

# **APPLYING COGNITIVE LEARNING STRATEGY IN DEVELOPING THE STUDENTS' SPEAKING ABILITY**

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## **ABSTRACT**

This research aimed at examining the types of cognitive learning strategy that the students employed in developing their ability to speak English. This research applied a quantitative descriptive and experimental research method. Data were analyzed by a descriptive presentation and statistical analysis of t test. This research was carried out in the second year at SMA 2 Sinjai. They were all selected by using random sampling by number of students as sample of 30 students. The researcher used questionnaire to capture data about type of cognitive learning strategy used by the students. The result showed that, on average 58.04 % of all respondents using cognitive learning strategy, and 70 % or 21 of the 30 respondents used the practice to overcome the difficulties speaking. The analysis with the formula t-test showed that, applying the cognitive learning strategy had significant positive impact on developing the learners' ability to speak English. This was indicated by the average value before and after treatment (73 and 85.25) and obtained the distribution t-table 2.000 with t-calculate 5.467 obtained greater than t-table.

**Keywords:** Effect, Overcoming, Cognitive Learning Strategy, Speaking Ability

## **INTRODUCTION**

Language is primarily needed for human beings because language is a tool of communication, without language human's life is meaningless and not enjoyable at all. With language, we can express our mind, idea and emotion to adapt with social communication.

English language is an international language, English is the most widely used because it used in everywhere in the world to communicate with other from different countries. In Indonesia, English is being a compulsory subject since in the level of junior high school. The student must be able to communicate an English language, because the movement of technology is much introduced in English, and most of the scientific books is written in English.

Students often think that, the ability to speak (communicative competence) a language is the product of language learning. But speaking is also a crucial part of the language learning process. The effective instructor teaches students speaking strategies in using language to talk about language that can be used to help themselves expand their knowledge of the language (Nclrc, 2004:1).

Furthermore, communicative competence must be owned by an English language teacher. Competence was necessary to perform his duties as a good teacher. Communicative competence is the ability to use language as a whole in the context of actual communication in the background. Brown (1987: 199) says; communicative competence is the ability to convey and interpret messages and to understand the meaning of the interaction of individual in the specific context that includes receptive and productive skills. Receptive skills include reading and listening skill, and productive skills include writing skill and speaking skill. Among these productivity skills, speaking skill must be mastered by students, so they are able to use oral English in real setting.

To develop speaking ability, curriculum of education courses English was designed in order student has opportunity to practice in the language skills courses. In addition, a number of courses presented in English either one or two way so that students gain exposure to English.

Viewed from the psycholinguistic process, the speaking ability evolved from a combination of two aspects, namely teaching and learning activities carried out by the teachers and the efforts made by the learners. The effort includes learners attempt to master the learning materials designed by teachers and the initiative to improve the ability to speak in a way independent study. Teacher can help learners to improve their speaking and overall oral competency (Eric, 1993:3). In making effort self-learning, learners use certain ways to facilitate themselves in mastering the learning, ways and specific techniques which used by learners is called learning strategies.

Rubin (1987) and Oxford (1989) defined learning strategy as behavior or action that is used by the learners to make successful in learning. Brown (1987) emphasized the concept of learning strategy as behavior that is not observed in the self-learner.

Learning strategy produced some learning strategies taxonomy. Some taxonomies are Rubin and Tomson (1982) formulated 13 learning strategies that need to be owned by the learners; (1) finding a suitable way for yourself, (2) manage information and language courses, (3) creative, (4) creating opportunities, (5) readiness in uncertainty life, (6) using mnemonics, (7) learning from mistake, (8) using linguistic knowledge, (9) using the context, (10) making a good guess, (11) studying about the expression, (12) studying production techniques, and (13) using different language style. O'Malley and Chamot (1990) classified learning strategy into three groups, namely; cognitive strategy, metacognitive strategy, and affective strategy.

This research limited on cognitive aspect using to developing speaking ability of learners, cognitive aspect in learning is used as strategy. Tenant (1988) defined cognitive learning strategy as an individual's characteristic and consistent approach to organizing and processing

information. Riding (1993) defined cognitive learning strategy refer to individual's consistent and characteristic predispositions of perceiving, remembering, organizing, processing, thinking, and problem solving.

