

## **COMMUNICATION STRATEGIES USED BY MATHEMATICS AND SCIENCE TEACHERS TO COMMUNICATE IN ENGLISH IN MORNING SHARING IN SMP NASIONAL PLUS JEMBATAN BUDAYA: A SOCIOLINGUISTIC ANALYSIS**

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### **ABSTRACT**

This study was a sociolinguistic study which aimed at (1) analyzing the kinds of communication strategies used by mathematics and science teachers to communicate in English in morning sharing at SMP Nasional Plus Jembatan Budaya; (2) describing the mathematics and science teachers' efforts to improve their ability to communicate in English; and (3) describing the perception of the mathematics and science teachers about communicating in English. Three respondents were chosen in this study. The first and the second respondents were science teachers who possessed bachelor degrees in science education. The third respondent was mathematics teacher who possessed a bachelor degree in mathematics education. The data were collected through non-participant observation and in-depth interview. The collected data were analyzed descriptively and qualitatively. The result of the analysis found that: (1) there were only four kinds of communication strategies identified in this study, namely: modification device, paralinguistic, L1-based, and L2-based strategies, of these, modification device was the most frequently used by the respondents in order to keep the conversation going smoothly; (2) there were six efforts done by the mathematics and science teachers to improve their English, they are: studying more about English with English local teacher, practicing English with students, watching movies in the English subtitle, studying English intensively, practicing English continuously and habitually, studying English by sharing or asking for English teachers; and (3) both mathematics and science teachers agreed that English is important for some reasons, especially: for their job as teachers in a national plus school, salary and their professional development.

**Keywords** : communicative strategies, mathematics and science teachers, national plus school, English as a foreign language

### **INTRODUCTION**

Language is a very important aspect in human life. It is because without a language people will not be able to communicate. As what is defined by Richard & Schmidt (2010), language is the system of human communication which consists of the structured arrangement of sounds into larger units, e.g. morphemes, words, sentences, utterances. In other words, language is a tool that is used by

people to exchange their ideas or information to each other.

In this globalization era, where people are no longer bordered by distance, people should be able to communicate not only in their native language, but also to be able to communicate in an international language. As an international language, English is the most widely used around the globe. It

can be seen from the fact that more and more people in the world learn it as a foreign or second language (Richard & Schmidt, 2010).

Communicating in native language (L1) and in foreign language (FL) or second language (L2) is not the same. When people are communicating in L2, sometimes they need to apply certain communication strategy to maintain the communication. According to Richard & Schmidt (2010) communication strategy is a way used to express a meaning in a second or foreign language by a learner who has a limited command of the language. In communicating in L2 or FL, one may have to make up for a lack of knowledge of grammar or vocabulary. In other words, communication strategies are generally used as a medium to deal with difficulties and breakdowns in communication; for example, using simple explanation, paraphrases, cognates from the first language and gesture or asking someone to help or avoid topics when the user of the language cannot surmount communication difficulties in the target language (Hedge, 1993; and Tarone, 1997).

Selinker (1972) indicated the strategies should be systemized as the identification of the strategy used. He stated that relevant behavioral events in a psychology of second-language learning should be made identifiable with the help of theoretical constructs which assume the major characteristics of the psychological structure of an adult whenever he attempts to understand second-language sentences or to produce them. Furthermore, communication strategies can be classified into Modification Devices, Paralinguistics, L1-based, L2-based, and Avoidance (Tarone, 1980; Bailystock, 1990; Dornyei, 1995, as cited in Wannaruk, 2003).

In Indonesia, especially in Bali, there are many National Plus Schools (*Sekolah Nasional Plus*), e.i. international standard schools which is formerly known as *Rintisan Sekolah Bertaraf Internasional* or Pre-International Standard School. In those schools, all of the teachers should be able to teach in English. For those teachers who are not the native speakers

of English have to study and use English in their class. It was a general practice that in an international standard school, some key subjects were taught in English. The key subjects here refer to Mathematics and Science. As what is done in Jembatan Budaya School, the non-native English teachers, especially Mathematics and Science teachers need to give instruction in Bilingual (English – Indonesia) at classroom. Therefore, they need to improve their communication in English. Fortunately, there is an activity that can help Mathematics and Science teachers to practice their English. It is named morning sharing where the Mathematics and Science teachers need to lead morning sharing with English. Morning sharing activity is a pre-activity that is conducted before the class is started; it is like a warming up activity for all teachers both for the non-native and native English speaker teachers. In other words, during the morning sharing, the Mathematics and Science teachers apply various communication strategies to maintain their communication in English.

