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SUSANTI

The Use of Jigsaw II to Teach Reading to STMIK Students

ABSTRACT: *The aims of this research are to encourage the students of class 2C1, Study Program of Informatic Technique at STMIK (Sekolah Tinggi Manajemen Informatika dan Komputer or College of Computer and Informatical Management) Pontianak, West Kalimantan, Indonesia engaged and assisted in learning English, especially for reading skill in the classroom. A CAR (Classroom Action Research) is the research design implemented to solve their reading problems encountered in classroom, such as the grammar, vocabulary, graphology, and the content. Action research is a teacher professional to the optimal achievement of the students to the lesson in teaching learning process in the classroom. And Jigsaw II is the technique applied in classroom activity, which students as the learning centered. Observation, tests, and documentary studys become the source of data collection technique used. The data collection obtained can be the qualitative and quantitative data of this study. This research found out that Jigsaw II technique applied is useful and effective not only for students' achievement, but also for their involvement toward learning, especially teaching and learning reading skill to second semester students at the Sudy Program of Informatic Technique STMIK Pontianak, West Kalimantan, Indonesia.*
KEY WORD: *Jigsaw II Technique; Cooperative Learning; Reading; Classroom Action Research; Students' Achievement.*

ABSTRAKSI*: "Penggunaan Teknik Jigsaw II dalam Pengajaran Membaca pada Mahasiswa STMIK Pontianak". Tujuan penelitian adalah untuk memotivasi mahasiswa kelas 2C1, Program Studi Teknik Informatika di STMIK (Sekolah Tinggi Manajemen Informatika dan Komputer) Pontianak, Kalimantan Barat, Indonesia terlibat dan terbantu dalam belajar bahasa Inggris, terutama untuk keterampilan membaca di dalam kelas. PTK (Penelitian Tindakan Kelas) adalah model penelitian yang diterapkan untuk menyelesaikan masalah membaca yang ditemukan di kelas, seperti tata bahasa, kosa kata, model penulisan, dan isi teks. Penelitian tindakan adalah keprofessionalan guru untuk mengoptimalkan pencapaian keterampilan membaca mahasiswa dalam materi pembahasan pada proses belajar-mengajar di kelas. Dan Jigsaw II adalah teknik yang diterapkan dalam aktivitas kelas, di mana mahasiswa sebagai pusat pembelajaran. Pengamatan, tes, dan studi dokumentasi adalah teknik pengambilan data yang digunakan. Data yang terkumpul bisa berupa kualitatif dan kuantitatif data dalam studi ini. Penelitian ini menemukan bahwa teknik Jigsaw II yang diterapkan, ianya berguna dan efektif tidak hanya pada pencapaian, tetapi juga untuk keterlibatan mahasiswa semester 2 di Program Studi Teknik Informatika STMIK Pontianak, Kalimantan Barat, Indonesia dalam belajar, terutama dalam pengajaran keterampilan membaca dalam proses belajar-mengajar.*
KATA KUNCI*: Teknik Jigsaw II; Pembelajaran Kooperatif; Membaca; Penelitian Tindakan Kelas; Pencapaian Mahasiswa.*

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INTRODUCTION

Teaching methods dynamically change and innovate to the prominent characterictic for second and foreign language teaching. Teaching methods contribute to make teaching in the classroom always interesting and dynamic, which make learners feel at home; besides, of course, students as the centred of learning. In cooperative learning type Jigsaw II, students may work together in groups, discuss the problems arise, with respect to other group members, besides social interaction among the students which affect students' achievement in learning (Kam-Wing, 2004; Gull & Shehzad, 2015; and Susanti, Darsono & Regina, 2015).

The goal of education is to assist all children in becoming competent and well adjusted individuals, now and in the future, by creating an atmosphere that support learning and make children as part of a democratic learning process (Taylor & Mackenney, 2008). The problems encountered by students class 2C1 at the STMIK (*Sekolah Tinggi Manajemen Informatika dan Komputer* or College of Computer and Informatical Management) Pontianak, West Kalimantan, Indonesia in learning, especially in reading, such as: ambiguous and uncler comprehension, and so forth.

From the previous explanation, then, leads to the questions of this research as follows: (1) How can Jigsaw II technique motivates students in learning, especially reading skill?; and (2) How does Jigsaw II technique improve students' reading skill?

M.F. Patel & M.P. Jain (2008) stated that Reading is a complex skill involving a number of simultaneous operations. Reading means to understand the meaning of printed words, i.e. written symbols. Reading is an active process which consists of recognition and comprehension skill. Reading is an important activity in life with which one can update his/her knowledge (Patel & Jain, 2008).

