THE IMPLEMENTATION OF JIGSAW EXPERT AND HOME GROUP PRESENTATION TO INCREASE SPEAKING SKILL OF GRADE 8 STUDENTS

Anggalia Vina Evathia Ndun
SMP Kristen 1 Kupang
Nusa Tenggara Timur, Indonesia
<anggalia_vina@yahoo.co.id>

Abstract

Based on pre-observation, it was indicated that in learning Biology, students who were less trained to speak in front of public could not present a material confidently. This research aims at increasing Grade 8 students' speaking skill in one of the private junior high schools in Kupang which consists of 32 students. The design of this research was classroom action research consisting of 2 cycles. The research instruments are photos, presentation rubric and journal reflection. In this research, speaking skill was expected to increase because students were trained to speak from smaller group, that was Jigsaw 'Expert' group then move to bigger group that was in their respective 'Home' group presentation.

***Keywords**:* Jigsaw methods; Group presentation; Classroom action research; Speaking skill

Introduction

In the past, form of education tends to follow traditional learning approaches. Learning like this is teacher centered where teacher is the only source of knowledge. It also affects the flow of conversation and interaction that occurs in the classroom. Students were rarely given the opportunity to speak in the classroom because conversation was dominated by teacher. The effect of this kind of approach still has an impact until now. The flows of class discussion are still dominated by teachers because most of the materials are presented by the teacher. If students are rarely given the opportunity to speak in the classroom, it can affect the development of their speaking skill, especially when speak in public. This also happened when the author taught biology in Grade VIII in one of junior high schools in Kupang. When students were given the instruction to present something, either within the group or within the scope of the class, students were less able to present it well. Most students just re-read what had been stated in the available material without trying to communicate using their own understanding. The language used by the students present seemed to be very stiff and just focused on the text book.

Background and Literature Review

In the traditional learning approach, all materials are mostly submitted by teachers only. But nowadays, students are required to participate actively in learning process and this means that the delivery of material or concept using proper communication skill is indispensable, especially for the speaking skills of students when learning biology. During the learning of science, students should not learn the outcome only. They should also need to learn other aspects such as process, attitude and technology for them to truly understand the science as a whole (Nuryani, 2005). Speaking skills, when presenting a biology material or concept is one of the aspects in attitude that should be owned by each science student.

Verbal communication is still the preferred method most frequently used by students and teachers so that conversation is still widely happening in class in the classroom. As mentioned above, there are still many obstacles occurred during the process of communication among teacher and students, students and teacher, as well as students with students. Sameto (1996) explained that student should not get used to depend their learning form the text because rote learning of the text can kill talent, damage the flow of conversation and create distance among people. As stated by Henderikus (1991) the speaker's personality is an important element that determines the effectiveness of rhetorical communication. In speaking, students should have the ability to articulate clearly. The language has to be convincing, because it properly formulates expression and dialectical conversation.

According to Savin-Williams and Demo as cited by Santrock (2003), there are some indicators of behavior in speaking that should be demonstrated by teenagers who have confidence in using the sound quality adapted to the situation, in expressing opinions, in maintaining eye contact during a conversation in progress, and in speaking fluently with only a slight doubt. From review of literature, it can be concluded that the indicators of students' speaking skills in the presentation are the following:

1. Their voice quality that is adjustable with the situation, which means that the students can adjust the volume according to the situation at the time of presentation.

2. Their ability to express their opinions, which means that students can talk and do not depend on the text let alone memorizing the text.

3. Their eye contact with the audience when they present the topic material

4. Their ability to speak convincingly and fluently only with a slight doubt. To speak fluently means when presenting something, they use their own understanding not merely reading from the text; can set the tempo as well as the voice tone with clear articulation.

One strategy that can help students to improve their speaking skills is cooperative learning approach. One characteristic of cooperative learning is that students cooperate with creation of interdependence among them to achieve the learning objectives.

To help students to practice improving their speaking skills in presentation, there were two methods being used by the author, namely Jigsaw cooperative learning approach with the 'Experts' team discussions and 'Home' group presentations.

