

# Developing Speaking Instruction Through Whole Brain Teaching for Tenth Grader at SMA Swasta Nur Azizi Tanjung Morawa in Academic Year 2023/2024

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**Abstract.** The objective of this developmental research is to develop a model of speaking instruction for tenth grader through whole brain teaching. The data of this study consisted of quantitative and qualitative data. The data sources were learners, teacher, and expert in speaking instruction design. Data were collected by using observation, questionnaires, and document. The speaking instruction were developed in four steps: (1) analyzing the existing speaking instruction, (2) carrying out needs analysis, (3) developing speaking instruction and (4) validating them. Data were analysed using percentages for quantitative data. Thematic Analysis is implemented to analyze the data. Thematic analysis that is one of method which used identifying, analyzing, and reporting patterns of themes in data and it minimally organizes and describes the data set in detail (Braun & Clarke, 2006). The result of this research was a theoretical model of speaking instruction based on whole brain teaching containing: the components of speaking and the procedure of whole brain teaching.

**Keywords:** *Speaking Instruction, Whole Brain, Teaching*

## 1. INTRODUCTION

In Indonesia, English as a foreign language. The students should be able to master four languages skills namely; Speaking, Writing, Reading, and Listening. Speaking is one of the difficult skills for EFL learners where the target language should be used orally. The speakers have a limited time to think what they are going to say. Also, they should make the listener catch the messages and give the responses of what they are talking. Especially, for EFL learners, they think that speaking is the most difficult one. Many students dislike English. As the results, the teacher should deliver the English materials with the suitable strategy in teaching speaking. The teaching strategy is the key of teaching and learning process. It takes an important role to make the classroom atmosphere more fun and joyful. There are many attractive and sophisticated instructional strategy in teaching speaking that can be used for the teachers to make their classroom atmosphere more fun and joyful. Also, it takes a role as a bridge to make the students like English, confidence in speaking English, and also the instructional teaching strategy is the key to make the students easier to comprehend the materials.

Nowadays, many teachers use the variation of speaking instruction in teaching speaking. However, based on the researcher's observation, the speaking instruction in teaching speaking that are used by the teachers do not seem relevant to the students' need nowadays. The speaking instruction is still the old one. Also, the strategy is not suitable for the language skill that want to be achieved. As the result, the students face the difficulties to comprehend the material, they are getting bored, they are lack of confidence while speaking, etc. The unsuitable speaking instruction cannot stimulate the students to speak.

To address these problems, a whole brain teaching approach is used to develop the speaking instruction for senior high school students. The identical term often referred to Whole Brain Teaching is Power Teaching and it is used as a means to help teachers handle the challenging students in classroom and an attempt to optimize the learning process. It is called Whole Brain Teaching approach since it is developed by taking into account the parts of the brain that works during the learning process such as visual cortex (seeing gestures), motor cortex (making gestures), Broca's area (verbalizing the lesson), Wernicke's area (hearing a lesson), and the limbic system (giving emotional content to a lesson). There are two reasons of why the researcher would like to develop the speaking through whole brain teaching approach namely; a whole brain teaching approach is the sophisticated approach for teaching speaking nowadays and The teaching of speaking of these materials can be taught in a more engaging and energetic style

by incorporating the Big Seven of Whole Brain Teaching approach. The learners can be trained both to listen to and speak in the target language since as stated above, the areas of the brain responsible for the speech (Broca area) and auditory function (Wernicke) are activated during the sessions. Therefore, the researcher intends to take a research entitled “Developing the Speaking Instruction through Whole Brain Teaching”.

Based on the background of the problem, the following research questions are formulated :

1. How is the existing speaking instruction used by the teachers today?
2. What speaking instruction is needed by the teachers?
3. How is speaking instruction developed by the teachers based on Whole Brain Teaching?

