



The Effects of the STAD Cooperative Learning Technique Using Graded Readers on First-Year English Major Students' Reading Comprehension and Satisfaction at Rajamangala University of Technology Lanna Tak

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ABSTRACT

This study aimed to investigate the effects of using the STAD cooperative learning with graded readers on first-year English major students' reading comprehension ability and their satisfaction towards the technique at Rajamangala University of Technology Lanna Tak. Thirty two students of English were assigned to attend three hours of additional reading class once a week for eight weeks. In the study, a reading comprehension test was used as the pre-and posttest and analyzed by t-test to assess the improvement of participants' reading comprehension ability, and a satisfaction questionnaire was administered to gain the students' feedback on the STAD strategy. The findings showed that the STAD technique significantly enhance the students' reading comprehension ability, and the participants were satisfied at a high level to engaging the STAD technique in the reading class.

Keywords : Cooperative Learning / Student Team Achievement Division /
Reading Comprehension

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Statement of the problem

Reading skill of English has been considered a vital part of English learning methods in English as a foreign language (EFL) context. In Thailand's EFL setting, the learners tend to acquire and engage more language competence from printed textbooks or written materials than any other types of learning sources that they could possibly have access to (Wichadee, 2005; Keuanon & Thadphoothon, 2008; Wan-a-rom, 2012; Warawudhi, 2012). Meanwhile, enhancing English competence through reading skill has steadily been accentuated in Thailand's educational context. Moreover, with the trend of growth of the nation's economic, social, and educational sectors, one objective of Thailand's educational goals is to equip Thai students with potential of English language with expectation that they will be able to compete and seize opportunities in business, trading, and education on the international stage. It is believed that reading is an essential skill that enhances Thai students' language proficiency to achieve knowledge in particular fields and gain access to new information in English (Wichadee, 2005; Malelohit, 2009). However, based on previous studies, teaching of reading in Thailand's EFL context is facing some concerning obstacles that lessen positive effects of teaching reading (Wichadee, 2005; Keuanon & Thadphoothon, 2008; Malelohit, 2009; Warawudhi, 2012). For instance, teachers' competence in teaching reading and inappropriate English level in printed textbooks account for students' demotivation towards reading and reading difficulties (Malelohit, 2009). Keuanon & Thadphoothon (2007) pointed out that the traditional reading approach keeps students reading in isolation. Thus, they are unable to have opportunities to interact with classmates for meaning and ideas of what they read. Moreover, the size of English classrooms in Thailand are normally large for teachers of English to manage reading classes with different level of students' English proficiency (Warawudhi, 2012). Thus, the mentioned difficulties related to teaching reading minimize possible effectiveness of reading skills the students are supposed to achieve in order to deal with their further study and research.

Student Team-Achievement Divisions (STAD) technique is one of the cooperative learning methods that has been widely known as instructional methods that allows students of all levels of performance to work together in a small group for their common goal (Slavin, 1982 cited in Jalilifar, 2010). This technique was initially developed by Robert E. Slavin and his colleagues at John Hopkins University in 1978. Implementing the STAD technique requires students to form a group of four or five members, whose proficiency levels are varied. Within the setting of working as a small group, they are given an opportunity to exchange and explain their ideas related to academic contents they are learning with their group members in order to accomplish mutual learning goals (Wichadee, 2005). Moreover, the interaction students employed in a group promotes social skills necessary to build a strong relationship for group work and encourages them to try the best in their learning for the learning success of their

team (Slavin, 1995; Warawudhi, 2012). Thus, the STAD technique of cooperative learning is known to gain enormous recognition of a pedagogical practice that effectively enhances students' learning abilities. It leads to implementation in various fields of academic subjects due to this pedagogical concept providing the opportunity for many students who possess different levels of learning abilities and knowledge to work together to complete learning assignments and improve their understanding.

