

# The Effectiveness of Learning Management by Applying Visual Thinking Strategy (VTS) for Enhancement of Buddhist Citizenship Based on the Five Precepts of the Students at Wat Rai Khing (Suntorn Utit) School, Sam Phran District, Nakhon Pathom Province

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**Received:** January 29, 2025 **Revised:** January 30, 2025 **Accepted:** January 31, 2025

## Abstract

The study investigates the application of visual thinking to improve learning management among Grade 6 students at Wat Rai Ginger School in Sunthorn Uthit. The research involved 107 students and analyzed data through pre- and post-school tests and satisfaction assessments. Results showed high learning management, academic achievement, and enhanced speaking, expressive, and creative writing skills. The students also embraced the five precepts, reducing hurtful behavior, bullying, disrespectful language, and teasing parents' names. The study highlights the effectiveness of visual thinking in promoting Buddhist citizenship.

**Keywords:** Effectiveness; Learning Management by Applying Visual Thinking Strategy; Buddhist Citizenship

## Introduction

Education is essential to national development because it develops human resources and prepares people for future changes. The problem of Thai children's thinking processes through a declining and lagging education system significantly impacts the country's development. This issue is considered important, and many have expressed their opinions and views on it regarding Thai children. The article by Klin Sarathongniam (2023) highlights the poor outcomes of the previous education system. According to the evaluation by the Office for National Education Standards and Quality Assessment (ONESQA), the analytical thinking processes of children are mostly at a satisfactory level. When compared to other countries, the situation is even worse. The PISA assessment of scientific knowledge and skills shows that Thai children score below average. Therefore, it is not surprising that the quality of education and the quality of life for Thai children continue to decline. This aligns with the research by Sitthipol Ajnin (2011), which found that the academic

achievement, thinking skills, and research skills of students in the 6th grade of primary school and the 3rd grade of secondary school are at an unsatisfactory level. When considering the school level, it was found that more than 90% of schools have average scores for academic achievement, thinking skills, and research skills at a level that needs improvement, especially in analytical thinking skills. Therefore, organizing learning activities using Visual Thinking Strategies is one method that can help develop thinking skills. It also fosters the development of communication and creative writing skills. The academic achievement, thinking skills, and research skills of learners are at a level that needs improvement, especially analytical thinking skills. Therefore, organizing learning activities using Visual Thinking Strategies is one way to help develop thinking skills, as well as promote communication and creative writing abilities. Importantly, the implementation of learning activities using visual thinking strategies can serve as a tool for classroom learning to cultivate Buddhist citizenship among students. Essentially, a Buddhist citizen should be someone who knows and diligently observes the Five Precepts, possesses the mindset to behave as a decent person with moral and ethical values, and has a sense of fear and shame when committing wrongdoing. Additionally, it helps in nurturing youth to become good citizens of society or good citizens in the Buddhist perspective, which can be considered from various angles, both individually and socially. Individual and societal aspects indicate that a person is considered good according to Buddhist principles, such as respecting the rights to life and property of others (metta). A good citizen refrains from speaking ill of others, refrains from deceiving, and performs social duties with justice by acting appropriately in all levels of relationships. In the process of thinking, a good citizen must have the right view at the level of the mind, which means not being excessively greedy (avissamalobha), not harboring ill will towards others (avyapada), and not blaming others (anabhijjhā/not seeking revenge on others). Because being a good citizen requires that any expression originate from appropriate sources. It is crucial to cultivate positive thoughts and attitudes (Channarong Boonhun, 2010).

The researcher wants to find out how well using image-based thinking strategies to manage learning can improve the Buddhist citizenship of students at Wat Raikhing School (Suntor Uthit), Sam Phran District, Nakhon Pathom Province, so that they can be exemplary Buddhist citizens and be able to use their imaginations in smart and useful ways when they think critically. This aims to promote creative analytical thinking skills for sixth grade students at Wat School (Suntor Uthit).

## **Research Objective**

1. To study the level of learning management by applying Visual Thinking Strategies to enhance Buddhist citizenship according to the Five Precepts.

2. To study the academic achievement of 6th-grade students at Wat Rai Khing School (Suntorn Utit) after applying the Visual Thinking Strategies in the learning management to promote Buddhist citizenship according to the Five Precepts.

3. To study the effectiveness of learning management by applying Visual Thinking Strategies to enhance Buddhist citizenship based on the Five Precepts among students of Wat Rai Khing School (Suntara Utit), Sam Phran District, Nakhon Pathom Province.