This study was conducted to analyze the communication strategies used by Mathematics and Science teachers of *Sekolah Menengah Pertama* or Junior High School of Jembatan Budaya, during the morning sharing. The researcher was interested to conduct the study for some reasons. The first reason was those Mathematics and Science teachers were a teacher and learner at the same time. They were teaching using English while learning English. This phenomenon is very interesting since they have to transfer knowledge while they are trying to master the language to transfer the knowledge. It means that they had a very clear goal to learn English. It is different from the students who learn English as regular subject at schools.

The second reason is because there was no study had been conducted to analyze the communication strategies used by the non-native English speaker teachers, especially Mathematics and Science teachers of *Sekolah Menengah Pertama* or Junior High School of Jembatan Budaya. Since there was no study had been conducted to analyze the

communication strategies used by the Mathematics and Science teachers, this study provides new information about the phenomenon that can be used for a reflection of the other non-native English teachers who teach other subject than English, especially about their problems in communicating in English. By knowing their problems, they could study their problems, find the solution and improve their English. In addition, this study also could enrich the information about communication strategies used by non-native English teachers when they communicate in English for teaching and learning.

This study was a sociolinguistic study which aimed at (1) analyzing the kinds of communication strategies used by mathematics and science teachers to communicate in English in morning sharing at SMP Nasional Plus Jembatan Budaya; (2) describing the mathematics and science teachers' efforts to improve their ability to communicate in English; and (3) describing the perception of the mathematics and science teachers about communicating in English

## RESEARCH METHODS

This research was a qualitative research. Patton as cited in Brikci (2007) states that qualitative research is characterized by its aims, which relate to understanding some aspects of social life, and its methods which (in general) generate words, rather than numbers, as data for analysis. Since it was a qualitative research, this research did not aim at collecting numbers, but knowing and understanding kinds of communication strategies used by Mathematics and Science teachers to communicate in English in the morning sharing at SMP Nasional Plus Jembatan Budaya.

In conducting this study, the researcher followed the steps in conducting qualitative research which were proposed by Fraenkel and Wallen (2012). Those steps were: *Identification of the phenomenon to be studied*, *Identification of the participants in the study*, *Generation of hypotheses*, *Data*

*collection*, *Data analysis and Interpretations and conclusions*.

This research took place at SMP Nasional Plus Jembatan Budaya, which was located in Kuta – Bali. This school was chosen because it was one of *National Plus Schools* which gave morning sharing activities to improve the English mastery of the non-native English teachers such as Mathematics and Science teachers. In addition, the researcher was an English teacher of this school. Therefore, it was easier for him to collect the data, rather than collecting data from other schools.

The Mathematics and Science teachers of SMP Nasional Plus Jembatan Budaya were chosen in this study because they had to communicate in English in the morning sharing in order to improve their ability to communicate in English especially for the instructional purposes. The subjects of the study or the respondents were taken by using purposive sampling technique. Three respondents were chosen in this study. The first respondent was a Science teacher who possessed a bachelor degree in Science education. The second respondent was another Science teacher who also possessed a bachelor degree in Science education. The last respondent was a Mathematics teacher who possessed a bachelor degree in Mathematics education. Three of them only had been learning formal English when they went to Primary School, Junior High School and Senior High School. They also had been learning formal English in University but it was only for one semester. However, they only had been learning English as a regular subject at schools or university.