Based on the studies related to implementing the STAD technique of cooperative learning in English reading comprehension, there are five basic elements of CL that need to be considered (Wichadee, 2005; Malelohit, 2009; Tran, 2013): 1. Positive Interdependence 2. Face-to-Face Interaction 3. Individual and Group Accountability 4. Interpersonal & Small – Group Skills, and 5. Group Processing. In the process of teaching, teachers' role in the classroom becomes as a facilitator for the students' learning, not a person who generally gives lectures to them (Jolliffe, 2007). Cooperative learning is also proven to promote learning motivation, knowledge retention, and understanding of the students at the college level (Law, 2011; Suh, 2009 cited in Pan & Wu, 2013). Wichadee (2005) and Malelohit (2009) mentioned that this type of learning approach minimizes competitiveness and individualism, but rather increases opportunities to actively engage the knowledge, and this enhances higher achievement and more positive relationships among the students. Meanwhile, they are responsible for helping each other, thus establishing an atmosphere of achievement in the group to learn and successfully reach the mutual learning goal. (Johnson, 2005 cited in Wichadee, 2005; Malelohit, 2009)

Research related to cooperative learning on English reading comprehension

Cooperative learning is not a new approach (Nejad, 2015) applied in classrooms by many English teachers and educators to stimulate their students' language proficiency. However, it has gained, for decades, a lot of researchers' attention to doing research in this area (Wichadee, 2005). As it is an approach promoting student-student interaction and team skills, there have been research studies related to using cooperative approach applied in EFL reading classrooms.

Wichadee (2005) studied the effects of cooperative learning on English reading skills and attitudes of 40 first-year students at Bangkok University. This study employed STAD technique with the subject group for an eight-week period. The results indicated that the students gained higher reading comprehension scores in the post-test compared to the pre-test scores at the .05 level of significance. The students' attitudes towards cooperative learning displayed the rate most students gave to cooperative learning as moderately positive. Also, assessment forms revealed that they performed good cooperative learning behaviors in their tasks.

Jalilifar (2010) studied the impact of Student Team Achievement Divisions (STAD) and Group Investigation (GI), which are two techniques of Cooperative Learning, on Iranian female students' reading comprehension achievement of English as a Foreign Language (EFL). The samples were 90 female college level students, enrolled in a course in General English, chosen based on a systematic random sampling from 140 students in Dehdasht, a city in the southwest of Iran. The results revealed that STAD is a significantly more effective technique in improving EFL reading comprehension achievement than GI and CI are to enhance reading comprehension. Importantly, team rewards, as one of the central concepts of STAD, is assumed to have a strong impact on learners' performance in reading comprehension.

Law (2011) conducted a study that compared two different cooperative learning activities (jigsaw and drama) and a control condition (a traditional teacher-led approach). The participants were 279 Grade 5 Hong Kong students located in nine classrooms. Findings showed that students taught by Jigsaw in cooperative learning performed better in reading comprehension test than those instructed with drama and the traditional approach.

Warawudhi (2012) conducted a study to investigate the differences between the Lecture Method (LM) and the Student Teams-Achievement Division (STAD) for teaching English reading skills at Burapha University, Thailand. One hundred and fifty four Thai undergraduate students were the participants in this study. They were divided into the experimental group of 82 students, with 72 students in the controlled group. Triangulation methods were used to collect the students' reading achievements as well as the students' and teacher's attitudes towards the two teaching approaches. The study results revealed that there was no difference between LM and STAD in teaching reading skills. However, the students were likely to participate more in STAD, which allowed them to perform active learning, and the teachers were satisfied with this method.

Khan & Ahmad's (2014) study was to evaluate the effectiveness of cooperative learning method, with STAD, versus traditional learning method on the reading comprehension of the students. 168 Pakistani high-school students participated in this study. They were divided into two groups, with the experimental group and the controlled group comprised of 64 students each. Findings indicated that the use of STAD is more effective as a teaching method for reading comprehension for overcrowded classes of English at the elementary level of the high school. Moreover, the students of the experimental group in this study also displayed better literal and evaluative level performance of reading comprehension than those in the controlled group of traditional learning setting.

