

Jigsaw Technique to Enhance Students' Reading Comprehension Ability on Extrovert and Introvert Students

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Abstract: *The aim of this research was to find out whether there was a statistically significant difference of students' reading comprehension ability between introvert and extrovert students who are taught using Jigsaw strategy and what aspect of reading improves better. This research was quantitative. The subjects are 32 students of the IX grade of MTsN I Kalianda, Lampung Selatan. The researcher used one group pretest posttest and the data is analyzed by paired sample T-test and to identify the students' personality, the researcher used questionnaire that adapted from the Eysenck Personality Questionnaire. Two sets of reading tests were used as the research instrument. The result of the test value obtained was $t_{tes} = 8.151 > t_{table} = 2.021$ for $N = 32$ and with level significance $p < 0.05$ and sig. 2 tailed 0.023. It means that introvert and extrovert students have a slight significant effect on reading comprehension ability. The aspect of reading that got better is identifying details information. Jigsaw technique is beneficial to improve students' reading comprehension ability especially for introvert students.*

Keywords: *Extrovert and Introvert, Jigsaw Strategy, Reading Comprehension*

Date of Submission: 05-12-2019

Date of acceptance: 17-12-2019

I. Introduction

Reading is one of the most important skills that needs to be comprehended well. Reading is one of the most important skills that needs to be comprehended well. Important things in reading are comprehension and interpretation of meaning. Reading comprehension means understanding a text that a reader reads. It is the process of constructing meaning from a text (Wei, 2009). Reading comprehension is a process of decoding through the development of an extensive repertoire of sight words, learning the meaning of the words of the text, and learning how to abstract meaning from text (Abd al & Al Odwan, 2012). Many researchers and educators investigated techniques that improve and facilitate reading comprehension (Alhaidari, 2006; Chen, 2005; Faramarzi, 2003; Ghaith, 2003; Liang, 2002).

The fact appearing sometimes is that not every single person is good at reading. The students face this kind of hard situation many times. As the researcher conducted the pre research in MTsN I Lampung Selatan, the students stated that they had a difficulty in comprehending the reading text. Every student has different ability in comprehending the reading text because they have their own personality and background knowledge. They are also lack of vocabulary and interest, so they get difficult to answer the text. For the teachers, they use uninteresting technique. This situation, make the process of language learning is monotonous. Moreover, jigsaw to improve reading in ESL setting has been well documented, but jigsaw to improve reading in EFL setting is rare.

Jigsaw technique is a cooperative learning model that consist of several members in one group that responsible for the lesson materials and be able to teach the topic to other member of group, by discussion activities which help the students to be active in the class, such as; reading the text, hearing the teacher reading the text, get new vocabulary and can be used in the real life. Jigsaw technique is developed by Elliot Aronson and his friend in 1978 as cooperative learning method. This technique can be used to learn reading, writing listening or speaking. The students cooperative with their friends and have many opportunities to improve their communication ability. In jigsaw technique, the students have the opportunity to improve their responsibility to their learning and they can cooperate with the other students to learn material.

Numerous study have recently been undertaken with respect to jigsaw technique for reading. According to Zhang, (2010) states that the Cooperative learning gives learners more chances to produce language in a functional manner. Mandal (2009), Robinson, (1990), Slavin and Cooper(1999), Smith (2011) cooperative learning involves small teams of students from different levels of achievement that use different activities in order to improve and promote their achievements. In addition Almanza (1997) defined CL as a system of concrete learning and teaching techniques, in which team members are active in the learning process so that they work together to improve both their own and the others' learning. Cooperative learning helps students to behave friendly with their peers. It helps students to increase their ego-strength, self-confidence, independence, and autonomy.

What works for one learner might not work for others. This fact is called individual differences that influence language acquisition in various instructional context. But, a teacher should not teach in abstract, without taking into consideration differences in memory ability, preferred learning strategy, or even age, and visual or auditory capacities (Zimmerman & Schunk, 2003:75). In addition Griffiths (1991) holds that introvert learners will do better at developing cognitive academic language ability. However, the relationship between individuals traits and reported strategy use is also puzzling in some case. Since there are so many factors concerning to the individual differences, jigsaw technique is also considered as predictor. However, there is still need for empirical study to investigate on how the jigsaw technique may differ in the students' personality traits in reading comprehension.

