Episodic Mapping Strategy: Structuring Students' Reading Comprehension

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ABSTRACT

This research investigated the effect of Episodic Mapping strategy on students' reading comprehension in narrative text. It examined the difference of students' reading comprehension before and after using the Episodic Mapping strategy. Quasi-experiment with nonequivalent control group was used as design of this research. 70 students of a Senior High School in Indonesia were selected by using cluster random sampling. The data was obtained from multiple choice test and analyzed by Independent sample t test. As results, the experimental group performed better than the other at posttest stage. In addition, students at experimental group developed their reading comprehension by extracting text structure. Hence, Episoding mapping strategy significantly reinforces students' reading comprehension.

Keywords: Episodic mapping strategy, reading comprehension, text structure

INTRODUCTION

Comprehension in reading is classically discussed over the years. However, to achieve optimal results after reading, there are still needs to overcome, particularly in EFL context. Students require to be able to identify and apply effective learning strategies and skills to understand the text. (Grabe & Stroller, 2002: 9; Vough, et al., 2004: 98; Hasibuan & Ansyari, 2007: 114). In contrast, students commonly failed to determine which skills and strategies were appropriate to accomplish their reading purpose. Students try to understand the text without knowing how the text is structured and its characteristics. Therefore, numerous of researches have been conducted to help students organizing their information of the text as well as their understanding (Scmelzer, et al, 1989; Randal, 1996; Zahedi & Abdi, 2012; Colosimo & Fitzqibbon, 2012; Sam & Premalatha, 2013). However, only few researches pursue the appropriateness between teaching strategy and the characteristics of the text (Reyes, 2011; Schwartz, Anna & Mendoza, Laura & Meyer, Bonnie, 2013, Chalak & Esfahani, 2012; Amiri, Zainal & Samad, 2012). When a teaching strategy is designed appropriate with the structure of a text, it helps students to group the information of the text easily, activate their schemata, and reinforce their metacognitive (Akamatsu & Tane,

1988, Meyer & Ray, 2011, Othman & Jaidi, 2012; Zarrati, Maasum, Nambiar, 2014; Razi & Cubukcu, 2014). Episodic Mapping strategy is a teaching strategy which promotes the relevancy between the structure of the text and how students organize information. It is designed only for story-based text. The discussion of Episodic Mapping strategy is relatively new in reading comprehension, few researchers have explored its relationship to students' motivation, identifying topics, predicting and guessing, and summarizing (Akamatsu & Tane, 1988; Schmelzer, Ronald, Henson, Kenneth, 1989, Sari & Nurhadi, 2014). However, the effectiveness of Episodic Mapping strategy in reading comprehension still lacks investigation, particularly its correlation with students' attention, motivation, main ideas, text structure, detail information, vocabulary, and references. Thefore, the aim of this research was to investigate the effect of using episodic mapping strategy on students' reading comprehension in narrative text.

Reading Comprehension
Comprehension is a highly complex process. It demands students to acquire understanding, meaning, knowledge, and information of the text. (Snow, 2002: 11; Linse & Nunan, 2005, 71; Klinger, Vaughn, & Boardman, 2007: 8). It is related to the skills of decoding, word reading, and fluency (Jenkin, Larson, & Fleischer, 1983; O'shea, Sindela, & O'shea, 1987; Klingner, 2007: 12). Dorn and Soffos (2005: 1) extend that comprehension is a cognitive process beyond teaching discrete skills into creating problem solving. Besides, it also involves emotional, perceptual, and social experiences (Fischer, 2003: 14).

There are several elements in reading comprehension. Snow (2002: 11) divides it into three elements: (1) the reader, (2) the text, and (3) comprehension activity. In addition, Snow (2002: 13) extends that comprehension involves (1) cognitive capacities includes attention, memory, and critical thinking, (2) motivation such as purpose (Dallman, 1974), interest, and self-efficacy, and (3) various types of knowledge like vocabulary, domain and topic knowledge, linguistic and discourse knowledge, and knowledge of specific comprehension strategies. Furthermore, some essential threads of reading are phonemic awareness, phonics, fluency, comprehension, vocabulary (McIntyre, Hulan, and Layne (2001: 6); and higher-order thinking (Tankersley, 2003: 2).

