

# The Development of Instruction Media in Board Game to Enhance the Capability in the Development of Thai Textbook and the Happiness in Learning for Undergraduate Students

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## Abstract

The purposes of this research were to: 1) develop and determine the efficiency of instruction media in board games to enhance the capability in the Development of Thai Textbook and the happiness in learning for undergraduate students, 2) compare the undergraduate students' learning capability in the Development of Thai Textbook before and after learning instruction media in board game and 3) to study the level of happiness in learning the Development of Thai Textbook for undergraduate students towards learning instruction media in board game. The sample group in this research consisted of 27 third year-undergraduate students, majoring in Thai, at the Faculty of Humanities, Srinakharinwirot University. The data was collected by research and development. The data was analyzed by using mean, standard deviation, t-test dependent, and content analysis. The findings of this study were as follows: (1) The efficiency of the instruction media in board games was 84.81/83.83 which was higher than the specified criteria. (2) The average student's learning capability in the Development of Thai Textbook after learning the instruction media in board games was higher than before using instruction media in board games. (3) The undergraduate students had the highest mean level showing their pleasure in learning the Development of Thai Textbook towards learning instruction media in board game and effective for content analysis regarding the undergraduate students' learning logs from Reflective Journal, it was found that this instruction media in board game enhanced the capability in the Development of Thai Textbook and the happiness in learning abilities.

**Keywords:** board games, instruction media, happiness in learning

## 1. Introduction

### 1.1 Introduce the Problem

Board game is one of the most interesting media and innovations that can be adapted in learning management since it has a variety of categories such as card games, construction game, or chess game. Many games start from the easy level to the complicated level. Players could use strategies and plots to win the game (Autthawuttikul, 2012). Thus, board games are kinds of games that use figures, cards, or models to play on a specific surface or design. Playing board games not only could the player be entertained, but the player also practice critical thinking, planning, and making decisions.

Learning by playing board games is a new approach that helps both learners and teachers succeed in class interactions. Moreover, it could stimulate learners' cognitive skills and social skills more than using the traditional teaching style, such as lecture. The board game is a simulation game that allows players to interact and communicate while playing. Crews (2011) found that a board game is a type of game that can be used to improve skills and learning ability for all ages because it can create a classroom atmosphere that enables learners to pay more attention in class, to feel comfortable, and to be fun. The sense of competition in the game also contributes to the players' enthusiasm which can support learning. Therefore, learning through board games is a new way to help both learners and teachers achieve educational goals in a better way. Hence, learning through board games is a new teaching methodology that helps learners and teachers achieve learning objectives. Board games can stimulate and motivate learners to gain knowledge and social skills since the components of board

games will imitate the circumstance allowing learners to participate among themselves (Treher, 2011). Using board games to organize learning activities is one of the media innovations that allow students to have direct experience whilst participating in their studies. According to Dale (1969) and Thammetar (2014), the instruction media could be able to enhance the learning experience and the interest of many learners which allows them to be more enthusiastic in learning, skill practicing, and learning knowledge. The instruction media helps achieve the goals set by the teacher, as well as using the instruction media to help learning activities in a variety of different ways and make good relationships between learners and learners, learners and teachers to participate in activities together and helps learning atmosphere full of fun.

These concepts are related to the current education which helps learners become happy learners. Currently, Thailand prioritizes making learners learn with happiness which aims to develop the educational field. The 12th National Economic and Social Development Plan (2017–2021) to the present emphasizes a peaceful society, fairness, and immunity with some changes. Thus, happiness is a key to making knowledge last and developing learners as the mainstay in society (UNESCO, 2008). Chatkhup (2001) and Ritcharoon (2009) claimed that the importance of happiness in learning is when students have positive satisfaction and experience from learning. The happy learners will be happy in their studies and their lives, thinking of the benefit of others than their own, feeling good when helping others, being flexible, and having creativity. This happiness allows the learners to become efficient and effective individuals in society.

