Using Think-aloud Protocols to Improve Students' Narrative Writing at EFL Classroom

Amelia Agustiara

(Kumala Teacher-training and Education College, Lampung University, Indonesia)

Abstract: The current research is concerned with think-aloud protocols. It was intended to investigate the students' use of think-aloud protocols in writing class; and to see if there is an improvement of students' narrative writing achievement during the process of treatment. The subject involves 27 students of SMK Muhammadiyah 1 Metro. To collect the data, writing test and observation were used. This research reveals that think-aloud protocols improved students' narrative writing. It is also found that think-aloud protocols are important in learning. It is suggested that think-aloud protocols are very helpful for the learners.

Key words: think-aloud protocols, narrative writing, EFL

1. Introduction

Nowadays, English language is very important for people. English language is an international language. It means that English language is very important to us. Speaking, listening, writing and reading are four skills which are very important, if someone want to increase their knowledge in English lesson, one of them is writing. Some of the teachers, especially English teachers in Indonesia, try to use the various techniques or strategies to make their students understood.

It is widely known that writing is one of the important skills in English. In this case, narrative writing is a text which brings the readers to be entertained. Besides, the students can improve their narrative writing well when teachers can provide a great learning class. On the other hand, they need to practice their writing narrative in a great way. Moreover, although applied linguists have come to recognize the importance of writing in its own right as well as its complexity, writing remains one of the least well-understood, if not misunderstood, subjects in applied linguistics in general (Silva & Matsuda, 2002). Narrative is a representation of a series of events connected in a temporal and causal way. Films, plays, comic strips, novels, newsreels, chronicles and treatises of geological history are all narratives in this widest sense. Narratives can be constructed using a wide variety of semiotic media: written or spoken language, images, gestures and acting.

Think-aloud as originally developed by Newell and Simon, 1972. With think-aloud protocols students verbalize, in an interview context, how they are accessing the text. Therefore modeling strategic behaviors for struggling students by thinking aloud for them while they write and hence, allowing students to think along, is the first step to raise their awareness. Think-aloud protocols involve the verbalization of thinking during writing, and

---

Amelia Agustiara, S.Pd., M.Pd., Kumala Teacher-training and Education College; Lampung University; Aku Cinta Indonesia Vocational High School; research areas/interests: English language teaching. E-mail: amelia_agustiara@yahoo.com.

problem solving. The students might verbalize commentary, questions, generating hypotheses, or drawing conclusions. Thus, think-aloud may serve as both an instructional tool and method of assessment. Significant research has focused on explicit efforts to understand the thinking process and the comprehension of text (Davey, 1983; Bereiter & Bird, 1985). Utilizing think-alouds in such a manner involves teacher modeling, teacher-student interaction, and finally, the independent use by the student. However, Beck and Kucan (1997) point out that much of the research does not offer specific examples of this process. Limited research has been done with think-alouds and science instruction.

Although think-alouds provide scaffolding for students as they engage in higher order thinking (Oster, 2001), a full assessment of their thinking process is limited to what is openly shared in the verbal exchange. Many attempts have been made in the literature to measure learning strategies in various contexts with different data gathering methods (Schellings, 2011; Scott, 2008). Here, data are gathered as learners are asked to verbalize all their ongoing actions and thoughts (Scott, 2008). In this way, text processing and learning activities are directly revealed without delay and are expressed in students' own words. Afterwards, the verbalizations are transcribed by the researcher into a think-aloud protocols.

This article tries to provide a more comprehensive look at students' learning process. A better understanding of what think-aloud protocols provide and allow for more effective uses of this strategy in both instruction and assessment of writing narrative writing. In order to find the effect of think-aloud protocols on writing, the following questions are asked:

(1) To what extent do the students use think-aloud protocols to improve learners' narrative writing?

(2) To what extent do students' narrative writing achievement improve through think-aloud protocols?

