

# JIGSAW TECHNIQUE IN READING CLASS OF YOUNG LEARNERS: REVEALING STUDENTS' INTERACTION

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## Abstract

Traditional reading class is carried out by the teacher reading the text being discussed then by some students reading in turns. The classroom interaction to discuss the text is then typically teacher-centered. The teacher asks a question; the students wanting to respond raise their hands; the teacher calls on one student and the student called on tries to state the correct answer. This particular classroom structure can be altered to make the class more interactive by jigsaw technique.

Studies related to the implementation of jigsaw technique in language classes have been carried out. Most of them focused on high school settings. Although much work has been done to date, more studies need to be performed to ascertain the implementation of jigsaw technique in other settings, such as those in elementary schools. This research deals with the implementation of jigsaw technique in young learners' reading class, and it is aimed to reveal the classroom interaction patterns.

The result shows that the students initiated the discussion by asking others to commence, volunteering themselves, or reminding others to start the discussion. The students responded to one another by doing or refusing what was expected: reading, answering, or translating. The students evaluated the responses or initiations by giving correction, confirmation, other answers, or by terminating the discussion neutrally.

**Key words:** jigsaw technique, reading, classroom interaction.

## INTRODUCTION

One of the theories underlying *Kurikulum Berbasis Kompetensi* – the new curriculum which was applied nation wide starting from the 2004/2005 academic year – is constructivism. Kaplan (2002) puts forward that

constructivism proposes that learning environment should support multiple interpretations of reality, knowledge construction as well as context-rich and experience-based activities. Guided by the constructivist principles, teachers believe that learners are engaged in doing something as learning is an active process of which meaning is constructed out, and that learners learn by interaction with their fellow students, teachers and families.

The teaching and learning process in the competency-based curriculum class can be realized by employing cooperative structures one of which is jigsaw. Teachers in favor of Jigsaw believe that each student has the capability to be the contributor of knowledge. Students are encouraged to learn from their fellow students in their expert team and when they go back to their home team they are encouraged to teach one another the material they have worked on in the expert team. This jigsaw design facilitates students' interaction in the class enabling them to value each other as contributors (Aronson, 2005).

In jigsaw technique students form groups of 4-5 students. They initially gather in their 'home group'. Each student is assigned to read a different part of a reading text. Students with the same part then make a group called an 'expert group' to discuss and master their own part. Then they go back to their own 'home group' to exchange the information. All members of the home group should finally understand the whole text. Every member should be responsible for his or her own part and for the success of all teammates in comprehending the text.

The question is then related to how the teacher can involve students in their reading class. The class teacher is challenged to provide the types of assistance their students need to accomplish a particular task. The teacher should create opportunities for the students to learn maximally on their own by taking part in jigsaw activities to develop their reading skills.

Studies related to the implementation of jigsaw technique in language classes have been carried out. Most of them took place in high school settings. Even though much work has been done to date, more studies are needed to ascertain the implementation of jigsaw technique in other settings, such as those in elementary schools. This research deals with the implementation of jigsaw technique in young learners' reading class, and it is aimed to reveal the classroom interaction patterns.

Based on the discussion above, this study attempts to find out the answers to the following questions: (1) What classroom interaction patterns exist in the expert team of jigsaw class?. (2) How do young learners initiate the discussion?, (3) How do young learners respond to initiations?, and (4) How do young learners evaluate responses and initiations?

## REVIEW OF RELATED LITERATURE

### Cooperative Learning

Referring to Slavin (1990), Jacobs, Lee and Ball (1996:26) point out that cooperative learning requires students to work together to learn and to be responsible for their fellow students' learning as well as their own. Similarly, Nurhadi (2004:112) defines cooperative learning as a learning approach focusing on the use of small groups of students who work together so that learning condition is maximized to attain learning objectives. Meanwhile, Felder (2005) viewing cooperative learning from the perspective of teaching puts forward a similar definition of cooperative learning as follows:

Cooperative learning is a successful teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject. Each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement. Students work through the assignment until all group members successfully understand and complete it (p. 2).

Felder (2005:2) argues that certain conditions must be met to result in productive cooperation instead of competitive one. The conditions are: (1) positive interdependence (the sense of 'sink or swim together'), (2) face-to-face interaction (the effort to promote each other's success), (3) individual and group accountability (the share of each student to the group to achieve the goal, (4) interpersonal and small-group skills (the existence of leadership, decision-making, trust, communication and conflict resolution), and (5) group processing (the reflection or the feedback on how well the group functions and what to continue or change).

