

Enhancing Reading Comprehension by Using the STAD Technique in Seventh Grade Students at a Secondary School

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Abstract

Thailand's 21st-century education landscape adapts to Web 2.0, incorporating modern devices and focusing on future-oriented learning, self-management, and life skills. Teachers must adapt teaching activities to meet students' needs. This research explored and evaluated the English reading comprehension skills of students both before and after implementing the STAD teaching method. It studied students' satisfaction with integrated English reading comprehension using the STAD teaching technique. The findings in Chapter 1 indicated moderate understanding, accompanied by a high standard deviation. In Chapter 2, students showed improvements with an average score of 62%, suggesting consistent teaching methods. Chapter 3, Home, yielded the highest average score of 8.33, indicating the effectiveness of the STAD approach. The total mean score for the 40 students was 19.80 out of 30 points, indicating satisfactory learning achievement through the STAD technique. After using the STAD technique, the difference in scores between pre-test and post-test was calculated, revealing an improvement in reading comprehension scores of 17 points and 4 points, respectively. In addition, students were generally satisfied with the STAD technique for enhancing reading comprehension among seventh-grade students. They were satisfied with teacher performance, content, and reading activities. In conclusion, the study compares the English reading comprehension abilities of seventh-grade students before and after learning the STAD teaching technique at a secondary school. Results show significantly higher comprehension after using STAD, and students are highly satisfied with the teaching and learning process. The discussion stated that the STAD technique significantly improved English reading comprehension in seventh-grade students, facilitated by structured learning and group discussions. High satisfaction levels were observed, but a need for clearer communication and reevaluation of assessment methods was noted. Recommendation is that the study on the STAD technique in seventh grade suggests promoting awareness, creating engaging materials, fostering collaboration, using assessment methods, and monitoring learning outcomes. Future research should expand the sample, compare methods, and understand long-term effects.

Keywords: Reading Comprehension, STAD Technique, Seventh Grade Students



Introduction

In the 21st century, Thailand's educational landscape has evolved significantly due to the influence of technology. The Web 2.0 era requires teachers to adapt and manage education in an open-world society, incorporating modern devices such as tablets, computers, and smartphones. The 21st-century learning skills have five components: future-oriented learning, self-management, living with others, creating a joyful life, and living with nature. The Thai Basic Education Curriculum 2008 connects these skills to learners' five key competencies, which include communication, thinking, problem-solving, applying life skills, and technological application. The desirable skills in the 21st century, known as "3R8C," include reading, writing, and arithmetic, and 8C: critical thinking and problem-solving, creativity, collaboration, teamwork and leadership, communication, information and media literacy, cross-cultural understanding, computing and ICT literacy, career and learning skills, and compassion. Teachers must determine how to conduct teaching activities that match students' skills and drive learning. In the 21st century, education is a pivotal force shaping the future of societies across the globe. Teaching in the 21st century requires a paradigm shift, moving beyond the mere transmission of knowledge to cultivate essential skills and competencies. Proficiency in reading skills is crucial for success in various aspects of life, from academic achievement to professional advancement and personal enrichment. Reading comprehension is intricate and multifaceted, with ongoing issues affecting young people, adolescents, and adults. Effective reading comprehension is crucial for preventing or mitigating these problems. Reading comprehension is a dynamic, real-time process, and its meaning depends on the context of the text. In conclusion, the importance of reading lies in transforming words or letters into meaningful ideas, understanding the text, and capturing its key points. Reading comprehension is a crucial skill for students, as it helps them summarize stories and identify key points, broaden their knowledge across various academic disciplines, and connect their reading skills to writing, listening, and speaking in English. However, Thai students consistently have low averages in reading comprehension, with only 25.55% meeting the school's benchmarks. Researchers have studied effective reading techniques and teaching methods to address this issue, but they have not widely disseminated these methods. Robert Slavin and his associates at Johns Hopkins University developed the Student Teams-Achievement Divisions (STAD) teaching model, which is an interesting and potentially effective method to address reading comprehension instruction. STAD is an effortless technique that promotes understanding and cooperation in reading between teachers, students, and reading materials. Small groups of high, average, and low achievers from diverse ethnic backgrounds and genders divide the students. The successful implementation of STAD depends on adhering to specific procedures while allowing for modifications based on the teaching environment. This research aims to improve the English reading abilities of seventh grade students at Nakhonnayok Witthayakhom School, aiming to enhance their reading skills for a better future. The STAD reading strategy supports reading comprehension by connecting students' prior knowledge and experiences with new information, enabling them to understand and independently expand their reading while fostering lifelong learning. It also provides a framework for teachers to improve their reading instruction methods, as well as for scholars who are interested in studying the STAD teaching strategy to enhance reading comprehension skills in lower secondary students. This method effectively enhances English reading comprehension, increasing students' interest and satisfaction in reading.