In this course, the Development of Thai Textbook is the study of the evolution of Thai language learning from the Ayutthaya period to the present with the objectives: 1) for students to understand the history of Thai textbooks. 2) for students to be able to analyze Thai textbooks at different times. 3) for students to be knowledgeable and understanding of the principles of creating Thai textbooks able to be developed by the curriculum and learning in the Thai language today. However, those courses lack the link between Thai textbooks in each period, especially in terms of content and compilation. As in each period, there is a majority of using ancient languages which difficult for students to learn by themselves and if the instructor only uses lecture methods, it may make students bored. Using board games is therefore an interesting tool that helps enhance learning for students. This is because students will be able to play the game only if they have studied that knowledge first. So you can overcome the obstacles in the game. As a result, the researcher is interested in developing the instruction media in board games to enhance the capability in the Development of Thai textbooks, which increases the learning experience for students because students must study exchange ideas, interact with friends, teachers, and media to enable learning in the classroom. As well as helping to develop happiness in learning for undergraduate students. To be developed in their career in the future.

## 2. Theoretical Framework

The related literature which is used as a conceptual framework for developing the instruction media in board games was described and discussed as follows:

Board games are becoming increasingly popular in the field of education. For example, checkers are used to teach elementary and junior high school students in Russia and the Netherlands, and the use of chess in the curriculum of over 40 countries, such as France, Argentina, and Japan. In the US, many schools use Monopoly and Checkers to teach Mathematics, and more than 1,600 schools in the US and Canada use Scrabble in both lessons and club activities (Hinrbaugh, 2009). Research has also shown that board games can be used effectively in higher education (Lee, Moreau, & Lochnan, 2015). An example could involve the Urban Planning Board Game: A Cooperative Serious Game (Orbe, Roji, Garmendia, & Cuadrado, 2018) or the use of board games in higher education (Smith & Golding, 2018). The results of these studies showed that board games can help teachers and learners achieve their educational goals in a fun way I believe that good learning should be enjoyable, with students participating in activities and expressing their opinions in a relaxed, fun, and friendly learning environment. Therefore, I am interested in using board games to enhance my student's learning experience and make it more enjoyable.

However, to develop an effective board game, concepts of elements and development of education game choosing games in organizing learning activities should be taken into account. Instructors need to consider the elements (Insa-ard, 2014; Khemmani, 2014) as follows: 1) instructor and learners; 2) games and rules; 3) how to play games; 4) discussion on playing results, playing methods, and playing behavior of players after playing; and 5) learning outcome. Adaptation to enhance learning competencies for undergraduate students and the aforementioned elements should be considered as the principles of designing educational games (DechaCupet, 2003; Cheewapan, 2002) as follows: 1) purpose of the game which the instructor must set the goals of the game by the objectives of the course and develop the games related to the goals; 2) develop game to be in line with the

psychology and learners development; 3) set rules and details to clarify educational games before playing; 4) determine materials, equipment, places, and number of players in the games; 5) educational games must be accurate, instructors must pilot the game. In this regard, the teacher must consider the characteristics of good educational games (Khemmani, 2014). For a game design, a teacher should create a situation for the learners to get into the situation. Participating in an activity that encourages learners to learn with fun can create a good relationship between the instructor and the learners and help them to learn by themselves. As educational games are activities that help create fun, they can integrate knowledge for the students until the learners learn and achieve what the instructor has planned. Although the development of instruction media in board games will be successful, it requires a system that approaches the development process to help develop the instruction media in board games. In this regard, the ADDIE model should be considered for to design and development of instruction media in board games. ADDIE model is an instructional design methodology that represents dynamic, flexible guidelines for developing effectiveness and focusing on an approach that provides feedback for continuous improvement of the learners.

There are five steps in the ADDIE model with elements and development of educational games (Insa-ard, 2014; Khemmani, 2014; DechaCupet, 2003; Cheewapan, 2002) which should be considered. The first step was to analyze the basic data consisting of 1) studying the problems of needed assessment in the course; 2) studying the content of the course and the course's description; and 3) studying the model and methods of playing board games in various ways. These three sub-steps are important. The instructor must study the steps thoroughly to apply instruction media in board games effectively. The second step was to define learning objectives. After the instructor studies, analyzes and synthesizes the condition of every element's basic data, a teacher should define the learning objectives and link them to the types of board games. This must be consistent or suitable for the behavioral learning objectives that the instructor wants the learners to learn each time. The third step was to adapt content with instruction media in board games. The teacher selects content related to the learning objectives. The board game that the teacher chooses to apply must be suitable for the content, age, and experience of the learners. The instructor tries to create an outline consisting of a content model to be taught in many types of board games and draft game mechanics and methods of playing. The fourth step was to create a model of a board game for learning. The instructor creates and develops a prototype board game based on the outline and brings it to try out to find a weakness of the game. After strengthening the weakness, the instructor designs and determines the equipment and material to use in a board game, including images, colors, letters, text, and various graphics. A model instruction media in a board game is like a blueprint which makes it easier for teachers to create or produce a board game.