Next, Reading skill is an important tool for academic success (Thayer-Bacon, 2000; and Patel & Jain, 2008). Furthermore, B.J. Thayer-Bacon (2000) added more that Reading is most useful and important skill for people. Good reading is that which keeps students regular in reading, which provide him both pleasure and profit (Thayer-Bacon, 2000; and Patel & Jain, 2008:118).

M.F. Patel & M.P. Jain (2008) also said that extensive reading helps in supplying new vocabulary, news ideas, new sentence-pattern, and new thought. Then, the purpose of extensive reading will be to train the students to read directly and fluently in the target language for enjoyment, without the aid of the lecturer/teacher (Patel & Jain, 2008).

Some characteristics of extensive reading are: it helps learners to develop to active vocabulary; in extensive reading, the learners play main role because they have to ask for measures; and the aim of extensive reading is to enrich learners knowledge (*cf* Thayer-Bacon, 2000; Slavin, 2006; Moreillon, 2007; and Patel & Jain, 2008).

Reading is useful for language acquisition, it has positive effect on students' vocabulary knowledge, on their spelling and on their writing. Next, good reading texts can introduce interesting topics, stimulate discussion, excite imaginative responses, and provide the springboard for well-rounded, fascinating lessons. Lastly, the more students read, the better (Harmer, 2007).

Jigsaw originally developed by Elliot Aronson, in 1971, in Austin, Texas, United States of America (Aronson, 1971). Then, it was modified and adapted by Robert E. Slavin (1985 and 1991) as Jigsaw II. In this technique, each member compete to gain the group reward. This reward gained based on individual performance. Then, each group may get additional point if each member shows the increasingly performance when having the quiz session (*cf* Slavin, 1985 and 1991; Walker & Crogan, 1998; Hänze & Berger, 2007; Bratt, 2008; and Huda, 2014:118).

Next the steps of Jigsaw II are as follows. Firstly, each group have the

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same topic, then each group point one member regarded as the capable member to join in expert group. In expert group, each member discusses to comprehend more detail about the passage. Next, the return back to their own group to teach the teammate about the topic discusssed in expert group. The comprehension to the topic or materi discussed is needed for the test or the quiz. The scores gained in quiz session will determine their group scores (Slavin, 1985 and 1991; Bratt, 2008; and Huda, 2014). In addition, Jigsaw II is suitable for all educational levels, and give more opportunities for students to explore the information and increase students communication skill.

In short, the Piagetian and Vygotskyian approaches indicated two perspetives about how students learn from others (Piaget, 1970; Vygotsky, 1978; Blake & Pope, 2008; and Schunk, 2012). And in the other side, the social constructivist theory claimed that students may competent in using the language in solving problems effectively, if they interact with others who more than he/she (Blake & Pope, 2008; and Schunk, 2012). Other the personal constructivist theory elaborated when students interacted with others, they were challenged to review the topic, explore new ideas for solving problem (Schunk, 2012; and Huda, 2014).

One alternative teaching method to lecture-based teaching is Jigsaw grouping, a kind of cooperative learning method. This approach has been claimed to minimize the competitiveness in the learning environment by encouraging students to work together. In addition, it is claimed to promote more positive student attitudes toward their own learning, enhance more positive relationships between participants, develop self-esteem and cohesiveness, and improve learning skills (Hänze & Berger, 2007; Bratt, 2008; Tran & Lewis, 2012; and Huda, 2014).

Furthermore, Jigsaw learning helps students break learning materials into

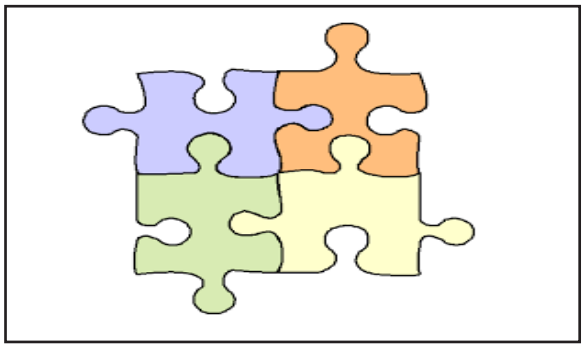

Figure 1:
Puzzle

manageable learning pieces and, then, has students teach others the piece they have mastered, consequently combining these pieces into one whole (Tran & Lewis, 2012:10). Next, Jigsaw learning is based on the perspective that each student will first become "an expert" in a small part of the whole learning material and, then, teach other students in his group this part of the material (Hänze & Berger, 2007; Bratt, 2008; Tran & Lewis, 2012; Huda, 2014; and Susanti, Darsono & Regina, 2015).