## Literature Review

Tisana Kaemmani (2010) defined the instructional model as a systematic teaching plan that is organized in accordance with the theories and principles of learning or teaching that the model adheres and has been proven to be effective. It can help learners achieve the specific objectives of that model. Generally, the teaching plans consist of the theories and principles that the model adheres to and specific teaching processes that lead learners to the specific objectives set by that model. Instructors can use it as a framework or example for organizing and conducting other learning processes with similar specific objectives. The learning management model, according to Kanaporn Khomson (1997), is the organized and systematic way of managing teaching, philosophical theories, principles, concepts, or various connections form its foundation. It employs different teaching methods and techniques to ensure that the teaching and learning environment adheres to the established principles. Each model must specify details regarding the teacher's lesson preparation, teaching execution, and evaluation to understand how learners will achieve the set objectives. Concepts related to learning through visual thinking strategies Lesley K. Sword (2023) mentioned that the meaning of thinking using images as a medium is holistic thinking. This type of thinking uses images, colors, graphics, and maps to aid in the thought process. Yenawine (2013) states that the selection of images is a crucial factor in promoting the development of viewers' thinking. The selection of images can be categorized by topics such as attracting attention, conveying multiple meanings, providing opportunities for learners to practice their skills in discovering the stories within them, offering diversity in terms of time and culture, and arranging them from simple to complex. Concepts related to the five precepts, the five precepts in the Tripitaka are called the five training rules, which means rules that should be studied and observed with caution to avoid transgressions. They are as follows: 1) Panatipata Veramani: the intention to abstain from killing living beings. 2) Adinnadana Veramani: the intention to abstain from taking what is not given. 3) Kamesu Micchacara Veramani: the intention to abstain from sexual misconduct. 4) Musavada Veramani: the intention to abstain from false speech. 5) Suramerayamajjapamadatthana Veramani: the intention to abstain from intoxicants that are the basis of heedlessness. (T.Pa. (Thai) 11/286/301-303) Phra Dhammapitaka (Prayudh

Payutto, 1999) stated that "Sīla" means the intention is not to violate rules or harm others. If we look only at actions, Sīla is the non-violation, the non-harm. Furthermore, Sīla is about restraint, guarding oneself, and preventing evil from arising. If we look deeply, it is the state of mind of one who does not think of violating or harming others with body, speech, or mind. Related research Krisana Suyaa (2009) conducted a study titled "Using visual thinking techniques to enhance the creative reading and writing skills of undergraduate students in English" by employing visual thinking techniques. The teaching was carried out with 28 undergraduate students, and it was found that the students' abilities in reading and creative writing in English improved after receiving instruction using visual thinking techniques. "The study of ethical reasoning through the concept attainment model combined with visual thinking techniques in the subject s15101 social studies, religion, and culture for grade 5 students at Ban Kapi School" was the name of the study that Jakarin Biao Chan and Montha Chumsukon did in 2022. The research showed that 1) all 8 students met the criteria for ethical reasoning, which is 88.89% with an average score of 65.44, or 81.8%. This is higher than the set criteria of 70%, as 70% of the students scored above 70%. 2) Students achieved the learning outcomes with a passing rate of 7 people, accounting for 77.77%, with an average score of 21.11, equivalent to 70.36%, which exceeds the set criteria of a 70% passing rate. Marlena Stradomska (2022) studied the topic "Visual thinking (VT) in educational issues" and concluded that visual thinking (VT) is becoming increasingly intriguing for many social and professional groups. It is crucial to create and utilize teaching that incorporates modern technology and innovative teaching techniques. This article recounts the case study research conducted during the coronavirus pandemic from March 2020 to July 2021, initiated at Maria Curie-Skłodowska University in Lublin. After the outbreak of the coronavirus, students learned about issues and programs related to VT in practice. The study also looked at how pictures can be used to show data, the creative writing that has already been done, the benefits of using pictures to help with learning and teaching, and different kinds of programs that can help make visual results. This document also includes practical guidelines for using images and the functionalities of specific programs or applications (Canva, Powtoon, Prezi, Miro, Mural).

