



THINK-ALOUD METHOD: DEVELOPING STUDENTS' READING COMPREHENSION

Dita Ayu Pratiwi¹ & Noorani²

Institut Pendidikan Indonesia
Garut, West Java, Indonesia
Institut Pendidikan Guru
KIK, Malaysia²

Email: dita.ixc@gmail.com
nora@ipgkik.edu.my

Article History

Submitted 15 July 2022

Revised 1 August 2022

Published 19 August 2022

Abstract.

The think-aloud method is a way for increasing reading comprehension. The think-aloud is a method that can help teachers in gathering student processes such as surmising and utilization of prior information. This research investigate the effectiveness of think aloud method in teaching students' reading comprehension. Non-probability sampling was employed for choosing the learners from a state Junior High School in Garut for the quasi experimental research. The research sample consisted of 30 eight graders who were assigned to be at the experiment and control group. Through using pretest and posttest, the researcher gathered and statistically analyzed the data. The value of Sig evidences (2-tailed) is equal to $0.006 < 0.05$, which means, the think-aloud method is not effective in teaching students' reading comprehension. Some practical suggestions are provided in the study.

Keywords: reading comprehension, think aloud method, efl students

INTRODUCTION

Reading is a skill in English which is to make people get a piece of information from what they read to reach comprehension. According to Nunan (2003), reading skills are very noteworthy for learners. They can obtain information from reading, improve their knowledge, and enhance their way of thinking by reading any text. Reading does not occur in a vacuum to achieve some goal. During reading, the reader processes the text according to its purpose. Readers must learn how to understand passages of text. Thus, the reader can achieve the purpose of reading.

However, some students still do not know the content of a text. They have difficulty understanding sentences, finding the meaning of sentences, or just understanding the outline of the contents of the text. Students require considerable time to comprehend the content and do not choose to read English literature either at home or in English courses at school. Of all the problems that will cause, students will not understand reading, getting information, or achieving goals. Another factor is that students are lazy to read, and there are problems in the learning environment. For example, in the classroom, the students are bored with the monotonous learning method of the teacher, especially in learning to read a text session. The other study identified the challenges that possibilities rural English teacher face while conducting reading comprehension lessons with their pupils, particularly during their contacts and conversations during the day, due to the pupils' poor English competence

In order to provide a great environment for students to improve their reading abilities and make English courses more interesting, English teachers need be innovative process. In addition, to overcome the problems and difficulties that students are facing. Mainly in understanding a text. For this reason, teachers must be more effective in choosing attractive strategies for their students. One of the strategies is the think-aloud strategy. The think-aloud is a method to measure cognitive reading processes and then a metacognitive tool to monitor understanding (McKeown & Gentilucci, 2007). In this case, the think-aloud method is suitable for this research because this method allows students to examine their understanding process. The think-aloud method approach highlight individual variances in response while also providing an in-depth picture of the cognitive processes of the participants (Charters, 2003). As a result, the think-aloud method encourages participants to verbalize all ideas that come to mind when working on a reading comprehension assignment throughout the day.

Previous research has indicated that using the think-aloud method improves learners' reading comprehension in one of the junior high schools in Banda Aceh by helping them find inferences and significant ideas and comprehend conclusions from texts better (Bahri et al., 2018). In addition, according to Sönmez & Sulak (2018) discovered that the

elementary students' reading comprehension abilities for EFL in Arabia were enhanced by the think-aloud method. It is important to note that the think-aloud method has been the subject of prior research that have looked at how well typical students can read. The researcher is concerned about it applying the think technique to Indonesian students for these reaction.

Based on the previous studies above, most of the participants in their research are the students as regular students. There are no barriers and difficulties in terms of learning. Therefore, this research investigates the effectiveness of the think-aloud method in teaching student's reading comprehension. The students were identified as rural students because these students lived far away from urban areas and had low reading proficiency in English.

LITERATURE REVIEW

Definition of reading

Reading the text requires a thought process to understand the text. Anderson et al., (1985), stated that reading is an essential skill for life. Moreover, reading can define as a process when readers gain knowledge from what they read and engage it in an academic environment and education(Grabe, 2009). Students should have the ability to read so that they can gain information from the text, increase their expertise, and make their minds even more critical. Ortega (2013) stated reading is the process for understanding and studying because students can obtain a lot of information and broaden their intelligence.