In Jigsaw II, students try to make their friends understand the topic, have effective interaction with their group members, and are all actively involved in the process. For a further study, Jigsaw II based instruction might be implemented for a longer time to obtain more statistical results, and also that Jigsaw II has positive results in teching outcomes (Evcim & Ipek, 2012:1657; and Susanti, Darsono & Regina, 2015).

Jigsaw II, which was suggested by Robert E. Slavin (1985 and 1991), attached more importance to familiarity of all the group members with the whole task (Slavin, 1985 and 1991). Another variation of the original technique required that students complete "Expert Sheets" that provide notes for introducing the material back to the home group and be given individual assessments as opposed to a group evaluation (Joyce, Weil & Calhoun, 2009; Mengduo & Xiaoling, 2010; and Susanti, Darsono & Regina, 2015).

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Then, in the EFL (English as a Foreign Language) classroom, Jigsaw is a cooperative learning technique that requires everyone's cooperative effort to produce the final product (Murcia, 2011). Just as in a Jigsaw Puzzle, each piece – each student's part – is essential for the poduction and full understanding of the final product. If each student's part is essential, then each student is essential (Susanti, Darsono & Regina, 2015). That is precisely what makes this strategy so effective. See figure 1.

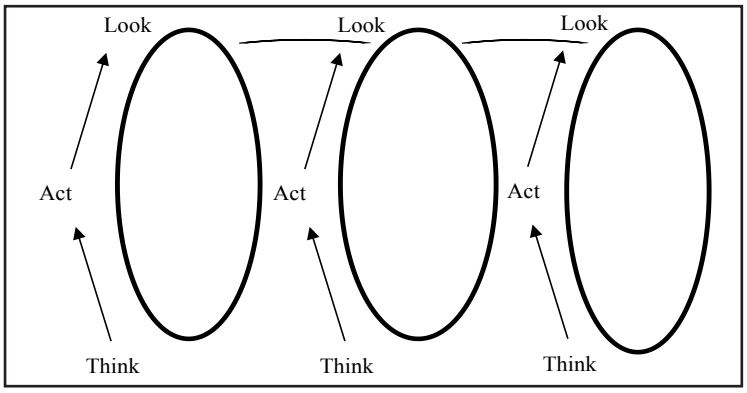

Figure 2:
Action Research Interacting Spiral
(Source: E.T. Stringer, 2007)

Jigsaw is said to be able to increase students' learning since: (1) it is less threatening for many students; (2) it increases the amount of students participation in the classroom; (3) it reduces the need for competitiveness; and (4) it reduces teacher's dominance in the classroom. Consequently, Jigsaw technique can successfully reduce student's reluctance to participate in the classroom activities and help create an active learner –centered atmosphere (Mengduo & Xiaoling, 2010:114; and Susanti, Darsono & Regina, 2015).

The study entitled "The Use of Jigsaw II to Teach Speaking to STMIK Students" showed the effective and useful Jigsaw II technique in teaching speaking to STMIK (*Sekolah Tinggi Manajemen Informatika dan Komputer* or College of Computer and Informatical Management)' students, not only increasing the students' achievement but also students' involvement are increasing too (*cf* Susanti, Darsono & Regina, 2015; and Susanti, 2017).

METHOD

Teaching-learning method is quite possible that various aspects of a given situation may affect different learners in quite different ways, and may relate to the opportunities which a given learning context affords (Griffiths, 2008). It is very necessary for teacher to know various types of methods and techniques of teaching English. Method may also be defined, according to M.F. Patel & M.P. Jain (2008), as the process of planning, selection, and grading language materials and items, technique of teaching, etc (Patel & Jain, 2008). All of the research designs, action research is the most applied, practical design with an aim toward developing a solution to a problem (Creswell, 2012:576).

Action research uses data collection based on either quantitative or qualitative methods or both, and addresses a specific, practical issue, and seeks to obtain solutions to a problem (Richards & Renandya, 2002; Browns, 2003; and Creswell, 2012). Action research is a collaborative approach to inquiry or investigation that provides people with the means to take systematic action to resolve specific.

The basis action research routine provides a simple yet powerful framework – *Look, Think, Act* – that enables people to commence their inquiries in a straightforward manner and build greater detail into procedures as the complexity of issues increases (Stringer, 2007; and Nasrollahi, Krish & Noor, 2012). See figure 2.