## **Research Methodology**

This research is a quasi-experimental design. The population consists of 266 sixth-grade students from Wat Raikhing School (Suntarutith) studying in the first semester of the 2024 academic year. The sample size was determined using Taro Yamane's formula (cited in Sirilak Suwanwong, 1995), resulting in a sample size of 107 people. The research instruments used include three lesson plans for the subjects of Religion, Morality, Ethics, and Citizenship; Culture; and Living in Society for Grade 6; an analytical thinking skills

assessment form; pre- and post-learning tests; and a satisfaction assessment form. We collected data by implementing the image-based thinking strategy learning technique during teaching activities with the designated sample group. We tested students' communication and creative writing skills using a communication and creative writing ability assessment tool after they had been taught using the image-based thinking strategy learning method for each plan. The 75/75 criteria were used to judge how well the image-based thinking strategy learning technique worked, and learning outcomes were compared between before and after. Subsequently, the satisfaction after the teaching was measured by applying the image-based thinking strategy learning technique. We analyzed the data using statistical methods to calculate the average, standard deviation, percentage, and t-test for each individual's scores. Standard deviation, percentage, and t-test.

## Research Results

The researcher has presented the research summary as follows. 1. Sixth-grade students at Wat Raikhing School (Suntara Uthit), Sam Phran District, Nakhon Pathom Province, are very good at managing their learning by using visual thinking strategies to improve their Buddhist citizenship based on the Five Precepts. The average is 3.93. Each aspect is operating at a high level. When considering each aspect in order of average, it was found that the aspect of learning techniques has the highest average at 4.05, followed by the aspect of benefits from learning techniques with an average of 3.97, and the aspect with the lowest average is the teaching and learning activities with an average of 3.80. When considering each aspect individually, it was found that 1.1 In terms of content, the overall level is high, with an average score of 3.90. Regarding the clarity and ease of understanding of the content opinions, the average score is the highest at 4.11. 1.2 In terms of teaching and learning activities, the overall level is high with an average score of 3.80. Regarding the aspect that the activities help summarize the main ideas of the content, the average score is the highest at 4.04. 1.3 Learning techniques overall are at a high level, with an average score of 4.05. Regarding the aspect that the instructor applies various teaching techniques to engage and maintain student interest, the average score is the highest at 4.23. 1.4 In terms of the benefits from learning techniques, the overall level is high with an average of 3.97. Regarding the belief that learning techniques aid in the development of reading and analytical thinking skills, the average score is the highest at 4.17. Students in the sixth grade at Wat Raikhing School (Suntor Uthit) did well on tests (72.92%) after using Visual Thinking Strategies to help them learn and live as good Buddhist citizens according to the Five Precepts. They got an average score of 21.87 out of 30 points. This indicates  $E1 = 72.92$ . The effectiveness after learning with Visual Thinking Strategies showed that students who learned with this method had an average score of 15.83 out of a total of 20 points, which

is 79.15%. This indicates  $E2 = 79.15$ . In this case, the Visual Thinking Strategies learning model meets the criteria of 75/75 in terms of process/outcome ( $E1/E2$ ). Its score is 72.92/79.15.

3. The pre-test and post-test of the 6th grade Students at Wat Rai Khing School (Sunthra Uthit) had average scores of 10.05 and 15.83, respectively. When comparing the scores before and after the lesson, it was found that the post-test scores of the students were significantly higher than the pre-test scores at the .01 level of statistical significance.

4. The effectiveness of learning management By applying the visual thinking strategies to enhance Buddhist citizenship, there was a high level of ability to express one's thoughts among students at Wat Raikhing School (Suntharuthit), Sam Phran District, Nakhon Pathom Province, as shown by the Five Precepts. The overall average score was 4.12, with a standard deviation of 0.738 and a percentage of 72.81. It was found that the learning management plan about following the Five Precepts had the highest quality score ( $M = 4.16$ ,  $S.D. = 0.681$ , percentage = 76.94). In terms of creative writing ability, it was found that students have a high level of creative writing ability, with an overall average of 4.03 ( $S.D. = 0.843$ , percentage = 71.34). When categorized by each learning management plan, it was found that the learning management plan for doing good deeds had the highest quality percentage score (4.25,  $S.D. = 0.805$ , percentage = 71.95).

5. The satisfaction of the 6th-grade students at Wat Rai Khing School (Sunthorn Uthit) towards the application of Visual Thinking Strategies is overall at a high level. The average is 3.88, and all aspects are at a high level as well. When considering each aspect and ranking them by average, it was found that the teaching staff aspect had the highest average at 3.93, followed by the content aspect with an average of 3.91, and the assessment and evaluation aspect had the lowest average at 3.83. Upon examining each aspect, we discovered that the teachers' overall level is high, with an average score of 3.93. When considering the details, it was found that satisfaction with teachers' encouragement for students to be eager to learn had the highest average score. of 4.23.