Research Objectives

1. To evaluate the English reading comprehension skills of students both before and after implementing the STAD teaching method
2. To study students' satisfaction with integrated English reading comprehension using the STAD teaching technique

Conceptual Framework

The study explores the STAD teaching method, a strategy for teaching reading comprehension through cooperative teamwork. It aims to enhance students' English reading comprehension by tailoring lesson content to their reading abilities, fostering communication skills, and assessing their knowledge. The STAD technique serves as an effective tool for learning management and development of reading skills.

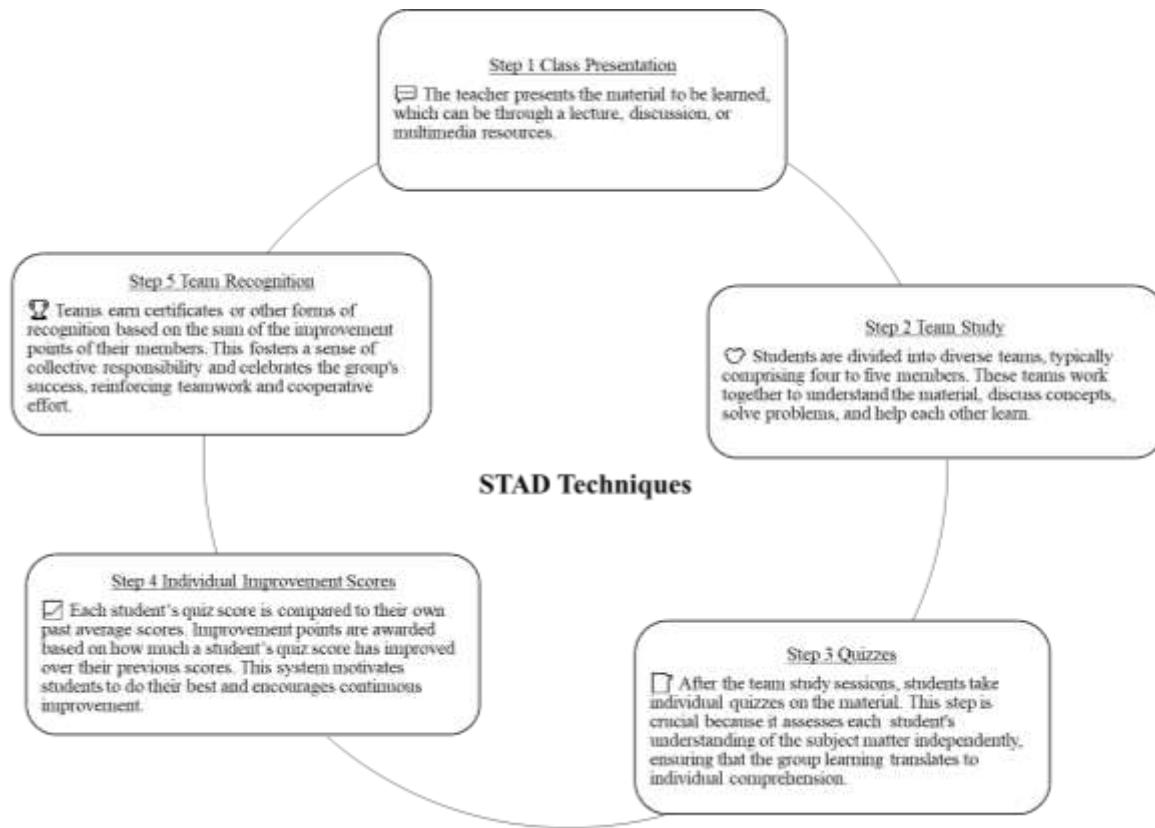


Figure 1. The STAD Techniques

(Source: Slavin, R. E. (1995). Cooperative Learning: Theory, Research, and Practice (2nd ed.). Allyn and Bacon.