Some techniques or cooperative structures widely suggested and employed are: (see Felder, 2005; Jacobs, Lee and Ball, 1996; Kagan in Orr, 1999; and Nurhadi, 2004)

1. **Think-Pair-Share.** Students individually think about a question posed by the teacher. They pair up to discuss it and eventually they share it with other pairs, and/or with other groups.
2. **Numbered-Heads.** Groups of 4 – 5 students are formed and each student is given numbers. The teacher poses a question and the students think of the answer making sure each member gets it. The teacher calls out a number (e.g. 2) and each student numbered 2 is asked to give the answer.

3. **Jigsaw.** Groups of 4 – 5 students (home teams) are formed and each group is assigned a part of the material to learn and then to teach to the other members in the group.

### **Jigsaw Technique**

Initially introduced by Aronson et al. (1978), this jigsaw structure is meant to provide students with the chance to learn a piece of material from their peers. The material is divided into sections and one section is given to one student. The students who are responsible for the same section get together and form a new group. They are expected to master the section of the material and then to teach the material to the other members in their original learning group.

### **Strategy for Jigsaw Technique**

First of all, children are assigned into groups of 4 or 5. They are encouraged to give their group a name that indicates their identity. These groups are their home teams or 'home groups' (Aronson, 2006). The groups should be mixed in terms of gender, ethnicity, race and ability. The members of each home group are assigned different roles: leader, illustrator, speaker or encourager. The leader is usually the most mature student. The speaker is the one who will represent the group. The illustrator is the one who illustrates and explains the text. The encourager motivates all members of the group to state their opinions or to speak.

Children temporarily form their expert teams or 'expert groups' (Aronson, 2006). One child from each 'home group' joins other children who are assigned the same segment of the material. In the 'expert group', each member plays a different role such as that in the home group. Students in the expert groups discuss the main points of their segment and to rehearse the presentation they will have in their 'home groups'.

After finishing the discussion, students return to their 'home groups'. Each student presents her or his segment to the group. The other members of the group who do not present their segment may ask questions for clarification. The teacher circulates around observing the group presentation. The teacher may intervene if any group has problems in the discussion. At the end of the session, the teacher gives a quiz on the material. In that way the students realize that the sessions are not merely for fun activities.

## Classroom Interaction

When language teaching is supposed to be communicative, classroom interaction becomes an essential issue. This is in line with Brown (2001:165) who states: "In the era of communicative language teaching, interaction is, in fact, the heart of communication; it is what communication is all about." If interaction does not exist, communication does not either. In classroom interaction, the students use language to negotiate meaning. They get the chance to practice the language. Therefore it is crucial for the teacher to provide opportunities to the students to interact in real-life exchanges.

## METHOD

This study was descriptive in nature. It presented information concerning classroom interaction in jigsaw classes. Based on the research problem formulated above, the writer collected the data by using an audio recording. The data obtained from the instrument were transcribed, analyzed and interpreted. The findings were then used to answer the research question.

The subjects of this study were 39 students from the fifth grade students of 'T' Elementary School in Surabaya and 46 fifth grade students of 'Y' Elementary School in Surabaya belonging to the 2006/2007 academic year. These students were present in the third (the last) treatment when they used the jigsaw technique in their expert teams.

In each class, one expert team consisting of 4 students was chosen from the expert teams formed. Altogether there were two expert teams - one from 'T' Elementary School and one from 'Y' Elementary School. There were then 8 students selected purposively. These subjects provided the data for the research. A tape recorder was used and placed in the center of the table of the chosen expert team to obtain the data. It was set to record the discussion the students had while they were trying to be the experts of the paragraphs assigned to them.

First of all the writer made sure that the tape recorder worked well. On September 21, 2006 she recorded the discussion of an expert team in the first treatment of jigsaw class at 'T' Elementary School. On September 22, 2006 she recorded another discussion at 'Y' Elementary School. It was found out that there was too much interference - from the students who were also working or discussing their task in their groups. The writer then tried to find a solution to this problem. She eventually decided to do the recording outside the classroom. When the expert teams were formed, the

selected expert team was asked to go outside the classroom to do the assigned task. They did it outside not too far from the classroom door. On October 6, 2006 the discussion of the selected expert team in the last treatment of jigsaw class at 'Y' Elementary School was recorded. On October 12, 2006 another discussion was recorded at 'T' Elementary School. Another expert team in the last treatment of jigsaw was recorded while they were having a discussion. The recorded data were first of all transcribed. The transcript was then analyzed to identify the strategies used by the subjects to initiate the discussion, to respond to initiations, and to evaluate responses and initiations.

## RESULTS AND DISCUSSION

The research question of this study aimed to reveal the classroom interaction patterns in the jigsaw classroom in the expert team showing the ways the students initiated the discussion, responded to initiations and evaluated responses and initiations.