5.2. The content aspect overall is at a high level with an average of 3.91. When considering the details, it was found that satisfaction with the learning activities aligning with students' interests and needs had the highest average, which is 4.11.

5.3 In terms of teaching and learning, the overall level is high, with an average of 3.88. When considering the details, it was found that the satisfaction regarding the issue of all students having the opportunity to present their work had the highest average, which is 4.17.

5.4 In terms of measurement and evaluation, the overall level is high, with an average of 3.83. When considering the details, it was found that the satisfaction regarding the increase in students' knowledge and understanding in learning activities after using the image-based thinking strategy technique had the highest average, which is 3.95.

6. The researchers and teachers at Wat Rai Khing School (Sunthorn Uthit), Sam Phran District, Nakhon Pathom Province, saw that the students were more likely to follow the Five Precepts after using image-based thinking to learn them.

The children have shown more compassion toward animals, refraining from harming or mistreating them. They have also demonstrated a decrease in lying, gossiping, slandering, and even mocking their parents' names. This indicates that the students' behavior is developing toward being Buddhist citizens who follow the Five Precepts at a satisfactory level.

## Discussion

The research study reveals that applying the technique of image-based thinking enhances the effectiveness of learning management. The research study aimed to enhance Buddhist citizenship according to the Five Precepts among students of Wat Rai Khing School (Sunthra Uthit), Sam Phran District, Nakhon Pathom Province. The study revealed several noteworthy findings: 1. The study found that sixth-grade students at Wat Rai Khing School (Suntharuthit), Sam Phran District, Nakhon Pathom Province, were generally very good at managing their learning by using image-based thinking strategies to improve their Buddhist citizenship based on the Five Precepts. They got an average score of 3.93 for this. Each aspect was also at a high level. This is because the students had a consistent opinion that this learning model is beneficial and can effectively develop creative thinking processes for learners. Oranicha Sangkaw researched this in 2022 and wrote about "The Development of Learning Activities Using the Flipped Classroom Concept Combined with Image-Based Thinking Strategies to Enhance Concepts and Mathematical Problem-Solving Abilities for Grade 10 Students." This fits with what she found. The study results showed that using the flipped classroom idea along with picture-based thinking strategies to help 10th graders improve their understanding of concepts and math problem-solving skills was a great idea. 2. High school students in Grade 6 at Wat Raikhing School (Suntor Uthit) did well in school after using the visual thinking strategy. Their process/outcome efficiency (E1/E2) was 72.92/79.15, which was above the required 75/75. The pre-test and post-test scores of Grade 6 students at Wat Raikhing School (Suntor Uthit) were 10.05 and 15.83, respectively. When comparing the pre-test and post-test scores, it was found that the post-test scores were significantly higher than the pre-test scores at the .01 level. This indicates that the application of the visual thinking strategy in learning is student-centered, allowing students to learn and express their opinions freely without needing constant guidance from the teacher in analytical thinking. In line with what Jakrin Biaochoan and Montha Chumsukon found in their 2022 study, "The Use of Ethical Reasoning through Concept Attainment Model Activities Combined with Visual Thinking Techniques in the Subject S15101 Social Studies, Religion, and Culture for Grade 5 Students at Ban Kapi School," this is what happened. The research found that 7 students, or 77.77%, passed the academic achievement criteria with an average score of 21.11, or 70.36%, which meets the set criteria of 70%. 3. The

effectiveness of learning management through the application of image-based thinking techniques revealed that students have the ability to express opinions and creative writing skills, with average scores in both areas being at a high-quality level. This is because the instructor used questioning techniques to stimulate students' analytical thinking. The questions posed were not leading but rather encouraged analytical thinking, and the stimulating questions were open-ended, allowing students to respond without being right or wrong. This shows that the students were using analytical thinking, which is in line with Poonyavi Saengmontri's (2015) study, "The Development of English Lessons Using Image-Based Thinking Techniques to Enhance the Speaking and Creative Writing Skills of 11th Grade Students." The research findings showed that: 1. The development of English lessons using image-based thinking techniques was highly effective and suitable for students' knowledge and abilities. 2. The target group of students had excellent speaking abilities in English after learning with image-based thinking techniques. 3. The target group of students had excellent creative writing abilities in English after learning with image-based thinking techniques.

