

## Development of Learning Achievement and Satisfaction on English Speaking of Chinese Second-Year College Students of Guangxi Polytechnique of STAD Cooperative Learning Technique

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### Abstract

The purposes of this study were (1) to compare learning achievement on English speaking between pre-test and post-test (2) to compare learning achievement on English speaking with the 75% criteria (3) to study students' satisfaction on English speaking using STAD The samples were the 2nd-year English majors students Guangxi Polytechnic of Construction, the second semester of the academic year 2023, which are 23 students who were conducted by simple random sampling. The research design was one group pre-test post-test design. The research instruments are 1) learning management plan, which has the means of quality at the average of 4.90 2) achievement test which has the reliability at 0.80 3) satisfaction evaluation form, which has the IOC value between 0.60-1.00 4) the data was collected by using mean ( $\bar{x}$ ), standard deviation (S.D.), percentage and t-test

The research findings were as follow:

1. The post-test score was higher than the pre-test score at 0.01 level
2. The post-test score was significantly higher than the 75% standard at 0.01 level.
3. The Students are satisfied with learning English speaking using STAD at the highest level. ( $\bar{x} = 4.82$ )

**Keywords:** STAD Techniques, Learning Achievement, Satisfaction

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## Introduction

Since the release of the policy of Reform and Opening-up by the China's president, Deng Xiaoping in 1978, English education has emerged popularly at that time as China tried to enter into the global trade market and tie with the United States in diplomatic and economic fields (Hu and Adamson, 2012). Meanwhile, the national college entrance examination (NCEE), Gaokao, was restored at the same year in China, which is a good sign on the recovery of China's educational system. Since the popularity of English as the officially international language started to thrive in China, there are around 500,000 individuals were subscribed to the magazine called Learning English in 1978 while one of English programs produced by the BBC called Follow Me had also attracted around 10 million followers from China in 1982 (Hu, 2005). Since then, the English has been regarded as an official course introduced into the national curriculum in the Chinese education system, meanwhile, English has also been added into the test of the NCEE in 1983(Bolton and David, 2012).

With the rapid popularization of English education in the whole country, English is also the indispensable course for Chinese college students when they enter the college campus. In specific, all college students in China are required to take English courses at freshman and sophomore years. After the completion of those English courses, there will be two major certificate tests between the College English Test (CET) 4 & 6 prepared for them. It seems to be challenges for many students to pass those exams at least the initial one of the CET4. If they failed those exams, they might also lose the credits on their transcript, which could be required to write into their CVs or resumes. Therefore, passing the certificate tests between the College English Test (CET) 4 & 6 seem to be one of the most essential tasks for them in their campus life.

The major testing content in the CET 4 & 6 would be focused on four main components among writing, listening, speaking and translation without the part of speaking. Due to the lack of speaking tests, the majority of students also pay much attention on tested criteria to study and ignore speaking ability.

Hence, many college students may behave weakly in the assessment of their speaking ability due to the lack of opportunities to training or assessments. However oral English is very practical fact for people to communicate with foreigners in society.

Guangxi Polytechnic of Construction has developed its own English learning program adding the testing content of speaking for the improvement of college students' English-speaking ability based on the framework of the CET4 & 6. The main objective of the paper study is to evaluate and analyze Chinese second-year college students' English-speaking ability in Guangxi Polytechnic of Construction based on the application of the Student Team-Achievement Divisions (STAD) technique.

There is a common phenomenon that has been critically discussed by many scholars that college students in China used to learning English mainly relied on visual and tactile activities such as speaking books and learning content under the guidance of lecturers or tutors' instructions (Yule, 2000; Buckle Dee, 2008; Li, 2012). In specific, Chen (2015) mentions in his survey that 73.4% of Chinese college students reckon that direct instructional teaching is the most common teaching method that has been widely used in their English learning courses. Meanwhile, English teachers have also formed the preference on dominating in English classes. Therefore, it would lead to the consequence that Chinese college students are prone to inputs instead of outputs. Reflecting on their English ability, it is common sense that Chinese college students are better in speaking and listening while writing and speaking skills for them seem to be relatively weak (Nelson, 2002). Therefore, it seems to be meaningful in this study to identify whether the application of STAD technique could develop Chinese students' learning achievement in English speaking ability.

The STAD has been considered as one of the most typical cooperative learning techniques that has been adopted in the paper study to improve Chinese second-year college students' English comprehension ability in Guangxi Polytechnic of Construction. Aryani (2016) depicts that The STAD framework is popular to using in teaching fields that are suitable to use in a wide range of subjects and grades. The structure of STAD can be divided into presentation, teams, quizzes, individual improvement scores and team recognition. These all components of the STAD would be all added into learning and teaching processes to improve the efficiency of courses.