According to a number of previous studies conducted with cooperative learning on reading comprehension, many of them were carried out with using kinds of printed texts and excerpts such as news excerpts (Ramkomut, 2008) and English textbooks (Jalilifar, 2010; Warawudhi, 2012; Pan & Wu, 2013; Wangwai, 2014). Whereas, graded readers was also

considered a reading material used in extensive reading program to enhance learners' reading performance and fluency (Azmuddin, et. al., 2014), but there was scarce evidence of the effectiveness of cooperative learning on improving learners' reading comprehension in English with graded readers.

In the present study, Student Team Achievement Division (STAD) of cooperative learning technique was introduced to a reading class where graded readers were used in order to investigate whether this technique is effective in promoting students' reading comprehension skill within negative factors regarding the appropriate level of English reading materials, uninteresting teaching styles of reading, and the size of large classes with heterogeneous abilities of students. The objective of this study is to investigate the effect of STAD using graded readers to improve reading comprehension ability of the 1st year students of English for International Communication (EIC) at Rajamagala University of Technology Lanna Tak. At the same time, the satisfaction of the 1st year EIC students engaging in this technique will also be explored to gain perspectives of proper ways STAD strategy should be provided to many students of various abilities of English in large reading classrooms.

Research objectives

1. To investigate the effect of using STAD cooperative learning technique with graded readers to enhance 1st year EIC students' English reading comprehension.
2. To examine 1st year EIC students' satisfactions towards engaging STAD cooperative learning technique with graded readers in their learning English reading comprehension.

Scopes of the research

This study covers research contents, population, and variation.

Research contents

The present study employed the National Geographic's graded readers in reading comprehension class. There were eight units in the book series chosen for eight weeks of reading comprehension activities. The reading materials included various topics of interest such as cultural activities, people's life styles, and environment and they were at level 3-4 with 1,200-1,400 headwords.

Research population

The population was the first-year students who studied in English for International Communication major (EIC) at Rajamangala University of Technology Lanna Tak in the first semester of 2018 academic year.

Research samples

The present study's samples were thirty two first year EIC students. They were chosen because they had not received any courses related to reading comprehension in their first semester. These group of students were divided into groups of four based on their reading

proficiency from the pretest. There were eight groups of the STAD technique of cooperative learning in this study.

Research variables

The study's independent variable was the samples' reading comprehension ability, and the dependent variable was the samples' satisfactions towards the STAD technique of cooperative learning in reading comprehension, which were assessed on three topics related to 1) interest of the STAD technique 2) effectiveness of the STAD technique, and 3) how the samples engage teamwork using social skills to achieve group's goals.

Methodology

1. Participants

In the present study, thirty two first-year students of English for International Communication major at Rajamagala University of Technology Lanna Tak (RMUTL Tak) were appointed to attend an additional class arranged for reading comprehension with STAD technique. The reason for the sample selection is that the participants were directly concerned with reading comprehension of English because this skill is essential to these students who study English as their major in the university, and they had never taken any reading course before.

The present study intended to organize eight cooperative groups for the reading class. Each group required four members consisting of one high proficient, two moderate proficient, and one lowest proficient student. Thus, the 32 first-year EIC students were required to take the pretest, known as reading comprehension test. Their test scores from the pretest were ranked and arranged from the highest to the lowest. The first eight students who obtained the highest score on the list were identified as the high proficient students. Another sixteen students whose scores are lower than the top eight students were the moderate proficient students and the last eight students who achieved the lowest score on the list were classified as the low proficient students.

2. Research Instruments

There were four instruments employed in this study. The first instrument was a Forty Five Item Reading Comprehension Test adopted from the National Geographic's graded readers used in this study. The test was used as the pre- and post-test to assess the participants' reading comprehension. The second instrument consisted of the books of level 3 – 4 graded readers series from the National Geographic publisher. Eight stories selected from the series were employed and there was a 10-item quiz at the end of each story for the participants to take individually. Moreover, a 10-item questionnaire of satisfaction was given to the participants to explore 3 satisfactory perspectives towards STAD technique known as (1) how interesting the STAD technique is (items 1-3), (2) the effectiveness of STAD on reading comprehension (items 4-7), and (3) engaging teamwork using social skills to achieve group's

goals (items 8-10). Finally, weekly observation sheets were provided to each group of participants to report their problems and comments during their learning.