## 2. METHOD

The data of this research is taken from the utterances of the students about their needs in learning speaking. It can be called as the questionnaire of need analysis. Meanwhile, The data sources are the students, teachers, and experts in instructional speaking strategy development.

The researcher utilizes Research and Development (R&D) with Borg and Gall model as the research design. Research and development is a research method to develop and test products that will later develop in education. Various kinds of research models can be used as a reference in this Research and Development research; here are the different models used in research and development (Amali et al., 2019). There are ten steps in the development procedure proposed by Borg & Gall (Putra, 2012: 120-121), namely: (a) preliminary research, (b) planning and expert testing or limited trials, (c) developing types/forms of initial products, (d) conducting a limited trial, (e) information/data collection, followed by data analysis, (f) revision of the main product, (g) main trial, (h) revision of operational products, (i) operational field testing, (j) revision of a final product, based on suggestions in field trials, and (k) disseminate and implement products.

In this research, only three steps will be carried out as the theoretical model product, namely: (1) Initial activities, including information gathering, problem identification, needs analysis, and literature review, (2) Planning, including the preparation of model designs, (3) Expert validation and practitioner validation. For the instrument, the researcher uses observation, need analysis questionnaire, and document. Both qualitative and quantitative are used to analyzed the data in developmental research. In analyzing the data, the researcher will use the percentage in quantitative and description in qualitative. Thematic Analysis is implemented to analyze the data. Thematic analysis that is one of method which used identifying, analyzing, and reporting patterns of themes in data and it minimally organizes and describes the data set in detail (Braun & Clarke, 2006).

## 3. RESULTS AND DISCUSSION

### 3.1 Existing Speaking Instruction

The researcher used the observation guide to analyze the school condition during the teaching and learning process at the classroom. The researcher wanted to observed how the existing of the teacher’s instruction in teaching speaking to the students. When the researcher did the observation, the researcher found that the instruction was given by the teacher still not relevant to the students’ need and could not stimulate them to speak English. This following conversation reflected the speaking instruction at that school still not relevant and could not stimulate them to speak.

**Teacher :** “*okay students, hari ini kita belajar tentang drama*”. “*Drama adalah suatu karya sastra yang menggambarkan kehidupan dan watak melalui sebuah dialog yang dipentaskan oleh actor*”..... (explaining the language features of drama in Indonesian). *Okay, setelah memahami drama, tugas kalian kerjakan latihan bagian a dan b “complete the dialogue”.*(Ob-t-Cm)

**Students :** *baik Miss.*

It could be seen from the activities in the classroom. Firstly, the researcher saw the teacher did not provide the media or visual aids while delivering the material. Secondly, the teacher was being more active than the students. It could be proven from the way teacher taught speaking at that time. She still used lecture method which was that method made the students less interact with her. Thirdly, there were not practice activities. She asked the students to write but not to speak. At that time, the students were asked to complete the dialogue in their book without practicing it. Fourthly, the teacher did

not provide concrete examples. The students were getting confused and bored. They could not understand the material before the teacher gave the examples to them.

Moreover, The teacher cannot stimulate the students to speak English. It could be seen from the way of teacher spoke in delivering the material. She mostly spoke in Indonesian. In speaking class, the students really needed to know how to pronounce the word. Also, when they saw their teacher spoke Indonesian mostly, they felt that how they could fluent in speaking English if their teacher did not speak English. It made them lazy to learn. Also, their brain could not be stimulated to produce ideas and express it in English. Therefore, It made the students were not enthusiastic in learning English. The activity which was done in the classroom made they were getting bored. Therefore, the students were being passive. They just followed what their teacher said without creating a soft discussion.