This research applied two kinds of method to gather the intended data, they are: non-participant observation and interview. The first method, non-participant observation, was used in this study because the researcher did not take part in morning sharing activity. Non-participant observation was done to collect the data about kinds of communication strategies used by Mathematics and Science teachers to communicate in English during morning sharing at SMP Nasional Plus

Jembatan Budaya. While observing the morning sharing activity, the researcher recorded the communication among the Mathematics teacher, Science teachers and the native English speaker teacher using video recorder while taking notes and checking the observation checklist. The recorded data of this study were transcribed into written transcription before they were ready to be analyzed. Interview, as the second method of collecting data in this study, focused on in-depth interview. This type of interview was done to confirm the data that were collected from the observation and to explore in detail the respondents' perceptions and accounts related to the problems of the study.

Since this study was a qualitative study, the researcher was the main instrument of the research. However, in order to collect the needed data, based on the methods of data collection that have been explained previously, four devices were used by the researcher, namely: observation checklist, notebook, interview guide, and video recorder.

The data reliability and validity must be tested in order to get acknowledge and trusted data for the result and finding. Reliability deals with the extent to which the result of the study is able to be trusted accurately. Whereas, validity is a circumstance in which the result of this study is usable or acceptable until a definite expiry date or under specific circumstances of use. In order to achieve these two things, the researcher as the key instrument should be consulted before observing and collecting the data of communication strategies used by Mathematics and Science teachers to communicate in English in the morning in SMP National Plus Jembatan Budaya.

Triangulation method was used in this study such as time-based triangulation. As what is explained by Sugiyono (2012), time-based triangulation is a triangulation that is done by collecting the same data from the same resource repeatedly and compared the result of the data collection from time to time. In other words, the researcher had done pre-observation to verify and compare the theory with the communication occurred in the morning sharing time to time. And it

was verified again in the observation by using non-participant observation.

The collected data, both from the result of the observation and the interview, were analyzed qualitatively through interactive data analysis model which was proposed by Miles and Huberman (1987). This method of data analysis consisted of three activities, namely: data reduction, data display, and conclusion.

## FINDINGS AND DISCUSSIONS

First finding of this study showed that there were four types of communication strategies used by the subjects of the study, namely: Modification Devices, Paralinguistics, L1-based, and L2-based. The followings are brief conclusions about those four communication strategies which were produced by the subjects of the study.

Modification device was the first type of communication strategy that occurred in this study. A modification device employed in order to keep the conversation going smoothly. The modification devices which were identified in this study include: *backchannel cues*, *clarification request*, *pausing*, *self-repair*, *comprehension check* and *confirmation check*.

The first sub-strategy of modification devices that was used by the subjects was backchannel cues. The subjects of the study produced backchannel cues to show the participant that they understood the participants' utterances. The subjects did it by producing short utterances, such as: "okay", "yeah", "yes", or "uh uh".

The second sub-strategy that occurred in this study was clarification request. The clarification requests which were identified in this study had two functions. There were clarification requests that were produced for repetition and clarification requests that aimed at asking for an explanation. However, the data show that the first function was dominant in this study. The subjects of the study mostly produced clarification request to get repetition from the participants in order to confirm the utterances.

Pausing was produced by the subjects of the study as the third sub-strategy during the morning sharing activity at SMP Nasional Plus Jembatan Budaya. The researcher identified two indicators that made the subjects of the study paused. The first indicator was pausing talk for a few seconds to think about what should be said to continue the communication. The second indicator was silent showing hesitation. From the collected data, silent showing hesitation only occurred once. It occurred in Excerpt 8 when the subject said “we will **“ee”(hesitation)** keep.. “e” don’t don’t make a limit for your thinking”. It can be classified into hesitation because she did not know what to say exactly. Whereas for the first indicator, the subjects paused their talk for a few seconds when they know what to say, but they were still thinking how to express them. In general, pausing was used by the subjects to get a few times to think before they said the utterances in English.

The fourth sub-strategy was self-repair. It was used by Mathematics and Science teachers when they noticed that they had made a wrong utterance and then they corrected it straight away to keep the communication in the morning sharing going well.

Comprehension check occurred as the fifth sub-strategy during the morning sharing at SMP Nasional Plus Jembatan Budaya. The findings above indicate that the subjects rarely used comprehension check. It means that the participants of the morning sharing were easy to understand the subjects’ explanation when they were leading the morning sharing activities. Therefore, the subjects did not need to use comprehension check so many times.