This research conducted into three cycles and each cycle consisted of *Look*, *Think*,

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Table 1:
Reading Scoring Rubric

No	Reading Component	Rating Scale
1.	Grammar	-
2.	Vocabulary	-
3.	Graphology	-
4.	Content	-

Source: Pandiya (2013).

and *Act* stages. The main objective of the *Look* stage of the action research process is to gather information that will enable researchers to extend their understanding of the issue investigated. The data gained can be qualitative and quantitative data. Furthermore, in the *Think* stage, the data gained are analyzed and identified. The data collection instruments used are observational checklist, questionaire, test, and documentary study. In the next phase, that is *Act* stage, participants work creatively to formulate actions that lead to a resolution of the problems: what and how (Stringer, 2007; Nasrollahi, Krish & Noor, 2012; and Susanti, 2017).

Next, the systematic ways of planning and implementing the actions plan, according to E.T. Stringer (2007), are as following here: (1) *Planning*, which involves setting priorities and defining tasks; (2) *Implementing* activities that help participants accomplish their tasks; and (3) *Reviewing*, in which participants evaluate their progress (Stringer, 2007). In this study, students of class 2C1, Study Program of Informatic Technique at the STMIK (*Sekolah Tinggi Manajemen Informatika dan Komputer* or College of Computer and Informatical Management) Pontianak, West Kalimantan, Indonesia consist of 32 students, 24 boys and 8 girls, become the participant in this study.

Each item must contribute as much unique information as possible to the meaning of the total test score. In a test, I collect pieces of information from many independent responses, I add them together in some way, and report a number or letter that I claim means something about the ability of the learner on the intended construct (Fulcher & Davidson, 2007). Next, according to P. Moss (2003), as cited also in G. Fulcher & F. Davidson (2007), suggests these among others: How students engage in tasks, ongoing conversations, interactions with others, and knowledge of the resources available to the learners (Moss, 2003; and Fulcher & Davidson, 2007).

Some reading and writing test items look a bit like indirect items, e.g. when students are given multiple choice questions about a particular word in a text, for example, or have to answer T/F (True/False) questions about a particular sentence. But, at other times, I might ask students to choose the best summary of what they have heard or read (Baranowski, 2006; and Downing, 2006).

I might ask them to put a set of pictures in order as they read or listen to a story, or complete a phone message form (for a listening task), or fill out a summary form (for a reading task). Many reading and listening tests are a blend of direct and indirect testing. I can ask students direct language – or text focused – questions as well as testing their global understanding (Corbett, 2003; Slavin, 2006; and Harmer, 2007).

There are two alternatives, e.g. subjective test and objective test (Baranowski, 2006; Downing, 2006; and Pandiya, 2013). Scoring system of subjective test varies from the point of view of elements of reading, such as grammar, vocabulary, graphology or writing rules, and contents (Pandiya, 2013). See table 1.

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Table 2:
Observational Aspects

No	Aspects	Max	Min	Interpretation
1.	Students show their interdependent on each others in Jigsaw learning.	5	1	Strongly Disagree.
2.	Students respect their group member positively.	5	2	Disagree.
3.	Students are actively discussing the topic of the lessons.	5	1	Strongly Disagree.
4.	Students help each other in accomplishing the tasks given.	5	1	Strongly Disagree.
5.	Students show good attitude toward learning activity of Jigsaw II.	5	2	Disagree.
6.	There is a significant /great competition among groups of Jigsaw for high scores.	5	2	Disagree.
7.	Each student contributes the success of learning in Jigsaw groups.	5	1	Strongly Disagree.
	Total	**35**	**10**	**-**

Table 3:
Observational Aspects

No	Aspects	Max	Min	Interpretation
1.	Students show their interdependent on each others in Jigsaw learning.	5	2	Disagree.
2.	Students respect their group member positively.	5	1	Strongly Disagree.
3.	Students are actively discussing the topic of the lessons.	5	2	Disagree.
4.	Students help each other in accomplishing the tasks given.	5	2	Disagree.
5.	Students show good attitude toward learning activity of Jigsaw II.	5	1	Strongly Disagree.
6.	There is a significant /great competition among groups of Jigsaw for high scores.	5	2	Disagree.
7.	Each student contributes the success of learning in Jigsaw groups.	5	2	Disagree.
	Total	**35**	**12**	**-**

FINDINGS AND DISCUSSION

This section discussing the data obtained from the implementation of CAR (Classroom Action Research) at the STMIK (*Sekolah Tinggi Manajemen Informatika dan Komputer* or College of Computer and Informatical Management) in Pontianak, West Kalimantan, Indonesia, in Cycle 1, Cycle 2, and Cycle 3 through *Look*, *Think*, and *Act* stages (Stringer, 2007; Nasrollahi, Krish & Noor, 2012; and Susanti, 2017).

