

# Implementation of Educational Boardgame in the Topic of Personality Development for Srinakharinwirot University' Students

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## Abstract

*The objectives of this research were 1) to study the satisfaction of higher education students towards learning management by using Educational Boardgame in personality development course, 2) to compare the learning achievement of the students both the experimental group and the control group in before and after the learning management period by using research methods in an experimental research model. The sample group consisted of 60 students who enrolled in the Personality Development course which divided into an experimental group of 30 people and a control group of 30 people. The research tools were Educational Boardgame on personality development, Boardgame quality assessment form, the Educational Boardgame learning management satisfaction assessment form, and the pre- and post-test of learning achievement was to compare the learning achievement in the pre-experimental and post-experimental periods. The results showed that, the students were satisfied with the application of Educational Boardgame on personality development at a high level, and when comparing the students' learning achievement, it was found that the learning achievement in posttest of the experimental group was higher than pretest. In the control group, there was not much increase in efficacy in the posttest.*

**Keywords:** Educational Boardgame, Personality Development, Higher Education Students.

## Introduction

Back in an era when technology was not widespread like today, you will find that "Learning" is often confined to the classroom through communication from teachers. But nowadays, Thai society has changed into the borderless information age. The traditional learning is not as effective as "Active Learning", i.e. "learning process in which the learner takes action". This learning method is a new concept that is starting to become more popular in Thailand. At the end of the 21st Century, with a concept that emphasizes the process of participation and the role of learners in learning. This learning method is based on the concept that the learner is the main person who responsible for self-learning. The active learning model relies on the principles of organizing the learning process that is suitable for the nature of brain working by encouraging learners to be more active and cognitively active than listening and memorizing from teachers in the classroom. Learners can learn by themselves, resulting in highly effective learning, resulting in continuous learning outside the classroom (Life-Long Learning).

Nowadays, the use of technology in learning management is gaining widespread attention. Several studies have supported that the use of technology in teaching and learning can help students maintain motivated and contribute to more effective learning. This is because it makes teaching fun and engaging by using learning through games (Games Based Learning), which is an educational innovation that combines the fun of games and lesson content in various subjects which designed in a new waytogether with in order for

learners to increase their skills and experiences from many things around them. Students also gain both knowledge and enjoyment at the same time, especially in the form of a simulation game that creates an environment enjoyable learning and challenging that does not make learning boring. Game based learning, therefore stimulates the potential of thinking as well as self-knowledge on the basis of concepts that will make learning fun according to the concept of obtaining knowledge in the form of fun way to enjoy (Edutainment). Bringing boardgames for education as a learning tool is therefore considered an interesting activity because different types of games have processes that cause learning and conceptualization of what is learned, to cause fun, relieve stress, have rules and regulations, and promote physical and intellectual development (Bureau of Education. 2005). Therefore, it is a process that teachers use to help learners learn according to the specified objectives by encouraging learners to play games according to the rules and bring the content, information of the game, playing behavior, playing methods, and the results of playing games of the learners to reflect in order to summarize their learning with the aim of helping learners learn, knowing various things with fun and challenging the learner's ability as a player himself, resulting in direct experience is a way that allows learners to have high participation (Khaemmanee, 2015).

Boardgames can be effective and meaningful of learning (Lee, 2012) and there is many topics in using boardgames in teaching such as using boardgames in history teaching (Abramson et al., 2009; Gonzalo, 2016), in cultural memory (Begy, 2015), used as a platform for collaborative learning (Hunsucker, 2016). Therefore, the researcher is interested in developing a boardgame for learning management to promote and develop the personality of the learners by applying the theoretical concepts related to personality development to create a boardgame as a learning tool for using in the Personality Development Course which lead to the objective of this research to encourage students to learn the contents of the course through boardgames to have fun and enjoyment in learning, causing interest, enthusiasm and interaction with class members. Students will gain knowledge, understanding,

practical skills and appropriate attitudes through playing boardgames. The objectives of this research were 1) to study the satisfaction of higher education students towards learning management by using educational boardgame in Personality Development Course, and 2) to compare the learning achievement of the students both the experimental group and the control group in before and after the learning management period by using research methods in an experimental research model.

### **Scope of Research**

This research defines the scope of research as follows.

### **Population used in the Research**

The population used in the research was Srinakharinwirot University students who registered in SWU 351 Personality Development course, 1,163 people.

The sample group was Srinakharinwirot University students, who registered in SWU 351, 60 people which divided into experimental group 30 people and control group 30 people.

The scope of content used in this research is educational board games in Personality Development which contains the following contents: meaning and importance of personality, individual differences, analysis and self-assessment using the Johari Window concept, life position, attitude, posture, social etiquette, communication development, and self-worth.