### 3.2 The Students' Need

The results of need analysis via questionnaires indicated two kinds of needs namely; the target needs and the learning needs. Target needs was defined as what the learner needs to do in the target situation. Hutchinson and Waters have considered the 'Target needs' as an umbrella term, which in practice hid a number of important distinctions. It was more useful to look at the target situation in terms of (a) necessities, (b) lacks, and (c) wants. The target needs are described in Table 3.1

**Table 1 The Target Needs**

Type	Indicator	Target Needs	Respondents
Pre- Instructional Activities	Preparation	1. Vocabulary 2. Private Course 3. Watching Movie 4. Reading Books 5. Grammar 6. Writing 7. Dictionary	45,1% 16,1% 9,67%  9,67% 6,45% 6,45% 6,45%
	Interlocutor	1. Teacher 2. Learning Apps 3. Friend	80,64% 6,45% 12,90%
Content Presentation	Needs	1. Conversation Practice 2. Interactive Teaching Strategy 3. Media 4. Vocabulary 5. Pronunciation	38,70%  35,48%  16,12% 6,45% 3,22%
	Coding	1. Code Switching 2. Fun&Interesting 3. Understandable 4. By using Media	61,29% 22,58% 9,67% 6,45%
	Learning Phase	1. Pronunciation 2. Material 3. Grammar 4. Vocabulary	54,83% 22,58% 12,90% 9,67%

The table above indicated that from the pre-instructional activities, the researcher found two indicators namely; preparation and interlocutor. It can be seen that there were seven students need as the preparation that they need before speaking. There were 45,1% students needed to prepare vocabulary before speaking. Besides that, 16,1% students needed private course as the place to boost their speaking skills. It happened because they did not get the big chance to speak in school. Furthermore, the second indicator which was interlocutor, the researcher found three interlocutors that they need to learn speaking namely; teacher, friend, and learning apps. There were 80,64% students said that they really need teacher for being the great interlocutor to practice speaking. They thought that teacher as the expert and knowledgeable for boosting the students' skill. They could give feedback. Meanwhile, 12,90% students said that they need friend for being a partner to practice speaking because they could express their ideas and thought naturally and bravely with their friend. Therefore, the thought that it could boost their speaking skill.

Moreover, the second type was content presentation. It can be seen that there were three indicators namely; needs, coding, and learning phase. There were five content needs that the students' wants namely; conversation practice, interactive teaching strategy, media, vocabulary, and pronunciation. The students really needed conversation practice as the great content should be presented. They thought that learning speaking without practice was a failure. It could be seen from the 38,70% students answered it. Besides it, the students also needed interactive teaching strategy as the tools to present the speaking content. It meant that the students wanted an effective teaching strategy which was relevant to boost the students' speaking skills. There were 35,45% students needed it.

Another indicator was coding. In this case, the students needed code switching, fun & interesting, understandable, and by using media. It meant that the students wanted their teacher to speak Indonesian and English. Not fully in English and not fully in Indonesian. They should mix it. Therefore, the students could easily understand and follow the instruction. There were 61,29 % students agreed about it. Besides mixing the language, the teacher also should give the fun and interesting contents, materials, and activities for speaking. The students thought that it could attract and stimulate them to speak. There were 22,58 % students agreed about it.

The last indicator was learning phase. Learning phase meant the phase of learning speaking should be taught firstly. There were four answers namely; pronunciation, material, grammar, and vocabulary. There were 54,83% students wanted to learn pronunciation as the first phase in learning speaking. They thought that pronunciation was the important elements that should be known before other elements. It could make them easy to listen and understand what the teacher said. Meanwhile, 22,58% students wanted to learn the material directly. They thought that the basic English like pronunciation could be learned at home.

Furthermore, the other kind of needs namely; learning needs. Learning needs refered to the process how learners learned what includes learners' motivation, their knowledge, skills and strategies in learning a language. In fact, the learning needs was a subject highly related to the learners' language problems, their learning objectives, their way of learning etc. The learning needs are described in Table 3.2.