If the teacher plants and designs this step well, it will be easier and faster to lead to developing instruction media in board games. The fifth step was to develop board games for learning and bring the model into instruction media in board games. Each step must consist of playing devices such as game cards, pieces, or timing devices (if any) and instructions or explanations for playing. The last step involved defining measurement and evaluation to find the efficiency and effectiveness of board games for learning, which may be considered by observing the academic achievement and asking students' opinions to improve the results and develop board games for learning to be more efficient and effective.

From the above concept, I believe instruction media in board game learning can help teachers know the level of knowledge of the individual student and select suitable teaching methods or innovative media for students and allow teachers to see flaws. Moreover, teachers will be able to improve as a result learners have higher achievement. Due to the achievement of learning, it will be a tool that indicates knowledge, and students' abilities after going through the process of organizing learning activities. This results in students gaining knowledge and skills which students receive varies from person to person. Results can be measured by using tools to measure and evaluate results in the form of scores (Steinmayr, Wirthwein, & Schöne, 2014)

In addition, the development of academic achievement must encourage students to be part of their learning. Therefore, teachers must create an atmosphere for students to learn with happiness as The National Education Act and amendments 2542 (1999, 2nd ed.) in Thailand indicate that the management of education must develop Thai people to be complete human beings in terms of body, mind, intellect, knowledge and morality, with ethics and culture for a living can live together happily, Therefore, the arrangement of a relaxed learning atmosphere, and independent will help learners to be fun and interested in learning Educational management using instruction media in board games will help students to enjoy learning this time and happiness in learning as the concept that happiness in learning refers to the good feeling of learners towards performing activities. Learning that arises from learning activities enables learners to participate in activities by allowing them to express their opinions or present their ideas in a relaxed, enjoyable, and friendly learning environment between teachers and students as

well as among students themselves. This approach helps learners to respond to learning more quickly each time (Wongyai, 2000; Saisana & Cartwright, 2007).

From the study of theoretical concepts related to this research, the research framework has been illustrated as follows:

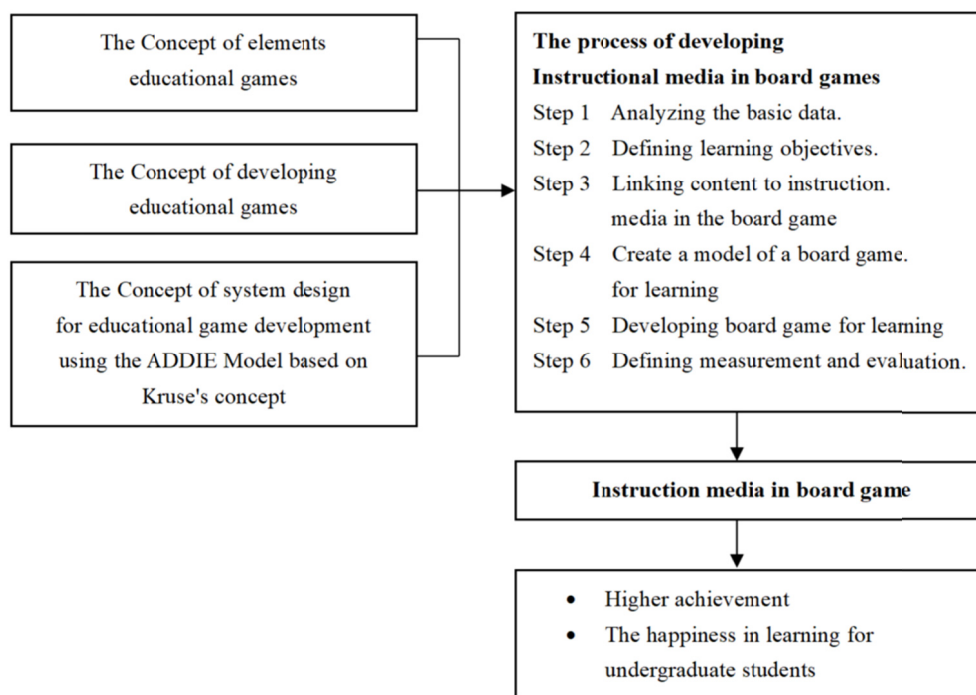


Figure 1. Conceptual framework the development of instruction media in board games