Cycles 1: In the 1st Cycle of this study, the data are gained from observational checklist, fieldnotes, test, and documentary study. The 1st Cycle, it consisted of 3 meeting, conducted on 22nd May 2017, 29th May 2017, and 5th June 2017. Then, the data from 1st, 2nd, and 3rd meeting are analyzed and accumulated in *Think* stage. The data from observational checklist and questionaire are delineated into

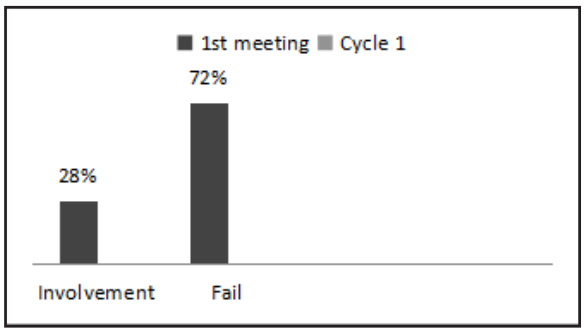

Diagram 1:
Students' Involvement

chart, which accumulated with total 28% of students' involvement toward learning using Jigsaw II technique for the 1st meeting (see the diagram 1); 34% of students' involvement in the 2nd meeting (see the diagram 2); and 40% of students' involvement in the 3rd meeting (see the diagram 3).

The data obtained in the 1st Cycle, in 1st to

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Table 4:
Observational Aspects

No	Aspects	Max	Min	Interpretation
1.	Students show their interdependent on each others in Jigsaw learning.	5	2	Disagree.
2.	Students respect their group member positively.	5	2	Disagree.
3.	Students are actively discussing the topic of the lessons.	5	2	Disagree.
4.	Students help each other in accomplishing the tasks given.	5	2	Disagree.
5.	Students show good attitude toward learning activity of Jigsaw II.	5	2	Disagree.
6.	There is a significant /great competition among groups of Jigsaw for high scores.	5	2	Disagree.
7.	Each student contributes the success of learning in Jigsaw groups.	5	2	Disagree.
	Total	**35**	**14**	**-**

3rd meeting showed low students' involvement toward learning. It is because in 1st Cycle, students and teacher are not familiar enough with learning technique (Jigsaw II technique) applied in learning process, as described in Observational Table (see the table 2 and diagram 1), such as students showed "Strongly Disagree" interdependent on each others; "Disagree" for students respect their group members positively "Strongly disagree" for students are actively discussing the topics; "Strongly Disagree" for students help each others in accomplishing the tasks given; "Disagree" for students show good attitude toward learning using Jigsaw II technique; students show "Disagree" for great competition among groups of Jigsaw; and so forth as presented in table 2.

Qualitative data presented here are also supported from the fieldnotes done, while the teaching process occuring, such as some students come late to class, the learning situation still not condusive, students are still confused with the teaching technique applied, students are still not concentrate with the lesson, students are discussing other something, students use their smartphones for translating, and they speak with their mother tongue. Those are some obstacles that effect the failure of students' involvement toward learning and their reading achievement in 1st Cycle gained from observational and fieldnotes.

Diagram 4 shows students low reading achievement in the 1st Cycle, that is 40% from

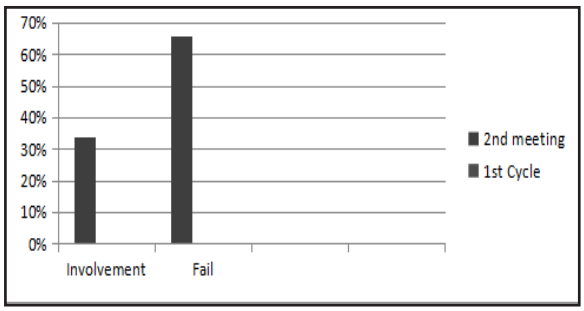

Diagram 2:
Students' Involvement

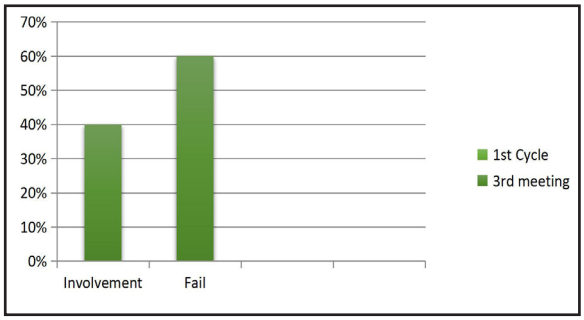

Diagram 3:
Students' Involvement

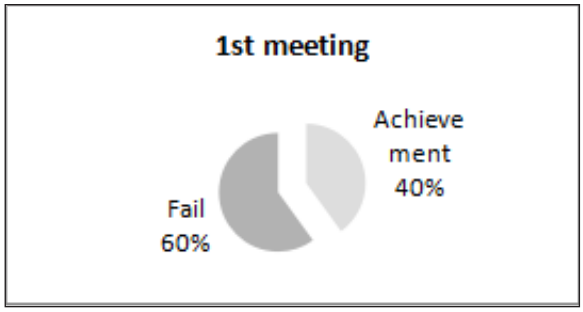

Diagram 4:
Students' Achievement

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Table 5:
Observationa Aspects