The sixth sub-strategy was confirmation check. It was produced by Subject 3 when she wanted to check the understanding of the participant by repeating the statement of the participant. As its name, this aspect was done to confirm the utterance that was produced by the participant in order to avoid any misunderstandings.

The second type of communication strategies that was identified in the findings of the study was paralinguistic. It

is one of the strategies using gesture, facial expression and verbal output to communicate the meaning even without saying or uttering something (Tarone, 1980; Bailystock, 1990; Dornyei, 1995 as cited as in Wannaruk, 2003). It can be divided into two, *gesture* and *mime*. From the findings it was confirmed that there was no any gesture occurred during morning sharing at SMP Nasional Plus Jembatan Budaya. According to Wannaruk in SLLT 2003, gesture is a use of facial expression or head shaking if the user of the language does not understand. Based on the findings, Mime occurred during the morning sharing at SMP Nasional Plus Jembatan Budaya. The data demonstrate that the subject tried to convey the utterance or information by using mime to maintain the communication ran well.

The third type of communication produced by the subjects was L1-Based. Theoretically, it can be divided into two strategies, namely: *language switching* and *foreignizing*. Language switching was found in the morning sharing at SMP Nasional Plus Jembatan Budaya by Mathematics and Science teacher. In reality, it is hard to hold notes in order to get this communication strategy, because they can be bilingual in the morning sharing even though they are needed to use full English sentences. In addition, most of the participants of morning sharing are Indonesian that is why they usually talk in English and then translate in Bahasa Indonesia. Nevertheless, in that respect is no any foreignizing occurred during the morning sharing at SMP Nasional Plus Jembatan Budaya by Mathematics and Science instructors. It is because they are a teacher or teacher in the Nasional Plus School that is why they are proficient in English and know more in vocabularies even though they don’t master of English as an English Teacher.

The fourth was L2-Based. It is divided into three sub-strategies; those are Appeal, Approximation and Circumlocution. Appeal occurred during morning sharing at SMP Nasional Plus Jembatan Budaya by Mathematics and Science teacher. It only occurred once in data 2. The subject of data 2 wanted to

have the right word to fix the communication in the morning sharing going well. Approximation occurred during the morning sharing at SMP Nasional Plus Jembatan Budaya by Mathematics and Science teachers. It is the same like appeal; it was found in minimum frequency. Circumlocution occurred during the morning sharing at SMP Nasional Plus Jembatan Budaya by Mathematics and Science teachers. It is the same like appeal and approximation; it was found in minimum frequency. However, the subject of data 2 has a better L2 – Based. That is why she could elaborate another word or phrase through many words or idiomatic expressions by using its property, function, characteristics, duty, purpose or an instance of it.

The last type of communication strategy was Avoidance. It is sub-categorized into topic avoidance and message avoidance. Established along the information above, there is no any message avoidance found in the morning sharing at SMP Nasional Plus Jembatan Budaya by Mathematics and Science teacher. Likewise, there is also no any topic avoidance found in the morning sharing at SMP Nasional Plus Jembatan Budaya by Mathematics and Science teacher. It occurred because the subjects of this study are a teacher or teacher in the Nasional Plus School who are good in English or understanding English even though they are not as masterful as an English teacher in English.

Moreover, it can be stated that there are 68 times of communication strategies occurred in the morning sharing at SMP Nasional Plus Jembatan Budaya by Mathematics and Science teachers. Modification device occurred 59 times; backchannel cues is 9 times, clarification request is 4 times, pausing 32 times, self-repair is 8 times, comprehension check is 5 times and confirmation check is just one time. Next communication strategy is paralinguistic, it occurred 4 times; there is no gesture occurred but mime occurred 4 times. And the next communication strategy is L1-Based. Reminding that L1-based is one of communication strategies that uses L1 language, it can be inquired from language switching and foreignizing

definition on Tarone, (1980); Bailystock, (1990); Dornyei, (1995) as cited in Wannaruk (2003). It occurred only twice; language switching is 2 times and there is no foreignizing occurred. To find out this strategy is difficult enough, especially for language switching because the subject or teachers used bilingual in morning sharing. Afterwards that, L2-based also occurred in this study, it came about 3 times on data 2; appeal is once, approximation is once and circumlocution is once. It could be happening because the subject of the data 2 has more prior English knowledge than other subjects. The last communication strategy is avoidance. Nevertheless, there is no avoidance occurred in this study, because all of the subjects are teachers who were graduated from Bachelor of Degree. That is why they have prior English knowledge enough, even though they are not as masterful as an English teacher.