In addition, reading comprehension has multiple levels and skills. Dorn and Soffos (2015: 14) categorize it into two levels. (1) Surface level is a literal level which demands to recall factual information from the text. (2) Deep level is a conceptual level which requires integrating the authors' intention to the reader's point of view. In addition, Brown (2003: 187-188) classifies two skills of reading. (1) Micro skills are the ability to differentiate among distinctive graphemes and orthographic patterns of English, to keep chunks of language of different lengths in short-term memory, to process writing at an efficient rate of speed to suit the purpose, to recognize a core of words, and understand word order patterns and their significance, to be familiar with grammatical word classes, system, pattern, rules, and elliptical forms, to know that a particular meaning may be expressed in different grammatical forms, to recognize cohesive devises in written dialogue in their rule in signaling the relationship between and among clauses. (2) Macro skills are the ability

to recognize the rhetorical forms of written discussion and their significance for understanding, to identify the communicative function of communicative text based on form and purpose, to infer context by using background knowledge, to form described events, ideas, etc., infer links and connection between events, deduce cause and effects, detect such relation as main idea, supporting ideas, new information, given information, generalization, exemplification, to differentiate between literal and implied meaning, to discover culturally specific references and understand them in a context of the appropriate cultural schemata, and to develop and use a set of reading strategies. In addition, Harmer (2007: 201) extends five skills in reading such as identifying the topic, predicting and guessing, reading for general understanding, reading for specific understanding, and interpreting text.

In teaching reading comprehension, several process should be established. Klingner, Vaughn, and Boardman (2007: 9-12) classify five processes which simultaneously occurred in comprehension. (1) Micro process is to obtain meaning from individual ideas and select what idea to remember. (2) Integrative process is to identify pronoun referents, infer causation and sequence, and creates other relevant inferences. (3) Macro process is to select the general ideas and summarize the message. (4) Elaborative process is to make prediction. (5) Meta-cognitive process is to identify when one does or does not understand something and how to achieve the goals.

In addition, Harmer (2007:101-102) explicates six principle of teaching reading, as follows:

a. The teacher encourages students to read as often and as much as possible: the more students read, the better they will be.
b. Students need to be engaged with what they are reading: the students who do not engage with the text will not have any interest to the text. So, they need to be engaged with the material they read.
c. Students should be encouraged to respond to the content of a reading text, not just the language: It is important to let the students respond to the meaning of the message of the reading text.
d. Prediction is the major factor in reading: The prediction may help the students to comprehend what the text is about.
e. Match the task to the topic: The teacher should choose the reading task which is suitable with the reading topic.
f. Good teacher exploits reading text to the full: Good teacher integrates the reading text into interesting class sequences.

Episodic Mapping Strategy
Episodic Mapping strategy is based on the idea that most stories contain several major ideas that follow a particular structure (Mayer & Rice, 1984; Schemelzer & Henson, 1989: 1-2). This strategy teaches knowledge of text structure, it helps students identify and follow major structures in the story,

such as setting, plot, problem, goal, and resolution (Schmelzel & Henson, 1989:1-2; Davis & Mc.Pherrson, 1989; Wiesendanger, 2000: 88). In addition, if students understand the structure of a text, their learning and retention are improved as well as their comprehension (Meyer & Rice, 1984; Schemelzer & Henson, 1989: 2; Wiesendanger 2000: 88). Furthermore, understanding text structure helps students to remember material, make predictions, and activate appropriate schemata.