3. Research Experiment

The study was conducted in the first semester of the 2018 academic year with 1st year EIC students. The students were required to attend additional reading session for three hours, once a week, for 8 weeks. In the first week of the session, the students were given the pretest, consisting of 45 items, to assess their level of reading comprehension for one hour and thirty minutes. Then, to begin the session of cooperative learning, students were arranged into groups of four which consisted of group members with diverse levels of English proficiency as follows: one high English proficiency student, two medium English level students, and one low proficient student. Next, the teacher provided each group of students learning instruction on reading, including how to work cooperatively with group members to complete the reading tasks each week, their roles in their group, and how to collect scores in the course. After eight weeks of studying the reading course using STAD technique, the posttest was administered to the students to assess the progress of their reading comprehension ability and, at the same time, a questionnaire related to students' satisfaction on STAD technique on reading comprehension was provided to them to elicit their opinions about using cooperative learning of STAD.

Research results

As seen in the table 1, the participants' reading comprehension capacities assessed by the reading comprehension test, as the pretest, showed that the maximum score in this group was 32 out of 45 and the minimum was 10, and mean score on the pretest was 18.59. Meanwhile, after 8 weeks of learning reading comprehension with STAD technique, the participants' scores increased in both the highest and the lowest parts at scores of 41 and 11 respectively, with mean score of 23.84. After the participants' posttest was analyzed by SPSS program for t-test value, the value found was -5.832 ($p\text{-value} \leq .05$). Thus, it was indicated that the increased scores of the posttest the students achieved on reading comprehension did yield significant results in this study.

Table 1 Results of students' reading comprehension test before and after the STAD of cooperative learning sessions

	N	The highest score	The lowest score	\bar{X}	SD	t-value
pretest	32	32	10	18.59	5.84	-5.823
posttest	32	41	11	23.84	7.47	

$p\text{-value} \leq .05$

In Table 2 below, the results of students' satisfaction towards STAD technique on English reading comprehension are revealed. On the first satisfaction perspective in the questionnaire named 'How interesting the STAD technique is to the participants in learning reading comprehension in English', it showed that the students were strongly satisfied with each step of STAD technique they engaged in (item 1). They experienced quite a lot of fun and interest in learning reading comprehension with the STAD by mean score of 4.59. In addition, the students revealed high satisfaction on the effectiveness of STAD technique that efficiently promoted their reading comprehension abilities with mean score of 4.50 (item 6). Moreover, the students were also satisfied to learn crucial social skills needed in engaging reading comprehension activities at the mean score of 4.41 (item 10). Thus, they could be more active to be involved in and take part in completing their group's reading activities to achieve the group's mutual goals.

Table 2 Results of students' satisfaction towards the STAD of cooperative learning on reading Comprehension

item	Statements	\bar{X}	S.D.	Satisfaction level
1	You find activities in each step of STAD learning technique fun and interesting to learn English reading comprehension.	4.59	.560	Strongly satisfied
2	You are more enthusiastic and happier when learning English reading comprehension through STAD learning strategy.	4.34	.745	satisfied
3	The STAD technique keeps you interested in further learning to read in English.	4.38	.660	satisfied
4	Learning English reading comprehension through STAD learning strategy gives you a chance to practice and develop your English reading skills efficiently.	4.47	.671	satisfied
5	You understand stories more from reading through STAD learning strategy	4.44	.619	satisfied
6	STAD learning technique is able to efficiently promote your reading comprehension ability	4.50	.672	Strongly satisfied
7	Group's average score in the STAD technique motivates you to be more enthusiastic to read for comprehension.	4.16	.677	satisfied

Table 2 (To)

item	Statements	\bar{X}	S.D.	Satisfaction level
8	STAD technique enables you to participate more in sharing information, making decisions, and solving problems in the group.	4.34	.653	satisfied
9	Learning to work in a group within STAD technique creates a good relationship among group members to achieve group's goals.	4.31	.592	satisfied
10	Learning how to use social skills in a group in STAD learning technique helps you involve more actively in all activities in the class.	4.41	.615	satisfied
N = 32		4.34	.650	satisfied