The study investigates the impact of the STAD technique on seventh grade English reading comprehension among 40 students from Nakhonnayok Witthayakhom School in Nakhon Nayok Province. The research will use pre-test and post-test scores to determine the significant effect of the STAD technique on students' English reading comprehension. Descriptive statistics will be



used to measure students' satisfaction levels with the STAD technique. The study will be conducted over a two-month period from August 2024 to September 2024, with three hours of class time per week. The research will include questionnaires on English reading problems, student opinions on enhancing reading comprehension using the STAD technique, lesson plans, and a pre-post test. The study aims to develop a reading instructional model to enhance students' reading abilities.

Literature Review

1. The Basic Education Core Curriculum B.E. 2551 (A.D. 2008)

The learning area for foreign languages aims to help learners acquire a positive attitude towards foreign languages, use them effectively in various situations, seek knowledge, engage in livelihoods, and pursue higher education. The main contents include language for communication, language and culture, language and relationships with other learning areas, and language and relationships with the community and the world. Thailand expects grade 9 graduates to demonstrate a strong foundation in English language skills, effectively communicate in various contexts, understand and interpret information, and apply their language knowledge in real-world situations. They should be able to act in compliance with requests, read aloud texts, and communicate data about themselves, their experiences, and societal issues. They should also be able to compare and explain the pronunciation of sentences in foreign languages and Thai, as well as search for and collect data related to other learning areas. In addition to language for communication, learners should be able to use foreign languages for research, collecting and drawing conclusions about knowledge and data sources, and disseminating information about their school, community, and local area in foreign languages. The research methodology focuses on the impact of the STAD technique on students' reading comprehension through a quasi-experimental research design, utilizing a one-group pretest-posttest design. The population and sample included 7th-grade students from Nakhonayok Witthayakom School in Mueang Nakhon Nayok District, Nakhon Nayok Province, during the first semester of 2024. The sample included 480 students in 12 classrooms.