### **Study Variables**

The independent variable was learning from Educational Boardgames on personality development of higher education students.

The dependent variables were:

- Satisfaction with learning from Educational Boardgames on personality development.
- Achievement of students on personality development using Educational Boardgames.

### **Expected Benefits**

There is an educational innovation that promotes the potential of learners to seek knowledge by

themselves and participate in learning based on the concept of making learning fun based on the concept of obtaining knowledge in a fun and enjoyable way (Edutainment) which helps learners have higher academic achievement after learning by using board games in which learners can develop themselves and live in quality in society as a good role model for people in society.

### **Research Methods**

The study of the effects of the application of Educational Boardgames on personality development for Srinakharinwirot University students used an experimental model, Pretest-Posttest Control Group Design to study the satisfaction of higher education students toward learning management using Educational Boardgames and learning achievement of students in the experimental group and the control group. The study was carried out in the following steps

#### **Determine the Population and Sample**

#### **Creation of Research Tools**

#### **Educational Boardgames for Personality Development**

The researcher studies basic information about Educational Boardgames such as principles, concepts and theories about Educational Boardgames design.

Exploding Kittens Boardgame was applied to develop an Educational boardgame for personality development course by defining a conceptual framework for applying playing methods to suit the course content and Srinakharinwirot University students and components of the card game were:

One game card box (or in player terminology called 1 Deck) consists of 56 game cards, divided into 4 Exploding cards, 6 Defuse cards, 4 Attack cards, 4 Skip cards, 4 Shuffle cards, 5 See the future cards, 5 Stop command cards, 5 Nope cards, 4 Favor cards, 20 other cards can be used as Special combos.

Card game brochure contains a description, explains the purpose of learning through the card game, and how to play the card game.

Box containing a card stamped with the Office of Learning Innovation.

Bring Educational boardgames that have been applied and developed into Educational boardgames

for personality development by using 3 experts to examine the content, patterns, playing methods, graphics to make proposals in the revision before being used in the experiment with the consistency Index of the Content and Objectives at a level greater than 0.50 which is considered to have the appropriate consistency.

Satisfaction questionnaire for learning management with Educational boardgames for personality development which is a rating scale of 5 levels (Rating Scale) by using Likert's estimating scale, then, bring it to 3 experts to examine to assess the suitability of using the boardgame by assessing the overall at the highest level.

#### **Learning Achievement Measurement**

The development of a learning achievement measurement by creating a test for measuring knowledge about personality development, it is a multiple-choice form with 4 options, each option has a scoring criterion according to the answer that a correct answer gets 1 point and a wrong answer gets 0 points. High score indicates that have higher knowledge than those who score lower. The examination of the quality of the learning achievement scale consisted of Content Validity and the Difficulty (p) and Discrimination Power (r) of the individual achievement scale.

#### **Research Procedure**

The researcher orients students participating in the research project to clarify details about the research, to point out the importance and benefits that will be gained as well as to create familiarity among students.

The researcher measures the dependent variable, which is knowledge on personality development both in the experimental group and the control group before trial operation.

Conduct an experiment by learning management with an Educational boardgame for personality development with an experimental group of 30 people.

After the end of the experiment, the researcher measured the dependent variables, namely satisfaction with learning and learning achievement of students from learning through an educational

boardgame in both the experimental group and the control group.

Assurance of the rights of the sample, the researcher took into account the preservation of the rights of the subjects willing to participate in the research. The sample will be given clarification on the purpose of the research, data collection, method and benefits gained from participating in the research. Participants can terminate their participation without giving reasons to the research team. The subjects will not lose any benefit and the information obtained from the research will be kept confidential and will not be anonymous. It is presented in an overview and used only for the purposes of the research. The research has been certified as a human research project by the Human Research Ethics Committee, Srinakharinwirot University. The research was approved with the research project number SLUEC 171/64.

### Data Analysis

The researcher has analyzed the data obtained from the questionnaire using a statistical package program as follows:

**Part 1:** Assessment of satisfaction in learning management with an Educational boardgame for personality development. The Mean and the Standard Deviation (S.D.) statistics were used by presenting the data analysis results as a table accompanying the lecture and interpreting the results at 5 levels.

**Part 2:** The results of the study of students' academic achievement on personality development using Educational boardgames by comparison of achievement before and after the study with t-test Dependent statistics.

### Research Results

Research results on the application of Educational boardgames for personality development of Srinakharinwirot University students, the results of the data analysis are presented in 2 Parts as follows.

*Part 1 Satisfaction with learning from Educational boardgames for personality development of Srinakharinwirot University students.*

Satisfaction assessment of the satisfaction for learning management with an Educational boardgame for personality development consisted of 10 assessment topics, with the assessment results as shown in Table 1.