Established along with the explanation above, it can be reasoned that the most communication strategy occurred was modification device. Modification devices employed in order to keep the conversation going smoothly (Tarone, (1980); Bailystock, (1990); Dornyei, (1995) as cited in Wannaruk (2003)). It signifies all of the subjects wanted to make the communication in the morning sharing at SMP Nasional Plus Jembatan Budaya going smoothly without a communication breakdown.

Next finding is about what the Mathematics and Science teachers' efforts to improve their ability to communicate in English. The three subjects answered the questions with various answers. Subject 1 stated that she studied English more by consulting with the local English teacher, practicing English with students and watching movies with English subtitle. Subject 2 stated that she studied English intensively and practiced English continuously. While Subject 3, stated that she would study English by sharing or asking the English teachers when she got any problem with her English. All of the answers show that the subjects used various ways to learn English more in order to be able to communicate in English better.

Last finding is about the Mathematics and Science teachers' perception about communicating in English. The items in the interview guide which can answer the research question number three of the study are items number 1, 6 and 7.

Based on the result of the interview, in answering the item number one, three of them have positive responses about how importance of communicating in English. All of them stated that English is important for for them, especially when they go abroad and for their daily jobs as teachers at SMP Nasional Plus Jembatan Budaya.

In answering the item number six, all of them have various answers. Subject 1 stated that it is important because Mathematics and Science teachers need to master English because there are many references about Mathematics and Science are written in English. Subject 2 stated that it is important because students who are taught by them are not only local students but also foreign students. Subject 3 stated that it is important because in the Nasional Plus School, the primary thing is how to be a bilingual (mastering Indonesian and English). That is why it is very important for them to learn English so that they can do their teaching and learning process in English. In addition, she also added that it is important because English is an international language. From all of those statements, it can be summarized that English is important for non-English teachers at SMP Nasional Plus Jembatan Budaya, especially for the Mathematics and Science teachers. Therefore, for them English is really urgent to be learnt.

For the question number seven, three of them said that it is good or excellent for non-English teachers to speak or communicate in English in the class.

This study discussed about communication strategies employed by Mathematics and Science teachers to communicate in English in morning sharing in SMP Nasional Plus Jembatan Budaya. it can be seen that there were 68 communication strategies produced by Mathematics and Science teachers in the

morning sharing activity at SMP Nasional Plus Jembatan Budaya. Modification device occurred 59 times, paralinguistic occurred 4 times (5.9%), L1-Based occurred only 2 times (2.9%), and L2-based occurred 3 times (4.4%). The last communication strategy was avoidance. However, there was no avoidance occurred in this study.

From the explanation above, it can be said that modification device was the most frequently used by the subjects. Modification devices employed in order to keep the conversation going smoothly (Tarone, (1980); Bailystock, (1990); Dornyei, (1995) as cited in Wannaruk (2003)). It signifies all of the subjects wanted to make the communication in the morning sharing at SMP Nasional Plus Jembatan Budaya going smoothly without any communication breakdown. Moreover, it was the same result as the study which comes from Wannaruk (2003) that used the same taxonomy in this study. The study is about *Communication Strategies Employed EST Student*. EST is English for Science and Technology. It was found that the most frequently used communication strategy has been the use of modification device. It stated that it might not directly help the learners solve the problem of limited knowledge in L2, but they would help the conversation to continue smoothly and effectively. Grounded along the two findings of two different studies which bear the same taxonomy, modification devices helped both of Mathematics and Science teachers in this study and students in Wannaruk's study to make conversation or communication going smoothly and make them being proficient speakers. The followings are samples of the excerpts that show the use of modification device strategy.