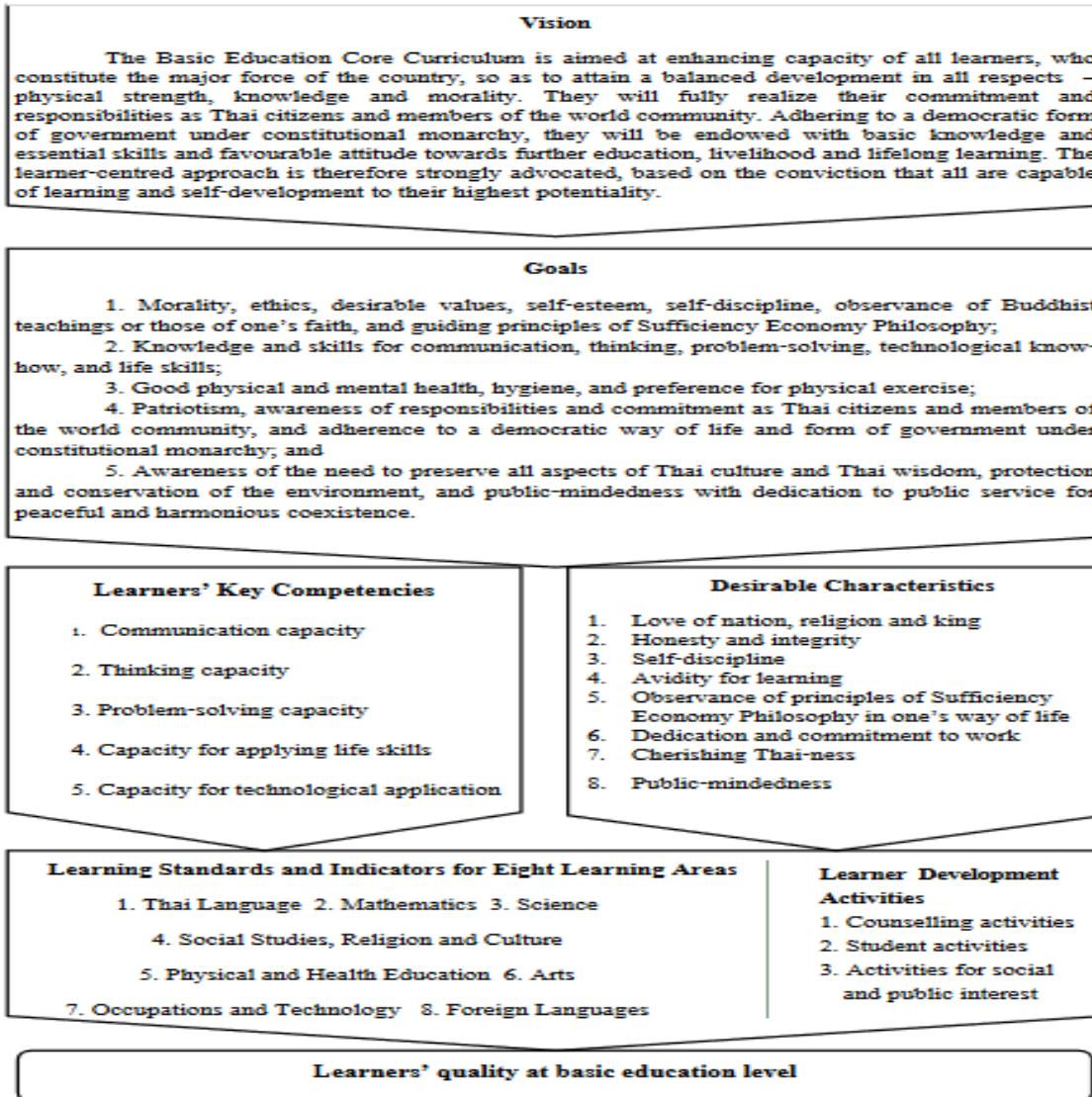


Figure 2: Relationships in the Development of Learners' Quality According to the Basic Education Core Curriculum

The text outlines the skills of students in using foreign languages, including listening, speaking, reading, and writing, to communicate about various topics and contexts. The students are proficient in interpreting media, expressing opinions, and presenting data and information. They are also proficient in describing themselves, their daily routines, experiences, and the environment. They are also proficient in understanding the relationship between language and culture, and they use language appropriately for different occasions and places. They are able to compare the pronunciation of different types of sentences and punctuation marks in foreign languages and Thai language. The students are also proficient in linking knowledge with other learning areas, using foreign languages to search for and summarize data related to other learning areas. They are proficient in using foreign languages in various situations in school, community, and society and are capable of conducting research for knowledge and data from media and learning sources. Overall, the students demonstrate a strong understanding of language and its role in various aspects of life.



2. Reading

Reading is a vital skill in English language learning, especially for foreign learners. It involves interpreting written symbols, constructing meaning from text, and improving vocabulary, writing, speaking, and academic performance. Reading enhances cognitive skills by improving memory, attention, and problem-solving abilities. Books stimulate imagination, foster innovative thinking, and improve social relationships and emotional health. Reading involves various strategies and approaches, including understanding, interactive, strategic, fluency, critical, and intensive reading. Reading for different purposes influences the reader's reading strategy, with extensive reading for enjoyment and vocabulary expansion, intensive reading for close reading and information retention, and skimming for quick comprehension. Understanding and applying the appropriate reading technique can significantly enhance one's reading experience and comprehension.

2.1 Reading comprehension Reading comprehension is the active process of deriving meaning from text, involving a complex interplay of automatic and strategic cognitive processes. Factors such as past knowledge, working memory, linguistic processes, and motivation contribute to comprehension. Effective use of strategic procedures like comprehension monitoring and metacognition is crucial for understanding.

2.2 Reading comprehension strategies Comprehension strategies are conscious plans used by proficient readers to interpret text. These strategies include tracking understanding, using metacognition, using graphic organizers, answering questions, generating questions, recognizing story structure, summarizing, and assigning reading partners. Reading methods can improve vocabulary and proficiency, and assigning reading partners and visualizing passages can help visualize and integrate representations. Reading aloud increases literacy and fluency, strengthens language development and communication abilities, and engages students in class discussions. Choral reading involves teachers and students reading together, gaining confidence, and expanding vocabulary. Teachers can identify students' reading comprehension strengths and weaknesses through reading tests. The "super six" reading comprehension techniques include making connections, predicting, questioning, monitoring comprehension, visualizing, and summarizing. These strategies help students become intentional, engaged readers who are in charge of their own reading comprehension.

2.3 Teaching English reading comprehension Frank Smith's 1971 recommendation emphasizes developing students' background knowledge and language skills for active text comprehension, while Bloom's Taxonomy (2001) offers a framework for designing instruction based on comprehension levels.