Jigsaw is a cooperative learning technique which students are interdependent on each other and must work together to study the assigned topic material (Jigsaw classroom, 2016). Jigsaws with 'Expert' team members are also members of the original 'Home' groups that are randomized by teacher. The 'Expert' groups are groups of students who are given the tasks to explore the specific topic materials as representatives of groups of different origins. Each 'Expert' group will explore different topics that will be distributed in their respective original 'Home' group. The brief process of Jigsaw technique is illustrated in the following Figure 1. The presentation could be delivered in the forms of 'messages in multimedia, vocal, body language, visual aids and various other techniques to audience' (Bender, 1997, p. 11).

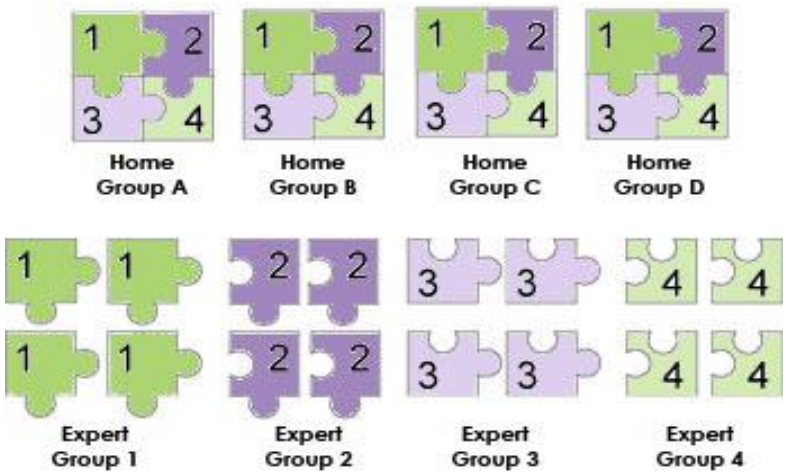

Figure 1. Jigsaw technique with brief overview of 'Expert' and 'Home' groups activities (Swan, 2015).

Research Questions

Based on the discussions above and review of literature, this study is guided by the following two main research questions (RQs):

1. Do Jigsaw 'Expert' and 'Home' group presentation improve students speaking skill of Grade 8th students?
2. How do the implementations of Jigsaw 'Expert' and 'Home' group presentations improve speaking skills?

Methodology

The research design of this study is Classroom Action Research (CAR)(Kemmis & McTaggart, 1992) to observe the effect of improving students' speaking skills in the classroom by using Jigsaw technique that includes 'Experts' teams in Cycle 1 and 'Home' group presentation on learning models in Cycle 2.

CAR consists of four stages in each cycle, namely: 'planning, acting, observing and reflecting'. The subjects were students of Class VIII in a private junior high school in Kupang. The number of research samples is 32 students who were divided into 6 groups of 4-5 people per group. Each cycle was the basic for the improvement from the previous cycle. The first cycle was held on 27 April 2015 and the second cycle was held on May 13, 2015.

Table 1 summarizes the indicators and instruments used in response to RQs 1 and 2.

Table 1
Indicators and Instrument Used in Response to Research Question (RQs) 1 and 2

Research questions	Indicator speaking skills	Instrument used
1. Do Jigsaw 'Expert' and 'Home' group presentations improve students speaking skill?	Students adjust their voice volume according to the conditions	assessment rubric for oral presentation, daily journal reflection, pictures
	Students can set the tempo and voice tone.	assessment rubric for oral presentation, daily journal reflection, pictures

2. How do the implementations of Jigsaw 'Expert' and 'Home' group presentations improve speaking skills of grade 8th students?	Students have clear articulation.	assessment rubric for oral presentation, daily journal reflection, pictures
	Students maintain their eye contact with their audiences.	assessment rubric for oral presentation, daily journal reflection, pictures
	Students do not rely on the text let alone memorizing it.	assessment rubric for oral presentation, daily journal reflection, pictures
	Students speak convincingly and speak with their own understanding not the language dictated from the books.	assessment rubric for oral presentation, daily journal reflection, pictures

Findings

First cycle

Plan. Planning stage started with creating a lesson plan. The lesson plan prepared that was adjusted with the learning materials in classroom included 'organism growth and development'. Each group received information about one kind of organism. After that each group will send one student to each 'Expert' group to present the material discussed at their original 'Home' group. Jigsaw method with involves 'Expert' teams being chosen in order to improve students' speaking skills to communicate something to their friends in formal occasion, provoke their confidence to speak in public and have responsibility in learning process. Each student learns to be responsible with the material provided as well as do not rely on their friend to master and do the presentation. Students are required to develop their discussion results with their respective 'Expert' team members so that they do not only read the results of their discussion. The author created rubric to measure students' speaking skills for the presentation that was shared with two teachers who were assessors. Assessment rubric for speaking skills was created that was adjusted with presentation's indicators as the research instrument to collect data.