### 3. Methodology

This research is a research and development by mixed-methods research. There is integrated the embedded design used quantitative methods to qualitative methods, the process was divided into four phases:

1) Study, analyze, and synthesize the condition of teaching management, and behavior of learners to the Development of Thai Textbooks and to study the concept of instruction media in board games. The data were collected through interviews. The interviewees were 5 instructors at the tertiary level with at least 10 years of teaching experience and 5 years of experience in teaching the development of Thai textbooks from various institutions together with 15 undergraduate students who have taken the course ‘The Development of Thai Textbook’—also analyzing the basic knowledge by reviewing literature, concepts, theories, and related research to have more knowledge to improve the teaching in this course.

2) Design and develop instruction media in board games to enhance the learners’ capability throughout the course and the happiness in learning of the undergraduate students. I have designed, developed, and inspected the quality of instruction media in board games consisting of 4 games which were 1) lesson plans 2) the ability to develop a Thai textbook test and assessment criteria 3) happiness in learning assessment form, and 4) reflective journal. Analyzing the level of happiness of the undergraduate students in learning the course which used instruction media in board games based on the responses to the learning happiness assessment of the undergraduate students.

3) The implementation of instruction media in board games was used. The research design involved the One-Group Pretest–Posttest Design. It took 30 hours to complete the tests. The data were collected based on the test pre-evaluation, formative evaluation, and post-evaluation. Then, happiness in learning through writing reflective journals was assessed.

4) Evaluate the efficiency of instruction media in board games to enhance the student’s capability in the course and their happiness when learning by 1) Comparing undergraduate students’ learning ability in Thai Textbooks

before and after learning instruction media in board games using t-test dependent 2) Assessing the students' learning retention in the course 2 weeks after posttest which was the one-group pretest–posttest design by t-test dependent. 3) Evaluating the quality of instruction media in board games based on the efficiency according to 80/80 criteria; 4) Assessing happiness in learning by finding the mean and standard deviation. And 5) Analyzing the reflective journals using content analysis.

#### 4. Results

*The results of studying, analyzing, and synthesizing the interview instructors, undergraduate students, and related documents I have found that:*

1) The instructor should allow students to participate in a variety of learning activities which give them free to think critically and learn to perform various activities by themselves for discovering knowledge by linking new experiences with existing experiences in the structure of knowledge and ideas to change the knowledge structure, changing and creating the concept of formation and assimilation.

2) Learning activities by using instruction media in board games helps learners understand the concepts that the instructor wants to communicate. It also helps to improve the thinking process and the intelligence of students. Due to the students' competition and their compete, this will help stimulate the students' interest and learning retention more.

3) Creating happiness in learning will help learners have a good attitude in learning due to the fun of the learning atmosphere, and having a good interaction between learners and learners, learners and instructor which help students to be happy and love to learn or continue to develop themselves.

*The result of designing and developing instruction media in board games to enhance the capability in the Development of Thai Textbooks and the happiness in learning for undergraduate students, with details as follows:*

1) The board game “Mae Mani” has the objective of studying and explaining the history of the development of Thai textbooks from Sukhothai until the Rattanakosin period. 2) The board game “JomJohn Pannaa” has the objective of studying and explaining the details of ancient Thai textbooks. 3) The board game “Torpak Torglon” has the objective of studying Thai textbooks according to the basic education core curriculum B.E. 2551 (A.D. 2008) at the secondary. 4) The board game “Khai Pritsanaa Tarm Ha Babrian” has the objective of studying and relating the competency and desirable characteristics of the basic education core curriculum B.E. 2551 (A.D. 2008) with the lesson in the Thai textbook. Although all four board games have different concepts, different learning objectives, or different mechanics, I have designed and developed them as a party game as well. The party game is a game that takes a short time to play and there are no complicated rules with a few pieces of equipment for a large group of players. Therefore, it is easy to prepare and provide suggestions, also, follow up on students thoroughly. In the development of instruction media in board games, design, develop and inspect the quality of instruments, I have designed, developed, and evaluated the following experts: 1) Thai content and learning management experts 2) educational media experts, and 3) happiness experts in learning and educational psychology.