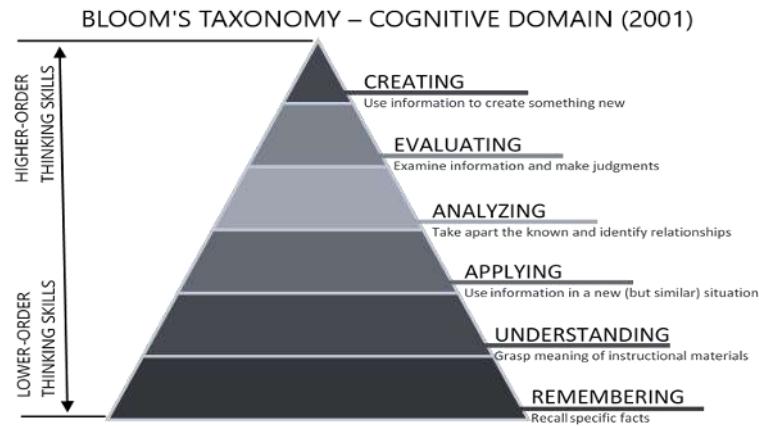


Figure 3: Bloom's Taxonomy: Taxonomy relates to teaching reading comprehension:

(Source: CITT, University of Florida.)

Reading comprehension involves several levels, including remembering, understanding, applying, analyzing, evaluating, and creating. The first level focuses on recalling factual information, while the second level focuses on understanding the text's meaning. The third level involves applying the information to solve problems, creating products, and connecting the text to personal experiences. The fourth level involves breaking down the text into its parts and understanding their relationships. The fifth level involves evaluating the information's credibility, strengths, and weaknesses. The sixth level involves creating new ideas or products. Reading is a social process, requiring collaborative activities and peer feedback. David Pearson's multifaceted approach to teaching includes explicit instruction in decoding skills, vocabulary development, comprehension strategies, and fluency practice. Key elements for fostering reading comprehension include building disciplinary and world knowledge, exposure to diverse texts, motivating texts and contexts, teaching comprehension strategies, understanding text structures, engaging in discussion, building vocabulary, integrating reading and writing, monitoring progress, and tailoring instruction to individual needs.

3. Student teams-achievement divisions (STAD)

Robert Slavin developed Student Teams-Achievement Divisions (STAD) as a cooperative learning strategy in the 1980s to foster positive interdependence among students. It aims to enhance academic achievement and foster a supportive learning environment. STAD involves students working in small teams to help each other master material, with individual tests contributing to their team's success. Teachers often combine STAD with other cooperative learning strategies to teach a variety of subjects and grade levels. The five fundamental elements of STAD are class presentations, teams, quizzes, individual progress scores, and team recognition. Progress results from earlier tests determine grades, and the group with the most improvement receives points.

3.1 Teaching and learning management by using student teams-achievement divisions technique Social Learning Theory (STAD) is a cognitive learning approach that emphasizes cognitive processes and the possibility of learning without direct reinforcement. It consists of four main components: observational learning, modeling behavior, social reinforcement, and self-efficacy. Observational learning involves students observing and learning from their peers, while modeling behavior involves students serving as models.

Social reinforcement motivates students to participate and contribute to their team's success. Self-efficacy is crucial, as observing peers' achievements can enhance their abilities. STAD encourages students to reflect on their learning strategies and take an active role in regulating them. It promotes intellectual and social development, enabling students to reach their full potential.

3.2 The effectiveness of teaching by using student teams-achievement divisions technique Vygotsky (1978) emphasized the importance of social contexts in cognitive development, particularly through STAD. He emphasized the role of social interaction, more knowledgeable others (MKOs), and the Zone of Proximal Development (ZPD) in STAD. Students work in teams, providing opportunities for peer assistance and scaffolding. Teachers act as facilitators, while peers share expertise to support each other's learning. This approach promotes deeper understanding and internalization of concepts, ultimately leading to more effective learning.