Action. In the early stages of action stage, learning activities went according to the plan, but there was a slight obstacle in the group arrangement. During the group arrangement teacher had problems especially when students did not understand the movement from their previous group to other group (from original 'Home' group to 'Expert' group, then back to their original 'Home' group). This caused the teacher to explain the method continuously in class before the group's rearrangement. Teachers' observation revealed that much time was taken for group discussion and group rearrangement in Jigsaw and less discipline.

Teacher had to walk around the class to observe to make sure smooth rearrangement of students from 'Expert' to 'Home' groups (Figure 2). After all the students had taken a turn to present in the group, the teacher discussed some of the students' unanswered questions during the process of groups' discussion and presentation. Teacher also described additional things that were necessary but were not included in the previous learning process. Learning activities were ended with a classroom conclusion.

Figure 2. Expert team discussion.

Observation. Observations were made during the action stages that took place led by the subject teachers with the help of other teacher. Teachers have problems with this group arrangement because students were not familiar with the method. Students were still confused with the arrangement of 'Experts' groups for discussion and the arrangement for the larger 'Home' groups for presentations. Teachers assessed students' presentation in the group with an assessment rubric. From the results of the assessment on Jigsaw 'Experts' presentation, the student' average score was 7.00. The average score on 'voice' criteria was 6.67, the average score of 'material arrangement and delivery' was 7.17 whereas other criteria such as 'the order of language selection' as well as criteria of 'eye contact' was 7.50 and 6.67 respectively.

There were improvements in first cycle of 'Jigsaw' technique as compared with the previous observations when 'Jigsaw' was not implemented, but the results were not optimal. Most of the students during the presentations had clear articulation and adjusted their voice volume to the conditions in the group but still less able to adjust the tempo and their voice tone. During presentation, some students also displayed the information in a logical sequence. They also attracted the listeners to follow (Figure 3). However, they had not been able to show the presentations using convincing language with their own understanding. Some students still relied on text. Therefore they lack in maintaining the eye contact with audience when speaking. In addition, they had also not yet demonstrated full understanding of knowledge to prove the answers for the questions that were given because their understanding of the knowledge was only obtained from the student's handbook.

Figure 3. Home group presentation.

Reflection. During the learning activities, teacher's time management for group discussion and group exchange was less disciplined; therefore there was not sufficient time. Teacher had problems in group arrangement because children were not familiar with the method. Moreover, another obstacle was the low level of students' speaking skills as proven by the average score in rubric that was 7.00. Students were still confused with the Jigsaw method, especially for the group rearrangement from 'Expert' team for sharing and discussion to larger 'Home' group for presentation. This led to the need for the author to describe the procedure continuously in front of the class before the group rearrangement. From the observation, some students who were already sitting in groups was found to be confused with the instructions of the method that was applied by the author, therefore it consumed a lot of time for them to understand the activities.

Another obstacle that the teacher faced in implementing this method was that the instructions were less clearly captured by the students. Therefore, the author planned to redesign the method which was almost similar with better time management and simpler instructions that were easier to understand.

Overall there was slight improvement in criteria of 'material arrangement and delivery' and also 'language selection'. Otherwise 'voice' criteria and 'eye contact' were less processed by students. Both of these were highly correlated with confidence. Students seemed to have less confidence when delivery. It might be due to the lack of time preparation during the discussion because they were interrupted by the continuous instruction from teachers about the group arrangement. In the next cycle it was noted again the length of time, especially student's time for presentation. Based on the evaluation result in Cycle 1, the obstacles were found and author sought to find the alternative solutions. Furthermore, alternative solutions were used as the basis to improve learning process in the classroom and were set forth into action stage on Cycle 2 or the second cycle.