### **Research questions**

1. Is post-test learning achievement on English speaking higher than pre-test?

2. Is post-test learning achievement on English speaking higher than the 75% of the criteria
3. Is the students' satisfaction on English speaking using STAD is at high level.

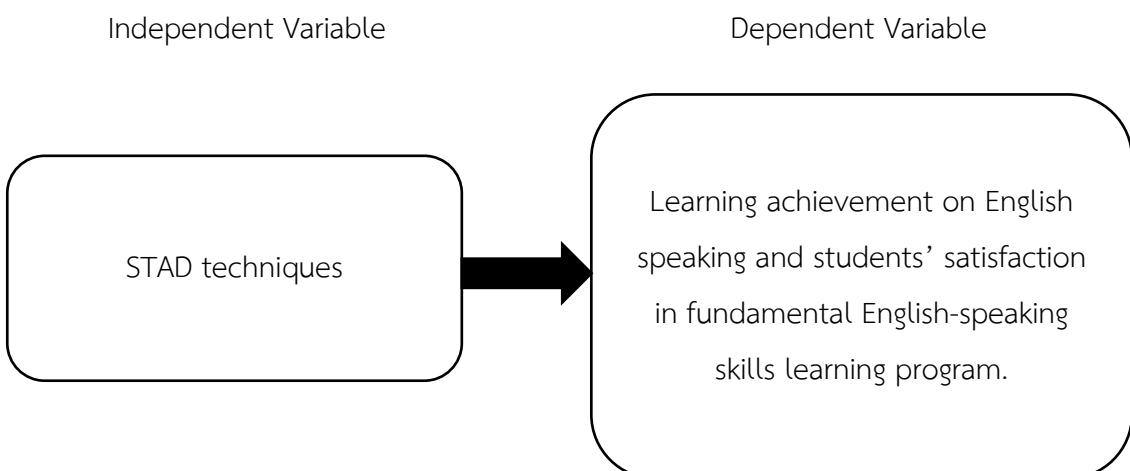
#### **Research objectives**

1. To compare learning achievement on English speaking between pre-test and post-test
2. To compare learning achievement on English speaking with the 75% criteria
3. To study students' satisfaction on English speaking using STAD

#### **Hypothesis**

1. Post-test learning achievement on English speaking is higher than pre-test
2. Post-test learning achievement on English speaking is higher than the 75% criteria
3. The students' satisfaction on English speaking using STAD is at high level.

#### **Research conceptual framework**



**Fig.1** conceptual framework

## Methodology

### 1. Research method

This research used one group pre-test and post-test design



O<sub>1</sub> is pre-test

X is STAD techniques

O<sub>2</sub> is post-test

### 2. Population and sample

2.1 The data sample will be collected from the total of 50 2<sup>nd</sup> year Chinese students who are studying at Guangxi Polytechnic of Construction.

2.2 The samples were the 2nd-year English majors students Guangxi Polytechnic of Construction, the second semester of the academic year 2023, which are 23, students who by simple random sampling chosen into the data sample randomly.

### 3. Research instruments

3.1 The tools used for collecting information on this research included:

1) English speaking Learning Management Plan using the STAD Collaboration learning technique

2) Pre-test and post-test achievement test, which is the 30 items, 4 multiple choices.

3) Students' satisfaction on English speaking using STAD collaborative learning techniques, the 5 rating scales questionnaires.

### 3.2 Creation and quality of research instruments

Creating a management plan to learn through STAD cooperative learning technique by studying concepts, theories, principles from documents and teaching research on English speaking using STAD Cooperative Learning Techniques. Propose the draft to an advisor for Consideration by using the criteria to consider the suitability of a 5- level as follow:

Level 5 = the most appropriate.

Level 4 = very appropriate.

Level 3 = moderate appropriate.

Level 2 = less appropriate.

Level 1 = least appropriate.

The findings are based on an average of the requirements of the criteria. (Boonchom Srisaat. 2002: 102-103) as follows :

The results of the expert review found that the learning management plan created The mean value of 4.90 means that the learning management plan created is appropriate at the highest level.

2. Create achievement test of English speaking by following these steps:

Study the course documents such as teacher manuals, evaluation results, learning subject groups. Create a test to measure learning achievement by the learning subject and Learning standard on surface area and volume. It is a four multiple choice quiz. Propose to a thesis advisor for making recommendations. Find the validity of the test. Propose the test to the expert to consider the purpose consistency between the test and its objectives, the appropriateness for testing time, the difficulty and the suitability of the question and option. The criteria for consideration are as follows:

+1 means when you are sure that the test measures the purpose.