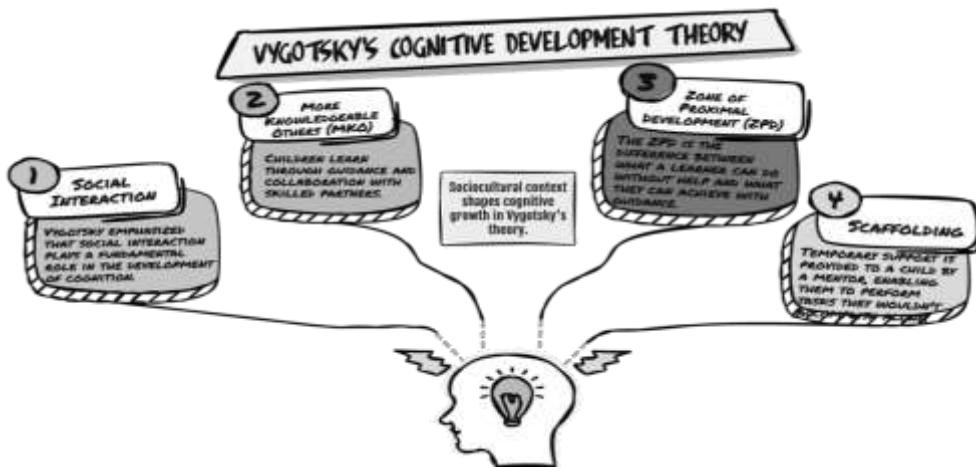


Figure 4: Vygotsky's Cognitive Development theory

(Source: Brodie, K. (2024). Lev Vygotsky's sociocultural theory of cognitive development and the Zone of Proximal Development.)

The Student Teams-Achievement Divisions (STAD) technique is a cooperative learning method that promotes active learning, collaboration, and critical thinking skills. Educational theories align with it, demonstrating its ability to enhance student learning outcomes. Advantages include improved academic achievement, social skill development, increased motivation, equity, inclusivity, cognitive development, and long-term retention. Disadvantages include time-consuming planning, potential unequal participation, group conflict, assessment challenges, and dependence on group dynamics.

Research Methodology

The study aims to enhance reading comprehension in seventh-grade students using the STAD technique. It evaluates the effectiveness of a learning management plan, compares students' English reading comprehension abilities before and after using the technique, and assesses students' satisfaction with the method.

1. Research Design



The study investigates the impact of the STAD technique on students' reading comprehension through a quasi-experimental research design, utilizing a one-group pretest-posttest design.

Group experimental	Pretest observation	treatment	Posttest observation
E	O ₁	X	O ₂

Figure 5: Research Design

2. Population and Sample

This research involved 7th-grade students from Nakhonayok Witthayakom School in Mueang Nakhon Nayok District, Nakhon Nayok Province, during the first semester of 2024. The sample included 480 students in 12 classrooms, with one classroom selected by simple random sampling.

3. Variables of the study

The STAD technique is an independent variable, while its dependent variables include English reading comprehension ability and student satisfaction with STAD technique-based English reading activities.

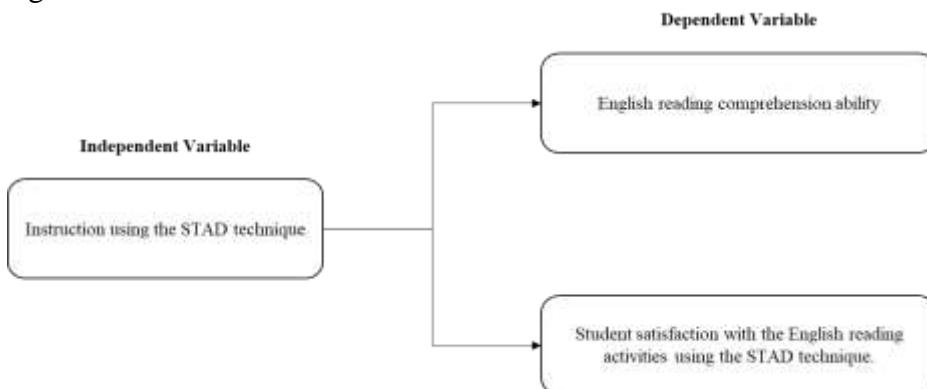


Figure 6: Variables Used in the Research

4. Research Instruments

The study uses questionnaires to assess English reading problems, enhance reading comprehension using the STAD technique in lesson plans, and gather student opinions on its effectiveness.

5. Data Collection

The study involves testing students' English reading abilities, teaching them using three lesson plans, and assessing their comprehension using the STAD technique. Students' opinions are also gathered through a questionnaire, and the results are analyzed.