Second Cycle

Plan. Planning stage started with creating a lesson plan. Lesson plan that was prepared and adjusted with the learning materials in classroom included 'human's digestive system' taking into account the results of the first reflection, which were 'the better the time management, the clearer the instructions'. The author planned that learning model that was aimed at allowing students to do the group presentation in the classroom with better group arrangement. The author planned the lesson based on the consideration made during the first cycle using the Jigsaw technique because students were able to do the presentation quite good in small groups compared to the previous observations before Cycle 1 or first cycle.

Learning objectives were aimed for students to explain the digestive organs and processes that occurred inside them. The students were expected to make a presentation within the scope of the classroom after they studied the literature and discussed in group. Through this method the author expected that the students could improve their speaking skills in presentation in a larger scope, because in the first cycle, the students did quite well in presenting in small groups. Each student was expected to be responsible with the material provided because the overall group assessment required each member to take part in presentation, as well as did not expect only one member to present the material and answer all questions from other groups. In group presentations, students were expected to develop their discussion results and did not rely on reading. Each group should have invited other groups to ask 2 questions. Each questioner had the right to appoint one group member to answer but should not be re-appointing a member who had to answer the similar question. Other group members could help their friend to answer. The activities continued with the joint evaluation and conclusion shared by students and teacher.

Action. In Cycle 2, to shorten the time and to avoid the carnage because of the group arrangement, the author arranged the group according to student's position arrangement. Each group received one kind of human's digestive organ. Students in group then searched for the information through books and Internet. Then the students discussed parts of the organ, their function, and the food digestion process that occur. The next step was the students created a poster and presented the results of group discussions in class (Figure 4). While one group of students presented their topic, other groups were required to take note from the topic the

presented. This was done so that each student paid attention to the material provided by their friends. The learning process ended with conclusions made by students and teacher.

Figure 4. Group presentation.

Observation. Observations and assessment were made during the learning process by the teacher being assisted by a partner. During the learning process, students' grouping to discuss different materials was quite good. Students were quite motivated to pay attention on their friends' explanation. They were proactive in learning process and were given opportunity to practice their leadership skills, speaking skills and cooperative skill.

Reflection. In the second cycle, most of the learning plans were done well. Students' grouping in the learning activities to discuss different materials was quite good. In addition students were quite motivated to pay attention on presentations. This showed an improvement in students' skills in speaking. During presentation, students can adjust the tempo and voice tone. They had clear articulations and adjusted volume to classroom conditions.

Students maintained their eye contact with audiences during presentation and did not try to rely on text. During presentation, students spoke in confidence and they tried to use their own understanding and did not fully read the text. Students were actively involved in learning because they were given the opportunity to practice leadership skill, speaking skills and cooperative skills. From the assessment results, the average score of the class was 8.08 for the overall presentation.

Presentation assessment included 'voice' aspect with average score of 8.00. Most students had clear articulation, and adjusted their voice volume to classroom condition, also adjusted the tempo and voice tone better. The average score of 'material assessment and delivery' was 8.00, whereas other criteria such as: the 'language order and selection' was 8.00 and 'eye contact' was 7.30. Most students already displayed information in a logical order and interesting for students to pay attention. They spoke with convincing language and used their own understanding. Overall students' presentation skills improved and they delivered it quite good. The indicators for presentation, assessment criteria and scores are illustrated in Table 2.

Table 2
The Indicators of Presentation, Assessment Criteria and Scores in Cycle 1 and Cycle 2

Indicator of Presentation	Assessment Criteria	Cycle 1	Cycle 2
1. Students adjust their voice volume accroding to the conditions 2. Students can set the tempo and voice tone. 3. Students have clear articulation.	Voice	6.67	8.00
4. Students maintain their eye contact with their audiences.	Eye contact	6.67	7.30
5. Students do not rely on the text let alone memorizing it.	Topic comprehension	7.16	9.00
6. Students speak convincingly and speak with their own understanding not the language dictated from the books.	Language selection	7.50	8.00
Total Average Score		7.00	8.08

Discussion

Classroom management during the arrangement of group ran better. The author's strategy was quite successful to prevent chaos and students confusion in group arrangement. Improvement was still needed for time management since there were several steps in lesson plans that could not be implemented because of time out.