*The result of the implementation of instruction media in board games to enhance the capability in the Development of Thai Textbooks and the happiness in learning for undergraduate students, I compare undergraduate students' learning ability in the Development of Thai Textbooks before and after learning instruction media in board games.*

Results of an experiment using educational media board games to promote abilities. Learning in the Thai language development course and happiness in learning for undergraduate students is a pre-experimental research with a one-group pretest–posttest design, I analyzed the data and presented them in the following order:

Table 1. Comparison of learning ability in the Development of Thai Textbook of the undergraduate student pretest and posttest scores on instruction media in board games

Evaluation	N	Score	Mean	Std. Deviation	t-statistic	sig
pretest	27	30	9.93	1.639	39.051	.000
posttest	27	30	25.15	1.064		

As shown in Table 1, the mean score of learning ability in the Development of Thai Textbook course pretest was 9.93 while the mean score of the posttest was 25.15. It could be interpreted that the mean score of the posttest was statistically significantly different than the pretest at the significance level of .05.

The result of learning retention in the Thai Textbook of undergraduate students' summative evaluation 2 weeks after the posttest were illustrated in Table 2.

Table 2. The result of the learning retention in the Thai Textbook of undergraduate students' summative evaluation of 2 weeks after the posttest

Evaluation	N	Score	Mean	Std. Deviation	t-statistic	sig
posttest	27	30	25.15	1.064	2.702	.012
Learning retention	27	30	25.86	1.322		

As shown in Table 2, the mean score of learning retention in the Development of Thai Textbook of undergraduate students' summative evaluation 2 weeks after posttest was 25.86 and the mean score was 25.15. The result of learning ability in the Development of Thai Textbook of undergraduate students was not significantly different at the level of .05. It shows that instruction media in board games help strengthen the learners learning retention.

Table 3. The result of evaluating the efficiency of instruction media in board games to enhance the capability in the Development of Thai Textbooks and the happiness in learning for undergraduate students

Evaluation	N	Score	Mean	Std. Deviation	Efficiency
efficiency of process (E1)	27	60	50.89	2.118	84.81
efficiency of product (E2)	27	30	25.15	1.063	83.83

As shown in Table 3, the efficiency value of using instruction media in board games to enhance the capability in the Development of Thai Textbooks and the happiness in the learning of the undergraduate students on the E1/E2 formula was found to meet the determined value of 80/80. It can be concluded that the instruction media in board games had efficiency at the value of 84.81 and 83.33 which indicated effectiveness.

I analyzed the level of happiness in learning the Development of Thai Textbook of the undergraduate students on instruction media in board games, after the learning activities in which I experimented with the sample group. My instrument was based on the responses to the learning happiness assessment of 27 undergraduate students.

Table 4. The result of the analysis of the level of happiness in learning Thai Textbook of the undergraduate students in instruction media in board games

Items	Mean	Std. Deviation	Interpret
Student Components	4.54	0.510	happiness in learning very high
Instructor Components	4.62	0.499	happiness in learning very high
Human Relations Components	4.65	0.528	happiness in learning very high
Leaning Management Components	4.66	0.486	happiness in learning very high
Environmental Components	4.57	0.583	happiness in learning very high
<b>Total</b>	<b>4.61</b>	<b>0.517</b>	<b>happiness in learning very high</b>

As shown in Table 4, the undergraduate students had the highest mean level of pleasure in learning the Development of Thai Textbook course towards learning instruction media in board games (M = 4.61, SD = 0.517). The above analysis has shown that board games help undergraduate students happy in learning.