According to Barton (2007), the reading is a deconstructive competencies that combines the strength to interpret and comprehend texts. Reading marks use symbols and characters that have been decoded and associated to prior learning or experience for comprehend progress (Gatcho & Hajan, 2009). Reading is the act of determining or constructing the meaning of a particular word or collection of words (Seyler, 2004). This indicates that reading is a process whereby the reader acquires meaning from the words they read. Thus, in reading, the readers must active in capturing the meaning of the text.

Purpose of reading

Grabe & Stoller (2013), state that there are five aims for reading:

1. Reading for searching an information
2. Read to skim the text
3. Read for learning the texts
4. Read to combine information
5. Read for common comprehension

Reading Comprehension

Reading is an intricate process. The complex nature of the reading implies internal and external factors are implicated. The internal factor includes intelligence, interests, motivations, and purpose of reading. External factors can include reading suggestions, texts, environmental factors, habits, and reading traditions (Nurhadi, 2008)

(Tarigan, 2008) shows the reading comprehension can grow students' skill to comprehend the contents of reading either in whole or in part. Reading comprehension is an activity aimed at understanding literary standards or norms, critical reviews, written plays, and fiction patterns. However, some still think that reading is an action or activity that only says sentences to other people by looking at the reading without understanding the contents of the reading correctly. Many students do not have the vocabulary or experience to make the connections between text and meaning (Pardo, 2004)

Reading comprehension is a text message recognition rate (Sadeghi & Rahmani, 2011). This acknowledgement comes from the communication between written words and the engagement of information beyond the text. Reading comprehension is dependent on the capacity to rapidly comprehend words. According to McNamara (2007), comprehension is difficult to achieve, and readers sometimes need time to get meaning. Cognitive strategies are essential when there is interference at any level of understanding. Therefore, a successful reader is determined to put forth all his efforts and take the time to understand the difficult passages of the text.

Types of Reading Comprehension

There are three types of reading methods consisting of the bottom-up, top-down, and interactive methods.

1. Bottom-up method

The bottom-up method, the students will be able to read successfully if they can decode the linguistic parts and comprehend the connection between words. However, learners will feel challenged to keep the meaning of the word in their memory and combine the word to another word.

2. Top-down method

The top-down technique as the concept of reading as a psycholinguistic guessing game in which the reader utilizes existing information or written schemas to connect the text and communicates this to new or unexpected materials uncovered in the text to identify it. Teachers must employ predictable texts for beginning readers to connect with the entire book with ease. Then teachers can utilize patterned language such as jingles, tunes, and poems to assist these students apply reading methods including predicting, sampling, summarizing, and choosing.

3. Interactive method

Introduced by the writing of Stanovich (1980), Bottom-up and top-down processes interact, as indicated by the model's interactivity. Good bottom-up readers cannot comprehend the texts when they are read word-for-word. An interactive model in which they must rely on their prior knowledge for help. This technique focuses on the interplay between bottom-up and top-down models. Each type of processing contributes to reconstructing the text's message encoded (Eskey, 1988).

The Think-Aloud Method

The think-aloud method prompts the student to verbalize when breaking down barriers, and this command will be repeated as needed during the problem-solving process to encourage him to share what his thoughts (Someran et al., 1994) . In addition, teacher modelling and College students have an exciting opportunity to explore reading and problem-solving by exercising their cognitive processes by thinking aloud and then transferring these skills to independent reading by employing these cognitive techniques (Davey, 1983)

Charters (2003), described the think-aloud is a technique whereby participants mentally talk aloud while completing a assignment. This is referred to as think-aloud and occurs when pupils are instructed to verbalize their thoughts while doing a task (Sugirin, 2002). Throughout think-aloud, while they read, readers are asked for their thoughts on the text. Therefore, the think-aloud process can trigger the students to discuss any inferences meaning of texts.