Limitations and Implications

There are some weaknesses in the research process. The first one is presentation rubric (Table 3) could not measure the overall learning of students in the oral presentation. We can take a look at which there were no common diagnoses obtained from criteria measurement on scale arrangement in rubric. This was because when the author created the rubric, she assumed that when students displayed the information in a logical sequence, they will certainly communicate with a convincing language by using their own understanding instead of reading the text for the listener to pay attention.

Table 3
Rubric for Presentation

Criteria (Point)	Less (60)	Fair (70)	Good (80)	Very Good (90)
1. Language Setting	Listeners do not understand presentation because there is no order of information	Listeners have difficulty following presentation because it conveys information that jumps from one to the other	Student presents the information in a logical sequence so that the listeners can follow	Student displays the information in a logical sequence, so that the listener can follow
2. Knowledge	Student does not understand the information; students cannot answer	Student does not feel comfortable with the information and is	Student feels easy answering all the questions, but fails to decipher at greater length	Student demonstrates full knowledge (more than desired) by answering all class

	questions about the material	only able to answer basic question		questions with explanations and in greater length
3. Eyes Contact	Student reads all the reports without eye contact	Student sometimes uses eye contact, but still reads most of the report	Student retains more eye contact but often returns to notes taken	Student maintains eye contact with the audience, seldom return to the notes taken
4. Voice	Student murmur, saying the term that is not quite right, and speaks too softly	Student's voice is soft. The term uttered is less precise. Participants have difficulty listening to the presentation	Student's voice is clear. Student says the most of the words correctly. Most participants can hear the presentations	Students' voice is clear and precise, the term is pronounced correctly so that all participants can listen to the presentation

But this was different from the reality in the field. Students could display the information in a logical sequence for the listener to pay attention but did not use a convincing language based on their own understanding, and they still relied on the text. It was also possible due to time for the preparation to make a presentation was only during discussion. Students were not given additional time to master the topic before the time for discussion.

From the description above, it can be implied this study succeeded in improving students' speaking skills in presentation of grade 8th junior high school by implementing Jigsaw 'Expert' and 'Home' group presentations method. Students had gained some confidence to speak in public. This was proven by the evidences which revealed that much improvement was observed in each indicator. Some obstacles encountered by the author in implementing Jigsaw 'Expert' and 'Home' group presentations to improve students' speaking skills in grade 8th junior class included assessment rubrics used was lack on the objectivity and reliability, assessment rubrics did not cover the whole research indicators, as well as time for the preparation of students' presentation was only during discussion.

Significant Contribution

This study is expected to be useful to students, teachers and schools. Student can improve their skills, especially to speak in formal occasion while presenting something in front of the class. Students can learn to use a variety of study methods so that they are interested and motivated to pay attention in the learning process. Teachers can implement Jigsaw 'Expert' and 'Home' group presentations for learning process in the classroom to enhance students' speaking skills. It is expected that the result of this study can be used for consideration of the development of school curriculum and students' potential as well as the improvement of the quality of education in schools.

Conclusion

Implementation of Jigsaw 'Expert' and 'Home' group presentations can enhance Grade 8th students' speaking skills because the students' confidence in presentation as well as their

responsibilities in learning can be improved. The main obstacle encountered during the research was assessment rubric did not cover the whole indicator of public speaking skills. The author also suggested some feedbacks to teachers and school. Firstly there is a need to design some learning methods beside Jigsaw 'Expert' and 'Home' group presentations to learn biology which can improve students' speaking skills. Secondly more of other indicators in speaking skills should be explored, especially for presentation. Thirdly students should be given more time to prepare for the presentation. Lastly is the school curriculum is expected to equip students' speaking skills because it is important for students to be fully equipped with communication skills before they interact with others in the community.

References

Bender, P. U. (1997). *Rahasia Kekuatan Presentasi* [Secrets of Power Presentation, The Achievment Group, Toronto]. Jakarta: PT Gramendia Pustaka Utama.

Hendrikus, D. W. (1991). *Retorika: Terampil Berpidato, Berdiskusi, Beragumentasi, Bernegosia*si. Yogyakarta: Kanisius.

Jigsaw classroom. (2016). *That's Puzzling.* Social Psychology Network. Retrieved November 2016, from http://www.jigsaw.org/overview.htm

Kemmis, S., & McTaggart, R. (1992). *The Action Research Planner.* Victoria: Deaken University Press.

Nuryani, R. (2005). *Strategi Belajar Mengajar Biologi.* Malang: Penerbit Universitas Malang.