**Table 2 The Learning Needs**

Type	Indicator	Target Needs	Respondents
Learner's Participation	Concrete Examples	1. Yes	83,87%
		2. No	16,12%
Transfer Skill	Space Practice	1. Public Speaking	77,41%
		2. Discussion	6,45%
	3. Dialogue	12,90%	
	4. Presentation	3,22%	
	Ellaborative Interrogation	1. Grouping presentation	80,64%
		2. Debating	9,67%
		3. Soft Dialogue	6,45%

		4. Web Blogging	3,22%
	Retrieval Practice	1. Test	32,25%
		2. Vocabulary Memorizing	25,80%
		3. Practice Evaluation	22,58%
		4. Unnecesarry	19,35%
	Memory	1. Concluding the Material	93,54%
		2. Questioning	6,45%

The table above indicated that there were two types of the students' learning needs namely; Learner participation and transfer skills. It could be seen that 83,87% students needed concrete examples. They wanted that they could include actively in giving the example. They thought that concrete examples were good for stimulate the students to speak. Also, it could boost their curiosity about the topic.

On the other hand, the second type consisted of four indicator namely; space practice, elaborative interrogation, retrieval practice, and memory. Space practice was needed by the students. 77,41% students argued that space practice should be represented by public speaking. They said it could enhance their self-confidence and their participation in learning process. Moreover, 12,90% students wanted a dialogue practice. They thought that it could elevate their speaking skill by trying to speak with their friend.

Furthermore, the second indicator was elaborative interrogation. 80,64% students needed that the discussion was better represented in grouping presentation form. They thought it could transfer their idea and speaking skill by presenting the material followed by question and answer sessions. Likewise, 9,67% students needed debating as the booster of critical thinking. They wanted it due to they could transfer their ideas with their friends and teacher. Also, they could get the feedback directly.

Moreover, the third indicator was retrieval practice. Retrieval practice as the form of developing and evaluating the previous practice. 32,25% students really needed test such as like cloze test or fill in the blank test which was the test still in line with the previous practice. They aimed that this test could enhance their understandable and boost their speaking skills. Meanwhile, 25,80% students needed vocabulary memorizing as the retrieval practice due to they said that they really need more vocabulary to make them speak English fluently and easily.

In addition, the last indicator was memory. 93,54% students wanted their teacher to conclude the material before ending the class. They thought that it could elevate their memory about the material. On the other hand, 6,45% students needed questioning time before ending the class. It seemed like evaluation of the learning process which was done by the students.

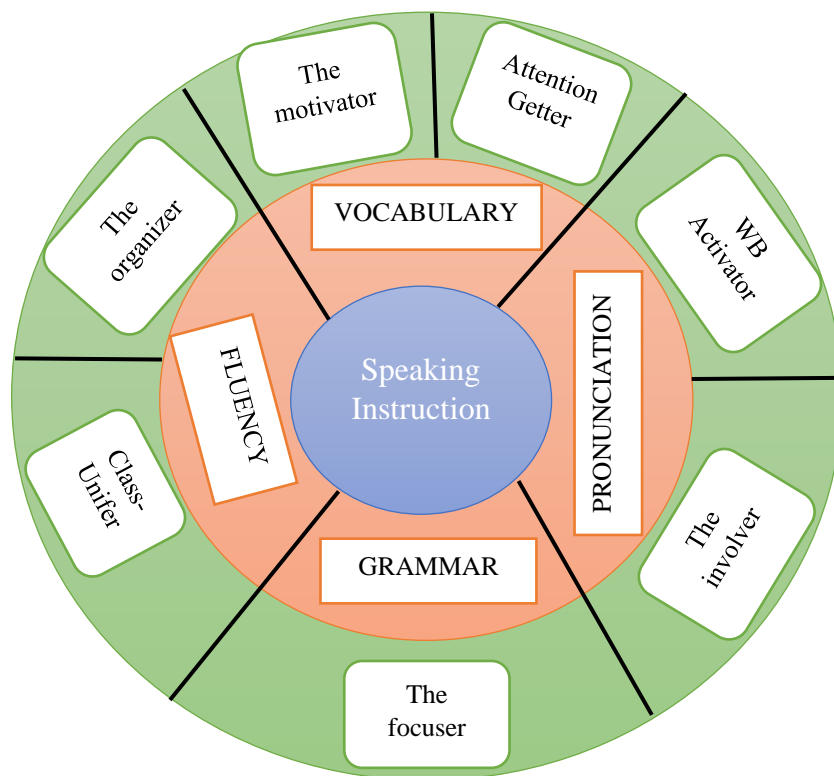
In concluding the students' need based on the result of the need analysis questionnaire. The researcher found the dominant needs of the students was interactive teaching strategy. The teaching strategy was the key of learning. They needed the teacher to provide visual aids, to provide fun practice activities such as like conversation, debate, discussion, or vocabulary memorizing. They wanted the teacher could stimulate them to speak English by utilizing the instruction which could activate their whole brain parts. They were believe that it took an important role to enhance their speaking components proficiency. Although the students' needs and wants were high in learning speaking, there were sme lacks mostly experienced by the students. Those were lacks of vocabulary, lacks of practice, lacks of reinforcement, and lacks of participation.