## Knowledge

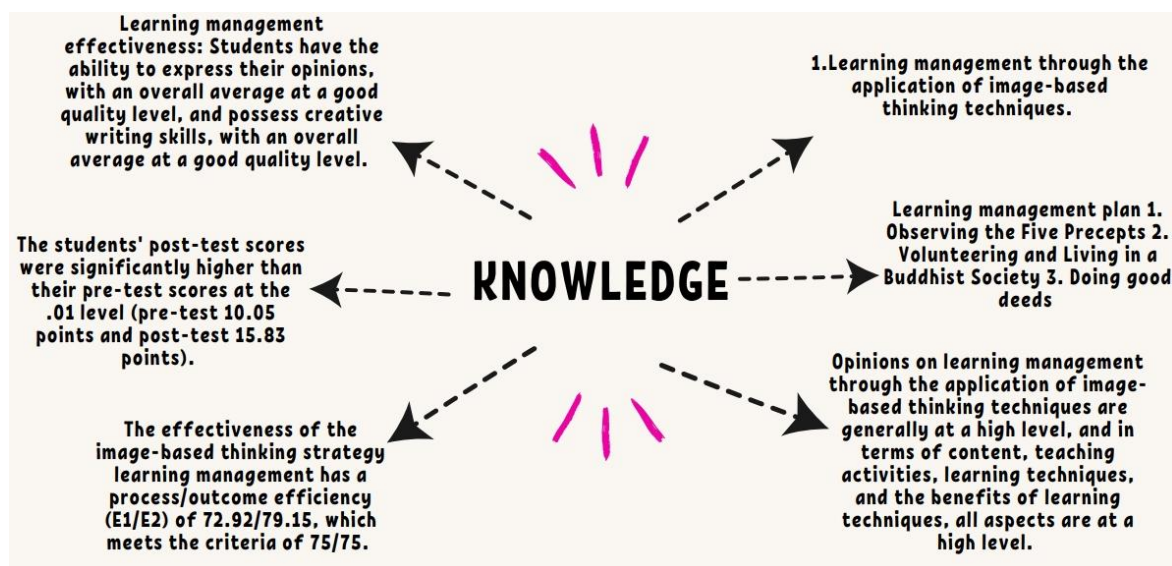


Figure 1: Knowledge acquired from research

Source: Synthesized by the researcher, Chartrawee Maneekut

From Figure 1, the knowledge gained from the research concludes that the learning management by applying Visual Thinking Strategies (VTS) using learning management plans, including the Five Precepts, volunteerism, living in a Buddhist society, and doing good deeds, has been applied. The sixth-grade students at Wat Raikhing School (Sunthorn Uthit) have an overall opinion on the learning management by applying Visual Thinking Strategies



at a high level. In terms of content, teaching activities, learning techniques, and the benefits of learning techniques, all aspects are at a high level. The effectiveness of the learning management using Visual Thinking Strategies has a process/outcome efficiency (E1/E2) of 72.92/79.15, which meets the criteria of 75/75. The students' post-learning test scores were significantly higher than their pre-learning scores at the .01 level (pre-learning 10.05 points and post-learning 15.83 points). Students have the ability to express their opinions, with an overall average at a good quality level, and possess the ability to write creatively, with an overall average at a good quality level.

## Suggestion

### 1. Policy recommendations

Current teaching management needs to emphasize the use of analytical thinking. However, both teachers and students still cling to traditional teaching methods, which involve textbook learning and rote memorization. Research has shown that applying the VTS learning technique, or image-based thinking strategy, can help students think more creatively.

### 2. Practical recommendations

Instructors should encourage students to engage in more analytical thinking. This could involve presenting analytical questions for students to discuss before starting the lesson, or facilitating discussions for students to exchange knowledge before teaching various subjects. Additionally, students should be interested in and understand the VTS learning method to develop their analytical thinking skills, which will be highly beneficial for everyday life and in teaching various subjects.

### 3. Suggestions for future research

There should be research on methods to enhance learners' analytical thinking skills to the level where they can connect ideas to the extent of creating their own mind maps. This will enable learners to understand creative analytical thinking well. Additionally, other learning techniques should be applied for integrated research, such as the Questioning Method, Problem-Based Learning (PBL), and the Discussion Method, among others. This will provide insights into various teaching strategies and truly address the development of analytical thinking skills.

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