No	Aspects	Max	Min	Interpretation
1.	Students show their interdependent on each others in Jigsaw learning.	5	3	Neutral.
2.	Students respect their group member positively.	5	3	Neutral.
3.	Students are actively discussing the topic of the lessons.	5	3	Neutral.
4.	Students help each other in accomplishing the tasks given.	5	3	Neutral.
5.	Students show good attitude toward learning activity of Jigsaw II.	5	3	Neutral.
6.	There is a significant /great competition among groups of Jigsaw for high scores.	5	2	Disagree.
7.	Each student contributes the success of learning in Jigsaw groups.	5	3	Neutral.
	Total	**35**	**20**	**-**

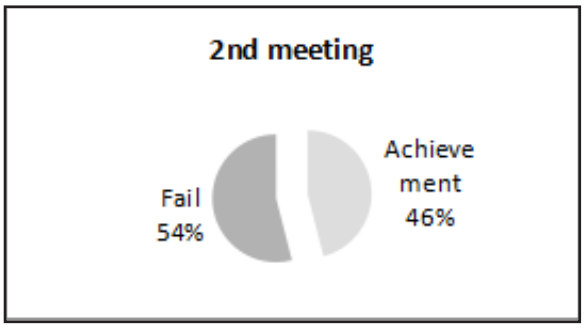

Diagram 5:
Students' Achievement

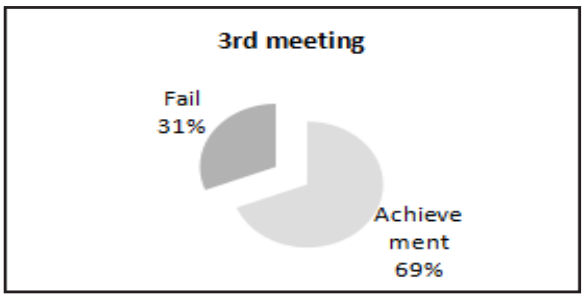

Diagram 6:
Students' Involvement

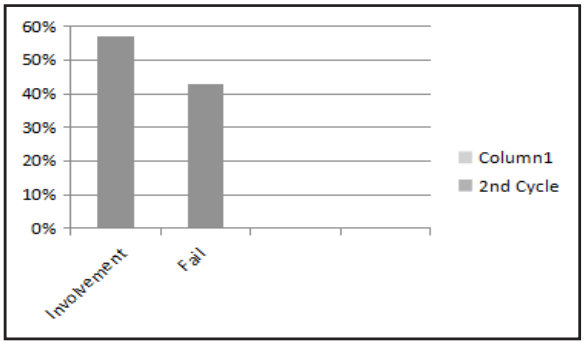

Diagram 7:
Students' Involvement

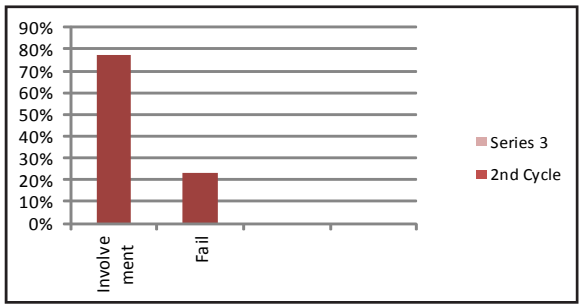

Diagram 8:
Students' Involvement

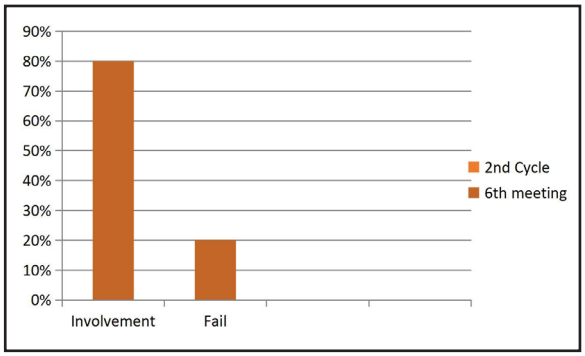

Diagram 9:
Students' Involvement

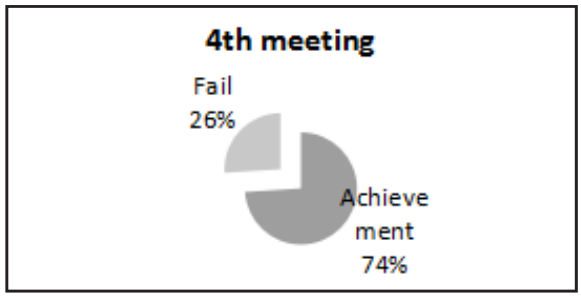

Diagram 10:
Students' Achievement

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Table 6:
Observational Aspects

No	Aspects	Max	Min	Interpretation
1.	Students show their interdependent on each others in Jigsaw learning.	5	4	Agree.
2.	Students respect their group member positively.	5	4	Agree.
3.	Students are actively discussing the topic of the lessons.	5	4	Agree.
4.	Students help each other in accomplishing the tasks given.	5	3	Neutral.
5.	Students show good attitude toward learning activity of Jigsaw II.	5	5	Strongly Agree.
6.	There is a significant /great competition among groups of Jigsaw for high scores.	5	4	Agree.
7.	Each student contributes the success of learning in Jigsaw groups.	5	3	Neutral.
	Total	**35**	**27**	**-**