6. Data Analysis

The study aims to enhance reading comprehension skills in seventh-grade students at a secondary school by using the Student Team Achievement Division (STAD) teaching technique. The research uses statistical analysis to analyze test results, compare pre-test and post-test scores, and determine the effectiveness of the STAD technique on lesson plans. The study employs a quasi-experimental research design with a one-group pretest-posttest design. The population



includes 7th-grade students from Nakhonayok Witthayakom School, with a sample of 40 students selected through simple random sampling. The study looks at things that are independent, like using the STAD technique to teach English, and things that are dependent, like how well students understand what they read and how happy they are with the technique. It also uses research tools, like questionnaires and tests, to look at English reading problems and the effects of the STAD technique. Data collection involves testing students' English reading abilities before and after teaching and learning management using the STAD technique, as well as administering satisfaction questionnaires to analyze student opinions. The study focuses on enhancing reading comprehension skills in seventh-grade students through the implementation of the STAD technique and evaluating its impact on their abilities and satisfaction levels.

Results

The study focuses on improving reading comprehension among seventh-grade students at a secondary school using the STAD technique. The research includes analyzing English reading problems, learning achievement using STAD lesson plans, and evaluating learning outcomes through pre-test and post-test. The study also examines students' satisfaction with the STAD technique. Table 4 presents the results. The study aims to provide valuable insights into improving reading comprehension among seventh-grade students.

1. Students' learning achievement using quiz from reading comprehension by using Student Team Achievement Division (STAD) lesson plans

Researcher used the STAD technique to teach reading comprehension to 40 students, who completed end-of-chapter tests. The mean, standard deviation, percentage, and average scores were analyzed.

The results of the analysis are presented in Table 1

Lesson	Topic	Total score	(\bar{x})	S.D.	Percentage (%)	Ordinal Number
1.	Back to school!	10	5.28	1.66	52.75	3
2.	Cool Stuff!	10	6.20	1.38	62.00	2
3.	Home	10	8.33	1.49	83.25	1
Total		30	19.80	3.76		

The study analyzed the mean scores, standard deviations, percentages, and rankings of 40 students' chapter tests. Results showed moderate understanding in Chapter 1, with a high standard deviation. In Chapter 2, students showed improvements with an average score of 62%, suggesting consistent teaching methods. Chapter 3, Home, yielded the highest average score of 8.33, indicating the effectiveness of the STAD approach. The total mean score for the 40 students was 19.80 out of 30 points, indicating satisfactory learning achievement through the STAD technique.

2. Learning outcomes through Pre-test and Post-test

The researcher instructed 40 students to complete a 30-item test to assess their English



reading ability. After using the STAD technique, the difference in scores between pre-test and post-test was calculated, revealing an improvement in reading comprehension scores of 17 points and 4 points, respectively.

Table 2: Comparison of the mean score (\bar{x}), standard deviation (S.D.), and t-test values of the sample group.

Test	Total score	\bar{x}	S.D.	t	df	p
Pre-test	30	9.48	11.76			
Post-test	30	24.56	1.74	20.24	39	0.00

*Statistically significant at the 0.05 level.

The STAD technique significantly improved students' reading comprehension scores, with a maximum increase of 17 points and a minimum of 4 points. The pre-test score was 9.48, and the post-test score was 20.24, demonstrating a statistically significant improvement in reading comprehension and the impact of the STAD technique on students' learning outcomes.

3. students'satisfaction with questionnaire for students' opinions on enhancing reading comprehension by using the STAD technique in seventh grade students at a secondary school.

The researcher conducted a study on the effectiveness of the STAD technique in enhancing reading comprehension among a sample of 40 seventh-grade students, using a questionnaire to evaluate their opinions.

Table 3: The results of the questionnaire are summarized.

Evaluation list	(\bar{x})	S.D.	Interpreting	Ordinal Number
Teacher:				
1. Teachers clearly explain learning activities using STAD techniques.	4.73	0.72	most	1
2. Teachers divide students into groups according to their abilities.	4.50	0.88	much	4
3. Teachers provide advice, guidance, and care for students in their learning thoroughly.	4.68	0.73	most	2
4. Teachers encourage students to be enthusiastic about learning.	4.65	0.77	most	3
Overall average of teacher	4.64	0.72	most	2
Content:				
5. The difficulty of the content is appropriate to student's ability.	4.73	0.72	most	1
6. Content, language, format match interests and needs of students	4.73	0.72	most	1
7. Contents are arranged from easy to difficult.	4.75	0.71	most	2