0 means when you are not sure whether the test measures the purpose.

- 1 means when you are sure that the test does not measure the purpose.

then find the making the assessment of consistency between exams with the aim of learning analysis for the IOC using a formula IOC qualifying exam with IOC (IOC). The results of the expert review found that the correspondence between the exam and the learning objectives got IOC values from 0.60 – 1.00.

Determine the level of difficulty (the p) and the authority may bring Saranac ( the r ) by selecting the item with difficulty ranging from 0.20 to 0.80. and the authority to the normally classified item, from 0.20 to 1.00. and determine the reliability of the test by the use of formula. Lowette's (Lovett) (Boonchom Srisaard, 2010)

3. Creating a 5 rating scale questionnaires of satisfaction. Bring query satisfied proposed to 5 experts to review. The accuracy of making inquiries and appropriate

use of language and meaning of the content. It covers students' opinions on using the collaborative learning STAD technique, the IOC is 1.00

#### 4. Data analysis

The statistics used for data analysis were mean, percentage, standard deviation, and t-test.

### Results

**Table1** Comparison of students' in English speaking skills by using STAD cooperative learning techniques between pre-test and post-test

test score	n	$\bar{x}$	SD	df	t
Pre-test	30	7.77	3.00	29	16.30*
Post-test	30	23.37	3.55		

The level of \*\*.01 was statistically significant,  $t(0.05;29) = 1.6991$ .

Table 1 was shown that post-test learning achievement is higher than pre-test while pre-test score has an average of 7.77 and standard deviation of 3.00 and post-test score has an average of 23.37, standard deviation equal to 3.55. When the difference was analyzed by using a t-test, it was found that the difference was statistically significant at the .05 level, which was according to the hypothesis.

**Table 2** Comparison of English-speaking performance using STAD in a series of activities. English-speaking with 75% criteria.

test score	n	full score	threshold score	$\bar{x}$	SD	(%)	t
After the test	30	30	22.50	25.37	3.55	77.9	8.28*

The level of \*\*.01 was statistically significant,  $t(0.05;29) = 1.6991$ .

Table 2 was shown that post-test score on English speaking of Chinese second-year college students of Guangxi Polytechnique of Construction using STAD technique is higher than 75% criterion with an average of 23.37 and standard deviation was 3.55. The t- value was 8.28, indicating that the post- test learning

achievement of English speaking was higher than the threshold of 75%, a significant level of .05, which is according to the hypothesis.

**Table 3** Satisfaction evaluation results of on STAD cooperative learning combined with activity collection of English-speaking

No.	list	satisfaction		Interpret
		level $\bar{x}$	SD	
1	Teachers have the ability to transmit knowledge.	4.71	0.61	the most
2	Teachers organize learning activities for fun.	4.88	0.33	the most
3	The teacher uses a usually polite manner that is easy to understand.	4.85	0.42	the most
4	The teacher gave the students a chance to ask questions.	4.95	0.25	the most
5	The teachers suggested cutting back at the end of the exercise.	4.95	0.23	the most
6	Students perform using learning materials from learning activities.	4.86	0.36	the most
7	Study materials encourage students to understand the content and learn faster.	4.81	0.4	the most
8	Study materials help students to study independently.	4.81	0.40	the most
9	The study material is suitable for the company to treat the appointment of directors to bring learning.	4.81	0.40	the most
10	Teachers use company-appropriate learning materials because you find yourself away from teaching.	5.00	0.36	the most
11	Through learning activities that make students have fun.	4.90	0.30	the most

**Table 3** continue

No.	list	satisfaction level		Interpret
		$\bar{x}$	SD	
12	Students do it when they take part in study activities.	4.9	0.32	the most
13	The content involved in learning activities is very interesting.	4.71	0.46	the most
14	Students have the opportunity to express their opinions during the learning process.	4.95	0.22	the most
15	For each content, the duration of the learning activity is appropriate.	4.67	0.66	the most
Total		4.82	0.37	the most

Table 3 was shown that students' satisfaction using STAD cooperative learning technique on English-speaking activities, the mean value and standard deviation of all aspects of teaching media learning activities of teachers are 4.82 and 0.37, leading to the highest level of satisfaction.

### Discussion and conclusions

In English speaking language activity achieved higher scores in the posttest than the pre-test. It was statistically significant at 0.01 level, and the post-test score was higher than 75% at 0.01 level, which was in line with the set hypothesis.