The procedures of Episodic strategy are (Wiesendanger, 2000: 89) as follows:

1) Explain to the students the main purpose of Episodic Mapping is to increase readers' understanding of a story by helping them understand how the story is organized. This strategy also can encourage active participation through class discussion. Since each person's ideas about a story are valid, encourage everyone to contribute to the understanding of the story;

2) The teacher teaches the students each of elements that make up Episodic Mapping:
   a) *Setting*: this defines background information, where and when story takes place, and introduces the main character(s).
   b) *Problem/goal*: focuses on what the characters are trying to resolve or attain as a result of an initiating event that has set the story into motion.
   c) *Major episodes*: this is the plot of the story: the attempt that the characters make to resolve the problem or reach their goals.
   d) *Theme*: this section refers to central idea of the story. It may be a lesson or an underlying thought that the main characters have learned as a result of their success

or failure to attain the goal or resolve the problem.
   e) *Resolution*: the purpose of this section is to organize the conclusion of the story in order to answer the questions, how has the story been resolved? How did he characters achieve or fail to achieve the goal or resolve the problem?

3) Give the example to the students how to map a story that everyone has read. While mapping the story, attempt to explain why you mapped the story as you did. While your thinking may be different from some or even most of your students, through your modeling, they will get a feel for the kinds of thinking they should be doing;

4) Read and map a story together. Allow for a lot of discussion, as well as give and take. Get everyone involved in thinking;

5) Provide students with a story and partially completed Episodic Map. Have the students complete it by themselves? After all of students have complete it, develop with the students a composite map on the board, editing as necessary;

6) Allow the students to map selections on their own, incorporating Episodic Mapping into their normal repertoire of reading strategies.

METHOD

The research was quasi-experimental research with a nonequivalent control group design. This approach keeps the classroom intact with a realistic context of teaching and learning without isolating the setting (Cook & Campbell, 1979, Cohen, L., & Manion, 1994, Seale, 2004, Neil, 2004 and Cresswell, 2013). It prevents disturbances to school curriculum and programs. Episodic mapping as a teaching strategy

only manipulates one variable, while other variables still exist. Furthermore, this research investigated the effects of Episodic Mapping strategy on students' comprehension in reading narrative text. This research examined the difference of students' reading comprehension before and after using the Episodic mapping strategy. This research used an experimental and control group. Both groups were provided with pretest, treatment, and posttest. The experimental group was treated by the Episodic Mapping strategy, while the other was not. This research was set up into 8 meetings: 1 meeting for pre-test, 6 meetings for treatment, and 1 meeting for posttest. The design of this research is illustrated in the following table (Creswell, 2012: 310):

T= treatment

Participants
The target of the population of this research was the first-year students of a State Senior School in Indonesia, academic year 2015/2016. This school was selected because of its practicality and accessibility. The school consisted of 283 students. This research used cluster-random sampling to select the sample. It was expected to sample a group, not an individual because the research design keeps the classroom intact (Gay & Airasian, 2000: 129; Singh, 2006: 89). Therefore, this research selected two groups (70 students) as the samples. In addition, the samples have homogenous ability in reading because both classes have the same curriculum. Those samples are convenient samples and easy to access.

Table 1. Research design

Group	Pre-test	Treatment	Post-test
Experimental	X1	T	Y1
Control	X2	-	Y2

Where:
X1= pretest of experimental group
Y1= posttest of experimental group
X2= pretest of control group
Y2= posttest of control group

Procedures
To understand the whole procedures conducted in this research. The following table compares the procedures provided to the experimental and control group.

Table 2. The procedures of the research

Meeting	Experimental Group	Control Group
1	Pretest	Pretest
2-6	Treatment	Treatment
	1. Teacher explains the learning purposes.	1. Teacher explains the learning purposes.
	2. Teacher reviews the previous lesson.	2. Teacher reviews the previous lesson.
	3. Teacher explains to the students the main purpose of Episodic Mapping is to increase readers' understanding of a story by helping them understand how the story is organized. This strategy also can encourage active participation through class discussion. Since each person's ideas about a story are valid, encourage everyone to contribute to the understanding of the story;	3. Teacher activates students' prior knowledge related to the text.
	4. The teacher introduces the students to each element which makes up Episodic Mapping:	4. Teacher asks one student to read aloud the text and continuous by others.
	a. *Setting*: this defines background information, where and when story takes place, and introduces the main character(s).	5. Teacher asks students to read silent the text.
	b. *Problem/goal*: focuses on what the characters are trying to resolve or attain as a result of an	6. Teacher asks students to answer some questions related to the text.
		7. Teacher and students discuss the answer from the question of the text.
		8. Teacher adds some feedback

initiating event that has set the story into motion.