Based on the explanation above, the researcher formulate the research question as follow:

1. Is there any significant differences of students' reading comprehension ability between extrovert and introvert students who are taught through jigsaw technique?
2. What aspects of reading improves better?

II. Literature Review

Dealing with psychology factor, personality is the first facet of the intrinsic side. It is within a person that contributes in some way to one's success in language learning. In this category, personality is the identification to identify individual differences. As mentioned by Eysenck (1981), it can be classified into two types, they are extroversion and introversion. Jung (1921:2) states that the introvert's attitude to the object is an abstracting one; at bottom, he is always facing the problem of how libido can be withdrawn from the object, as though an attempted ascendancy on the part of the object that must be continually frustrated. The extrovert, on the contrary, maintains a positive relation to the object.

The finding of some studies that investigate personality traits are based on the assumptions that students bring to the classroom not only their cognitive abilities, but also effective states which influence the way they acquire the language. Brown (2000) lists self esteem, inhabitation, risk-taking, anxiety, empathy and extroversion as personality factors. Naiman et al's (1978) believe that the extroverts who are sociable and open to other people are more successful in learning languages than introverts. Swain and Burnaby (1976); however, believe that well-organized and serious introverts are seen better learners as far as the systematic study is concerned. Thus, the researcher tries to look over which personality type can improve for jigsaw technique in reading comprehension

According to Dwiyaniti (2017) states that using jigsaw method especially in teaching reading comprehension is useful to motivate and encourage the students in learning process and the students were also seen more active in class. In other countries, Qiao & Jin (2010) found out whether Jigsaw technique could be successfully used to fulfill the intended task in English class and students' responses toward the implementation of Jigsaw technique. Similarly, Meng (2010) also investigated Jigsaw Cooperative Learning in English reading for students in China. Asl et.al. (2015) states that cooperative learning improve reading comprehension ability of the learner. The effect of gender, as moderator variable was also examined and the interaction between grouping and gender on reading comprehension was study too, but no statistically significant effect was found.

Many language teachers and students believe that the role of extrovert and introvert personality constitutes a major factor contributing to success or failure in language learning (Naiman et al.'s, 1978). Moreover, this present study aims to find out whether there is difference of reading comprehension ability between extrovert and introvert students in applying jigsaw technique, and what aspect of reading improves better

III. Methodology

This research was quantitative research. In conducting the research, the researcher applied one group pretest-posttest design. The researcher used one class where the students received pre-test before treatments and they received post-test after the treatments.

The population and the sample

The subjects of this research were IXA of MTsN I Lampung Selatan which consisted of 32 students who had problems in reading class. The researcher implemented jigsaw strategy to investigate whether there is a significant difference of the students' reading comprehension ability between extrovert and introvert who are taught through jigsaw technique and what aspect of reading improves better. The researcher limited the material in this study by using the recount text as the material of teaching and the test of reading comprehension.

The Instrument

In conducting the instrument, the researcher use questionnaire and reading test. The questionnaire is in Indonesia in order to minimize the misinterpretation by the students adapted from Eysenck's theory (1981). The

questionnaire consists of 20 items, 10 questionnaire items of introvert personality and 10 questionnaire items of extrovert personality. The researcher found the classification of students' personality:

Table 1. The Classification of Personality Traits

Students	Extrovert	Introvert
32	25	7

IV. Data Analysis

This research was quantitative. In conducting the research, the researcher applied one group pretest-posttest design. The researcher used one class where the students received pre-test before treatments and they received post-test after the treatments. For the data collection instruments, the researcher used pretest and posttest for reading test. The pre-test was applied after doing a try out test. The test was in written form of multiple choice consisted of 30 questions in 60 minutes. The posttest was administered after the treatments in which the questions were the same with the pre-test but the number was re-arranged.

The treatment was conducted in three meetings using one kind of text, that was recount text. To make sure the valid reading test items, the researcher used the suitable material based on the curriculum. In order to make sure that data instruments were reliable, she applied person product moment. After getting the result of the test, the students' score of pretest and posttest were analyzed by using Paired sample T-test which computed using SPSS 16 program.

