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## Chapter 6

# A Study on the Effectiveness of UsahawanRia Board Game as a Training Tool in Entrepreneurship Lesson

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### Abstract.

Teaching Aids is a need for teachers to carry out teaching and learning (T&L) activities on this day. Inherent of students' diversity require teachers to be more innovative in the classroom. This is because the students themselves have a learning style that varies among the style of auditory, visual and kinesthetic. As teachers, it is a responsibility to ensure that all types of students can get an advantage in any T&L methods that implemented in the classroom. Entrepreneurship course has been made as a compulsory subject for all polytechnic students including students in engineering department. In order to realize the diversity of teaching aids, *UsahawanRia* board game has been innovated to fill the demand of the curriculum and the students learning style. *UsahawanRia board game* which is designed based on concept of games also helps in improving knowledge and foster cooperation among group members. The main objective of this innovation is to diversify the methods of T&L activities in the classroom so that the process of teaching and learning becomes more interesting and interactive. This study is looking for the development of product innovation in T&L in the classroom for the course of entrepreneurship among polytechnic students to achieve domain of cognitive, affective and psychomotor. Overall rating of the game will be assessed based on the amount of profits earned by the students. In future, innovation of *UsahawanRia* board game can be made as a formal evaluation tool to grade students in their course assessment and could be used as teaching aids in secondary schools.

### Introduction

In area of globalization, education now is very challenging. More efforts and strategies are needed to educate the young generation and various training tools have been used. These materials have been designed to facilitate student to develop their critical thinking in the entrepreneurship course. Previously in the conventional training method, most of teachers assumed that students will understand the whole teaching goal while the reality is a lot of students only achieve a part of the goals and the rest of them do not achieve any of the goals. Most of the teachers conduct a class using textbook classes and test. The implementation of a tool like *UsahawanRia* board game provides a non-threatening, playful and competitive environment where a student can learn from the mistake. This indoor activity is simple and easy to be done. *UsahawanRia* board game elements provide a competitive environment, discussion and problem-solving with members about the content as the way to educate students to work independently. According Heinich et al. (2002), learning aid is a part of the teaching medium consisting of visual and audio

materials associated with the process in the teaching and learning session. This definition proves that the teaching aids are a very important element in the process of teaching and learning. Communication problems between teachers and students often occurred. As an educator, we often assume that only with words, our students will be able to fully understand what is presented. The use of learning aids is effective if the teaching is based on the words used in conjunction with an image or symbol that can enhance the understanding of the students. For teachers, the diversity of delivery methods in teaching and learning is an important component in motivating student interest in the subject or course of study. To ensure the use of methods and techniques of teaching and learning was attractive and effective, teachers need to provide a space for students to be actively involved throughout the lesson without feeling tired and bored. With the help of innovative materials of *UsahawanRia* board game produced, it is expected to increase interest and understanding of students in entrepreneurship courses which in turn makes the process of learning more fun.

### Background of the Research

Active learning can include interactive games and the new and emerging simulation style ‘board games’ tend to introduce contextual information and serve for future learning (Harris, 2009). Milczyaski, (2010) pointed out that there are clear benefits to supplement games as an active learning component in the classroom because it provides a hands-on and heads-on skill and knowledge development for students for all subjects and also very useful, effective and enjoyable for all ages (Cook & Olson, 2006). According to Telukunta et al., (2014), the use of games as a tool for teaching has attracted 96% of the students' interest in the project managing as compared to usual. Ztech de Object-Oriented is developed as a teaching object-oriented programming in higher computer games and gives very positive effect to the undergraduate student computer programme. While a board game like DELIVER is developed to help undergraduate students in controlling the project performance by applying the Earned Value Management technique (Von Wangenheim et al., 2012). Vigil-Cruz, (2005) found feedback obtained from the use of SCRUMIA and PHARM games show positive effects on learning.

### *UsahawanRia* Board Game

*UsahawanRia* board game intended to be a collaborative game and it must be played in a group. Each group consists of 5 participants and everyone has assumed a specific role as in Table 1. *UsahawanRia* board game is used to enable participants starting their journey until they reach the destination. *UsahawanRia* board game consists of several challenges faced by all participants. *UsahawanRia* board game emphasizes how to manage the journey in terms of thinking skills and communication skill independently.

Table 1: Task *UsahawanRia* board game role play and responsibility

Role	Quantity	Responsibility
<b>Group Leader/Judge</b>	One person per group	Group leader / judge responsible for deciding on the answers given by the participants before the participant can continue their journey onwards
<b>Team members</b>	Four people per group	Participants are responsible to answer all the questions given by the group leader/judge. Participants also ensure their journey is completed on time and within budget.

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**Module of Task *UsahawanRia* game board**

The effective module of teaching and learning for polytechnic students should meet the needs of educational objectives in Bloom's Taxonomy. The cognitive level involved in Bloom's Taxonomy is Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation (Bloom, 1956). To ensure that all students achieve maximum learning outcome, the goals and rules of the game must be clear. The aim of using this game as training tools is to diversify teaching methods for the entrepreneurship subject. In addition it is good to train students about the importance of thinking skills and communication skills in their daily life. Students are expected to be more efficient in managing the two things mentioned above at the end of this game.