Moreover, students' comments and problems about implementing the cooperative learning (STAD technique) on reading comprehension class were reflected in the weekly observation sheet. Examples of students' positive comments were that they were interested in taking part in this learning technique. The technique encouraged them to work as a group and they had a chance to discuss and exchange information they were learning. Some of the students felt satisfied to take part in group decision and to learn using social skills to work with their group member. However, some reading difficulties could be seen among some students. For example, they revealed that they did not fully understand some stories used as reading passages because they were not familiar with vocabulary in that story. They thought that lesson was quite difficult for them. Additionally, there was comments related to time given for reading stories. Some students did not read fluently. Thus, they requested to have more time to understand the assigned stories.

Conclusions

The present study aimed to investigate the effects of STAD cooperative learning on first-year English major students' reading comprehension ability and their perceptions towards the STAD technique. The results obtained indicated that the STAD technique was able to promote the students' reading comprehension ability significantly based on increased scores from the posttest. Meanwhile, students' satisfaction showed that they considered the STAD technique as quite interesting to engage, effective in enhancing their comprehensive reading skill, and active to engage reading tasks in a group with social skills at high level.

Discussion

Even though this study showed that the STAD strategy was as effective in improving students' reading comprehension ability as did some previous studies (Wichadee, 2005;

Jalilifar, 2009; Warawudhi, 2012), but there are some factors that need to be considered to implement more effective and well-constructed STAD technique in order to take students' learning to a higher level. First, cooperative learning technique requires a positive learning environment (Slavin, 2011), known as cohesive and collaborative atmosphere in working in a group to create maximum results of learning among students. Second, elaborated instructions of the STAD technique, including crucial social skills such as interaction, explanation, elaboration etc. are essentially suggested to be instructed by teachers to students with clear explanations related to the learning's objectives that they are assigned to achieve. Thus, these mentioned skills can maximize students' teamwork and take away students' feelings of isolation and alienation while they are working in their group (Wichadee, 2005). Next, proper level of the reading materials should be taken into account to implement the appropriate texts that match students' reading proficiency in order to ensure their reading improvement.

Additionally, appropriate reward structure (Slavin, 1980) are also recommended as an important tool to draw students' concentration in heterogeneous group to focus on completing their group's tasks and to motivate more effort into reaching the group's goals. In conclusion, the STAD method could be proved to be an effective learning strategy to improve students' reading comprehension skill in classes where there is a large group of students and they possess different English proficiency levels (Warawudhi, 2012).

Moreover, what makes the STAD technique effective in using in reading classes is that the strategy is able to create positive interdependence that leads to cohesiveness and accountability to each student in a group for achieving their learning goals. One crucial benefit relating to the STAD is that students can assess the setting of student-student interaction where they can have opportunities to discuss their ideas with their group members while they are helping each other understanding assigned reading stories. Consequently, the learners can gain better understanding of what they read and acquire some important reading skills for comprehension. Ultimately, they could yield higher learning outcome.

Pedagogical implications

According to the results this present study found on using the STAD technique of cooperative learning in reading comprehension class, they could be implemented as follows;

1. Before implementing the STAD technique of cooperative learning, teacher should practice the social skills essential for effective learning outcome for instance, communication, brain storming, acceptance of individual difference, solving problems in group, and sharing information together.
2. The lessons of reading content should be appropriate to students' average English proficiency. Therefore, the reading stories can draw students' interest and encourage them to try their best in learning with their group members.

Suggestions for future research

1. The results of the present study showed that the STAD technique of cooperative learning has increased students' reading comprehension ability. Therefore, the future study should be conducted to examine whether the cooperative learning (STAD) is effective for other English skills such as writing, speaking, and listening.
2. Future study of cooperative learning (STAD) should focus on comparison between two types of cooperative learning in order to prove the most effective technique to be implemented in particular skill of English.

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