2. Method

This is quantitative-qualitative research. For the quantitative, it used quasi experimental design that has one group (experimental group). Furthermore, the quasi experimental design attempts to fulfill standards of the true experimental design as closely as possible (Hatch & Farhady, 1982). This design conducted research that will allow to show the relationship between variables has selected. This study uses this design because it is dealing with the most complicated of human behaviors, language learning, and language behavior. According to Hatch and Farhady (1982), a quasi-experimental design is a practical agreement between true experimental and the nature of human language behavior. T The class is as experimental group one that is given treatments using think aloud protocols. The research design is as follows (Hatch & Farhady, 1982):

K1 = T1 X1 T2

Notes:

K1: The experimental class

X1: Treatment (think aloud protocols)

T1: Pre-Test

T2: Post-Test

Then, this study employs qualitative method. A qualitative method is the research that results descriptive data in written or oral form of humans' interaction that can be observed, thus the purpose of the research is a certain individual understanding with the whole background. It means that, a qualitative research emphasizes on the interaction occurred among people, and the data collected from the interaction will be describe based on the

researcher's understanding.

A variable is termed as an attribute of an object which varies from object to object. In the research, variables can be classified as dependent and independent variables. The independent variable is the variable which is selected, manipulated, and measured by the researcher, while the dependent variable is the variable which a researcher observes to determine the effect of the independent variable (Hatch & Farhady, 1982). The independent variable of the research is think-aloud protocols and dependent variable is narrative writing.

This research was carried out in SMK Muhammadiyah 1 Metro. This school was selected to be the location of the research because as stated in the background of the problems, the teachers were not aware of the students' learning strategy. The subjects of this research are 27 students at eleventh grade. To collect the data, it used observation and writing test.

3. Instrument

The instruments were a narrative writing test and observation. This test is monologic rather than dialogic, it offers a basis for deriving measures of learner performance.

3.1 Validity of the Instruments

Content validity is concerned whether the test is sufficiently representative and comprehensive for the test. It is the extent to which a test measures a representative sample of the subject meter content, the focus of content validity is adequacy of the sample and simply on the appearance of the test (Hatch & Farhady, 1982).

Therefore, since the test instrument was conducted to get the data of the students' narrative writing achievement. The content validity of the test items are conducted based on objective and learning contract of narrative writing subject.

The materials were also adapted from the learning contract of narrative writing subject. The topics were related to fable, legend, folk tale and fairy tale, were supposed to be comprehended by eleventh grade students of SMK Muhammadiyah 1 Metro. The instrument was considered valid in content validity since the instruments constituted a representatives sample of the language skill and structure.

Construct validity is concerned with whether the test is actually in line with the theory of writing which will be measured. The construct validity of test is test which is capable of measuring certain specific characteristics in accordance with a theory of language behavior and learning (Heaton, 1982). To achieve the construct validity, the test was adopted from the students' hand book on English for Senior High School Students XI. Then, the test is made based on the classification of the theme. There were four topics which the students should choose one of them. Based on the theory above, in the test, the researcher asked students to answer the written test to measure students' achievement in narrative writing. So, this fulfill the construct of writing test and therefore valid in term of construct validity.

In order to measure the content and construct validity, interrater analysis was used to make the writing test instrument more valid. Thus, the researcher and two English teachers of SMK Muhammadiyah 1 Metro were as the raters, they took part in measuring the instrument. In writing test, the researcher used rubric score based on Heaton (1989) that consists of five aspects; content, organization, vocabulary, language use and mechanics.

3.2 Reliability of Instruments

Reliability defined as the extent to which a test procedure consistent results when administered under similar

condition (Hatch & Farhady, 1982). In this research, the researcher will use three interraters to get the reliability of the research. In other words, the results of data are consistent in its score and give us an indication of how accurate the test scores are.