**Gameplay**

At the beginning, students must be divided into 5 players in one team. Every team needs to assign one group leader/judge. The group leader/judge states the rules, then divide the material, sum of money and set the time. Student is not required to finish their task for every stage. The game started with a capital of RM1860 given by the group leader to each participant. Each participant rolls the dice to determine how many steps they need to move on. Along the route encountered by participant, there are several challenges that need to be faced by the participants as stated in the card games such as answering questions, performing style, acting and direction spontaneously and simple conjunction words. A penalty will also be imposed if participants unable to complete the answers correctly. Overall rating of the game will be rated based on the amount of profits earned in the final game.

**Research Method**

This research uses *UsahawanRia* board game as a tool in training entrepreneurship subject for students at one institution in Melaka. This research is done on 70 students.

**Purpose and Procedure**

The goal of the *UsahawanRia* board game is to help students to increase the knowledge of entrepreneurship skills. These case studies used a pre- test and post-test design. *UsahawanRia* board game pre-test begins with the completion of survey by each player after the game ends. All comments were collected and identified to improve the existing module in accordance with the level of knowledge. Post-test game is to identify the effectiveness of *UsahawanRia* board game as a training tool for entrepreneurship skills.

**Instrument**

In this study, a questionnaire was chosen as the evaluation model. It consists of two types of components regarding knowledge and satisfaction with 15 items of questions. Questionnaire is as following Likert Scale from strongly disagree (1), disagree (2), not sure (3), agree (4) and strongly agree (5).

**Result and Analysis**

The data was analyzed to identify the level of knowledge and satisfaction of students towards *UsahawanRia* board game.

*The effectiveness of learning through innovation UsahawanRia board game by the level of student knowledge for the entrepreneurship subject.*

Table 2: Level of student knowledge through pre-test and post test

Range of Marks	Grade	Pre-test		Post-test	
		Quantity	Percentage (%)	Quantity	Percentage (%)
9 – 10	A	6	10	15	25
7 – 8	B	12	20	30	50
5 – 6	C	30	50	15	25
3 – 4	D	9	15	-	-
1 – 2	E	3	5	-	-

In view of the level of student knowledge, scoring range of 9-10 is A, 7-8 is B, 5-6 is C 3-4 D and 1-2 is E. Based on the data that has been analyzed for the pre-test, it was found that 6 students (10%) obtained a Grade A, 12 students (20%) obtained a grade B, 30 students (50%) achieved a grade C, 9 students (15%) achieved a grade D and 3 students (5%) achieved a grade E. Refer to Table 2. As for the post-test, it was found that 15 students (25%) achieved a Grade A, 30 students (50%) obtained a grade B and 15 students (25%) with grade C. There were no students for both grade D and E. Please refer to Table 4.2.

*The effectiveness of learning through innovation UsahawanRia board game by the level of satisfaction of students and lecturers.*

According to the objectives of this study, two different data analysis were carried out on students who have used this innovation. From Fig. 1 (a), most of the survey found that 51% of students "agree (A)" and 34% "strongly agree (SA)" that they were satisfied with the effectiveness of learning through innovation *UsahawanRia* board game, while the remaining 9%, 4% and 2% of the students each choose "not sure (NS)", "disagree (D)" and "strongly disagree (SD)". Based on Fig. 1 (b), it shows that 46% of lecturers "agree (A)", while 34% "strongly agree (SA)" that they were satisfied with the effectiveness of learning through innovation *UsahawanRia* board game. A total of 8% of lecturers were "not sure (NS)", 8% "disagree (D)" and only 4% of lecturers choose "strongly disagree (SD)".

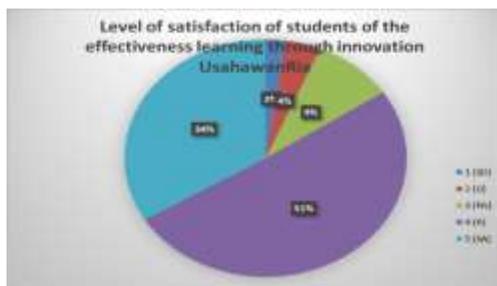


Fig. 1 (a) Level of satisfaction of students

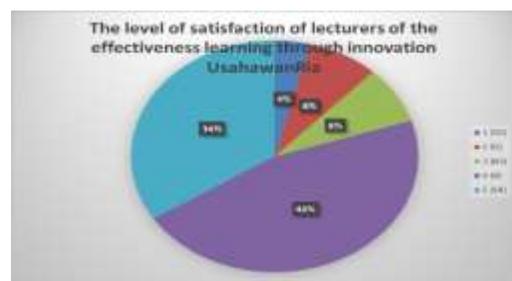


Fig. 1 (b) Level of satisfaction of lecturers

## Conclusion

From the post-test that have been conducted, it was found that, Grade C is the minimum results of the level of student's knowledge which used the *UsahawanRia* board game while the minimum

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score of pre-test is grade E. This result shows an increase in the percentage of 100% compared to the previous results which used this innovative tool. This achievement prove that this innovation has made a positive impact and suitable for the purpose of teaching and learning. Teaching and learning environment that is more encouraging and fun are necessary to ensure the involvement of students in the learning process. As a result, this innovation can improve the achievement of the students in the entrepreneurship subject at the same time make the learning outcomes of the topics can be achieved.

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