### Ways to initiate

The transcribed data indicate that the students initiated the discussion in the expert team by making a request. One student said *Ayo kamu dulu* [Translation: Come on, you start first]. Analyzing down the lines in the transcript, I found that to initiate the discussion the student repeated his friend's answer by adding *but* – a conjunction showing something contradictory. By adding *but*, he wanted to show his understanding in answering the question and he wanted to indirectly tell his friends about the contradictory issue. The following script shows this particular finding:

Jn: [reading the question and answering it] What does Didi do in the break time? '

Didi plays football with his 5 friends. He does not go to the canteen.

Another way to initiate a discussion is the student's asking and offering others to read. This way is revealed in the transcript written as follows: *Yes, finished. Who wants to read the text?* Another similar way is by asking whether the others understood. Similarly, the student used the question *Diartino ta?* [Translation: Shall we translate it?] to invite the discussion. Reminding is another way to initiate. An example is represented in the following script:

Wd: Kurang satu .. ayo sama-sama.

/Still one more sentence. Let's translate it together/

The quotation *Ayo, the question* [Translation: Come on, let's go on with the question] is another example showing this particular strategy.

In another line in the transcript obtained, it is shown that a student started the discussion by volunteering himself to read the paragraph hence revealing another strategy, i.e. volunteering oneself to begin a discussion. The script below illustrates this particular finding:

Ko: Aku yang baca ya.

/Let me read, OK?/

Se: ngene ae lho, lapo dibaca?

/Wait! Why should we read or translate it?/

Ke: Yo wis. Eh istirahat jam piro?

/OK. What time is the break?/

Highlighting the main point is also a way to initiate. Realizing that there was a mistake in his friend's translation, a student tried to initiate the discussion by highlighting the main point as can be seen in the excerpt below:

Ss: [translating 'He does not go to the canteen'] Dia berlari ke kantin.

Ko: [trying to correct] He does not. He does not....

Highlighting *He does not*, **Ko** was hoping that **Ss** could correct his translation changing *Dia berlari ke kantin* into *Dia tidak berlari ke kantin*.

### Ways to respond

It is indicated in the transcript that one of the students directly responded to the initiation by carrying out the expected action. This way of responding can be seen in the following script.

Kn: Diartino ta?

/Shall we translate it?/

Dd: Pada waktu ...

/When.../

After **Kn** initiated by saying *Diartino ta?* [Translation: Shall we translate it?], **Dd** directly translated the sentence showing the response of the initiation.

The following script also indicates the initiation which was responded by the student's performing the action expected.

Wd : Kurang satu .. ayo sama-sama.

/Still one more sentence. Let's translate it together/

Ss: [reading the sentence and translating it] He studies again at 9.30.  
Dia belajar lagi ... jam setengah sepuluh.

An 'ignoring strategy' is represented in the following script:

Dd: [repeating] He plays football with his 5 friends **but** he .. **but** he doesn't go to the canteen.

Kn : [repeating] He plays football.

Wd: [reading the question and answering it] Does Didi buy some food at school? No, he doesn't.

It is found out that the initiation made by **Dd** was not responded as expected. The other students, **Kn** and **Wd** seemed to know nothing about the intention of **Dd** to emphasize *but*, or they might just ignore it as it was not an essential thing to discuss.

A refusing strategy is represented in the script below.

Ko: Aku yang baca ya.

/Let me read, OK?/

Se: Sek ta ngene ae lho, lapo dibaca?

/Wait! Why should we read or translate it?/

**Ko** wanted to start discussing the paragraph but **Se** refused the idea suggesting to start directly with the questions to answer. This is implied in **Se**'s statement *Sek ta ngene ae lho, lapo dibaca?* [Translation: Wait! Why should we read or translate it? Why don't we just answer the question?]

It is also indicated in the data that one of the students directly responded to the initiation by correcting the wrong translation. In the following script.

Ss: [translating 'He does not go to the canteen'] Dia berlari ke kantin.

Ko: [trying to correct] He does not. He does not....

Ke + Ko: [realizing the mistake then correcting] Dia tidak berlari ke kantin

**Ke** and **Ko** responded by translating *He does not go to the canteen* into *Dia tidak berlari ke kantin* to correct the wrong one *Dia berlari ke kantin*.

## Ways to evaluate responses and initiations

Providing direct corrections is one way to evaluate responses and initiations. Saying *Ayo, kamu dulu*, the student named **Dd** initiated the discussion. His team mate **Jn** directly answered the question in the material. This particular response was then evaluated by another student **Wd**. He realized the answer was not *Didi's going to school* but *Didi's playing at school*. He evaluated by providing direct correction. The script below shall clarify the analysis.