R1

R2

R3

R1 ⟶ R2

R1 ⟶ R3

R2 ⟶ R3
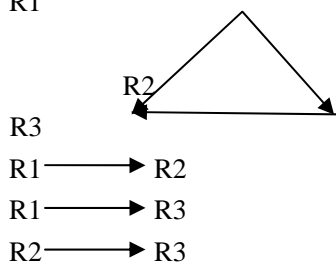
Notes:

R1: Score that given the rater I

R2: Score that given the rater II

R3: Score that given the rater III

Then, the researcher used person product moment correlation formula to measure the reliability of the test.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Figure 1   Interrater Reliability Formula

Consulting the result with the criteria of reliability as follows:

Reliability Coefficient between 0.800–1.000 is very high

Reliability Coefficient between 0.600–0.800 is high

Reliability Coefficient between 0.400–0.600 is fair

Reliability Coefficient between 0.200–0.400 is low

Reliability Coefficient between 0.000–0.200 is very low

Thus, the researcher and two English teachers of SMK Muhammadiyah 1 Metro were as the raters, they took part in measuring the instrument. The two raters from SMK Muhammadiyah 1 Metro are Khoirul Anam, S.Pd. and Dono Amsaroh, S.Pd. They are the English teacher at SMK Muhammadiyah 1 Metro.

4. Procedure

The goal of this study was to know whether the students used think-aloud protocols in writing class; and to see if there is an improvement of narrative writing achievement during the process. In Stage 1, students were asked to write about a topic. In Stage 2, students made a model essay about that writing task and they think-aloud about those aspects of language that they noticed in the model essay. In Stage 3, students were asked to rewrite the writing task.

Below some aspects in narrative text that students can relate in their own words.

(1) Orientation: an introduction in which the characters, setting and time of the story are established, usually answers who? When? Where?

(2) Complication or problem: the complication usually involves the main character.

(3) Resolution: there needs to be resolution of the complication. The complication may be resolved for better

or worse, happily or unhappily. Sometimes there are a number of complications that have to be resolved. These add and sustain interest and suspense for the reader.

The post testing procedures were exactly the same as pretesting.

5. Result and Discussion

5.1 Result

From the result of the research, it found that the mean score of the students who got think-aloud protocols in pre-test is 53 and in post-test is 74. It means that there is a significant improvement of students' narrative writing. To make students' narrative writing improved, the teacher should use the think-aloud protocols in giving instructions or information about the material. It can help them in learning to write well, interest, and be active, so that their ability in writing can be improved.

The data is checked by the researcher and the partners used guideline writing score based on Heaton (1989). The students' narrative writing data that must be checked here are their content, organization, vocabulary, language use and mechanical skill.

Table 1   Result of Pretest

Range	Score
The lowest score	28
The highest score	69
Mean	53

After getting the data from result of pretest, the researcher finds that in the pretest the highest score is 69 and the lowest score is 28 with the average score is 53.

Compared to the post test result, the students were also checked their writing. They are content, organization, vocabulary, language use and mechanical skill.

Table 2   Result of Posttest

Range	Score
The lowest score	63
The highest score	86
Mean	74

After getting the data from result of post-test, the researcher finds that in the post-test the highest score is 63 and the lowest score is 86 with the average score is 74.

From the result above, it can be concluded that think-aloud protocols improved students' narrative writing.

The reason behind the positive effect of thinking-aloud is the learners' processing system and the factor noticing. In this study, students instead of imitating model essays, first, write about the task and recognize their problems in writing, then models are introduced and students try to solve their writing problems by studying a model essay and thinking-aloud about what they notice. The researcher suggests that think-aloud protocols is good to be practiced for students.

5.2 Discussion

In this research, the students were treated for three meetings. The data which is described in this research are the data of the think-aloud protocols to improve students' narrative writing. Based on the result of this research,

the researcher finds that students' narrative writing in the post test is good than in the pre-test. It can be proven that there are many students in the pre-test get fewer score in narrative writing than in the post test. From the previous calculation, the hypothesis can be accepted because it is 16.412 at the significance level 0.05. It shows that the hypothesis of Ha is accepted and Ho is rejected. It means that there is a significant difference between think-aloud protocols in writing narrative text for the eleventh grade students of SMK Muhammadiyah 1 Metro and it also conclude that think-aloud protocols is effective.