Furthermore, the researcher developed the theoretical model which could help the students to overcome their lacks and provide their needs and wants in learning English. The researcher combined the speaking components with the procedure of whole brain teaching as the result of the developmental of speaking instruction.

### 3.3 The Theoretical Model of Speaking Instruction Based on Whole Brain Teaching

In this part, the researcher develop the theoretical model of speaking instruction based on whole brain teaching. On the basis of the analysis of speaking instruction and whole brain teaching, the model should contain :

1. The components of speaking
2. The procedure of whole brain teaching



**Figure 1.** *Theoretical Model of Speaking Instruction through Whole Brain Teaching*

The model shows that speaking instruction should contains four major components consisting of pre-instructional activities, content presentation, learner participation (including feedback) and follow-through activities make up the instructional strategy component. Instructional strategies must focus on memory and transfer skills. These components should be presented through the components of the speaking, which are delivered by vocabulary, pronunciation, grammar, and fluency. When integrating those items, the procedure of whole brain teaching will be activated.

To integrate the vocabulary enrichment to the five classroom rules, the teacher can recall their memory about the uncommon vocabularies in the material. The five rules are used to evaluate the students' behaviour during the learning process. In this phase, the teacher as an organizer to ask the students follow the rules in mentioning the vocabularies that they have gotten. They should raise their hand to speak, they should use the gesture, they should find the meaning, they should not repeat the same vocabulary, and they should know the synonym of that word. Then, for the scoreboard, the teacher can give the smiley face when the students have done well in doing the five rules about the uncommon vocabularies. Meanwhile, if they cannot do it well, they will get the frowny face. The scoreboard has the fuction to stimulate the students in learning vocabulary by giving the reward to them. Moreover, in class-yes, the teacher can ask the students to add the prefix and suffix to word that they have mentioned . then, as the result, they know the morphology of the word. They will comprehend by adding prefix and suffix can change the class of the word. Furthermore, in teach-

okay strategy, the teacher can stimulate the students to understand the meaning and memorize it with their peers. The student will say the English word of the uncommon vocabulary, then other student will say in Indonesian. Moreover, the switch strategy can enrich the students vocabulary by mentioning the synonyms of the word. When, the teacher say switch, they should mention the synonym of the word that has been discussed. Other strategy is hands and eyes. It can remind the students of the vocabularies and know the function of it. The students can make a gesture while presenting the vocabulary that they want to be guessed by their peers. Furthermore, the mirror strategy is used by mimicking the students gesture then the students write the new vocabulary from the teacher's gesture. Therefore, it can be concluded that the big seven procedure of whole brain teaching are really effective to enrich the students' vocabulary bu utilizing the brain's area to memorize and to reinforce the word through fun learning strategy.