Aspects of the Think-Aloud Method

Davey, cited in Tierney et al., (1990), identifies five aspects of reading that students often do not understand, including making predictions, visualizing, connecting with previous knowledge, questioning the content of the reading, taking notes and giving an assessment of the content of the reading. The think-aloud strategy steps are as follows:

1. Teacher's guide
2. Students start working with partners.
3. Integrate with other materials.

METHODOLOGY

To achieve the objective, the study conducted a quantitative method. This method is viewed as a method for examining the relationship between variables in order to test impartial theories(Creswell, 2012). For the research design, the research employed the quasi-experimental research. The quasi-experimental is a form of design that involves two groups at most at least. These groups, namely the experimental group and the control group, participated in the study (Rukminingsih et al., 2020)

The research was done in a junior high school in Garut. The school was still in a village and a little far from the city. A population is a collection of individuals that share similar traits (Creswell, 2012). The participants of the research were students of VIII grade. This

class consists of 30 students. There are 12 male and 18 female students. The reason why the researcher chose these students is that they live far from the city and they have low English skills.

The researcher used a non-probability sample. A non-probability sample intentionally avoids representing the entire population; instead, it aims to represent a specific group, a specifically designated subset of the population, like a class of students, a group of students who take the specific examination, and a group of teacher (Cohen et al., 2007). This research instrument used a test. There are pre-test and post-test.

There was two classes involved in the data collection procedure. The classes are experimental and control. The experimental class got treatment using the think-aloud method, whereas the control group received treatment without the think-aloud technique. The validity and reliability of test have been proven since the tests were taken from the official source, a textbook published by the Ministry of National Education Book Center. The textbooks include English in Focus for VIII grade.

FINDINGS AND DISCUSSIONS

This research was carried out at one of the junior high schools in Garut to examine if the think-aloud method is effective in teaching students' reading comprehension ability. The subject of this research was on two different groups. There were 15 students in the experimental group and 15 in the control group. In the experimental group, the think-aloud method was applied, meanwhile the control group did not employ the think-aloud technique. The material that has been taught is narrative text. The research data are presented using descriptive and inferential statistical analyses.

Students Reading Skill Before and After Using Think-Aloud Method

The data were collected from the score of pretest and post test of experimental group which used think-aloud method in improving reading. Descriptive analysis was processed by SPSS 22 for Windows and presented in Table 1.

Table 1. The Result of the Descriptive Analysis of Pre-test and Post-test Experimental Group

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	15	15	55	29.67	11.568

Post-test	15	20	60	35.33	12.169
Valid N (listwise)	15				

Based on Table 1. the lowest pre-test score of the experimental group was 15; meanwhile, the highest score of the pre-test from the experimental group was 55. After conducting the treatment using the think-aloud method, the scores on the pre-test and post-test from the experimental group improved. It is evident from the lowest and highest post-test results. The lowest score was 20, and the highest

possible score was 60.

The researcher determined that employing the think-aloud approach to teach reading comprehension to the experimental group was effective. The descriptive analysis displays the average pre-test and post-test scores of the experimental group, which increased from 29.67 to 35.33.

The score distribution of the experimental group has been processed by SPSS 22 for Windows and showed in Table 2.

Table 2. The score Distribution of Experimental Group

Score Interval	Category	Pre Test		Post Test	
		Frequency (Students)	Percentage (%)	Frequency (Students)	Percentage (%)
< 25	Very poor	4	26.7%	7	46.7%
26-32	poor	4	26.7%	1	6.7%
33-40	Average	4	26.7%	3	20%
41-50	Good	2	13.3%	3	20%
50-65	Excellent	1	6.7%	1	6.7%
Total		15	100%	15	100%

From Table 2. above, in the experimental group's pre-test, 1 (6.7%) student scored in the excellent category. There were 2 (13.3%) students who scored in the good category. There were 4 (26.7%) students who had a score in the average category, 4 (26.7%) students who had a score in the poor category, and 4 (26.7%) students who had a score in the very poor category.

From table 2. above, on the post-test provided to the experimental group. 7 (46.7%) of the students received scores in the very poor category, 1 (6,7%) students who had scores in the poor category, 3 (20%) students who had scores in the average category, 3 (20%) students who had scores in the good category, and 1 (6,7%) students who had scores in the excellent category.

Students Reading Skill Before and After Without Using Think-Aloud Method

Data was acquired from the pre- and post-test scores of the control group, which did not apply the think-aloud method. Descriptive analysis of the data was processed by SPSS 22 for Windows and showed in table 3.