Before conducting this research, the researcher met individually with each student to learn more about their feelings on writing. The following questions were used by the researcher during the meeting such as:

When you write, what do you think at the first time?

What is the first thing that comes to your mind when you write a story?

What kinds of strategies do you use when you write a story?

Does it help you to write?

The researcher took notes on the students' responses in a notebook.

During the treatment, the students was given a think-aloud protocols with some stories. First, the students were asked to look at a picture that they chose. Then, they tell about that story based on what was on their mind. Once, the story was complete, the researcher asked the students to write down the story they just told.

After the students familiar with the think-aloud protocols, they began working on composing their written narrative. The student stated, "I am thinking about what I did last week". Then the researcher responses "What are you thinking of?".

In post-test, the students were given some pictures that they were going to write. The students were asked to tell about the picture, they can tell what was on their mind in a short-term memory, then they can write it down into some paragraphs. So, there were some communication between the students and the researcher.

The researcher: what do you think of this picture?

The student: I think it can happen to everyone. I think this is like me and my father at home.

The researcher: what did you do actually?

The student: I watched TV, then my TV had something trouble. So, I asked my father to fix it.

Then, the researcher asked the student to write it down into a narrative paragraph. From the discussion above, it can be said that there is an improvement by using think-aloud protocols in narrative writing.

6. Conclusion

In this study, students instead of imitating model essays, first, write about the task and recognize their problems in writing, then models are introduced and students try to solve their writing problems by studying a model essay and thinking-aloud about what they notice. In this case, process and product are focused at the same time. The findings of this study can help language teachers improve their approaches to teach writing and raise students' ability. Think-aloud protocol is an effective way to teach students to promote their cognitive strategy. The author suggests replications with other groups of language learners in different settings with different tasks or in spoken mode to come up with more comprehensive results.

References

Bereiter C. and Bird M. (1985). "Use of thinking aloud in identification and teaching of reading comprehension strategies", *Cognition and Instruction*, Vol. 2, No. 2, pp. 131–156.

Davey B. (1983). "Think aloud: Modeling the cognitive processes of reading comprehension", *Journal of Reading*, Vol. 27, pp. 44–47.

Hatch Evelyn and Farhady Hossein (1982). *Research Design and Statistics for Applied Linguistics*, Rowley, Massachusetts: Newbury House Publishers, Inc.

Hansen L. M. and Johnson J. C. (2006). "Think-alouds in inquiry science", *Science & Children*, Vol. 44, No. 1, p. 56.

Kucan L. and Beck I. L. (1997). "Thinking aloud and reading comprehension research", *Review of Educational Research*, Vol. 67, No. 3, pp. 271–299.

Newell A. and Simmon A. H. (1993). *Human Problem Solving*, Englewood Cliffs, NJ: Prentice Hall.

Oster L. (2001). "Using the think-aloud for reading instruction", *The Reading Teacher*, Vol. 55, No. 1, pp. 64–69.

Priyana Joko, Muhammad Zayin Adib and Machfutra Eka Denis (2008). *Interlanguage: English for Senior High School Students XI*, Jakarta: Departemen Pendidikan Nasional.

Schellings G. (2011). "Applying learning strategy questionnaires: Problems and possibilities", *Metacognition Learning*, Vol. 6, pp. 91–109.

Silva T. and Matsuda P. K. (2002). "Writing", in: Schmitt N. (2002), *An Introduction to Applied Linguistics*, New York: Oxford University Press Inc., pp. 251–266.

Scott D. B. (2008). "Assessing text processing: A comparison of four methods", *Journal of Literacy Research*, Vol. 40, No. 3, pp. 290–316.