

FlashBiz Challenge: Examining The Impact of Gamified Approach in Entrepreneurship Education Towards the Entrepreneurial Career Intention

Rozaida Halil^{1*}, Mohammad Nor Ihsan Md Zin¹, and Mohamad Ruzaini Mohd Roni¹

¹Department of Information and Communication Technology, Politeknik Mukah, KM 7.5, Jalan

Oya 96400 Mukah, Sarawak, Malaysia

*Corresponding author: rozaidahalil@pmu.edu.my

Abstract

FlashBiz Challenge designed by the authors to adapt gamification technique in teaching entrepreneurship education in Politeknik Mukah. FlashBiz Challenge let students play while learning entrepreneurship, and at the same time perhaps, can encourage students, as the participants, to enhance their skills on hard sell and to determine entrepreneurial career intention. To date, no study has been conducted to evaluate the impact of the FlashBiz Challenge on entrepreneurial intentions of students after participating in the activity. Therefore, we are unable to identify students' interest in entrepreneurship. In this study, we intend to measure the entrepreneurial intention among students after participating in the FlashBiz Challenge. This is because it is difficult for us to know which students are inclined to the field of entrepreneurship. The targeted samples for the study was all participants of the activity, which are the semester 3 students of Diploma in IT (Digital Technology), Politeknik Mukah. The data collection instrument was adapted from Five-level of Likert scale was used for the questionnaire. The questionnaire was distributed to the same sample twice, which are the first distribution was done two weeks before student participating the FlashBiz Challenge. While the second distribution is just after the activity completed. Simple analysis was used to interpreting the responds given of all respondents. Comparison was done to the result before and after participating FlashBiz Challenge. This study has shown that more than 70% of the participants was influenced to make entrepreneurship one of their main careers in the future. Overall, this study strengthens the idea that gamification approach in teaching entrepreneurship can attract students to love entrepreneurship and increase their entrepreneurial career intention.

Keywords: - gamification, entrepreneurship, intention

1. Introduction

The government intends to produce more entrepreneurs to be able to compete with the rapid development at the international level. Graduates need to be job creators, but not job seekers. Along with the goal of producing quality human capital, innovative and creative to drive the country's economic transformation to a high-income economy. To cultivate an entrepreneurial culture among students, a robust, comprehensive program and continuous efforts should be carried out with a major focus on variables such as teaching methods, program facilities, and courses offered.

Entrepreneurship education programme can assist students in determining whether entrepreneurship is a feasible career option at an early stage (Isabelle, 2020).

Therefore, education today shows an emphasis on relevant knowledge to support business activities and the image of entrepreneurial efforts. Among the knowledge and skills emphasized are the principles of effective business management

and accounting. Knowledge and business management skills need to be emphasized at every level of study to provide human resources with knowledge and business skills.

When we look at the Malaysian situation, we must realize that entrepreneurial education is still in its infancy, and that national policies rarely handle it sufficiently at the strategic level. As a result, entrepreneurship education is de facto rare in most countries' schools and universities. This is particularly true for technical universities, where students have a high potential owing to their technological studies and research and would greatly benefit from developing an entrepreneurial attitude in order to build on their technological competence and fully harness their creative potential. The lack of a well-established system is one of the causes of this prevalent condition.

Innovative instructional tactics, such as gamification can help in this situation and collaboration may effectively contribute to the enhancement and sustainability of entrepreneurship education.

Gamification techniques are increasingly being used for educational purposes, and they are often regarded as successful educational tools (Coponetto et al., 2014).

Gamification is the process of transforming or mechanizing a system to be approached in a game-like or playful manner. In other words, it is the use of elements designed for games in non-game scenarios (Woodcock and Johnson, 2018). As an approved and successful strategy in several social platforms, research has anticipated gamification to have related outcomes in education, specifically making students be more engaged and display a real desire to learn (Alabbasi, 2017).

2. Literature Review

2.1 21st Century Skills Learning Process

It takes time to integrate 21st century skills into institutions. The requirement for education to provide learners with 21st-century capabilities raises pedagogical and assessment issues (Woodcock and Johnson, 2018).