Table 1. The Result of the Descriptive Analysis of Pre-test and Post-test Control

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PRE-TEST	15	10	50	29.00	10.212
POST-TEST	15	25	65	38.33	11.286
Valid N (listwise)	15				

Based on table 3, 10 was the lowest score on the pre-test for the control group, The highest pre-test score among the control group was 50. After conducting the treatment not using the think-aloud method, the control group's pre-test and post-test scores improved. It is evident from the lowest and greatest post-test results. 25 was the lowest score, while 65 was the highest.

The score distribution of the control group has been processed by SPSS 22 for Windows and presented in Table 4.

Table 4. The Score Distribution of Control Group

Based on Table 4. in the control group's pre-test, no students had scores in the excellent category. There were 7 (46,7%) students had scores in the very poor category, 3 students (20%) with scores in the poor level, 4 (26,7%) students who had scores in the average category, and one (6,7%) students who had scores in the very good category.

Based on table 4 in the control group's post-test. There were 2 (13,3%) students who had scores in the very poor category, 3 (20%) students who had scores in the poor category, 6 (40%) students who had scores in the average category, two (13,3%) students who had scores in the good category, and 2 (13,3%) students who had scores in the excellent category.

In conclusion, before and after treatment, the analysis of the pre-test

and post-test data for both groups has improved. The researcher concluded that the think-aloud method is not effective in teaching students' reading comprehension and does not make a significant contribution. Although there are still some students who have progress but only in certain cases such as they can remember new vocabulary and understand the contents of the text correctly.

The Differences of Students Reading Skill Who taught by Think-Aloud Method

Before conducted the paired sample t-test, the researcher tested for the normality and reliability of pre test and post test from experimental group.

Table 5. The Outcome of the Pre-test Normality Test for the Experimental and Control Groups

Group	Sig.	A	Criteria
-------	------	---	----------

Score Interval	Category	Pre Test		Post Test	
		Frequency (Students)	Percentage (%)	Frequency (Students)	Percentage (%)
< 25	Very poor	7	46.7 %	2	13.3 %
26-32	Poor	3	20%	3	20%
33-40	Average	4	26.7 %	6	40%
41-50	Good	1	6.7%	2	13.3 %
51-65	Excellent	0	0%	2	13.3 %
Total		15	100 %	15	100 %

Experimental	0,214	0,05	Normal Distribution
Control	0,932	0,05	Normal Distribution

According to the findings of the normality test performed on the pre-test data using Liliefors statistics. The researcher used the Shapiro Wilk test. According to Setyawan (2021) stated that in the Kolmogorov-Smirnov (Liliefors) test, there must be at least > 50 pieces of data or samples and if less than 50 Shapiro-Wilk test samples are utilized. From the table obtained, the value of Sig. The experimental group was 0.214, and α was 0.05. Because $0.214 > 0.05$, the experimental group's pre-test results were normally distributed. While the control class's Sig. value is 0.932, and α was 0.05 because $0.932 > 0.05$, then the findings of the pre-test for the control group are normally distributed.

In conclusion, because both groups have Sig. Value $> \alpha$ 0.05, then the H_a data is accepted: The findings of the pre-test for the experimental and control groups were distributed normally. After conducted the normality test, the researcher tested the hypothesis. The hypothesis is:

H_0 : There is no significant difference between the experimental class and the control class on the pre-test.

H_a : There is a significant difference between the experimental class and the control class on the pre-test.

The difference test conducted in this study aimed to determine the use of think-aloud method in improving the reading skills. The hypothesis test used in this study was a parametric statistical test, namely the Paired Sample T Test with the help of SPSS 22 for Windows.

Table 6. The Result of Paired Sample T-test Statistics in Experimental Groups

Paired Samples Statistics				
	Mean	N	Std. Deviati on	Std. Error Mean

The descriptive statistical findings for the two samples under study—pre-test and post-test—are summarized in the table above. For the score from the pre-test, the mean is 29.6667. For the score from the post-test, the mean is 35.3333. The number

Pair	PRE-	29.66	15	11.567	2.98674
1	TEST	67		61	
	POST-	35.33	15	12.169	3.14214
	TEST	33		44	

of students used as the research sample was 15 students. The pre-test standard deviation is 11.56761, while the post-test standard deviation is 12.16944. Pre-test standard error value is 2.98674, while post-test standard error value is 3.14214. Since the average value of the pre-test is less than the average value of the post-test by $29.6667 < 35.3333$, there is a different between the pre-test and post-test scores.