**Table 1 Satisfaction with Learning from Educational Boardgames for Personality Development (N=30)**

Topics	Mean	S.D.	Level
The process of playing card games is not complicated, easy to play and understandable.	4.61	0.69	Very High
Playing card games trains players to plan their own management and self-management of emotions.	4.44	0.75	High
Playing card games encourage students to have knowledge and understanding of principles, concepts, theories, personality development	4.25	0.70	High
Playing card games encourages students to show various skills in developing their personality, both external and internal.	4.56	0.70	Very High
Playing card games encourages students to realize that personality development is self-development in order to have a good image suitable for a career. and future life	4.40	0.70	High
The card game encourages learners to review knowledge learned in class for better understanding.	4.75	0.50	Very High
Spending time playing card games is appropriate.	4.53	0.66	Very High
The illustrations of the game cards are appropriate to encourage learning.	4.34	0.69	High
Playing card games is a learning method that allows learners to learn at their own pace.	4.40	0.70	High
Card games encourage learners to have fun and enjoy learning.	4.45	0.50	High
Total Mean	4.46	0.65	High

From Table 1, it was found that students' satisfaction toward learning from Educational boardgames for personality development of higher education students was at a high level (Mean = 4.46, S.D. = 0.65), when separating the items that students were most satisfied with, card games encouraged learners to revise knowledge learned in class for greater understanding (Mean = 4.75, S.D. = 0.50), the process of playing the card game is not complicated, easy to understand (Mean = 4.65, S.D. = 0.69), Playing card games encouraged students to show various skills in developing personality, both external and internal personality (Mean = 4.56, S.D. = 0.70), and spending time in playing card games was appropriate (Mean = 4.53, S.D. = 0.50), respectively, the items that the students were satisfied with at a high level were card games that encourage learners to have fun and enjoy learning (Mean = 4.45, S.D. = 0.50), playing card games trains players to have self-management planning and self-management (Mean = 4.44, S.D. = 0.75). Playing card games encourages students to realize that personality development is self-development in order to have a good image suitable for occupation and life in the future (Mean = 4.40, S.D. = 0.70), playing card games is a learning method that allows learners to learn by self-direction (Mean = 4.40, S.D. = 0.70), illustrations of card games are appropriate to promote learning. knowledge (Mean = 4.34, S.D. = 0.69), playing card games promotes students to have knowledge and understanding of the concepts and theories of personality development (Mean = 4.25, S.D. = 0.70) respectively

*Part 2 students' learning achievement on personality development using educational board games classified by experimental group and control group both pre-experimental and post-experiment.*

From Table 2, it can be concluded that the students' learning achievement on personality development by using Educational boardgames in the experimental group increased in the post-experimental period. (Mean 27.20 and 34.73, respectively). In the control group, there was not much increase in the post-test period. (The Mean values were 29.33 and 31.70, respectively).

**Table 2 Mean and Standard Deviation of Students' Learning Achievement on Personality Development using Educational Boardgames Classified by Experimental Group and Control Group Both Pre-Experimental and Post-Experiment (n = 60)**

Sample Group	Learning Achievement	
	(Total Score =40)	
	Mean	S.D.
Pre-experiment		
Experimental Group	27.20	1.40
Control Group	29.33	1.51
Total	28.26	1.45
Post-experiment		
Experimental Group	34.73	1.42
Control Group	31.70	1.56
Total	33.21	1.49

### Discussions

The research results of the application of Educational boardgame for personality development of Srinakharinwirot University students were to study the satisfaction towards learning management by using Educational boardgame and to compare the results of students' learning achievements before and after the learning management can be discussed as follows.

The students' satisfaction toward learning from Educational boardgame for personality development of higher education students was at a high level. Students have reviewed the knowledge learned in class to have a better understanding, the process of playing card games is not complicated, easy to play and understandable, playing card games encourages students to show various skills in developing Personality, both external personality and spending time in playing card games, were appropriate in order of the items that students were satisfied with at a high level. Also, card games encouraged learners to have fun and enjoy learning while playing cards. The game trains players to plan for self-management, playing card games encourages students to realize that personality development is self-development in order to have a good perspective