Besides vocabulary, the students' pronunciation also can improve through whole brain teaching. When integrating the five classroom rules, the students should pronounce the uncommon vocabulary well. If there is a mispronounce, the teacher and other students will fix it, then they should repeat the correct one. Then, in the scoreboard phase, the teacher can give two smiley face if the students can pronounce well the word and can give the meaning of the word. However, the teacher will give the frowny face if the students cannot pronounce it well and cannot give the meaning of that word. It can motivate the students to do it correctly. It seems like the reward of the students' result in learning and teaching process. It can boost their spirit to always do it well. Furthermore, in class-yes, besides the teacher can get the students' attention and the morphology of the word. It also can make the students fluent to pronounce the word. They will know how to pronounce the word after adding suffixes-ed, -ing, -s, -es. Moreover, in teach-okay strategy, the students can pronounce the word correctly both in English and Indonesian. Then, in switch stage, the students should pronounce well the synonym of the word. The next stage is hands and eyes. In this stage, the teacher ask the students to remind their mispronounce and fix the word with the correct pronunciation. Other phase namely mirror also can improve the students' pronunciation. The students should guess the word that is presented by the mimic of the teacher and they should answer it with the well pronunciation.

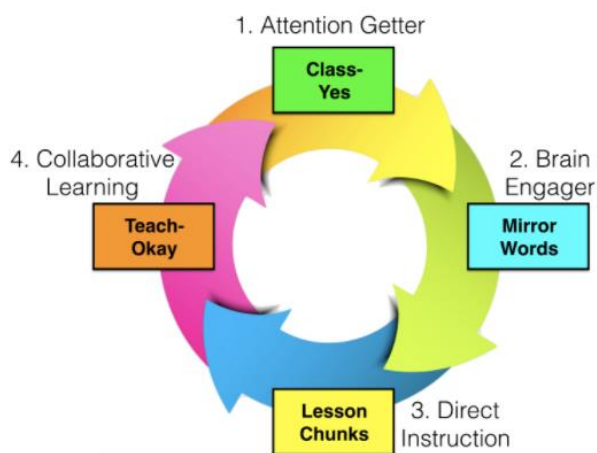
The next aspect is grammar. It also contributes to the each phase of whole brain teaching procedure. After getting the uncommon vocabulary in five classroom rules, they should divide the each word to the part of speech. It can be noun, verb, adjective, etc. Then, in scoreboard, the teacher will give the smiley face if the students can place the word correctly into their class. Meanwhile, they will get frowny face, if they put the word in the wrong class. Furthermore, in class-yes, the students should mention the new word which is made by adding suffixes, then create it in the simple sentence by using the correct grammar. If they add -ed, they make a sentence in past tense. Then, if they add -s/-es, they create it in simple present. Meanwhile, if they add -ing, they make it in present continuous. Besides, they rich of the vocabulary, they also can remember the grammar and know the function of it. Moreover, in the teach-okay phase, the students should translate the sentence into the Indonesian. Other phase is switch, the students should classify the synonym of the first word into their class of word. Besides, switch, hands and eyes stage also can improve the students' vocabulary. The students should create the sentence with a correct grammar by using the gesture. The last phase is mirror. In this phase, the students should guess the mimic of the teacher in presenting the tense.

Fluency also improve through whole brain teaching. In the five classroom rules, the students will fluent to pronounce the word. Then, the teacher measure the students' fluency by giving the smiley face or frowny face. Moreover, the students will fluent in using the tense with the new word by adding suffixes. Furthermore, in teach-okay, the students can speak fluently both in English and Indonesian. For the switch phase, the students will fluent to pronounce the synonym of the word. Then, in hands and eyes phase, the students will guess the word which was being mimicking by their teacher and pronounce it fluently. In the last phase namely mirror, the students should fluent in presenting the word.