The subsequent step is to evaluate the paired sample t-test findings contained in the output table. This interpretation is utilized to establish if the difference is real or not (significant). The following are decision-making recommendations for the paired sample t-test.

1. If Sig. (2-tailed) < 0.05, then H₀ is rejected and H_a is approved.
2. If Sig. (2-tailed) > 0.05, then H₀ is accepted and H_a is rejected.

Table 7. Table of the Result of Paired Sample T-test in Experiment Groups

Paired Samples Test

		Paired Differences					T	f	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PRE-TEST -	-5.6	6.782	1.75028	-9.4	-1.9	-3.238	14	.006

POS	66			206	12			
T-TEST	67			5	68			

Using the preceding table, the Sig. (2-tailed) value is $0.006 > 0.05$. It indicates that H_a is accepted

whereas H_0 is not. The conclusion is that the think-aloud technique is not effective for teaching reading comprehension to students.

This research was carried out in eighth grade at one of Garut's junior high schools. In this study, there were 15 participants in the experimental group and 15 participants in the control group. The reading comprehension is determined by the researcher's pre-test. According to the calculation of the independent sample t-test, the value of Sig. (2-tailed) of 0.868 is more than 0.05. Based on the judgment criteria for this t-test, H_a is rejected and H_0 is accepted. The conclusion is that there is no difference in the average pre-test results of students between the experimental group and the control group.

After the pre-test was conducted, the researcher gave each group a treatment. The experimental group was treated utilizing the think-aloud method. While the think-aloud was not provided to the control group. Treatment was given in four meetings with each meeting (2x45 minutes). The material was given about the narrative text. In the experimental group, students feel active because they are learning with a new method, in which they learn to express what they have noticed, then predict the continuation of a story they have heard and their questions. These is in line with Oster (2001), who states that there are several important factors when reading: 1) expressing what they pay attention to, 2) possible facts in the character or story, 3) predicting the continuation of the story, 4) asking questions and 5) reactions from them when they heard the story.

After that, the researcher administered a post-test to assess the effectiveness of the experimental group treated with the think-aloud method. The table of paired sample t-tests it has been showing that the score from the pre-test, the mean is 29.67. For the score from the post-test, the mean is 35.33. The number of students used as the research sample was 15 people. The pre-test standard deviation is 11.567, whereas the post-test standard deviation is 12,169. The standard error number for the mean score on the pre-test is 2,986, while the score on the post-test is 3,142. Because the average value of the pre-test is less than the average value of the post-test by $29.67 < 35.33$, there is a descriptive difference between the pre-test and post-test scores. Based on the paired sample t-test output table, the Sig. (2-tailed) value is 0.006, which is less than 0.05. It indicates that H_a is accepted whereas H_0 is not. In conclusion, the think-aloud method is not effective for teaching reading comprehension to students.

The results of this study revealed that the think-aloud method is not effective in teaching reading comprehension to students and do not have significant different. Because when applying the think-aloud method there are still students who have difficulty learning material in English and there are students who have an attitude that is not interested or lazy in learning so students act naughty when learning starts like not paying attention or someone does not go to class. Although there are still some students who have progress but only in certain cases such as they can remember new vocabulary and understand the contents of the text correctly.

CONCLUSIONS

On the basis of the data and the outcomes of the discussion, it can be determined that the think-aloud method is not effective reading comprehension teaching approach. This is demonstrated by the output table of the paired sample t-test, where the value of Sig. (2-tailed) is 0.006, which is less than 0.05. It indicates that H_a is rejected and H_0 is accepted. Because when applying the think-aloud method there are still students who have difficulty learning material in English and there are students who have an attitude that is not interested or lazy in learning.

According on the findings of the conducted study, the following parties are suggested by the researchers.

1. The teachers, especially English teachers, are anticipated to be capable to consider the think-aloud method to develop students' reading comprehension.
2. Students can use the think-aloud method to learn English, especially to improve their reading comprehension.
3. For future researchers, it is suggested to add more participation and used other data such as qualitative data so that the data is more valid.