100% in the 1st meeting for the test given after Jigsaw II technique applied in learning. Then, it shows a little big proggression for 2nd test done in the 2nd meeting, that is 46% from 100% after Jigsaw II technique applied in learning showed in diagram 5.

And a little bit progression of achievement of reading skill obtained in the 3rd test given in the 3rd meeting, althought it is not passing the maximum standard scores, that is 70. It is 69% from 100% as showed in diagram 6. The data are gained from the written test given in the 1st Cycle after Jigsaw II technique implemented in learning.

The failure of reading tests conducted in the 1st Cycle, it is because of some obstacles happen as explained above and as the reading assessment criteria, that is Holistic Scoring Scale Summarizing and Responding to Reading item, such as: the answer is clear; unambiguous comprehension of the main and supporting ideas; the answers demonstrate no comprehension of the main and supporting ideas; demonstrate only a partial comprehension of the main and supporting ideas; and demonstrate comprehension of the main ideas but lacks comprehension of ideas.

Furthermore, the next quantitative data gained in 1st Cycle in 1st, 2nd, and 3rd meeting be explained in pie diagram of students' achievement of reading skill. See diagrams 4, 5, and 6.

Next, in the 2nd Cycle, it consisted of 3 meeting too, conducted on 19 June 2017,

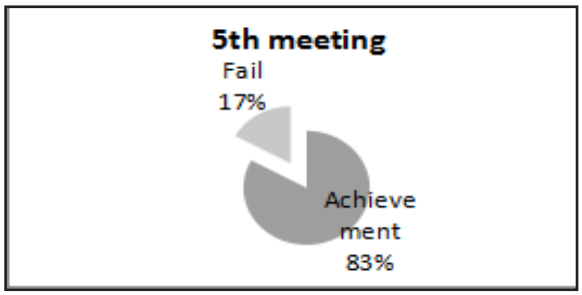

Diagram 11:
Students Achievement

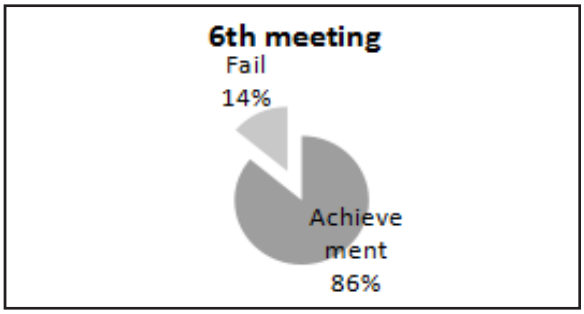

Diagram 12:
Students Achievement

3 July 2017, and 10 July 2017, which qualitative and quantitative data obtained from observational aspects, fieldnotes, test, and documentary study. The data from observational checklist and fieldnotes for the 4th meeting be explained in diagram 7 and table 5. It is 57% from 100%; 77% from 100% for 5th meeting in diagram 8 and table 6; and 80% from 100% in 6th meeting in diagram 9 and table 7 based on the record from the observational aspects and fieldnotes.