## DISCUSSION

On the basis of the result of the research, there were two components of speaking instruction model based on whole brain teaching namely; the components of speaking and the procedure of whole brain teaching. The model shows that speaking instruction should contains four major components consisting of pre-instructional activities, content presentation, learner participation (including feedback) and follow-through activities make up the instructional strategy component. This statement was in line with Gagne (1988) : "The planning of an instructional strategy is an important part of the instructional design process. It is at this point that the designer must be able to combine knowledge of learning and design theory with his experience of learners and objectives. Needless to say, creativity in lesson design will enhance this other knowledge and experience. Perhaps it is this component of creativity that separates the art of instructional design from the science of instructional design. It is clear that the best lesson designs will demonstrate knowledge about

the learners, the tasks reflected in the objectives, and the effectiveness of teaching strategies". Instructional strategies must focus on memory and transfer skills. These components should be presented through the components of the speaking, which are delivered by vocabulary, pronunciation, grammar, and fluency. When integrating those items, the procedure of whole brain teaching will be activated. On the other hand, other theoretical model of whole brain teaching just focused on the four procedures of whole brain teaching. As seen in figure 2.



**Figure 2.** *Theoretical Model of Whole Brain Teaching developed by Ortuno (2020).*

The model by Ortuno was contrasted of the theoretical model which had been developed in this thesis. The theoretical model in this thesis was focused on the seven procedures of whole brain teaching, which were integrated with the speaking components. It aimed to combine the activities which could activate the whole brain parts of the students with the speaking components or their language proficiency. This theoretical model could overcome the students' lacks and balancing it with the students' needs and wants. This model was in line with the Stephen Krashen's input hypothesis "language learners must receive language input that is at their level and then slightly beyond so that the process remains both comprehensible and challenging." It could be defined that activities or process of learning or the speaking instruction which had been delivered by the teacher should give the input to the students' skills. If there was not input to the skills, the instruction meant nothing and useless.

From the result of questionnaire of need analysis, it could be seen that in pre-instructional activities, vocabulary was very needed to be prepared before speaking. Rich vocabularies could help them to arrange the sentence. It could avoid the mind block. As the great interlocutor, teacher was very took an important role in stimulating speaking. The teacher as the knowledgeable should guide the students to speak English confidently. In designing the content, the students wanted the content should be presented in conversation practice. Practice could train their speaking skills. They could speak with their peers. In integrating the content, the students were often getting bored with the teacher's teaching strategy. The teacher often used the monoton activities. In fact, they wanted the integrative teaching strategy. They needed a content should be presented with a various fun activities. Furthermore, in delivering the material, the students wanted their teacher to do code switching. They did not want the teacher spoke English fully or Indonesian fully. However, mixing the language was better for them. They could understand the material easily. In addition, as the learning phase, pronunciation was chosen by the students as the first content that should be taught first in learning speaking. They thought that pronunciation was the key of English.

A great instruction was provide concrete examples which was involved the students to participate on it. The students wanted them to be joined in concrete material. They did not want only learn theory. In transferring the students' speaking skill, the teacher should create a various fun activities such as public speaking, presentation, discussion, etc. They thought that from that various activities could enhance their critical thinking and speaking skills. They wanted the activities that was not only improve our speaking skills but the critical thinking also important to be developed by question and answer session. Moreover, retrieval practice was also took an important role, it seemed like a reinforcement of the skills. The students needed vocabulary memorizing, test, and practice evaluation. Then, before closing the material,



the teacher should conclude the material and give some questions to the students to boost their memory of the material.

#### 4. CONCLUSION

Based on the result of the research, it could be concluded that : (1) the existing of speaking instruction did not show relevant. (2) the result of the students' need analysis were categorized into pre-instructional activities, content presentation, learners' participation, transfer skills, and memory. (3) the theoretical model of speaking instruction through whole brain teaching consisted of the components of speaking and the procedure of whole brain teaching.

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