

PAPER • OPEN ACCESS

Improving the reading comprehension through cognitive reading strategies in language class of coastal area in indonesia

To cite this article: Abdul Gafur Marzuki *et al* 2018 *IOP Conf. Ser.: Earth Environ. Sci.* **156** 012050

View the [article online](#) for updates and enhancements.

Related content

- [Improving Students' Sense to Learn Language in Islamic Institution of Coastal Area Indonesia](#)
St Kuraedah, Nur Azaliah Mar and Fahmi Gunawan
- [Preliminary study of coastal circulation cells in the coastal area of Kendal, Indonesia](#)
M A Marfai, E Trihatmoko, Sunarto et al.
- [Analysis of Land Cover Change in a Coastal Area using Remotely Sensed Data](#)
I Jaunzeme, M Kainka, M Reiniks et al.



IOP | ebooks™

Bringing you innovative digital publishing with leading voices to create your essential collection of books in STEM research.

Start exploring the collection - download the first chapter of every title for free.

Improving the reading comprehension through cognitive reading strategies in language class of coastal area in indonesia

Abdul Gafur Marzuki¹, Nur Alim², Ismail Suardi Wekke³

¹English Education Department, Palu State Institute for Islamic Studies (IAIN) Palu, Diponegoro Street 94221, Palu city, Central Sulawesi, Indonesia

Email : gbudiperwira@gmail.com

³ Institut Agama Islam Negeri (IAIN) Kendari, Southeast Sulawesi. Indonesia

E-mail: nalim@iainkendari.ac.id

²Sekolah Tinggi Agama Islam Negeri (STAIN) Sorong, West Papua. Indonesia

E-mail: ismail@stain-sorong.ac.id

Abstract. The aim of the study is to solve reading comprehension problems of students in an EFL class through cognitive reading strategies. The study employed Classroom Action Research design in a reading class at Islamic Education Department at an Islamic university in Indonesia. The study consisted of two cycles. Each cycle consisted of planning, implementation, observation and reflection. The criteria of success were that $\geq 75\%$ of the students must gain reading comprehension score of ≥ 75 and the number of students who participated actively during the reading class must achieve $\geq 75\%$. The results of cycle 1 revealed that 56.7% or less than 75% of the students gained score and 63.3% or less than 75% of the students who participated actively; consequently the revised plan for cycle 2 was implemented. The results of cycle 2 revealed that 83.3% or more than 75% of the students gained score ≥ 75 and 86.7% or more than 75% of the students who participated actively during the reading class and therefore the cycle was stopped.

1. Introduction

Reading is an important skill in learning a language. The requirement of being knowledgeable in this global era can be fulfilled by reading. As stated by Wallace (1992), reading serves the wider role of extending our general knowledge of the world. This is also supported by Hood et al. (2005), the ability to read well in English will influence learning potential in all other areas. This can be fulfilled by the use of learning strategies which can also be applied in reading.

There are two kinds of learning strategies which can also be applied in reading, i.e. direct strategies and indirect strategies [17]. Direct strategies consist of memory strategies, cognitive strategies and compensation strategies. Meanwhile, indirect strategies are composed of metacognitive strategies, affective strategies and social strategies. Among these strategies, cognitive strategies and metacognitive strategies are the most popular strategies used in reading [20] [18] [6] [8].

Metacognitive strategies in reading already known material, paying attention, finding out about language learning, organizing, setting goals and objectives, identifying the purpose of a language task, planning for a language task, seeking practice opportunities, self-monitoring, and self-



evaluating. Meanwhile, cognitive strategies in reading identified are repeating, getting the idea quickly (skimming and scanning), using resources for receiving and sending messages, reasoning deductively, analyzing expressions, analyzing contrastively, translating, transferring, taking notes, summarizing and highlighting [17].

The cognitive strategies mentioned above are also in line with those identified by O'Malley & Chamot which include resourcing, repetition, grouping, deduction, imagery, keyword method, elaboration, transfer, inferencing, note-taking, and summarizing. The use of cognitive strategies in reading can help someone to be a proficient reader [16]. This is supported by the theories of cognitive reading strategies and the results of the study conducted [6] [8][18][10].

Since the number of research on cognitive reading strategies is still limited in Indonesia and a study on cognitive reading strategies to solve the students' problems in reading comprehension is not yet investigated in the previous studies, this study attempts to fill the gap. The previous studies become parts of theoretical foundations the researcher uses in this study which is focused on employing cognitive reading strategies to improve the reading comprehension in an EFL class in Indonesia.

The reading comprehension ability of the students at the Islamic Education Department of the Faculty of Tarbiyah and Teacher Science at Palu State Institute for Islamic Studies needs to be improved. It is observed that the achievement of the students in the reading classes has not been satisfying. Many of them still find difficulty to identify the topic and the main idea of the passage, to find the meaning of the unknown words, to identify the tone of the passage and the author's purpose, and to understand what implies in the text or inferring from the text. It is also noted that the students are not active in the process of teaching and learning in the classroom.

