

This file has been cleaned of potential threats.

If you confirm that the file is coming from a trusted source, you can send the following SHA-256 hash value to your admin for the original file.

bb5a521ee245af347fb7416bd50ae3d6f980310d42e856b8c132197b30dd6c4a

To view the reconstructed contents, please SCROLL DOWN to next page.

# THE DEVELOPMENT OF CRITICAL THINKING SKILLS IN SAVING AND INVESTMENT FOR GRADE 8 STUDENTS BY EDUCATIONAL GAMES

**Kittitat Jaradlertwong**

*Demonstration School of Suan Sunandha Rajabhat University*

*E-mail: kittitat.ja@ssru.ac.th*

## ABSTRACT

This study looked at how educational games can help eighth-grade students build critical thinking abilities related to investing and saving. Goals: To contrast the eighth-grade students' analytical thinking abilities about investments and saves at Suan Sunandha Rajabhat University's Demonstration School uses instructional games before and after classes. Ten eighth-grade students enrolled in the first semester of the 2023 academic year at Suan Sunandha Rajabhat University's Demonstration School served as the sample for this study. Results from the post-test following the game card activity indicate that students' critical thinking abilities were improved; the results for comparing students' critical thinking abilities prior to learning were not passed at the 8.76 level of mean and 4.08 level of standard deviation. Students' critical thinking abilities were found to be better overall.

**Keywords:** Critical Thinking, saving, investment, Educational Games

## INTRODUCTION

Following the COVID-19 pandemic, the world is currently dealing with severe financial and economic issues, particularly affecting small and home companies. Little company savings are crucial engines for the steady growth and expansion of the economy. A key tool for fostering and expanding students' knowledge is how economics instruction is organized. Recognize the procedure and the significance of investing, economics, and finance, which have the potential to grow and hurt people as well. According to the Bank of Thailand's Economics Volume One Yu (2012: 8), a lot of individuals presumably know that "economics" has to do with money and uses a lot of fancy terminology that academics like to use, such GDP, inflation rates, interest rates, and exchange rates. However, economics is a more complex field than that. If we inquire with individuals at general market stores,

Even though the term "economics" may not be known to you, everyone is aware of this area of study. Given that economics affects people of all ages, genders, and professions on a daily basis, it is true that we all think differently. Economic model: "from the moment we get up till we go to bed, constantly. According to Teerana Phongmakaphat and associates (2017: 4), economics is important from the moment one wakes up until one dies. Economics aids customers in making appropriate income allocations. A finite quantity can be used to buy different products and services. appropriate, valuable, and most advantageous. Customers are also assisted in understanding the change. Recognize how to make the most use of few resources for consumption among the economic occurrences. In effect capable of planning spending, saving, and other activities as well as precisely and reasonably predicting changes in the costs of products and services. according to The Ministry of Education's 2008 Basic Education Core Curriculum states that Economics has been assigned as the subject. Standard S 3.1, "Understand and be able to manage resources in production and consumption," is found

in topic 3 of the social studies group. resource usage that is economical and efficient in its limitations include being aware of the Sufficiency Economy's tenets Analyze the variables influencing savings and investments in order to live a balanced life in Grade 8. In this sense, the social studies, religion, and culture learning group's core curriculum (2008: 62) has identified the following as the temple's primary content: Pupils have to study. The definition and significance of savings and investment for the economy Administration of investments and savings in households Interest rates are a component in saving and investing, but there are other elements as well, like the value of money, technology, and future speculation. Issues with savings and investments in Thai society thus, learning management in the field of economics Students must be familiar with the fundamentals of economics. Students need to be capable of analytical thought as well. to maximize efficiency in life by applying knowledge. Additionally, studying at a higher level might be pursued.