## **METHOD**

### **Design**

This research used qualitative research design used to capture issues related to what cognitive learning strategy used in speaking learners. While the effect of the application of cognitive learning strategies in developing the ability to speak English speaking learning studied through experimental studies, the treatment requires a cognitive learning strategy implementation as a treatment group.

### **Procedure of Data Collection**

The researcher collected the data through some procedures. They were (1) Pre-test where the researcher administered a pre-test. It consists of the students' opinion about the topic that was given by the researcher one by one. (2) Treatment to the students by using cognitive learning strategy. The treatments were done for eight meetings, which took 90 minutes each meeting. The application of cognitive learning strategy in developing the students' English speaking consisted of five steps (a) Rehearsal, (b) Elaboration, (c) Organizing, (4) Comprehension Monitoring, and (e) Affective. (3) Post-test which aimed at knowing the effectiveness of implementation of cognitive learning strategy in teaching speaking skill.

## **FINDING AND DISCUSSION**

### **1. Applying of Cognitive Learning Strategy**

The first problem in this research how is applying the cognitive learning strategies in developing the ability to speak English? To answer the problem, this identification of the types of cognitive learning strategies conducted by using the taxonomy second language learning strategies compiled by Oxford (1990). According to the taxonomy of cognitive learning strategies are classified into four major groups, namely the practice, receive and send messages, analysis and granting of reasons and the structure and it was created input and superficial. Each group indicators can be applied by learners in learning speaking. Application of cognitive learning strategies broken down into two parts namely (a) types of cognitive strategies learners applied, and (b) types of cognitive strategies used to overcome learning difficulties Speaking learning as follows.

*a. Types of Learning Strategies Applied Cognitive Learning*

Based on research finding showed that there were several types of cognitive strategies employed by learners in learning English they were: practice, receive and send messages, analysis and reason, and input structure created and output is illustrated in the following tables.

Table 1. Cognitive Learning Strategy: Practicing

Sub Indicator	Percentage	Category
Repeating the pronunciation lecturer	52.85	Often
Imitating a native speaker	60	Often
Practicing English sounds	71.42	Often
Developing language patterns	59.28	Often
Combining linguistic knowledge	60.71	Often
Average	<b>60.85</b>	

Table 1 showed that based on data recapitulation of cognitive learning strategies in the practice of the sub-indicators that mark the (1) repeating the faculty pronunciation, (2) mimicking native English speakers, (3) the practicing of English sounds, (4) developing a pattern-language patterns, and (5) combining linguistic knowledge indicates 60.85% of their use of cognitive learning strategies in practice. Thus they sometime used this strategy or at the level or their average used in the development of speaking skill.

Table 2 Cognitive Learning Strategy: Receiving and sending Message

Sub Indicator	Percentage	Category
Getting a quick ideas	50	Often
Using the resources to send and receive messages	55.71	Often
Average	<b>52.85</b>	

Based on the recapitulation of cognitive learning strategy in the taxonomy of receiving and sending message above, table 2 showed that, 52.85% of the 30 respondents using cognitive learning strategies in terms of receiving and sending messages. This was indicated by how they get ideas quickly and get the resources to send and receive messages. Thus they used this strategy at the level of frequency or sometimes being level.

Table 3. Cognitive Learning Strategy: Analyzes an Reason

Sub Indicator	Percentage	Category
Giving a reason deductively	62.14	Often

Analyze the expression given	58.57	Often
Comparing the sounds, words and grammar	64.28	Often
Translating unknown words and sentences.	69.28	Often
Applying knowledge of language structure	58.57	Often
Average	<b>62.56</b>	

Based on the recapitulation of cognitive learning strategies in table 3, taxonomic analysis and the reason identified five sub-indicators were marked: (1) giving a reason deductively, (2) analyzing the expression given, (3) comparing the sounds, words, and grammar, (4) translating the word, a sentence that was not known, (5) applying knowledge of language. Table 3 showed that translate words, sentences that did not know the first rank of 69.28% from 30 respondents using it. Similarly, can be seen on the average of the five taxonomic that it can show an average 62.56%. Thus the cognitive learning strategy were at the level of frequency.