Result analysis reflective journal by content analysis found that instruction media in board games enhance the capability in the Development of Thai Textbooks for undergraduate students. Recently, the evaluation from the students has shown that: 1) Using instruction media in board games helps students gain knowledge in developing Thai book learning through games. When the students play board games, it helps them learn more because each board game helps students to have fun, feel challenged, and want to beat his/her friends. Therefore, it allows the students to study and understand the content of the game, which helps students learn the concept in the development of Thai books and learning retention. 2) Instruction media in board games help students feel happy in learning, as it makes a funny classroom learning atmosphere and it is not stressful but stimulates the interest or enthusiasm of the learner. 3) Using instruction media in board games will help them gain experience and the activities will be the model for their future teaching.

In addition, learning using learning materials, educational board games also help to strengthen skills in addition to learning the content in the lesson as follows: 1) accepting and respecting the rules because in playing board games Players must respect the rules as training to know how to live with others under the common rule. 2) teamwork skills and mutual assistance. While playing they must work together to brainstorm and plan for their team to win, whilst having to help gather knowledge to solve problems in the game 3) communication and interaction skills with those around you, even if it is a match that has a losing or winning side. At the end of each play, the students would have a discussion and exchange strategies or techniques for playing 4) problem-solving skills when facing problems or challenges in the game, students have to find a solution by gathering knowledge or using different strategies to solve the problems you are facing even though it is a game. And shows that they have sufficient knowledge or lack knowledge in any subject, and review one more time.

## 5. Discussion

The discussion of the findings can be divided into:

1) The efficiency of the instruction media in board games was 84.81/83.83 which indicated effectiveness, the study found that instructional media in board games was effective in enhancing the development of Thai textbooks and the happiness of undergraduate students. The instructional media was designed based on constructivism theories, which allow students to participate in learning through the process of adapting to their environment. The process involves assimilation and accommodation, which are fundamental mechanisms in the development of cognition. The study also highlighted the importance of using educational game concepts to develop instruction media in board games because it makes learning more engaging and interactive for students. (Piaget, 1999; McInerney & McInerney, 2002) To use instructional media in board games effectively, the instructor needs to plan the design and development of the media based on the learning objectives and content of the lesson. There is a challenge in doing the activity because students play games toward the goal, choosing actions and experiencing the consequences of those actions. They actively learn and practice the right way to do things. The result is method game learning instead of passive learning. From the above process, I can develop instruction media in board games in a clear sequence. This study is also based on a system approach. According to Thammetar (2014), the system approach is the process of determining the steps, roles, and responsibilities of various components to be able to work efficiently to achieve the set goals. Therefore, to be able to use instruction media for board games effectively, the instructor needs to plan the design and development of instruction media for board games by the learning objectives and learning content of that lesson, so that the students will be motivated to learn with the instruction media to board game. According to Ledford and Sleeman (2002); and Khlaisang (2017), the use of learning media requires planning, design, and production of the content, objectives, and methods of learning management which help teaching effective and satisfaction for learners. Below exemplify the learners' comments which exhibit their satisfaction with the course.

*The second student replied: "Learning through instruction media in board games helps us feel fun, relaxed, and able to change knowledge by talking with friends and it helps me to understand the content faster and easier than passive learning."*

*The 27th student replied: "Using instruction media in board games enhances the capability in the Development of Thai Textbook because instruction media in board game allows learners to gain a greater holistic content, gain knowledge without going through lectures and make the learners more fun and able to remember various knowledge more easily."*

The concept is consistent with the research of Lee, Moreau, and Lochnan (2015) that said, instruction media in board games are an effective learning management tool because it is a tool to support students' access to knowledge while having fun.

Bringing the fun of the game combined with learning management and allowing students to learn and get the knowledge that the instructor had expected. The instruction media in board games is also an innovation, which helps learners gain knowledge and be able to remember things that is an inserting knowledge in that game longer, as I have tested learning retention by retaking the test 2 weeks after the experiment. I found the results of learning ability in the Development of Thai Textbook of undergraduate students were not significantly different at the level of .05. It shows that the instruction media in board games are a tool for transferring positive transfer. It helps the learners to have a longer learning memory because the instruction media in board games makes the learner more fun in learning.

2) The average undergraduate student's learning ability in the course after learning instruction media in board games was higher than before. The research findings from the instruction media in board games have been developed following the content of the lessons, namely the learning sequence from easy content to difficult one.