Suan Sunandha Rajabhat University's Demonstration School Suan Sunandha Rajabhat University is in charge of it. Using the Ministry of Education's curriculum for social studies teaching techniques, the Ministry of Higher Education, Science, Research, and Innovation arranges instruction for students in grades 1 through 12. In the first through third year of schooling, The majority of students were still perceived as having to memorize material in social studies, it was discovered. It's a far-off topic. Pupils anticipate that they might not rely only on it for their livelihood. Furthermore, teachers prioritize one-way learning in the classroom when they are unable to draw students' attention to the material. As a result, it might influence how well students succeed academically in social studies as a subject. Economics no longer satisfies the standards at this point. It should be up to the target student group to solve the problem of analytical skills. This is a result of students' incapacity to assess, distinguish, and rank the importance of many factors that impact policy implementation and expenditure. or business activities

Educational games are an effective learner-centered learning management strategy that helps students acquire the skills necessary to successfully complete a learning task, according to research. This is dependent upon the game's learning objectives and methodology, as well as the ways in which Supachai Tansili hopes to develop learners. According to the institution (2010:165), using game-based learning strategies allows students to be challenged academically while also having fun. Students can engage in learning management through direct experience, as they are active participants in the process. Suthirat Chaiwat (2018: 439)

Summarized the learning management of this technology as the nature of instructional games. The goals, rules, and rules of the game must be clear and easy to understand. The content and duration of the game must be suitable for the students' goals and levels. Students should participate in various activities, have fun, and attract attention to their studies. In addition, games are one of the activities that interest you. When it comes to games, you want to get close. summed up this technology's learning management as the nature of educational games. The game's objectives, guidelines, and rules must all be obvious and simple to comprehend. The game's length and content must match the objectives and skill levels of the pupils. Pupils ought to engage in a variety of activities, enjoy themselves, and draw attention to their academic work. Furthermore, one of the hobbies you enjoy is playing games. It's important to get close when playing games.

## **Objective**

Compare the grade 8 students at Suan Sunandha Rajabhat University's Demonstration School's proficiency with savings and investment analysis tests both before and after studying educational games

## Target Group

The grade 8 students enrolled in the first semester of the 2023 academic year at Suan Sunandha Rajabhat University's Demonstration School serve as the research's target group. Ten students were chosen through the purposeful selection process because the majority of them failed the critical thinking skills exam. This is due to the fact that most students who study economics believe it to be a remote subject that has no bearing on their daily lives. As a result, their critical thinking skills fall short of the required level.

### The research's variables included:

Main factor : educational games  
Dependent variable : Development of critical thinking abilities.

### Time devoted to investigation

The study will be carried out by the researcher between October and December of 2023 for a duration of three weeks.

### Definitions of particular words

Gaining analytical thinking abilities entails gaining critical thinking abilities for use in leading a good life.

Games for education are learning tools that emphasize enjoyment and rivalry. virtual simulations that could have similar effects as real life. Definitions of particular words

Students are eighth graders enrolled in the second semester of studies. 1. Academic year 2023: Suan Sunandha Rajabhat University's Demonstration School

### How to conduct research

Using educational games, Suan Sunandha Rajabhat University students in the Demonstration School can develop their analytical thinking skills on saves and investments. The comparison of abilities and critical thinking is the aim. Using before- and after-school instructional games about investing and saving This study is experimental, and the specifics are as follows:

1. Target group
2. Research tools
3. Data collection
4. Data analysis

### The research's instruments

1. Educational game about investing and saving money.
2. Exams to gauge students' critical intellectual thinking around investments and savings. 20 questions, 4 options.
3. A lesson plan about investing and saving money. Including three instructional game plans.

Gathering of data Design experimentation This study is experimental in nature. The single group pretest-posttest experimental design was employed by the researcher (Suwimon Tirakanan, 2008: 21).

pretest	treatment	posttest
O1	X	O2

When O1 represents pre-test  
X represents teaching using educational games  
O2 represents post-test

## FINDINGS FROM RESEARCH

This report claims that the following goals guided the data analysis results that the researchers submitted:

**Table 1** shows the learning standard deviation and average level of students that use educational games.

Students	Pre-test	Post-test
Student 1	8	15
Student 2	9	17
Student 3	4	14
Student 4	10	11
Student 5	8	18
Student 6	7	19
Student 7	2	20
Student 8	5	19
Student 9	6	16
Student 10	11	19
$\bar{X}$	7.00	16.82
SD	2.79	2.82

Table 1 shows that before using educational games, the average value was 7.00, with a standard deviation of 2.79. This is an unqualified level, and when learning through educational games, it is found that the average and standard deviation are higher. At 16.82, the standard deviation is 2.79.

## SUMMARY

Results overview and discussion Students in grade 8 employ instructional games for a variety of learning objectives, including data analysis, investment and savings.