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Table 7:
Observational Aspects

No	Aspects	Max	Min	Interpretation
1.	Students show their interdependent on each others in Jigsaw learning.	5	4	Agree.
2.	Students respect their group member positively.	5	4	Agree.
3.	Students are actively discussing the topic of the lessons.	5	4	Agree.
4.	Students help each other in accomplishing the tasks given.	5	4	Agree.
5.	Students show good attitude toward learning activity of Jigsaw II.	5	5	Strongly Agree.
6.	There is a significant /great competition among groups of Jigsaw for high scores.	5	4	Agree.
7.	Each student contributes the success of learning in Jigsaw groups.	5	3	Neutral.
	Total	**35**	**28**	**-**

Diagram 7 and table 5, diagram 8 and table 6, and diagram 9 and table 7, apparently, show regular progression of students' involvement in learning in the 2nd Cycle, those are 57% of students' involvement in the 4th meeting; 77% of students' involvement in 5th meeting; and 80% of students' involvement in 6th meeting. It is really a significant progression, althought not all students got 100% for the score, but there is an involvement in learning reading. Moreover, it indicates an improvement of students' involvement in 2nd Cycle than in 1st Cycle; and inevitably it shows reading improvement as showed in diagram 10, diagram 11, and diagram 12.

There are some points from fieldnotes that contribute the process of learning in this 2nd Cycle; and, then, it contributes the success, such as: students realize that they have to come on time to class; they have to discipline; then students and teacher already familiar with Jigsaw II technique applied; they collaborate to solve the tasks given; students try to communicate in English with friends although some mistakes happen; each student contributes for their group scores; and they concentrate to the lesson, besides the data from the observational aspects in table 5, table 6, and table 7.

Next, diagram 10 shows students reading progression and pass the maximum scores, that is 74% from 100% in the 4th meeting. Then, diagram 11 shows a significant improvement than before, that is 83% in the 5th meeting. Diagram 12 shows a significant improvement of students' achievement too, that is 86% in the 6th meeting in 2nd Cycle. All of these scores gained in 2nd Cycle of course, because of the attitude changes of involvement in teaching learning process as explained previously.

Discussion. This research shows an improvement of students' involvement of learning and learning results using Jigsaw II technique to reading subject to STMIK (*Sekolah Tinggi Manajemen Informatika dan Komputer* or College of Computer and Informatical Management) students, class 2C1, Study Program of Informatic Technique, in Pontianak, West Kalimantan, Indonesia, after some Cycles implemented through *Look*, *Think*, and *Act* stages of action research (Stringer, 2007; Nasrollahi, Krish & Noor, 2012; and Susanti, 2017).

Qualitative and quantitative data are the source of data collected in this study. The qualitative data are obtained from observational aspects, fieldnotes, and documentary study; and showed in some diagrams presented (Richards & Renandya, 2002; Browns, 2003; and Creswell, 2012). It shows some changes of students' attitudes toward learning from 1st Cycle and 2nd Cycle of some meetings. Although the process of attitude changing and reading results not changed rapidly, but they change regularly and apparently.

Of course, it is because of some hindrances occur as explained above, such

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as: students come late to class; teacher and students are still not familiar with Jigsaw II technique applied; the class situation is not condusive; students not focus to the lesson; students still use their mother tongue in discussion with friends, busy with their smartphones, and don't care with their team members; and so forth.

Then, the quantitative data used in this study gained from some tests conducted from the 1st till 6th meeting after Jigsaw II technique implemented in learning; and the results of students reading tests are 40%, 46%, 69%, 74%, 83%, and 86%. The criteria of reading assesment are as follows: such as demonstrate clear; unambiguous comprehension of the main and supporting ideas; demonstrate comprehension of the main idea but lacks comprehension of ideas; and so forth as stated in Holistic Scoring Scale Summarizing and Responding to Reading (Cohen & Upton, 2006; and Susanti, Darsono & Regina, 2015).

Furthermore, the process of changes of students attitude (involvement) in learning simultenously with students' achievement. It is apparently that students' involvement toward learning effect significantly to the learning results obtained.

CONCLUSION

Cooperative learning type Jigsaw II is effective and recommanded technique in learning to teachers and students toward learning for vary educational levels and subjects, especially reading. It shows the good changes of students' attitudes and reading skill progression toward learning, after some cycles conducted through *Look*, *Think*, and *Act* stages of action research.

Next, more cycles or time and professional lecturers and teachers are recommanded for significant results and vary levels of education of learning using Jigsaw II technique for further research.[1]

[1]***Statement:*** I, hereby, expressly state that this article is indeed the original work of me, which never be published or reviewed by other publishers. The content and the citation in this article quoted from other authors already assigned to the respective of authors. This article is based on the fact or data obtained from the research conducted through some cycles by the author. Lastly, the author states that this work is far away from plagiarism.

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