*Excerpt 1*

- (2) P: Miss Rita, can I ask something?  
(3) S1: **Yeah..Right.**

*Excerpt 2*

- (5) P: Can we go out of the area?  
(6) S1: **Uh huh...of course, Mr. Anthony.**

*Excerpt 3*

- (10) P: I don't understand yet.  
(11) S1: Uh huh..okay.

*Excerpt 4*

- (1) S1: Good morning all of my friends, *selamat pagi semuanya*. Today in Tuesday.. on Tuesday .. I will give you a game. It will warm your brain, because we use logic to play it. Eeee (pause) ... I have 9 circles. One two three ..... Nine (while drawing). This game is called think out of the box. I give you 3 questions, and the first question "eee" (pause). You must make 5 lines (memegang spidol sambil memperagakan membuat garis) on the circle continuously. The first question is simple thing.. "eee" (pause) I give you example.

*Excerpt 5*

- (9) S1: Okay yeaahhh. We start from here and make a line out of box One, two .....and the last four.. "eee" (pause) on circles we make 4 lines continuously.

*Excerpt 6*

- (11) S1: uh huh..okay.. I write and I make a game (drawing 9 circles). One, two ..... nine. We start from here.. one, two .....and four. We make "eee" (pause) 4 lines on the circles.

*Excerpt 9*

- (1) S1: Good morning all of my friends, *selamat pagi semuanya*. Today in Tuesday.. on Tuesday .. I will give you a game.  
....

*Excerpt 10*

- (13) S1: .... We make "eee" (pause) think out of the box for thinking in order that we will "ee" keep.. "e" don't don't make a limit for your thinking. ....

*Excerpt 11*

- (1) S1: .... Okay yeaahhh. We start from here and make a line out of box. One, two .....and the last four.. "eeee" (pause) on circles we make 4 lines continuously. Do you understand? Do you understand? .....

From the excerpts above, Excerpt 1 until Excerpt 3 are the examples of Backchannel Cue, Excerpt 4 until Excerpt 6 are the examples of Pausing, Excerpt 9 and Excerpt 10 are the examples of Self-Repair, Excerpt 11 is the example of Comprehension Check.

In addition, another finding that can be concluded is about the communication strategy that did not occur in this study. It was avoidance. It was different from the result of the study which was done by Wannaruk (2003) that used the same taxonomy in this study. In that study, avoidance occurred. Message avoidance was observed among the students in the middle and low proficiency groups only. Students in both groups behaved similarly to show the interviewer that they could not continue that topic, by laughing, smiling or pausing. They should learn how to tell their conversation partners directly that they could not continue with that topic. Compared to other types of strategy, avoidance was used much less and topic avoidance was not found at all. This is probably because the students wanted to keep the conversation going. They tried to communicate as well as they could. Only when they realized that they could not continue did they stop talking about that topic. Another different result also comes from Mirya (2007) that used the same taxonomy in this study. The study is about *The Analysis of Strategic Competence Used by Peddlers To Foreign Tourists in Malioboro, Yogyakarta*. In that study, avoidance also occurred, but it was not the same like the study from Wannaruk (2003) because the message avoidance was not found. Although the paddler could not continue the topic, they did not end up by laughing, smiling or pausing.

However, topic avoidance occurred in that study. The peddler used topic avoidance because they tried to

communicate as well as they could, but only when they realized that they could not continue, they would stop talking and changing the topic. Based on the three findings of avoidance by three different studies which have the same taxonomy, it can be concluded that the choice of communication strategies is related to the level of target language proficiency (Tarone, 1977 as cited in Wannaruk, 2003).

A learner's language proficiency is a potentially influential factor in the choice of CSs. Chen (1990) found that learners with different target language proficiency levels drew upon different sources of knowledge to solve their communication problems. It can be said that this study is the completion of the previous study that had been done by Wannaruk and Mirya. It is because the subjects of the study were Mathematics and Science teachers of National Plus School who possessed high level language proficiency, the subject of Wannaruk's study was students who possessed middle level language proficiency, while the subjects in Mirya's study were peddlers who possessed low level language proficiency. Mathematics and Science teachers of National Plus School can be considered to possess higher level of English language proficiency because they did not use avoidance which indicates that they understood with the interaction or communication without needed to avoid or change the topic of the communication.