The researcher wants to talk about and summarize the findings. The following are the research aims, in accordance with them: Prior to employing educational games, the average was equal to 7.00 and there was a lack of analytical thinking abilities in the study of saves and investments of grade 8 students. With a standard deviation of 2.79, the data does not meet the required standards. The mean and standard deviation are larger when learning is organized with educational games; in this case, the mean is 16.82 and the standard deviation is 2.79. This is because instructional games simulate hypothetical scenarios in which pupils are genuinely impacted, which helps students strengthen their analytical skills. Additionally, instructional games help pupils build their competencies. Yaemdee Sarawut (2023: 550) stated that the organization of teaching and learning is currently a challenge for Thailand's educational management, which has an impact on the growth of educational quality as well as the caliber of students and graduates. Accordingly, instructional games contribute to the growth of abilities and proficiencies in accordance with Lee's theory (quoted in Chaiwat Suthirat, 2018: 437–438). According to him, instructional games are produced in order to: 1. Encourage pupils to take an active role in their education. 2. Playing games increases motivation. 3. Encourage collaboration and engage in cooperative communication. 4. Provide kids with the chance to solve issues and make decisions.

Games provide quick feedback or results after wins or losses. 6. Playing games lessens errors. There is greater freedom than normal for the pupils. Perhaps you don't need to feel

scared or anxious. A red pen from the teacher, or the wrong check. 7. It encourages teamwork and is an additional social learning method. Additionally, completing quizzes to advance in the game presents some challenges. According to Atthaset Pridakorn (2014: 88), who carried out a study on creating a board game on natural color circles for students, and using the identities of the students to recreate circumstances as part of the game. Students in grade 6 discovered that their academic performance was higher following their use of instructional board games than it was prior to learning. Following an evaluation of a Using a sample of thirty individuals and a 4-choice test consisting of twenty questions, it was discovered that the students' average score before studying was 11.93, while their average score after studying was 16.17.

## **SUGGESTIONS**

1. Suggestions for applying research Educational games on savings and investment can create a focus on creating value and fun in teaching.
2. Suggestions for Making Next Research The researcher should study the process of playing a variety of games.

## **ANNOUNCEMENT**

The undergraduate financing for this research demonstration was provided by Suan Sunandha Rajabhat University, for which the researchers are grateful. Suan Sunandha Rajabhat Undergraduate Demonstration School is to be thanked for providing the study's target audience and introduction.

## **REFERENCE**

- Atthaseth Preedakorn. (2014). Academic achievement of Grade 6 students on the subject of natural color circles. Thesis, Master of Education Degree Program Department of Art Education Srinakharinwirot University. Bangkok: Thailand Agricultural Cooperative Conference Printing Factory. Restrictions.
- Chaiwat Suthirat. (2018). 80 Innovative Learning Management Centered on Learners. 8th Edition. Nonthaburi: P Balanced Design and Printing.
- Karuna Phitakthon. et al. (2018). A study of students' ability to read Mae Kon and Mae Kod spelling words. who have reading problems at the high school level Using the phonics method Together with board games. Journal of Research and Development of Special Education, Faculty of Education Srinakharinwirot University
- Kritanai Chumvuttisak. (2015). Developing critical thinking skills and civic attitudes based on democratic approaches. Learning unit Theme: Good Citizenship in a Democratic Way, Social Studies 15101, 5. Journal of the School of Education at Kong Jing University.
- Ministry of Education. (2010). Core Curriculum for Basic Education. Second Edition.
- Ministry of Education. (2019), National Education Law B.E.2542 (1999) and its amendments (No. 4) B.E.2562 (2019) And relevant ministerial regulations and the Education Law - mandatory. Bangkok: Printing, Transportation, and Packaging Organization.
- Rakchon Buddharsri. (2011). Applying board games to performance skills. Master's thesis in Communication Arts. Chulalongkorn University.
- Sarawut Yamdee. (2023). Needs Assessment to Develop Desirable Characteristics with Competencies of New Generation Students for 21st Century Learning of Secondary Schools in Bangkok, International Academic Multidisciplinary Research Conference in Zurich 2023.

- Supachai Tansili et al. (2010). Innovation and Educational Technology. (Second Edition). Bangkok.
- Tisana Khemmanee. (2018). Teaching Science: Knowledge of Effective Learning Processes. 22nd edition. Bangkok: Chulalongkorn University Press.