Sameto, H. (1996). *Kiat Sukses Mengolah Komunikasi: Berbicara Efektif di Depan Umum, Berpresentasi dengan Audio Visual secara Benar*. Jakarta: Puspa Swara.

Santrock, J. (2003). *Perkembangan Remaja* [Adolescence, Brown and Brencmark, inc]. Erlangga: Jakarta. (Original work published 1996).

Swan, A. (2015). *You Should Flip your Jigsaw.* Retrieved November 2016, from http://www.flippingawesometeaching.com/this-flipping-blog/you-can-flip-your-jigsaw-activities

Appendix A

RUBRIC PRESENTATION

Criteria (Point)	Less 60	Fair 70	Good 80	Very Good 90
1. Voice	Students murmured, saying the term is not quite right, and spoke too softly	Student voice softly. Utter the term is less precise. Participants difficulty listening to the presentation	Voice-grade students. Students say the most words correctly. Most participants can hear presentations	Students use a clear voice and precise, the term is pronounced correctly so that all participants can listen to the presentation
2. Eyes Contact	Students read all the reports without eye contact	Students sometimes use eye contact, but still reads most of report	Students retain more eye contact but often returns to record	Students maintain eye contact with the audience, seldom returning to notes
3. Knowledge	Students do not understand the information; students cannot answer questions about the material	Students do not feel comfortable with the information and only able to answer basic question	Students are happy with the answers to all the questions, but failed to decipher a length	Students demonstrate full knowledge (more than desired) by answering all class questions with explanations and lengthy
4. Language Setting	Listeners do not understand presentation because there is no order information	Listeners difficulty following presentation because it conveys information to jump from one to the info more info	Students present the information in a logical sequence so that the listener can follow	Students display the information in a logical sequence, so that the listener can follow the draw

Figure A. Rubric for presentation (Translated version in Table 3).

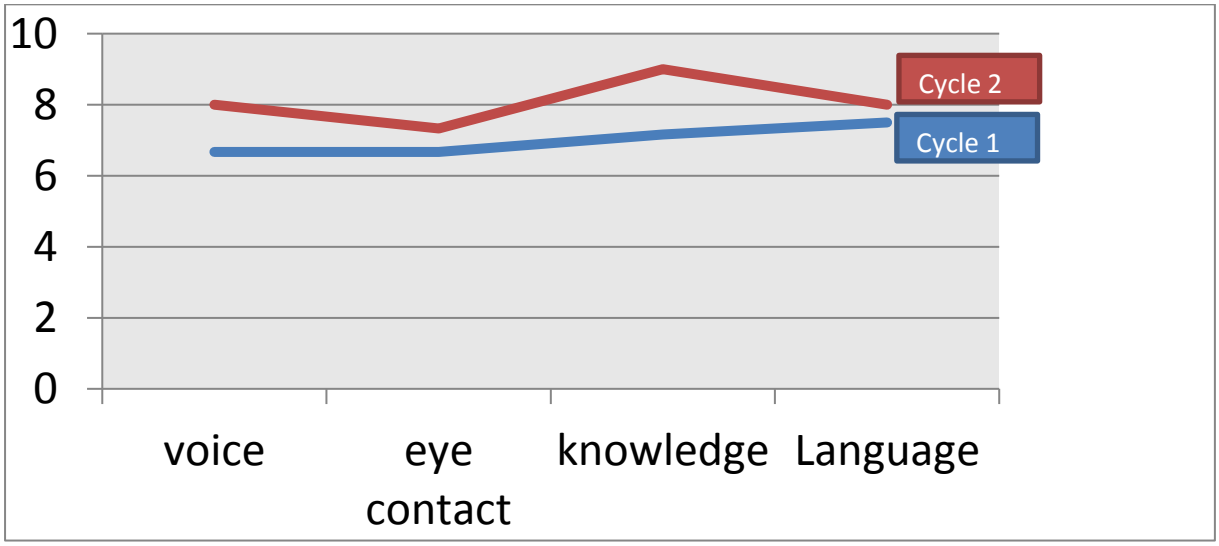

Figure B. Graphic for assessment result.

Figure C. Example of A1 size poster for the booth size of 122 cm (Width or W) X 75 cm (Height or H).