2. Method

This research employed classroom action research (CAR). The steps of the CAR; planning, implementation, observation and reflection were implemented. The research was conducted in two cycles where each cycles consisted of four meetings. The setting of the research was at the Islamic Education Department Faculty of Tarbiyah and Teacher Science, Palu State Institute for Islamic Studies in Indonesia. The subjects were 30 students who enrolled in the English 1 class 2016/2017 academic year. The data were collected by scoring individual reading comprehension and students' active participation in each cycle. Field notes and observation were also conducted. The field notes were based on the classroom situation and interaction and the observation was based on the way individual students speak and respond during the class. The criteria of success were used in this study, namely: $\geq 75\%$ of the students must gain reading comprehension score of ≥ 75 and the number of students who participated actively during the reading class must achieve $\geq 75\%$.

3. Results

3.1 Cycle 1

Cycle 1 consisted of four meetings. In the planning phase, the lesson plan was prepared based on the syllabus and the previously identified problems. The identified problems are; difficulty to identify the topic and the main idea of the passage, difficulty to find the meaning of the unknown words, difficulty to identify the tone of the passage and the author's purpose, and difficulty to understand what implies in the text or inferring from the text. The instructional objectives were used as the basic of the selection of the possible instructional material which related on the Islamic topic. The students were arranged in pairs. Each pair was assigned to discuss their problems in understanding the content of the text during their English study period. The researcher prepared a reading text which related to Islamic topic then distributed to each pair, there was one text for each student to be discussed.

It was decided that the scoring system was based on the individual score gained by the students in answering the questions based on the reading text correctly. In the implementation phase, the three phase technique, pre-reading, while-reading, and post-reading was implemented. During the pre-reading, the purpose of the study and the instructional objectives were introduced. The students were

divided in pairs so there were fifteen pairs. The placement of the students in pairs was done based on their tablemate. Then each pair was requested to read and discuss their reading text. In this phase, the students used dictionary to find the meaning of important and unknown words such as the title and the first line of the text. In the while-reading phase, the students were demanded to employ skimming-scanning, guessing the meaning of a word from the context, considering other sentences to figure out the meaning of a sentence, and repetition strategy. Skimming involves searching for the main ideas the speaker wants to get across, while scanning means searching for specific details of interest to the learner, and repetition is the strategy of reading a passage more than once to understand it more completely. Then the students were asked to answer the questions based on the text. Next the students' pairs were requested to present their answer from the questions based on the text in front of the class. There were four pairs in meeting 1-3 and three pairs in meeting 4 because there were fifteen pairs from the total number. After pairs' presentation, the others pairs were given opportunity to comment, argue, or even ask questions to the presenter. This interaction was observed by the researcher, individual active participation was check-listed in the column that has been previously prepared and notes were jotted down based on the classroom situation during the four meetings implementation phase. In the post-reading phase, the students were asked to employ summarizing strategy. Summarizing is making a written summary of new information gained through reading. It enables the students to grasp the original text better. The class was ended up by highlighting how to employ cognitive reading strategies. The achievement of the set criteria in cycle 1 is graphed in figure 1.

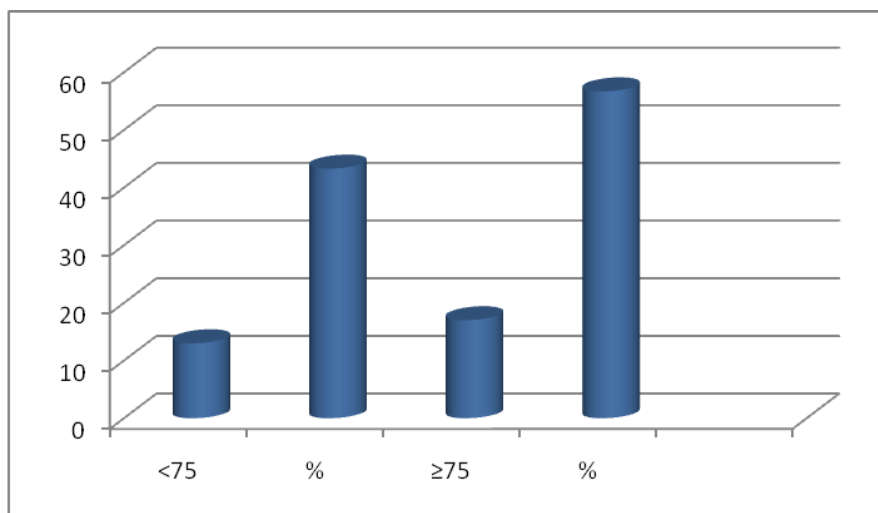


Figure 1. The results of cycle 1

The figure indicates that there are still quite a few students who have not passed the set criteria. The results are also presented in the percentage table as can be described in Table 1.

	<75	%	≥75	%
Cycle 1	13	43.3	17	56.7

Table 1. Results of cycle 1

The data indicate that there are still 13 or 43.3% of the subjects who have not passed the set criteria.

Since the criteria of success were planned based on the individual gained score and active participation, the results of the observation on the students' active participation are graphed in figure 2.

