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## Engineering Students' Engagement in Entrepreneurship Education

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## **Abstract**

Entrepreneurship education is one of the efforts for preparing graduates with the self-employed mindset. Accordingly, various entrepreneurial activities are implemented at the university level. One of the initiatives is to make entrepreneurship education compulsory for all university students. However, the study found that many graduates are not interested to become entrepreneurs and prefer to hunt for employment. Therefore, this study was conducted to explore the university students' engagement while taking a compulsory entrepreneurship course. The case study involved 76 students majoring in engineering. The study was conducted using observation and documentation analysis methods. The results found that students were less engaged in implementing entrepreneurship learning activities. Most students failed to adhere to the due date of assignment submissions. Students were less interested in making marketing posts through social media and less critical thinking in solving their business problems. Overall, the achievement of business objectives was unsatisfactory. The students lack focus and limited time to engage actively in the learning activities. They have many commitments to other courses. The finding of this study can be used for deciding the best ways to promote an entrepreneurial mindset among university students.

Keywords: entrepreneurship, engineering, students, engagement

## Introduction

Entrepreneurship education promotes the shift of mindset from job seeker to job creator among university students. Since the 1990s the focus on entrepreneurial mindset is gaining attention to encourage graduates to venture into the field of entrepreneurship as this workforce cannot be entirely absorbed in formal salary wage employment (Jaafar & Abdul-Aziz, 2008). The competition for jobs is intensifying with the increasing number of Higher Education Institutions (HEIs) in Malaysia which produce more graduates every year. Before 1990, there were only seven public universities in Malaysia. Malaysia now has 702 institutions of higher learning, and General Skills Training Institutions (ILKA). This consists of 20 public universities, 267 private institutions of higher learning, 89 community colleges, 82 vocational colleges, 33 polytechnics, 33 ILKA of the Ministry of Human Resources, 11 ILKA of the Ministry of Agriculture and Agro-Based Industry, 19 ILKA of the Ministry of Youth and Sports, 146 ILKA of the Ministry of Rural Development and two other institutions of higher learning (Ministry of Higher Education-MoHE, 2020). The total enrolment of students in higher education institutions increased to 1323,449 in 2019 from only 125,213 in 1995 (MoHE, 2019).

Therefore, the entrepreneurial mindset is increasingly gaining attention with the main motive to prepare the students with the ability to be self-employed after their graduation (Ahmad, 2013). According to Lim, Rich, and Harris (2008) the degree scrolls no longer guarantee graduates a job after graduation. The problem of unemployment also continues to increase as a result of the COVID 19 pandemic (Menon, 2020; Abd Rahman et al., 2020). In a broader context, entrepreneurship education can contribute to sustainable enterprising societies so that they can compete in a highly globalized economy (Cheng, Chan & Mahmood). Futhermore, the Asian financial crisis 1996/1997 and the world economic recession 2010/2011 and, global market uncertainty have raised the awareness to policymakers about the importance of entrepreneurship for sustainable investment in the future prosperity of the country (Ahmad & Buchanan, 2015).

Recognizing the importance of Entrepreneurship Education, various initiatives have been taken to cultivate the entrepreneurial mindset among students in HEIs. Ministry of Higher Education (MoHE) launched the Institute of Higher Education Entrepreneurship Development Policy on 13 April 2010 which aims to promote a more organized and holistic education and development of entrepreneurship among HEIs (MoHE, 2011). Six Strategic Thrusts of the HEI Entrepreneurship Development Policy have been set: to establish an Entrepreneurship Center in each HEI; provide organized and holistic entrepreneurship education and programs; strengthen entrepreneurship development and strengthening programs; establish effective measurement mechanisms; provide a conducive environment and ecosystem for entrepreneurial development; and strengthen the competencies of entrepreneurship educators (Ali and Aede Hatib, 2014). Furthermore, in line with the Malaysian Education Development Plan (PPPM, 2015), the MoHE (2016) has developed the Higher Education Institutions Entrepreneurship Action Plan 2016-2020. It was developed to cultivate the entrepreneurial mindset into the entire higher education system to produce graduates who are holistic, balanced, and