8. Arrange content appropriate to class time.	4.75	0.72	most	1
Overall average of content	4.73	0.70	most	1
Reading Activity:				
9. Pre-reading activities help students have a better understanding of vocabulary. and the background of the story to serve as a guideline for further activities	4.70	0.72	most	1
10. Activities during reading help students have the ability to read more objectively.	4.68	0.73	most	2
11. Post-reading activities help students review their understanding about reading skills can put reading skills to greater use.	4.50	0.88	much	3
Overall average of reading activity	4.63	0.72	most	3
Assessment:				
12. Evaluation has an assessment of individual student and group academic performance.	3.88	1.16	much	1
13. There is an evaluation of learning achievement.	4.63	0.77	most	3
14. Learners know their own learning outcomes.	4.70	0.46	most	2
15. The assessment covers the content learned.	4.40	0.74	much	4
Overall average of assessment	4.40	0.46	much	4
Overall average	4.60	0.60	most	

The study found that students were generally satisfied with the STAD technique for enhancing reading comprehension among seventh-grade students. They were satisfied with teacher performance, content, and reading activities. However, they expressed a desire for personalized attention and more comprehensive evaluations of their learning achievement. They received the pre-reading and during-reading activities well, but rated the post-reading activities lower. The findings suggest that the STAD technique has the potential to be an effective tool for enhancing reading comprehension, but there is room for improvement in personalized attention and post-reading activity effectiveness.

Conclusion, Discussion and Recommendation

Conclusion

The study aims to compare the English reading comprehension abilities of students before and after learning the STAD teaching technique in a secondary school. The sample includes grade 7 students from Nakhonnayok Witthayakhom School, located in Muang District, Nakhon Nayok Province, during the first semester of the academic year 2567. The study uses simple random sampling, selecting one classroom with 40 students. Data collection includes tests on students' English reading abilities, teaching methods, and pretests. The instruments used in the data collection process include questionnaires on English reading problems, the use of STAD in lesson plans, pretests and posttests, as well as questionnaires soliciting students' opinions on how to enhance reading comprehension using the STAD technique.



The comparison of English reading comprehension ability after learning using the STAD technique found that it was significantly higher than before learning, at the .05 level of statistical significance, which is consistent with Hypothesis 1.

A study on students' satisfaction with English reading comprehension using the STAD technique found that the average satisfaction level ranged from 3.88 to 4.75, with an overall mean of 4.60 and a standard deviation of S.D. = 0.60. This indicates that students were highly satisfied with the teaching and learning process across all lessons and evaluation criteria. The "Content" category had the highest average satisfaction ($M = 4.73$, S.D. = 0.70), while the "Assessment" category had the lowest ($M = 4.40$, S.D. = 0.46), supporting hypothesis 2.

Discussion

The study "Enhancing Reading Comprehension by Using the STAD Technique in Seventh Grade Students at a Secondary School" found that the STAD technique significantly improved students' English reading comprehension ability. The structured nature of the STAD technique, allowing students to learn at their own pace and benefit from group discussions and collective problem-solving, was the reason for this improvement. Students' satisfaction with the STAD technique was also high, with the highest satisfaction in the "Content" category, which suggests that students would be satisfied with their learning experience when using the STAD technique. However, the lower satisfaction rating in the "Assessment" category may indicate that students found the assessment methods less favorable, suggesting a need for clearer communication or a reevaluation of assessment methods. The study concludes that the STAD technique significantly enhances students' English reading comprehension and achieves high satisfaction levels. Future research could explore additional factors influencing student satisfaction and the long-term effects of the STAD technique on language acquisition.

Recommendations

The study "Enhancing Reading Comprehension by Using the STAD Technique in Seventh Grade Students at a Secondary School" suggests several recommendations for its implementation. These include promoting awareness among teachers and school administrators about the benefits of the STAD technique, creating diverse and engaging teaching materials, fostering a collaborative learning environment, incorporating various assessment methods, and continuously monitoring student learning outcomes. For future research, the study should expand the sample group to include a more diverse range of participants, identify factors affecting the effectiveness of the STAD technique, compare it with other instructional methods, develop assessment tools that encompass a wide range of reading skills, and understand how the method influences students over time. This will help identify the most suitable strategies for enhancing reading skills and contribute to the broader field of educational research. Additionally, understanding how the STAD technique influences students over time can provide insights into its sustainability and effectiveness in fostering lifelong learning skills.



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