Based on the recapitulation of cognitive learning strategy in table 4 which created input and output structures found that the three sub-indicators that (1) wrote the main idea is given, (2) made a summary or abstract, and (3) gave the sign and highlight shows average 55.93% using this learning strategy. This means that they sometime used this strategy in learning English. Based on the intensity of usage was ranked first highlight of 66.42% followed by a summary and write the main idea of each and 53.57%: 47.82%. Thus, it can be concluded these three cognitive strategies that were used by learners to develop language skill, especially speaking course. Based on the recapitulation of cognitive learning strategy in (table 3 ) taxonomic analysis and the reason identified five sub-indicators were marked: (1) giving a reason deductively, (2) analyzing the expression given, (3) comparing the sounds, words, and grammar, (4) translating the word, a sentence that was not known, (5) applying knowledge of language. Table 4 shows that translate words, sentences that do not know the first rank of 69.28% from 30 respondents using it. Similarly, can be seen on the average of the five taxonomic that it can show an average 62.56%. Thus the cognitive learning strategy was at the level of frequency.

Table 4. Cognitive Learning Strategy: Created Input and Output Structure

Sub Indicator	Percentage	Category
Writing main idea	47.82	Often
Making a summary or abstract	53.57	Often
Signaling, underlining, or give the code	66.42	Often
Average	<b>55.93</b>	

The fourth group of cognitive learning strategy applied by the students who were studying speaking can be summarized in table 5.

Based on research findings indicated that taxonomy of cognitive learning strategy developed by Oxford (1990) which became a reference in this study showed an average of students using this strategy in an effort to improve his speaking ability. Average 58.04% of the overall implementation of cognitive learning strategy. However, obstacles still often come from talking to each other skill related to other skill.

Table 5. Applied Cognitive Learning Strategy

Sub Indicator	Percentage
<b>Practice</b>	60.85
<b>Receiving and Sending Message</b>	52.85
<b>Analyzes and Reason</b>	62.56
<b>Created input and output structure</b>	55.93
Average	<b>58.04</b>

The number of cognitive learning strategy applied in this research could be concluded that developing the ability to speak is not easy. There are two explanations can be given about this. First, according to the input hypothesis, the subject of the learning environment less supportive of this research to develop the ability to speak, because the learners are learning a foreign language environment. According to this theory there are two types of input, namely the formal inputs and informal input.

Formal input from natural communication was more influential than the formal input from the learning rule of language in a conscious, because the formal input serves only as a monitor to sharpen and improve the accuracy of production from the formal input.

***b. Types of Cognitive Strategies for Overcoming Difficulties of Subject Learning Speaking***

Based on the data showed that three are four taxonomy of cognitive learning strategy used by students in overcoming learning difficulties in particular subjects Speaking III. The fourth group is (1) practice, (2) receive and send messages, (3) analyze and give a reason, and (4) created structure. For further study can be considered on table 6 below:

Table 6. Types Strategy which Applied for Overcoming Difficulties Study

No	Sub Indicator	Frequency	Percentage
<b>1</b>	Practice	21	70%
<b>2</b>	Receiving and Sending Message	9	30%
<b>3</b>	Analyzes and Reason	8	26.7%
<b>4</b>	Created input and output structure	10	33.4%

Table 6 showed that 70% or 26 of the 30 respondents claimed to use the practice to overcome the difficulties in learning speaking. There were five reasons why they tend to choose practice in learning to overcome difficulties in speaking. First, they repeated the pronunciation to practice and imitate the English sound as like native speaker. Second, they mimicked the conversation native English speakers so that they could approach the spoken or the way native English speaker. Third, they practiced the sounds of English which in turn they would say the sound of the English language correctly and approaching native speakers. Fourth, they developed patterns in the development of the ability to speak English. Fifth, they combined the linguistic knowledge to develop language skill. Cognitive learning strategy related to the practice based on the taxonomy of Oxford is widely used. This can be considered due to environmental conditions in which the English language studied in foreign language learning environment.

In addition to practice, create input and output structure were also used to overcome the difficulties. It showed that 33.4% or 10 out of 30 respondents stated that they use this learning strategy to overcome the difficulties in learning English. This was chosen because the cognitive learning strategies provided opportunities for respondents to write the main idea providing a summary or abstract, and signal or underlining of important information to know. Thus they can be able to know and understand exactly what the focus of attention for further expressed when speaking time. So three was special attention to the problem that would study.

Besides that, step three about sending and receiving messages in the applying cognitive learning strategies that 30% of the total respondents. This is evidenced by how to get a quick idea to receive and send messages. In addition, you could use the resources to receive and send messages.