Knowledgeable people, skills and competencies are contributors to the progress of the country. To prepare students to be competitive, 21st century skills such as critical thinking, creativity and problem solving need to be given attention (Rosly and Khalid, 2017). Teaching patterns in most institutions are still lecturer-centered where the practice of drills and memorization and formulas or techniques are emphasized in learning. This common way of learning limits students' ability to think because teachers do not encourage students to produce and develop their own ideas.

There are many techniques that can be applied in teaching and learning, one of them is games. Gamified learning, on the other hand, is more effective in motivating students than traditional methods. Students can study while having fun and enjoying themselves using game-based learning. (Alabbasi, 2017)

2.2 Gamification Techniques

Playing is a pleasure in education whereby playing, they can feel their own experience in learning. Fun in playing causes students not to feel like they are learning (Rosly and Khalid, 2017).

This situation can generate skills and motivation of students will increase where it can attract the interest of students and make the learning more meaningful and effective (Perrotta et al., 2013). The focus will also be given entirely to what they learn which in turn helps in improving students' learning strategies and abilities (Papastergiou, 2009).

Games are a teaching method that will be able to develop creativity and cultivate students' interest. The use of games alone without being integrated with effective learning methods cannot produce creative and critical thinking students. It can also reduce the feeling of boredom and fatigue, especially during learning related to theory (Rosly and Khalid, 2017).

That is why the game been used to FlashBiz. It is intended to provide the satisfaction of learning in play.

2.3 Hard Sell Techniques in Selling Products

Hard selling entails using directness, aggressiveness, and intelligence to rapidly generate a lead or close a transaction. Hard sellers rely on a rock-solid sales pitch, which has only one opportunity to succeed in most cases. Clients are frequently put under a lot of pressure in hard sales (Okazaki et al., 2010).

In class, students are exposed to the theory for this hard sell, each student needs to directly promote the product to the public. Explain all the advantages and interests to customers, will remain for this FlashBiz, students also choose to sell using hard selling techniques. This hard-selling technique is very effective for selling products face to face. Thus, this can use the shame that does not exist in a successful entrepreneur.

3. Methodology

In this study, we intend to measure the entrepreneurial intention among students after participating in the FlashBiz Challenge. The target population for the study was all participants of the activity, which are the semester 3 students of Diploma in IT (Digital Technology), Politeknik Mukah. All of them are 10 persons. Thus, all of them was taken as the sample of this study.

FlashBiz Challenge designed by the authors to adapt gamification technique in teaching entrepreneurship education in Politeknik Mukah. FlashBiz Challenge let students play while learning entrepreneurship, and at the same time perhaps, can encourage students, as the participants, to enhance their skills on hard sell and entrepreneurial career intention.

Initially, students will be divided into groups evenly. the selection for this group is determined by the secretariat. Before the implementation of Flashbiz Challenge, students already knew the members of the group. This allows students to easily communicate in order to find members of their respective groups. Before starting, students were given time to answer a questionnaire to find

out students' interests before following FlashBiz.

During the implementation of Flashbiz, students will be provided with bags featuring a variety of products. Three hours of time is allocated to complete the sale of a given product. Upon sale, participants are required to inform the secretariat.

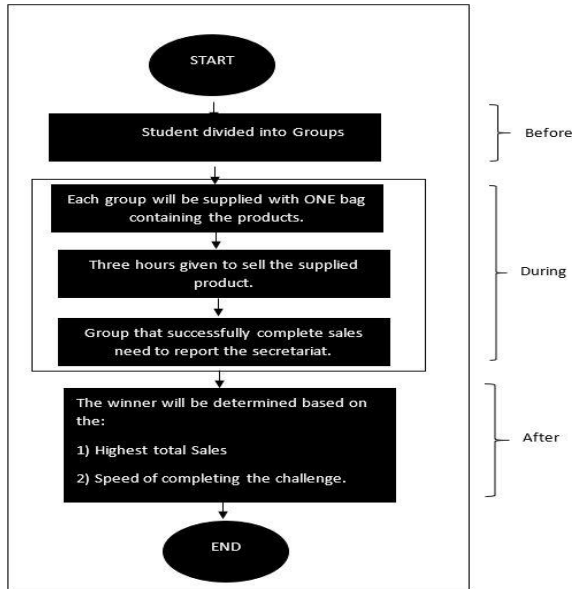


Figure 1: The framework of FlashBiz Challenge

After the implementation of FlashBiz winner notification ceremony for FlashBiz, several panels were appointed, and they tested in terms of highest sales and speed of time accomplishing a given mission. lastly, the students must answer the questionnaire again to determine the percent of students' interest in entrepreneurship.