V. Result and Discussion

In order to attempt the first research question, paired sample T-test was used to investigate the difference between extrovert and introvert students in their reading comprehension ability who are taught through jigsaw technique.

The significant improvement of the students reading comprehension achievement could be seen from the result of pre-test and post test. The result total score of extrovert students of pre-test was 1426; the mean score of pretest was 57.04; the highest score was 70.44, and the lowest score was 40.32. And the result total score of introvert students of pre-test was 358; the mean score of pre-test was 51.143; the highest score was 68.21, and the lowest score was 53.12. The result showed that the extrovert students got higher score than the introvert students.

After implementing the treatments to the students using jigsaw technique, the researcher administered the post-test to know whether there was the increase of students' reading achievement or not on extrovert and introvert students. The result total score of extrovert students of post test was 1685; the mean score of post-test was 67.4; the highest score was 75.12, and the lowest score was 48.46. And the result total score of introvert students of post test was 527; the mean score of post-test was 75.3; the highest score was 85.27 and the lowest score 57.16. Moreover, the researcher also found out the improvement of reading comprehension achievement of introvert students got the post-test score is higher than the extrovert students.

Table 2. The difference of students' reading achievement between extrovert and Introvert in Implementing Jigsaw Technique

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Introvert	58.29	25	11.499	4.346
Extrovert	51.14	7	10.335	3.906

Paired Samples Test

	Paired Differences	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
					Pair 1 Introjigsaw - Extrojigsaw	7.143			

Based on the table above, It indicates that there is a difference between extrovert and introvert students who taught through jigsaw technique. Because the result of the test value obtained was $t_{tes} = 8.151 > t_{table} = 2.021$ for $N = 32$ and with level significance $p < 0.05$ and sig. 2 tailed 0.023. It means that extrovert and introvert students have a slight significant effect on reading comprehension ability who are taught through jigsaw technique.

Another finding is also found to the study conducted by (Ali & Bano: 2012) states that there is a slight significant relationship between extroversion and reading skills and also there is a negative correlation between neuroticism and reading skills.

The finding is similar to the research conducted by Zafar & Meenakshi (2012) entitled “A study on the relationship between extroversion-introversion and risk taking in the context of second language acquisition”. The research found that a more introverted personality may be better suited to classroom learning, especially reading and writing.

In order to find out the second research question, the researcher find out the percentage of each aspects of reading. They are determining idea, identifying details information, finding inference, identifying reference and understanding vocabulary.

Table 3. The improvement of each aspect of reading on Introvert students

Aspects of Reading	Introvert		Increase (%)
	Pretest	Posttest	
Determining Main Idea	41.33	72.66	31.33
Identifying Details Information	34.66	86	51.34
Identifying Reference	44	65.33	21.33
Understanding vocabulary	49.33	68.66	19.33

Table 4. The Improvement of each Aspect of reading comprehension on Extrovert Students

Aspects of Reading	Extrovert		Increase (%)
	Pretest	Posttest	
Determining Main Idea	44.24	73.17	28.93
Identifying Details Information	36.42	86.47	50.05
Identifying Reference	44.56	65.33	20.77
Understanding vocabulary	50.12	69.74	19.62

From the table 3, it shows that the increase of all aspects of reading comprehension of pretest and posttest on introvert students such as; determining main idea was 31.33%, identifying details information was 51.34%, identifying reference was 21.33%, and understanding vocabulary was 68.66%. Among all the aspects, Identifying details information increased the most.

From the table 4, it shows that the increase of all aspects of reading comprehension of pretest and posttest on extrovert students such as; determining the main idea 28.93%, identifying details information was 50.05%, identifying reference 20.77%, understanding vocabulary was 19.62%. Among all aspects of reading, identifying details information increased the most.

Furthermore, it can be concluded that aspect of reading that get the most increase was identifying details information on both extrovert and introvert students.