Finally, the analysis and giving the reason are the last way that is used by learners in overcoming learning difficulties to speak. This proved only 26.7% of the total respondents that chosen to analyze and give reason. Therefore, the development of speaking skill at certain stages are much less usage than with other cognitive strategies.

## **2. The Effect (Outcome) of Applying Cognitive Learning Strategy**

The data were collected by administrating the test, the tests were done twice namely pre-test and post-test for controlled and experimental group, the pretest was given before the treatment and posttest was given after treatment.

*a. The analysis of Data*

In analyzing the data, the writer gave four components classification; they are pronunciation, vocabulary, fluency, and comprehension. The maximal score was 5 (five) and the minimum was 1 (one).

*1) The students' Pre-test and Post-test Score in Experimental Class*

*a) The students' pretest score*

Table 7. The Students' Score in Pronunciation

No	Classification	Score	F	P ( % )
1	Excellent	5	-	-
2	Very Good	4	6	20.00 %
3	Good	3	7	23.33 %
4	Poor	2	13	43.33 %
5	Very Poor	1	4	13.34 %
<b>Total</b>			<b>30</b>	<b>100 %</b>

The table 7 showed that, none of the students could be classified as excellent, based on pronunciation illustrated that 6 (20.00%) students got very good score, 7 (23,33%) of them acquired good score, 13 (43.33 %) of them got poor score, and 4 (13.34%) of them got very poor score. The mean score of the students was 2.5. It can be concluded that, the students have poor pronunciation in experimental class before treatments given.

Table 8. The students' Score in Vocabulary

No	Classification	Score	F	P ( % )
1	Excellent	5	-	-
2	Very Good	4	6	20.00 %
3	Good	3	9	30.00 %
4	Poor	2	13	43.33 %
5	Very Poor	1	2	6.67%
<b>Total</b>			<b>30</b>	<b>100 %</b>

Table 8 above showed that, none of students could be classified as excellent based on vocabulary, 6 (20.00 %) students got very good score, 9 (30.00 %) of them acquired good score, 13 (43.33 %) of them got poor score, and 2 (6.67 %) of the acquired very poor score. The mean score of the students was 2.63. It could be inferred that the respondents' vocabulary in experimental class was categorized as poor before treatments.

Table 9. The Students' Score Fluency

No	Classification	Score	F	P ( % )
1	Excellent	5	-	-
2	Very Good	4	2	6.57 %
3	Good	3	7	23.33 %

4	Poor	2	14	46.67 %
5	Very Poor	1	7	23.33 %
<b>Total</b>			<b>30</b>	<b>100 %</b>

The table 9 showed that, none of the students can be classified as excellent and very good score, based on fluency illustrated that 2 (6.67%) students got very good score, 7 (23.33 %) students got good score, 14 (46.67 %) of them acquired poor score, and 7 (23.33 %) of them acquired very poor score. The mean score of the students was 2.13.

Table 10. The Students' Score in Comprehension

No	Classification	Score	F	P ( % )
1	Excellent	5	-	-
2	Very Good	4	4	13.33 %
3	Good	3	8	26.67 %
4	Poor	2	15	50.00 %
5	Very Poor	1	3	10.00 %
<b>Total</b>			<b>30</b>	<b>100 %</b>

The table 10 showed that, none of the students can be classified as excellent score in comprehension, 4 (13.33 %) students got very good, 8 (26.67 %) of them acquired good score, 15 (50%) of them got very poor score, and 3 (10 %) of them got very poor score. The mean score of the students was 2.42.

The table 7,8,9 and 10 showed that total score of all the students in experimental class based on pre-test was 292 on their total mean score 73.

*b) The Students' post-test score*

Table 11. The Students' Score in Pronunciation

No	Classification	Score	F	P ( % )
1	Excellent	5	-	-
2	Very Good	4	12	40 %
3	Good	3	8	26.67 %
4	Poor	2	10	33.33 %
5	Very Poor	1	-	-
<b>Total</b>			<b>30</b>	<b>100 %</b>

Table above showed that, none of students could be classified as excellent and very poor score based on pronunciation, 12 (40.0 %) students got very good score, 8 (26.67 %) of them got good score, and 10 (33.33 %) of them acquired poor score. The mean score of the students was 3.07. It means that, there was an improvement on the students' pronunciation in speaking. After teaching them, there 12 students was classified as very good and none of them was classified very poor from post-test score while in pre-test score, there were 6 students only classified very good.