Another discussion which related to language proficiency is the use of paralinguistics, according to Wannaruk (2003) paralinguistic is divided by two, gesture and mime. Gesture is the use of facial expression or head shaking if the language user does not understand and mime is the language user uses gestures as well as verbal output to convey meaning (e.g. clapping hands to indicate 'applause'). In this study, paralinguistics which occurred was only mime. Mathematics and Science teachers did miming to convey their utterances to the participants in morning sharing. While in Wannaruk's study, the students used both of gesture and mime. While in Mirya's study, the peddlers only used gesture. It

proves that the level of language proficiency affects the use of paralinguistics.

Another discussion of communication strategies can be also seen in this study where the Mathematics and Science teachers attempted to communicate in English as the target language for all participants in morning sharing and they used communication strategies to make the communication keep going. It apparently relates to the characteristic of communication strategies where the communication strategies are used to compensate for the gaps between what a learner wants to communicate and his/her competence in the target language (Bialystok, 1990). However, Mathematics and Science teachers were not as good as English Teacher in using English that is why by using communication strategies, they can compensate for the gaps between what they want to communicate and his/her competence in the target language.

## **CONCLUSION AND SUGGESTION**

In terms of the use of communication strategies, the Mathematics and Science teachers applied four types of communication strategies, namely: modification device, paralinguistic, L1-based, and L2-based strategies. In modification device those teachers used backchannel cues, clarification request, pausing, self-repair, comprehension check, confirmation check. In paralinguistic, those teachers only used mime. In L1-based, they only used language switching. In L2-based, they used appeal, approximation, and circumlocution. The Mathematics and Science teachers used those kinds of strategies to maintain their communication in English, especially when they lack of knowledge of grammar and vocabulary. This study shows that those communication strategies were effective to be applied in overcoming the teachers' difficulties in expressing their ideas in English and avoiding the breakdown in their communication. This result of the study implies that, the L2 and FL learners may use those strategies in expressing

their ideas in the target language when they are lack of vocabulary and grammar knowledge. In addition, the English teachers should take those strategies as positive effort that is done by the students in maintaining their communication in English.

To improve their English mastery, the Mathematics and the Science teachers did some efforts, namely: studying more about English with English local teacher, practicing English with students, watching movies in the English subtitle, studying English intensively, practicing English continuously and habitually, studying English by sharing or asking for English teachers. From those findings, it can be said that the Mathematics and Science teachers learn English practicing it, consulting with the English teachers, and observing how the native speakers of English use English in their daily life communication through watching movies. The efforts that were done by the Mathematics and the Science teachers indicates that to acquire English can be done by both formal and informal ways. Therefore, an English teacher should encourage the students to learn English not only during the English class at school, but from various resources that available outside the class.

Both Mathematics and Science teachers agreed that English is important for some reasons, especially: for their job as a teacher in a national plus school and their professional development. Those perceptions should be brought by the English teachers to explain the importance of English to the students in order to motivate them in studying English. The students will understand easily when they have a real example and those teachers' perceptions are real examples of how English is very important in this globalization era.

In regard to the significance of the present study, which combined with all of the findings, discussion and conclusion, some suggestions can be drawn, namely: this study is suggested to be a reference for the group who intend to acknowledge themselves about the forms and practices of communication strategies to communicate in English especially from

Mathematics and Science teachers in the Nasional Plus School; this study is suggested to be a reference for teachers and lecturers who expect to learn more about communication strategies; this study is suggested to be a guideline for the students of the English Department in order to follow the study related to communication strategies; this study can be a reference for other researchers who want to analyze about communication strategies; this study can be a reference for other researchers who want to analyze about effort in improving English; this study can be a reference for other researchers who want to analyze about perception of communicating in English; this study is suggested to be a reference for teachers and lecturers who expect to learn more about effort in improving English, especially from Mathematics and Science teachers in the Nasional Plus School; and this study is suggested to be a reference for teachers and lecturers who expect to learn more about perceptions in communicating in English, especially for Mathematics and Science teachers in the Nasional Plus School.

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