VI. Conclusion and Suggestion

Conclusion

This research aims to find out i) what is the differences of students' reading comprehension between extrovert and introvert students who are taught through jigsaw technique, ii) what aspect of reading improves better. The finding shows that there is a slight difference between extrovert and introvert students in reading comprehension achievement who are taught through jigsaw technique. The researcher found that as the students were taught using Jigsaw strategy, they found it easier to find the information contained in the reading text. In the application of Jigsaw strategy, the students need to be active to dig as much as the information that they could collect. The information was obtained by actively sharing to the members of their same segment partners. Within the activity that made them active, the information they gathered would be a lot easier to get. In the result, they obtained many details information about the whole text for both extrovert and introvert students. The use of jigsaw strategy contributed toward students' reading comprehension ability. The use of jigsaw strategy supported students in doing the task easier, since they could discuss and work together to solve their learning problems through group work; the lower achievers could learn from the faster ones. Those students who take on a teaching role often find that teaching someone else leads their own improved their understanding of the materials. This opinion is supported by Sahin (2010), he argues that “Jigsaw technique allows students to actively participate in learning process. By being constantly subjected to this method, students should feel more comfortable about their roles” (p. 778).

The group discussion that Jigsaw strategy made students responsible in understanding the part of their section. It is supported as it was said that through jigsaw strategy, the students learnt a material from their friends in their groups. A material is divided into sections, and one section is for each student to take care of. The students who are responsible from the same section get together and form a new group in which the goal is

for the students to master the section of the material and to enable them to teach the other members in their original learning group later (Aronson et al, 1978).

The researcher found that jigsaw strategy also encouraged extrovert and introvert students to improve their achievement. Having students work together in a group work often results in a higher level of learning and achievement than could be obtained individually. This happened because students feel more positive about being able to complete a task with others than by working individually. It is supported by Johnson et al (1991) as cited in Garfield (1993) who said that a necessary condition for this is called positive interdependence, the ability of group members to encourage and facilitate each other's efforts.

Although the extrovert students tend to be sociable, more inclined to engage in conversation inside and outside classroom, the introvert can be active in jigsaw technique and involved to discuss the problem together. And also the introvert students can increase the score in reading comprehension ability.

The findings of this research confirmed the previous study (Winten: 2013), which showed that the reading comprehension problem could be overcome by having the Jigsaw strategy applied in the class activity. The use of jigsaw technique can challenge the students. It can be seen from the enthusiasm and their participation in the teaching learning process. The students can get the information from the discussion among the students so that the students were interested in the lesson. Meng (2010) states that through jigsaw cooperative learning approach can foster the interest of students English study, arouse their motivation and improve their reading ability. And it is one of the effective way of teaching English reading comprehension. Then, they can get a high chance to success.

Based on the explanation of the finding, it can be inferred that Jigsaw strategy is beneficial to improve students' reading comprehension especially for introvert students. Moreover, in reading aspects, finding information details is the aspect of reading which improved the most in both extrovert and introvert students.

Suggestion

Based on the result of the study and conclusion, the researcher would like to suggest as follows:

1. The English teacher is suggested to apply jigsaw technique in teaching reading since based on the results of this research and the previous research, jigsaw technique can be used to increase students' reading comprehension ability both extrovert and introvert students.
2. The implementation of Jigsaw strategy is indeed improving students' reading comprehension. It successfully improved the aspects of reading comprehension based on the research conducted.

Even so, there is still one thing that needs to be concerned about, that is the jigsaw strategy hasn't shown that it could improve all the aspect in a balance result. According to this research, it shows that there is one aspect of sub skill that improves with the significant number. The rest is on the average number. Hence, in another occasion as this strategy is applied, the English teacher should find another way to overcome this situation, where all the aspects of reading