To date, no study has been conducted to evaluate the impact of the FlashBiz Challenge on entrepreneurial intentions of students after participating in the activity. Thus, the authors take the issue as a problem statement for this study.

Considering the problem statement, the authors set the objectives of the study is to evaluate the impact of FlashBiz Challenge on entrepreneurial career intention to students.

The data collection instrument was adapted from Liñán and Chen (2006), which was consisting 6 items that used to measures entrepreneurial intention. Five-level of Likert scale was used for the questionnaire ranging from 1 (total disagreement) to 5 (total agreement).

The questionnaire was distributed to the same sample twice, which are the first distribution was done two weeks before student participating the FlashBiz Challenge. While the second distribution is just after the activity completed.

During the first distribution, the questionnaire was distributed using hardcopy. The result of the first distribution will shows in the next section.

Meanwhile, on the second distribution, the questionnaire was distributed to the targeted respondents using Google Form through the Internet link. The responses of the sample then will be analysed using simple analysis features in Google Form and will be presented in the next section in the form of percentage.

The list of items used in the current study is shown in Table 1.

Table 1: Items of the questionnaire adapted from (Liñán and Chen, 2006).

No.	Statements
1.	I am ready to make anything to be an entrepreneur.
2.	My professional goal is becoming an entrepreneur.
3.	I will make every effort to start and run my own firm.
4.	I am determined to create a firm in the future.
5.	I have very seriously thought of starting a firm.
6.	I have got the firm intention to start a firm someday.

The result of first and second distribution will be compared to analyse the impact of FlashBiz Challenge toward entrepreneurial intention among the participants.

This study uses Microsoft excel to measure reliability analysis. Therefore, to evaluate the Cronbach Alpha for each item will indicate whether the items in the set are interrelated or not. The formula used as a reference to produce the results that is:

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum_{i=1}^K \sigma^2_{Y_i}}{\sigma^2_X} \right) \quad (1)$$

Table 2: Statistical reliability.

#ITEMS/QUESTIONS/COMPONENTS	6
SUM OF THE ITEM VARIANCES	3.415
VARIANCE TOTAL SCORES	15.95
CRONBACH' a	0.943072

The table shows the reliability statistics known that the satisfaction question against them has Cronbach's Alpha 0.943072 or close to 0.95 this indicates that the question is reliable and very excellent.

The set of questions distributed to the respondents aimed to measure the entrepreneurial intention among them after involved in the game name FlashBiz Challenge. Simple analysis was used to interpreting the responds given of all respondents. This section will present the responses from participants for both distribution, and then discuss the comparison before concluding with the effectiveness of FlashBiz Challenge.

The experimental group was selected among first semester students in the Department of Information and Communication Technology. This is because to stimulate students in the field of entrepreneurship and make entrepreneurship as a foundation for students to become entrepreneurs after entering the world of work or after graduation.

For this study, a total of six female students and fourteen male students answered this questionnaire, as in Figure 2 below.

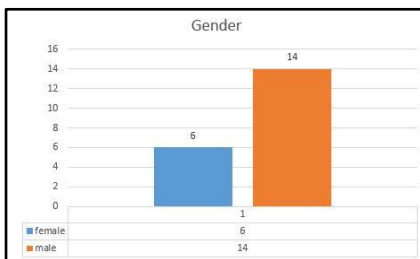


Figure 2: Participants gender

Rule for starting program the participants were asked to answer the questionnaire. And upon completion of the program participants were asked to answer this questionnaire again, this to get the results before and after Flashbiz.

4.1 Comparison of Responses

This section will shows the results from both first and second distribution of questionnaire. Please note that the first distribution of questionnaire was two weeks before students participating FlashBiz Challenge.