c. *Major episodes*: this is the plot of the story: the attempt that the characters make to resolve the problem or reach their goals.

d. *Theme*: this section refers to central idea of the story. It may be a lesson or an underlying thought that the main characters have learned as a result of their success or failure to attain the goal or resolve the problem.

e. *Resolution*: the purpose of this section is to organize the conclusion of the story in order to answer the questions, how has the story been resolved? How did the characters achieve or fail to achieve the goal or resolve the problem?

5. Teacher gives an example to the students of how to map a story that everyone has read. While mapping the story, attempt to explain why you mapped the story as you did. While your thinking may be different from some or even most of your students, through your modeling, they will get a feel for the kinds of thinking they should be doing;

6. Teacher and students read and map a story together. Teacher allows a lot of discussion, as well as give and take. Teacher gets everyone involved in thinking;

7. Teacher provide students with a story and partially completed Episodic Map. Teacher asks the students complete it by themselves. After all of students have complete it, develop with the students a composite map on the board, editing as necessary;

8. Teacher allows the students to map selections on their own, incorporating Episodic Mapping into their normal repertoire of reading strategies.

| 8 | Posttest | Posttest |

Note: In experimental group's meeting (3-6), step 4 to 6 are optional. Students are expected to understand the concept of Episodic Mapping strategy. However, if students have questions, the teacher may give feedback.

The Technique of data collection and analysis
To gather the data of students' reading comprehension, multiple choice test was used because of its practicality (Brown, 2003: 194). The test consisted of 20 items. The test was administered to the students in two stages as follows:

a. Pretest
Pretest was administered to the students (experimental and control group) at the first meeting. This test was used to measure basic students' comprehension in reading narrative text.

b. Posttest
Posttest was administered to the students (experimental and control group) at the last meeting. This test was used to know the effect of using treatment given to the students of experimental group.

The blue print of the test can be seen as follows:

Table 3. The Blueprint of test

No	Indicators	Number of items	Total
1	Finding main idea of narrative text	1,6,11,16	4
2	Identify information of narrative text	2,7,12,17	4
3	Classify the generic structure of narrative text	3,8,13,18	4
4	Identify social function of narrative text	4,9,14,19	4
5	Identify language feature of narrative text	5,10,15,20	4
Total			20 tems

Furthermore, the data was analyzed by independent sample t test. This formula was used to identify the difference of students' reading comparison between experimental and control group.

RESULTS

The data are presented by comparing the results of students' reading comprehension from control and experimental groups, both pretest and posttest.

Table 4. Students' reading comprehension of control and experimental group

No	Group	N	Mean Pretest	Mean Posttest	Increase (%)
1	Control	35	57.86	65.14	12.58
2	Experimental	35	58.86	77.43	31.55

Based on table 6, the pretest result of both groups is almost similar. At posttest, the result of experimental (77.43) is higher than control group (58.86). In addition, the data displays the information demonstrated both groups at pretest showed a similar score. It means that students in both groups have similar ability in reading before treatments. Both groups were expected to have homogenous ability before treatment was conducted in order to appropriately measure the results. Furthermore, students' score in the control group after treatment showed an increase (12.58%). It indicated students' progress in reading comprehension, particularly in narrative text. Respectively, students' score in the experimental group at posttest stage was increased by 31.55%. Both groups at posttest stage demonstrated better performance. However, students at experimental group performed better than control group at posttest stage.