This is because the learning management STAD technology co-operates with the learning activity format set in the English speaking practice to enable students to find the right answer with a variety of content ranging from simple to difficult content to enable students to show their ability to the full extent of their potential students to learn from each activity set in the knowledge table. While learning using STAD techniques, learners must set common goals and help each other in small groups. The students exchange knowledge with each other in small groups. Let's study again and make all members of the group equal in knowledge. Everyone gives their group higher marks. Which group has the highest improvement score? This group will be rewarded. Support and praise enhance students' enthusiasm for learning, therefore,

students' academic performance after learning is higher. Consistent with Kamonchanok Senkaew's research. (2017), which was consistent with Chamaiporn Rangsiyanupong. (2016) The development of learning attitudes toward English speaking. The results of the STAD achievement group Chinese second-year college students of Guangxi Polytechnique showed that their progress scores were higher during the learning period.

According to Slagle (2009), students in secondary social studies who participated in cooperative learning utilising STAD showed a small improvement in their academic performance. According to Widhyastika, Sutarsyah, and Suparman (2017), STAD is effective because it allows students of diverse abilities to work together in groups to address learning problems. According to Wyk (2015), STAD helped tenth graders learn more about current economic issues. Wardani and Hermawati (2016) found that students' motivation and attitude towards STAD influence their ability. Students reported feeling more confidence when they knew their classmates might help them with their English problems, which is a result of STAD. When students' group contributions were acknowledged by their classmates, Jamaludin and Mokhtar (2018) found that students exhibited increased concentration and motivation. The results of Wyk (2012) are consistent with this idea; using STAD as a teaching tool does increase students' economic literacy.

STAD is effective with students, according to Widhyastika, Sutarsyah, and Suparman (2017), since it allows for group work and accommodates students with varying levels of aptitude. Students were able to speak up and participate in significant group projects and discussions thanks to STAD, which was also acknowledged by Warnings and Budi (2016). Cooperative learning (STAD) pupils, according to Ferina (2015), not only learnt the content more effectively but also collaborated in teams, paid close attention in class, and achieved remarkable results in speaking. Based on the findings of this study, we discovered that the instructor did not carry out a single procedure when adopting the STAD approach. Instead, the teacher adjusted five procedures in accordance with the theory proposed by Shaaban and Ghaith (2005).

## Recommendation

### 1. Recommendations for Implementing

The second-year Chinese students at Guangxi Normal University for Nationalities who were given the STAD cooperative learning activity in addition to the reading comprehension exercise performed better on the post-test than the pre-test in terms of their academic accomplishment. Consistent with the presumptions, there was a statistically significant increase in post-test achievement ( $>75\%$ ) at the.01 level. The rationale behind this is that LMS The STAD Method for Collaborative Learning with Exercises Focused on comprehension, passed pupils through their paces by having them solve problems ranging from simple to complex;

In addition to learning utilizing STAD methods, students are required to work together toward shared objectives and provide mutual support. Additionally, pupils have shared what they've learned with one another. The brighter students will guide the less capable ones through a reading comprehension exercise to help them understand. Let's review everything again so that everyone in the group knows the same thing and can contribute to the group's progress score. Out of all the groups, which one has made the most progress? That set of people will get something. praise and support, which heightens kids' interest in learning. The last effect is that after studying, students' learning accomplishment scores are greater than the pre- and post-test scores that were required In line with Kamonchanok Senkaew (2017) findings, this study examined the effectiveness of the STAD cooperative learning management technique on the reading comprehension of second-year Chinese students at Guangxi Normal University. Using the STAD technique, both before and after the implementation of cooperative learning management, was statistically significant at the 0.05 level. The STAD collaborative technique was in agreement with Chamaiporn Rangsiyanupong (2016) that was higher than 75% at the.05 level.

### 2. Future research direction

2.1 The finding was indicated that cooperative learning (STAD) not only learnt the content more effectively but also collaborated in teams, paid close attention in class, and achieved remarkable results in speaking. So for the next research the impact of group process should be studied

2.2 For the next research the researcher should study the efficiency factors of learning using STAD cooperative learning technique, activities may need to be flexible as appropriate to maximize student efficiency.

2.3 The STAD cooperative learning technique should be used in conjunction with a series of reading activities. To study and research with the population and other sample groups

2.4 A series of learning activities should be developed to promote student characteristics in areas such as creative thinking skills, critical thinking, problem solving, and morality and ethics of students.

2.5 The development of cooperative learning activities in other subjects should be encouraged.

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