It helps learners learn the content included in instruction media in board games and efficiently links content for one game to another. The board games you choose should deliver content that adjusts to players' knowledge and learning styles. This should help the students gain a better understanding of difficult content. According to Wittrock and Baker (1991); and Khlaisang (2017), systematically organizing content learning sequences from easy to difficult and showing connected beliefs will enable learners to better access the learning media and help the students remember the content better. Instruction media in board games can be a great tool for active learning. It helps students interact with the environment and learn from the content of the game, as well as from each other. By sharing perspectives and exchanging opinions, students can learn from their previous experiences and develop their problem-solving and critical-thinking skills. The role of the instructor in this scenario is to facilitate the learning process and encourage students to analyze the content of the game and come up with new ideas. By monitoring and promoting collaborative activities, the instructor can help students create new knowledge or concepts. This approach is effective in many studies, including Orbe, Roji, Garmendia, and Cuadrado (2018); Whittam and Chow (2017); Khan and Pearce (2015); Lee, Moreau, and Lochnan (2015). The use of instruction media in board games can significantly increase students' learning efficiency and motivation in the classroom.

3) The undergraduate students had the highest mean level of pleasure in learning the development of Thai textbooks towards learning instruction media in board games. It could be claimed from the findings that instruction media in board games effectively enhanced students' happiness in learning achievement. The students' improvement in their happiness in learning due to the following reasons:

(1) Learners need teachers to manage a variety of learning. The teacher may use games as teaching materials for fun because listening to the lecture from the instructor or listening to the reports from friends only causes boredom as the students are not able to remember the content. (2) Learners need to perform class activities in addition to group reporting or do group work. (3) Learners need tools or instruction materials to stimulate their interest in learning more. (4) Learners need fun learning in the classroom because they felt the course was difficult to learn. If it has learning activities or creates good interaction, it may stimulate the students to learn more in this course. It could be because board games are forms of games that are currently very popular. It can be observed that the students often spend their free time playing board games at the university or the board game cafes. Board games are the interesting things that allow learners to learn more. Learning with happiness leads to an effective learning experience. According to Wongyai (2000); Saisana and Cartwright (2007); and Patphol (2014), happiness is a must that occurs at all times in learning activities. Providing a relaxed learning atmosphere and independence will help the students to have fun and feel more interested in learning each time.

The lesson planning and design of instruction media in board games by using the concept of happiness in learning based on development instruction media in board games can help the learners enjoy learning. Additionally, instruction media in board games is diverse and meets the learning needs of the learners. It gives the learners a concrete learning experience and a positive learning atmosphere. Meanwhile, it helps the learners to come up with the right concept quickly and easily by interacting with friends and teachers. In addition, effective content analysis has shown that when students learn by using instruction media in board games, they have positive feelings towards the learning activities, and it can stimulate and motivate them to learn more. This is because it can reduce tension in learning, allow students to play and participate in various activities by themselves, and help them to be accepted by others, allowing them to have fun in learning. The satisfaction of the learners was exemplified through their comments below:

*The 19th student replied: "I feel fun when using instruction media in board games because board games helped me to build good relationships between friends and teachers."*

*The 21st student replied: "I like to learn by using board games. I am always interested and eager to play board games education because board games help me understand the content and absorb the lessons with fun."*

As well as an analysis of the learning happiness levels of undergraduate students towards the instruction media in board games. In assessing I felt that the instructors chose to use the accompanying media. Teaching helps the lessons to be fun and to also understand the content of the Thai language development course more easily at the highest level ( $M = 4.70$ ,  $SD = 0.465$ ).

Therefore, helping students to be happy in learning is to make students love the course or have a positive attitude toward that course, as well as helping students see the value or benefits of what they have learned. Both direct experience and indirect experience will help enhance the ability to learn or to help students easily achieve those learning objectives.

## 6. Conclusion



Learning management using instructional media in board games is an interesting approach. Enhancing learning and the joy of learning leads to the development of effective learners. It is because learning can help the students develop their knowledge, skills, and attitudes as the essential foundation for their future, when applying board games for learning management in various courses, teachers should consider the learning objectives, and the importance of applying the process of the board game. The teachers should consider whether the learners have fun and challenges through the board games. And to allow the learners to have direct experience and participate

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

#### **Data sharing statement**

No additional data are available.

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