In the following chart, the first distribution named as Before, indicating it was done before the activity started. Meanwhile, the second distribution named as After, which indicating it was done after the activity was completed.

Figure 3 depicts there was an increase in participants who agreed that they were ready to become entrepreneurs after participating in the FlashBiz Challenge. Accordingly, the number of those who disagreed has been reduced from 70% to 20%.

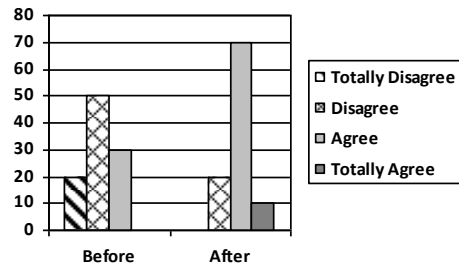


Figure 3: I am ready to make anything to be an entrepreneur

Based on Figure 4, participants who agreed that they have set goal to become entrepreneurs after participating in the FlashBiz Challenge was increase from 30% to 80%. Meanwhile, the number of those who disagreed has been reduced from 70% to 20%.

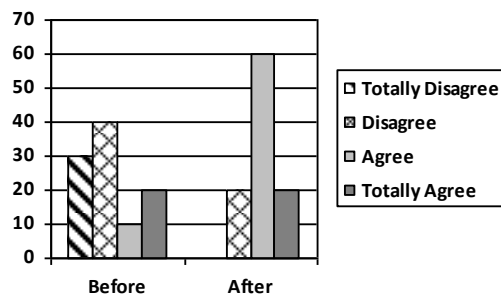


Figure 4: My professional goal is becoming an entrepreneur

Based on Figure 5, the result shows that participants who agreed that they will make every effort to run a business firm after participating in the FlashBiz Challenge was increase from 30% to 70%. While, the number of those who disagreed has been reduced from 70% to 30%.

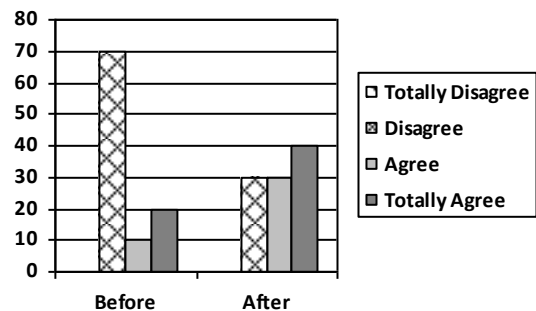


Figure 5: I will make every effort to start and run my own firm

Referring to Figure 6, there was an increase in participants who agreed that they were determined to create a firm in the future after participating in the FlashBiz Challenge, from just 30% to 70%. Accordingly, the number of those who disagreed has been reduced from 70% to 30%.

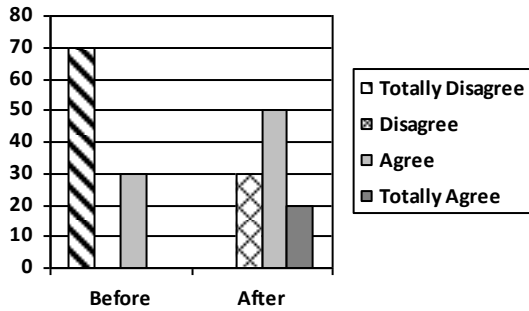


Figure 6: I am determined to create a firm in the future

Based on Figure 7, participants who agreed to that statement after participating in the FlashBiz Challenge was increase from 30% to 80%. Meanwhile, the number of those who disagreed has been reduced from 70% to 20%.

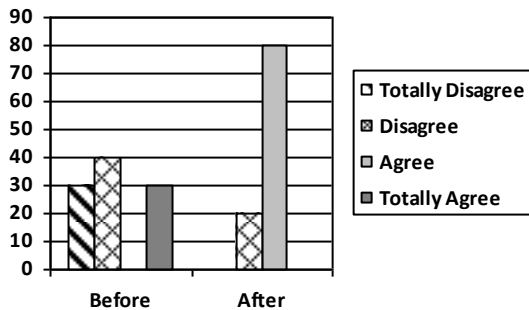


Figure 7: I have very seriously thought of starting a firm

Figure 8 depicts there was an increase in participants who agreed that they got the firm intention to start a firm someday after participating in the FlashBiz Challenge, from 70% to 80%. Accordingly, the number of those who disagreed has been reduced from 30% to 20%.