Table 12. The Students' Score in Vocabulary

No	Classification	Score	F	P ( % )
1	Excellent	5	2	6.67 %
2	Very Good	4	7	23.33 %
3	Good	3	15	50 %
4	Poor	2	6	20 %
5	Very Poor	1	-	-
<b>Total</b>			<b>30</b>	<b>100 %</b>

Table 12 above showed that, there were 2 (6.67 %) students could be classified as excellent based on the vocabulary, 7 (23.33 %) students got very good score, 15 (50 %) of them acquired good score, 6 (20 %) of them got poor score, and none of them got very poor score. The mean score of the students was 3.17. It means that, there was a significant improvement on the students' vocabulary in speaking. After teaching them, there were 2 students classified as excellent from post-test score while none of them in pre-test.

Table 13. The Students' Score in Fluency

No	Classification	Score	F	P ( % )
1	Excellent	5	-	-
2	Very Good	4	4	13.33 %
3	Good	3	9	30 %
4	Poor	2	14	46.67 %
5	Very Poor	1	3	10 %
<b>Total</b>			<b>30</b>	<b>100 %</b>

Table 13 showed that, none of students could be classified as excellent, 4 (13.33 %) students got very good score, 9 (30 %) of them acquired good score, and 14 (46.67 %) of them got poor score, 3 (10 %) got very poor score in fluency. The mean score of the students was 2.44. It means that, there was an improvement on the students' fluency in speaking, because 4 students were classified as very good from posttest score while in pretest 2 students of them were classified very good.

Table 14. The Students' Score in Comprehension

No	Classification	Score	F	P ( % )
1	Excellent	5	1	3.33 %
2	Very Good	4	6	20 %
3	Good	3	6	20 %
4	Poor	2	17	56.67 %
5	Very Poor	1	-	-
<b>Total</b>			<b>30</b>	<b>100 %</b>

Table 14 showed that, there were 1 (3.33%) students can be classified as excellent based on comprehension, 6 (20%) of the got very good score, 6 (20%) of them acquired good score, 17 (56.67%) of them got poor score, and none of them acquired very poor score. The mean score of the students was 2.7. It means that, there was an improvement on the students' comprehension in speaking after teaching them. This could be seen, there were one students classified as excellent while in pretest, none.

The tables 11, 12, 13 and 14 showed that, the total score of all the students based on post-test was 341 on their total mean score 85.25.

## 2) Mean Score and Speaking Test of the Students' Achievement

Table 15. Total Mean Score of Pretest and Posttest

Class	Type of Test	Mean Score
<b>Experiment</b>	Pretest	2.5
	Posttest	2.9

The table 15 showed that, the mean score of experimental class in pre-test was 2.5 and in post-test was 2.9. It means that, the mean score of pretest was lower than mean score of post-test.

The following table showed the result of the calculation to know whether or not the difference of the mean score between pre-test and post-test were stated calmly different at the level of the significance statistically analysis.

Table 16. The Speaking Test of the Students' Achievement

Variable	t- test	t-table
<b>Posttest</b>	5.467	2.000

The table above showed that t-test value was great than t-table the result of the test showed there was significant difference between t-table and t-test ( $2.000 < 5.467$ ), it means that, t-table was smaller than t-test.

The result of the t-test on statistical analysis showed that there was significant difference between the post-test who got treatment by applying cognitive learning strategy with pre-test who didn't get treatment before, even though different both of them was not enough high. The statement was proved by the t-test value (5.467) which higher than t-table value (2.000), at the level of significance 0.05 and the degree of freedom.  $(N1 + N2) - 2 = (30 + 30) - 2 = 58$ .

## CONCLUSION

Applying cognitive learning strategy is an effective technique that can be used in teaching speaking skill. It can be seen from the result of t-test value and t-table, where the

value of t-test is higher than t-table. The students speaking ability at SMA Negri 2 Kab. Sinjai before treatment was classified as poor and then after treatment their speaking ability is significantly increased. It can be seen from the result of their post-test, their speaking ability change became good classification. The students at SMA negri 2 Kab. Sinjai have positive attitude toward the application of cognitive learning strategy in their speaking class. It was supported by the questionnaire that they had answered.

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