- Dd: *Ayo kamu dulu.*  
/Come on, you start first/  
Jn : [reading the question and answering it] What does paragraph 4 tell us?  
*Didi's going to school.*  
[Silence]  
Wd: [correcting the answer] *Didi's playing at school. Didi's playing at school*

Another mode of evaluating responses is making a confirmation. As shown in the following script

- Jn: Yes, finished. Who wants to read the text?  
Kn: *Mau dibaca ta?*  
/Shall we read it?/  
Wd: *Ha?*  
/Pardon?/  
Dd: *Perlu ta?*  
/Do we have to read it?/  
Wd: *Supaya bisa njelasin nanti. Ayo baca ta?*  
/So that we can explain later. Shall we read it?/

After **Jn** asked *Who wants to read the text?*, **Kn** responded by confirming what was said by **Jn**. Meanwhile **Dd** wondered why they needed to read the text. He questioned *Do we have to read it?* This particular response was then acknowledged by **Wd** who provided the reason saying *So that we can explain later*.

Giving another possible answer is also a way employed by the student to evaluate responses and initiation. After **Wd** initiated the discussion, all the students in the team responded by translating the sentence. Since there was another way to translate the sentence, **Dd** gave another way of translating the sentence as can be seen in the following script:

Wd: Kurang satu .. ayo sama-sama.

/Still one more sentence. Let's translate it together/

Ss: He studies again at 9.30. Dia belajar lagi ... jam setengah sepuluh.

/half past nine/

Dd: Atau ... atau.. jam 9 lebih 30 menit.

/Or 30 minutes after 9/

Providing an answer is another way to evaluate responses and initiation, an example of which can be seen in the script below:

Ko: Emm 'support your answer' itu mengapa lho, itu kan?

/Emm, 'support your answer' means that we are asked about 'why', right?/

Ke: [translating 'support your answer'] Menyemangati. Semangati, semangati jawabanmu

Ko: Because.....

Yu: Eh, maksud'e 'support' itu 'semangati jawabanmu'?

/Hi, does it mean 'encouraging your answer'?

Ko: Apa gini lho, buktikan buktikan jawabanmu. Jadi buktikan apa?

/Maybe it means 'prove your answer'. So prove!/

Because he likes..... He likes to save his money. Money money

It was found that **Ko** himself at last acknowledged the responses and initiations by providing the answer to the question. The word *support* in the question was the focus of the discussion. *Support your answer* was understood as 'encouraging your answer'. **Ko** used another way to make them understand the word. He used the word *prove*. Eventually he himself answered the question.

Evaluating or acknowledging responses and initiations is also performed by neutralizing a disagreement as can be indicated in the script below.

Yu + Sc: Nomer tiga. /Number 3/ No, because Didi likes saving.....

Ke: No, no, he doesn't. No, he doesn't.

Ko: No, he does not.

Ke: Stop. **doesn't** ngono lho.

/Stop. **doesn't**. Keep this answer/

Ko: **Does not**.

Ke: **Doesn't** ae lho.

/Let's use **doesn't**/

- Ko: Gampang gampang.  
/Take it easy/  
Yu: Ga onok bedane, ga onok bedane.  
/There is no difference/

The focus of the discussion was *does not* and *doesn't*. **Ke** insisted on the use of *doesn't*, but **Ko** insisted on the one of *does not*. **Ko** and **Yu** at last tried to evaluate the responses and initiations stating that they had to stop the 'quarrel' as both *does not* and *doesn't* were correct. They evaluated or acknowledged responses and initiations by neutralizing the disagreement.

The classroom interaction patterns in the expert team were revealed through the students' discussion of the paragraph and the questions. After the data were analyzed, it was found out that the students initiated their discussion by asking others or volunteering themselves to start. Another way to initiate was reminding others. The students responded to each other by doing what was expected: reading, answering, and translating. Another way was refusing what was expected. The students evaluated or acknowledged responses or initiations by giving correction, giving confirmation, giving other answers, and stopping the discussion. The student who evaluated was not always the initiator.

## CONCLUSION

This study found out that the students initiated the discussion by asking others or volunteering themselves to start the discussion or reminding others to start. The students responded to one another by doing what was expected: reading, answering, translating, or refusing what was expected. The students evaluated or acknowledged responses or initiations by giving correction, giving confirmation, giving other answers, or terminating the discussion neutrally. Young learners should not be underestimated. They could do things quite independently in their group like adults could. They could be encouraged to rely on their capability to construct meaning. This study was limited to the student interaction in the expert team. Further studies could be conducted to see the interactions happening in the home team or home group. Quantitative studies could also be carried out to examine the short-term effect of jigsaw technique on young students' academic achievement in English.

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