagement practices at a South African university: Student engagement as reliable predictor of academic performance. *South African Journal of Higher Education*, 30(5), 157–175. doi: 10.20853/30-5-593
- Seet, P. S., Jones, J. T., Spoehr, J., & Hordacre, A. L. (2018). *The fourth industrial revolution: The implications of technological disruption for Australian VET*. NCVER.

- Sekerin, V. D., Gaisina, L. M., Shutov, N. V., Abdrakhmanov, N. K., & Valitova, N. E. (2018). Improving the quality of competence-oriented training of personnel at industrial enterprises. *Calitatea*, 19(165), 68–72.
- Tinto, V. (2017). Through the eyes of students. *Journal of College Student Retention: Research, Theory & Practice*, 19(3), 254–269. doi:10.1177/1521025115621917
- Toner, P. (2011). *Workforce skills and innovation: An overview of major themes in the literature (Workforce Skills and Innovation) [Science, Technology and Industry Working Papers]*. OECD.
- Toscher, B. (2019). Entrepreneurial learning in arts entrepreneurship education: A conceptual framework. *Artivate*, 8(1), 3–22.
- Volkman, C., Wilson, K. E., Mariotti, S., Rabuzzi, D., Vyakarnam, S., & Sepulveda, A. (2009). *Educating the next wave of entrepreneurs*. World Economic Forum.
- Wan Nur Azlina, W. I., Ab. Rahim, B., Soaib, A., Shamsiah, M., & Noor Syamilah, Z. (2015). Impact of entrepreneurship education on the entrepreneurial intentions of students in Technical and Vocational Education and Training institutions (TVET) in Malaysia. *International Education Studies*, 8(12), 141–152. doi:10.5539/ies.v8n12p141
- Wheelahan, L., Moldie, G., & Buchanan, J. (2012). *Revitalising the 'vocational' in flows of learning and labour*. NCVER.
- Yamagata-Lynch, L. C. (2007). Confronting analytical dilemmas for understanding complex human interactions in design-based research from a cultural—Historical activity theory (CHAT) framework. *The Journal of the Learning Sciences*, 16(4), 451–484. doi:10.1080/10508400701524777
- Zaidatol Akmaliah, L. P., & Habibah, E. (2002). *Teaching and learning of commerce, entrepreneurship and basic trade*. Universiti Putra Malaysia.
- Zaremohzzabieh, Z., Ahrari, S., Krauss, S. E., Samah, A. A., Meng, L. K., & Ariffin, Z. (2019). Predicting social entrepreneurial intention: A meta-analytic path analysis based on the theory of planned behavior. *Journal of Business Research*, 96, 264–276. doi:10.1016/j.jbusres.2018.11.030