References

- [1]. Ali, D.A., & Bano, D.(2012). Personality types and Reading: A Correlational Study.
- [2]. Alhaidari, M. S. (2006). The effectiveness of using cooperative learning to promote reading comprehension, vocabulary, and fluency achievement scores of male fourth, and fifth-grade students in a Saudi Arabian school (Unpublished Doctoral Dissertation). Pennsylvania State University
- [3]. Almanza, T. (1997). The effect of the D.R.T.A. and cooperative learning strategies on reading comprehension (Unpublished M.A. Dissertation). Kean College of New Jersey
- [4]. Aronson, E., & Patnoe, S. 1978. *The jigsaw class: building cooperation in the classroom* (2nd ed.). New York: Addison Wesley Longman.
- [5]. Asl, Z.G., Davaribina, M., & Abdi, R. (2015). The effect of Cooperative Learning on Improving Reading Comprehension on EFL Learners. *The Iranian EFL Journal*. April 2015. Vol.11.
- [6]. Brown, H. Douglas. (2000). *Principles of Language Learning and Teaching*. London: Longman Publishing Group.
- [7]. Chen, S.F. (2005). *Cooperative learning, multiple intelligences and proficiency: Application and learning*. (Unpublished Doctoral Dissertation). Australian Catholic University.
- [8]. Dwiyaniti, S.R. (2017). *A Script: The use of jigsaw based on cooperative Learning Method in Improving Students' Reading Comprehension*. Pasundan University.
- [10]. Eysenck, H.J. (1981). *A model for personality*. New York: Springer-Verlag.
- [11]. Faramarzi, H. (2003). *The role of collaborative strategies reading in the improvement of reading comprehension ability of Iranian ESL learners*. (Unpublished M.A. Dissertation). Tarbiyat Modarres University, Tehran
- [12]. Gaith, Gh. (2003). Effect of the learning together model of cooperative learning on English as foreign language reading achievement, academic self-esteem, and feelings of school alienation. *Bilingual Research Journal*, 27(3), 451-474
- [13]. Griffiths, R. (1991). *Personality and Second Language Learning: Theory Research and Practice in Sadtano*. New York: John Wiley & Sons. Inc.
- [14]. Johnson, D.W., Johnson, R. T., & Smith, K. 1991. *Active Learning: Cooperation in the College Classroom*. Edina, MN: Interaction Book Company. Jung, C.G. (1921). *Psychological Types*. Zurich: Rascher.
- [15]. Liang, T. (2002). *Implementing cooperative learning in EFL teaching: Process and effects* (Unpublished Doctoral Dissertation). National Taiwan Normal University. Retrieved may 23, 2010. From <http://www.uefap.com/index.htm>

- [16]. Mandal, R. R. (2009). Cooperative learning strategies to enhance writing skill. *Applied Linguistic Modern Journal*, 1(2), 93-10
- [17]. Meng, Jin. (2010). Jigsaw Cooperative Learning in English Reading. *Journal of Language Teaching and Research*. Vol.1.No.4 (501-504).
- [18]. Naiman, N., Frohlich, M. & Todesco, A. (1978). *The Good Language Learner*. Toronto: Ontario Institute for Studies in Education.
- [19]. Robinson, A. (1990). Cooperation or exploration? The argument against cooperative learning for talented students. *Education of the Gifted Journal*, 14(1), 9-27
- [20]. Slavin, R. E., & Cooper, R. (1999). Improving intergroup relations: Lessons learned from cooperative learning programs. Revision submitted to the *Social Issues Journal* 3(2), 215-247.
- [21]. Smith, K. A. (2011). Cooperative learning: Lessons and insights from thirty years of championing a research-based innovative practice. 41st ASEE/IEEE frontiers in Education Conference. October 12-15, 2011. Rapid City, SD
- [22]. Swain, M. & Burnaby, B. (1976). Personality Characteristic and Second Language Learning in Young Children. *Working Papers on Bilingualism*, 11, 76-90. (on line) retrieved October 23, 2013 from <http://dx.doi.org>.
- [23]. Winten, K. (2013). Improving reading comprehension through jigsaw technique at the Eightstudents of SMPN Satu Atap Jungutan in academic year 2012/2013. Denpasar: Mahasaraswati University.
- [24]. Zimmerman, B.J., & Schunk, D.H. (2003). *Educational Psychology: A Century of Contribution*. Mahwah, NJ: Erlbaum.

Subaikhah "Jigsaw Technique to Enhance Students' Reading Comprehension Ability on Extrovert and Introvert Students" *IOSR Journal of Research & Method in Education (IOSR-JRME)* , vol. 9, no. 6, 2019, pp. 12-17.