Table 5. The results of Independent Sample T Test

No	Group	T	df	Sig. (2-tailed)	Mean difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
1	Control	6.665	68	0.000	12.286	1.843	8.608	15.964
2	Experimental	6.665	66.562	0.000	12.286	1.843	8.606	15.965

From the output above, the sig. (2-tailed) was $0.000 < 0.005$. Therefore, H_o was rejected and H_a was accepted. In other word, there is a significant difference of students' reading comprehension between experimental and control group. It indicated students' reading comprehension at experimental group performed better than control group. Thus, the use of Episodic

Mapping strategy had significantly influenced to students' reading comprehension, particularly in narrative text.

DISCUSSION

The findings depicted that the samples demonstrated high motivation to begin the activity of reading. The samples showed two different ways to start the reading activity. First, some of samples began to read silently all sparagraphs of the text, then write the episodic map. Second, others wrote the episodic map and identify the text structure. The samples overall knew the terms of skimming and scanning strategy. However, during reading, they did not use those strategies so that the process of reading took longer time. They tended to read all parts of the text. In addition, some of samples showed their difficulties in identifying meaning of unfamiliar words. Those samples were very reliable to use dictionary and application of translation rather than exploring the context clues of text. During treatment at experimental group (4 meetings), students showed demotivation with same concepts used. Therefore, it needed multiple texts with various difficulties in order to challenge the students and kept activating students' motivation. After following all treatments (6 meetings), students tended to read the text repeatedly while locating the points into the Episodic Map. Suprisingly, at the post activity of reading, students could retell and summarize all major points required by Episodic Mapping strategy.

The use of episodic mapping strategy considered appropriate for students depended on some factors. The first factor was the readability level of text. When a text was difficult to be comprehended, it often disturbed the process of students' understanding. Students focused more to other aspects such as identifying meaning of words, activating the prior knowledge, and analyzing sentence structure. The second factor was mental model constructivity. Students needed to correlate the text structure and its contents (Wooley, 2010). Episodic mapping strategy promoted the concept of interrelationship between text structure and text content by extracting the text structure in the form of map. This strategy integrated material and knowledge structure both verbally and visually. Students tended to read more than once to understand the interlink between the content and its structure and located it into the Episodic map. The third factor was motivation. In Episodic Mapping strategy, it required high cognitive ability in which students were involved to make presumptions, mapping out, comparing and monitoring. High demands on students' reading comprehension influenced their motivation. When the treatments in which it used the same procedure were conducted repeatedly, students showed less attention and interest. The text was considered easy and unchallenging. Therefore, various texts with different challenges could be considered as an alternative to be used. The fourth factor was students' metacognitive. In reading, students had high demands to use multiple strategies and selected which strategies appropriated with the need of students to understand the text (Wooley, 2010). Students should have the ability to determine their priority and needs to the text. They had to realize their own task and goals to be accomplished after reading.

In this research, the Episodic Mapping strategy was used to investigate its effect on students' reading comprehension. Narrative text was

considered suitable with the concept of Episodic Mapping strategy. This strategy reinforces students' reading comprehension by extracting the text structure. In addition, the Episodic Mapping strategy built the framework for students to identify main ideas, text structure, vocabulary and references. However, this strategy could not work alone; it needed accelerated process with other reading strategies. Therefore, for the further researches, it recommends to integrate Episoding Mapping strategy with skimming, scanning, and context clues.

CONCLUSION

The research investigated the effect of Episodic Mapping strategy on senior high school students' reading comprehension. The results concluded students perform better after using the Episodic Mapping Strategy. This research strongly recommends the use of Episodic Mapping when teaching reading, particularly in narrative text. This strategy helps students organize, compartmentalize, and map the texts' information. However, in conducting several treatments, students need various narrative texts with multiple levels of difficulty. Otherwise, students will easily fall into demotivation. Therefore, for further research, it is suggested to advance the research about the roles and relationships between Episodic Mapping strategy, text difficulties, students' motivation, metacognitive, and self-regulatory in learning.

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