REFERENCES

- Anderson, R., Hiebert, E., Scott, J., & Wilkinson, I. (1985). *Becoming A Nation of Readers: The Report of the Commission on Reading*. National Institute of Education and the Center for the Study of Reading.
- Bahri, S., Nasir, C., & Rohiman, C. L. (2018). Using the Think Aloud Method in Teaching Reading Comprehension. *STUDIES IN ENGLISH LANGUAGE AND EDUCATION*, 5(1), 148–158.
- Barton, D. (2007). *Literacy: An Introduction to the Ecology of Written Language* (2nd ed.). MA: Blackwell.
- Charters, E. (2003). The use of think-aloud methods in qualitative research: An Introduction to think aloud method. *Brock Education Journal*, 12(2), 68–82.
- Cohen, L., Manion, L., Lecturer, P., Morrison, K., & Lecturer, S. (2007). *Research Methods in Education* (Sixth Edit). Routledge.

- Creswell, J. . (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th Editio). Pearson.
- Davey, B. (1983). *The Think Aloud*. <http://www.jstor.org/stable/40029295>
- Eskey, D. (1988). Holding in the Bottom: An Interactive Approach to the Language Problems of Second Language Readers. In P. Carrel, J. Devine, & D. Eskey (Eds.), *Interactive Approaches to Second Language Reading* (pp. 73–92). Cambridge University Press.
- Gatcho, A., & Hajan, B. (2009). Reading Skills through Explicit Instruction of Metacognitive Strategies. *Journal of English Education and Linguistics Studies*.
- Grabe, W. (2009). *Reading in a Second Language: Moving from Theory to Practice*. Cambridge: University Press.
- Grabe, W., & Stoller, F. (n.d.). *Teaching and Researching Reading*. Routledge.
- McKeown, R. G., & Gentilucci, J. L. (2007). Think-Aloud strategy: Metacognitive development and monitoring comprehension in the middle school second-language classroom. *Journal of Adolescent & Adult Literacy*, 51(2), 136–147.
- McNamara, D. S. (2007). *Reading Comprehension Strategy: Theory, Interventions, and Technologies*. NJ: Erlbaum.
- Nunan, D. (2003). *Practical English Language Teaching*. The McGraw-Hill.
- Nurhadi. (2008). *Teknik Jitu Menjadi Pembaca Terampil*. Pustaka Belajar.
- Ortega, L. (2013). *Understanding Second Language Acquisition*. Routledge: Hodor Education.
- Pardo, L. (2004). What Every Teacher Needs To Know About Comprehension. *International Reading Association*, 58(3), 272–280.
- Rukminingsih, A., D., & Latief, M. A. (2020). *Metode Penelitian Pendidikan: Penelitian Kuanlitatif, Penelitian Kualitatif, dan Penelitian Tindakan Kelas*. Erhaka Utama.
- Sadeghi, K., & Rahmani, M. (2011). No Title. *Effects of Note-Taking Training on Reading Comprehension and Recall*, 11(2), 116–128.
- Seyler, D. (2004). *The Reading Context: Developing College Reading Skills*. Pearson Education, Inc.
- Someran, V., Barnard, Y., & Sandberg, J. (1994). *The Think Aloud Method: A Pratical Guide to Modelling Cognitive Processes*. Academic Press.
- Sönmez, Y., & Sulak, S. (2018). The Effect of the Thinking-aloud Strategy on the Reading Comprehension Skills of 4th Grade Primary School Students. *Universal Journal of Educational Research*, 168–172.
- Stanovich, K. (1980). Towards An Interactive-compensatory Model of Individual Differences in the Development of Reading Fluency. *Reading Research Quarterly*, 16,32–71.
- Sugirin. (2002). *Comprehension Strategies of Above Average English as a Foreign Language (EFL) Readers vol 1*. ADT: Daekin University Library.
- Tarigan, H. G. (2008). *No Title*. Angkasa.
- Tierney, R. J., Readence, J. E., & Disher, E. K. (1990). *Reading Strategies and Practies A*. Compedium. United States of America: Allyn and Bacon.