suitable for career and life in the future, playing card games is a learning method that allows students to learn by self-directed, illustrations of card games are appropriate to encourage learning, playing card games encourages students to have knowledge and understanding of principles, concepts, and theories of personality development, respectively. This may be because the researcher has studied and designed a card game to encourage learners to learn by self-directed learning, as well as a manual to explain how to play in detail, easy to understand, with beautiful illustrations and bright colors, card games are games that adapted from a game that is easy to play, fun, competitive to increase motivation, promote learning and review the content learned in class with the teacher, resulting in student satisfaction and from observing behavior during learning. It was found that students learned with enjoyment and fun while playing card games which in line with the research of Sittiwong (2021) who studied the effects of using boardgames to promote learning and knowing for undergraduate students, the Faculty of Education, Naresuan University which found that the overall satisfaction with using boardgames to promote learning was at a high level (Mean = 4.30, S.D. = 0.12) and Suwankanit (2017) the research of designing a card game to create understanding in studying communication design courses found that it caused knowledge and understanding as a guideline for learning communication design courses and strengthening various skills necessary for a design career in well various media. Therefore, it can be seen that educational boardgames are regarded as learning media to enhance the body of knowledge for learners. Students can learn by bringing themselves and learning through playing is considered. It is to encourage learners to be happy in learning, creating a good experience, which will result in students able to apply knowledge in the future, so it is very important that the educational boardgame designer must have knowledge and understanding in selecting boardgames to apply and create knowledge in accordance with the content that students need to learn, and having skills in designing boardgames by selecting or applying appropriately to the learners' time and learning styles, including having a learner-centered attitude, result in learners' satisfaction in learning.

According to the comparison the learning achievements of students in both the experimental group and the control group before and after the students' learning management, it was found that the students' learning achievement on personality development by using Educational boardgames in the experimental group increased in the posttest period, while the control group did not increase significantly. Therefore, it can be concluded that the learning achievement of the students after the study was significantly higher than before the study. Using an educational boardgame for personality development of Srinakharinwirot University students is an active learning management that encourages learners to learn creatively, have fun and enjoy themselves, memorize the body of knowledge and express ideas in a variety of ways to be able to practice in order to develop skills that can be applied in daily life and also create a good learning attitude which in line with Phanmanee (2015) who claimed that the atmosphere that creates creativity is an atmosphere that is full of acceptance and encourages independent expression of knowledge, allowing students to explore their own knowledge and express that knowledge. Sanpich (2006) has found that games are a learning management media that emphasizes student focus. There are playing styles for meaningful self-learning and from research to test students' learning achievement from using boardgames to promote learning for undergraduate students. Sittiwong (2021) found that creating a boardgame is a form of integrating knowledge with card games, which results in players learning while having fun and the relaxation provides an opportunity to increase awareness of the learned content as well as induce excitement and challenge in the content-based learning competitions inserted within the boardgame. In addition, the research of Limprem wattana and Thamwattana (2017) who found a positive effect of using boardgames in education and intelligence. It made good decisions in terms of emotions and feelings, resulting in relaxation from stress, better self-control, learn defeats and wins, build good relationships with classmates when learning happily and enjoyably, causing resulting in higher learning achievement, such as research by Puttharungsi (2017) found that the application of boardgames

for developing communication skills, showing the process of applying boardgames can develop skills and thinking processes of students, thus resulting in higher academic achievement of students, enabling them to develop acting communication skills better.

### Conclusions

This research studied students' satisfaction and compared learning achievement using educational boardgames by studying the experimental group and the control group before and after the learning management. It showed that students' learning from learning through educational boardgames in the experimental group increased in the posttest period, while the control group did not increase significantly in the posttest period. From the study, it is known that in the application of educational boardgames on personality development for students at the higher education level, users or educators must have active learning management skills or have undergone training on related topics. For those who have the knowledge, understanding and skills to play this boardgame are good at the same time analyzing its nature and the learning context of the learners to create motivation and learning atmosphere to be efficient and effective. In addition, users or educators should play a role as a coach and create positive relationships for learners to be successful, trust, happy and enjoy to learn.

### Suggestion

#### Proposals to Practice

In the application of Educational boardgames for personality development must have skills in managing Active Learning or have been trained in related topics before and the instructor must be a person who has the knowledge and skills to play this boardgame very well.

Before implementing Educational boardgames for personality development, the instructor should analyze the nature and context of learners' learning in order to create motivation for learning through official boardgames.

To create an atmosphere for learning to be efficient and effective, the instructor should play a role as a coach and build positive relationships with the learners so that the learners trust, happy, and enjoy learning.

Propose and disseminate to affiliated organizations to lead to the use of Educational boardgames for personality development of Srinakharinwirot University students. This is considered an Active Learning management for students.

### Suggestions for Further Research

There should be a follow-up study on the effectiveness of the application of Educational boardgames on personality development for Srinakharinwirot University students to see if they have been used and if they bring long-term benefits or not.

There should be research studies on the effectiveness of the application of Educational boardgames for Srinakharinwirot University students in other matters as a guideline for proactive and creative learning for students.

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