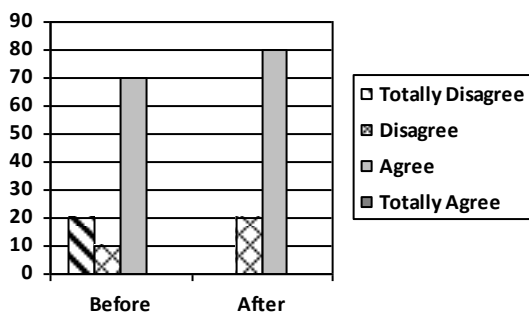


Figure 8: I have got the firm intention to start a firm someday

4.2 Discussion

Before discussing the findings shown in the previous section, let’s take a look back at the concept of this FlashBiz Challenge activity. This activity gives freedom to students (participants) to apply the hard sell theory learned in the classroom.

Students are also free to sell the goods supplied to anyone, whether students, staff, cleaning contractors, polytechnic canteen operators, or to polytechnic directors. The freedom makes this activity interesting and the students perform all the tasks very happily. It coincides with the concept of gamification, which is play while learning. Students’ enjoyment of this activity contributed to a significant change in entrepreneurial interest and intention toward an entrepreneurial career.

As presented in the previous section, more than 70% of the participants is agreed to all six statements in the distributed instrument after completing the Flashbiz Challenge. This significantly indicate that this activity is successfully achieve its objectives. It also succeeds in influencing students to make entrepreneurship one of their main careers in the future.

5. Conclusion

The main goal of the current study was to evaluate the impact of FlashBiz Challenge on entrepreneurial career intention to students. This shows that the use of hard sale techniques is very helpful to students’ interest in the field of entrepreneurship, as well as can be used as a 21st Century Skills Learning Process that is gamification. This study has shown that more than 70% of the participants was influenced to make entrepreneurship one of their main careers in the future. Overall, this study strengthens the idea that gamification approach in teaching entrepreneurship can attract students to love entrepreneurship and increase their entrepreneurial career intention.

The study contributes to our understanding of gamification in teaching and learning, as well as its contribution to achieve lesson outcome for entrepreneurship courses. The methods used for this FlashBiz Challenge may be applied to other courses elsewhere in the world.

Since the study was conducted before the Covid-19 outbreak and is being run face-to-face, the effectiveness of FlashBiz Challenge during this outbreak and home teaching and learning is not testing yet. The challenge now is to fabricate FlashBiz Challenge that contain methods that comply the rules during the Covid-19 outbreak.

References

Alabbasi, D. (2017). Exploring graduate students’ perspectives towards using gamification techniques in online learning. *Turkish Online Journal of Distance Education*, 18(3), 180-196.

Caponetto, I., Earp, J., & Ott, M. (2014, October). Gamification and education: A literature review.

- In *European Conference on Games Based Learning* (Vol. 1, p. 50). Academic Conferences International Limited.
- Isabelle, D. A. (2020). Gamification of entrepreneurship education. *Decision Sciences Journal of Innovative Education*, 18(2), 203-223.
- Liñán, F., & Chen, Y. W. (2006). Testing the entrepreneurial intention model on a two-country sample. 37.
- Okazaki, S., Mueller, B., & Taylor, C. R. (2010). Measuring soft-sell versus hard-sell advertising appeals. *Journal of Advertising*, 39(2), 5-20.
- Papastergiou, M. (2009). Digital game-based learning in high school computer science education: Impact on educational effectiveness and student motivation. *Computers & education*, 52(1), 1-12.
- Rosly, R. M., & Khalid, F. (2017). *Gamifikasi: Konsep dan Implikasi dalam Pendidikan*. 144–154.
- Woodcock, J., & Johnson, M. R. (2018). Gamification: What it is, and how to fight it. *The Sociological Review*, 66(3), 542-558.