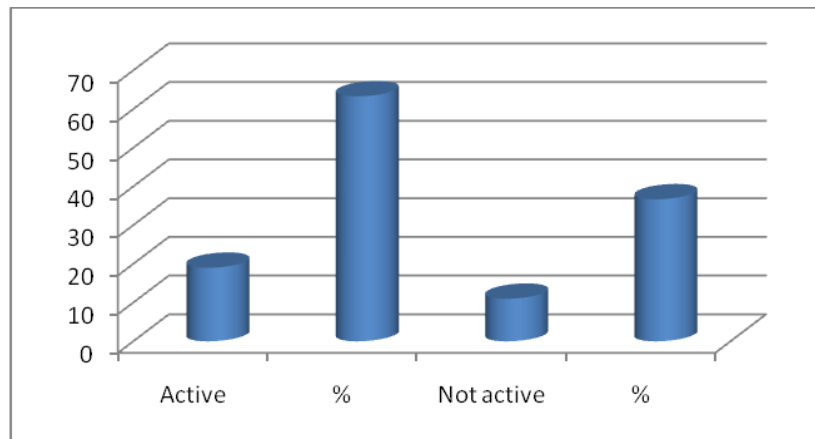


Figure 2. The results of the observation in cycle 1

The figure indicates that there are many students who are not active during the discussion and meetings in cycle 1. The number and the percentage of the students who are not active are presented in table 2.

	Active	%	Not Active	%
Cycle 1	19	63.3	11	36.7

Table 2. The results of the observation

In the reflection phase, it is concluded that the criteria of success has not been achieved and that the revised plan must be prepared. Consequently the research has to continue to cycle 2. The results of the reflection indicate that there must be improvement in the process of the teaching and learning procedures.

3.2 Cycle 2

Cycle 2 consisted of four meetings. The pairs in cycle 2 were the same students as the pairs in cycle 1. In the planning phase, the revised plan, the way of topic given for each pair was revised. Each pair freely chose and decided one topic of reading text based on their interest. The reading texts were provided by the researcher from many sources. There were five reading texts provided by the researcher in this cycle. Before starting the teaching and learning process, every member of the pair was assigned to read the chosen topic individually and then read and discuss the reading text in pair. The implementation phase in cycle 2 was the same as the one in cycle 1; pre-while-post reading. However, the employment of cognitive reading strategies in pre and while-reading were revised. In the pre-reading phase, the students were guided and requested to employ inferencing strategy. It is represented by the strategy of using the title to predict the content of the text and paying attention to words or phrases that show how text is organized. In while-reading phase, the students were demanded to employ inferencing, elaboration, and note-taking strategy. Inferencing strategy was used in this phase was guessing the meaning of a word from the context and skipping the unknown words. And elaboration strategy used in this phase was thinking about previous knowledge on the

topic of the text or associating to the students' background knowledge, while note-taking is writing down key words and concepts in abbreviated verbal, graphic, or numerical form while reading. It makes students active participants in their learning, helps them organize important concepts, remember information, and becomes one of their study aids. In post-reading phase, the students were guided and demanded to summarize the main ideas of the paragraphs and the researcher focusing ended up the class by highlighting how to employ inferencing, elaboration, and note-taking strategy which are parts of cognitive reading strategies. The results of cycle 2 are graphed in figure 3.

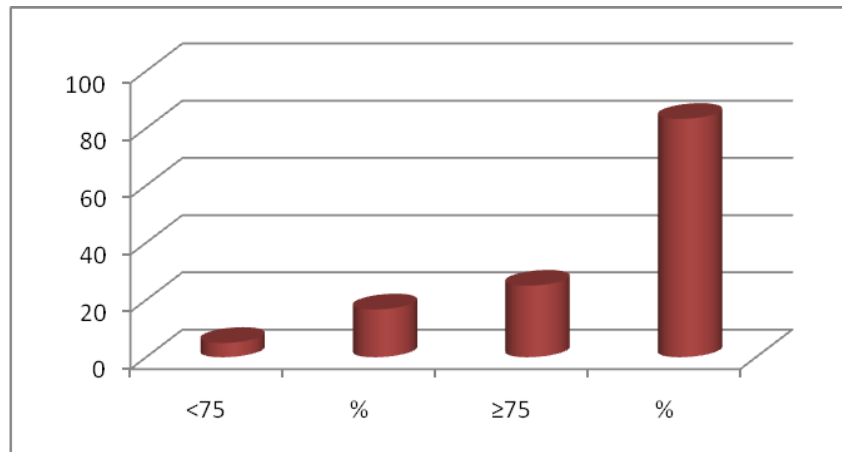


Figure 3. The results of cycle 2

The data in figure 3 indicate that only few students who get lower than the set criteria and the ones who achieved the set criteria increased. The number and the percentage of the students who have achieved the set criterion are presented in table 3.

	<75	%	≥75	%
Cycle 2	5	16.7	25	83.3

Table 3. Results of cycle 2

The data in table 3 indicate that 25 out of 30 or 83.3% have achieved the criteria of success and only 5 out of 30 or 16.7% who have not passed the set criteria. The active participation of the students in cycle two was also observed. The data of the active participation are graphed in figure 4.

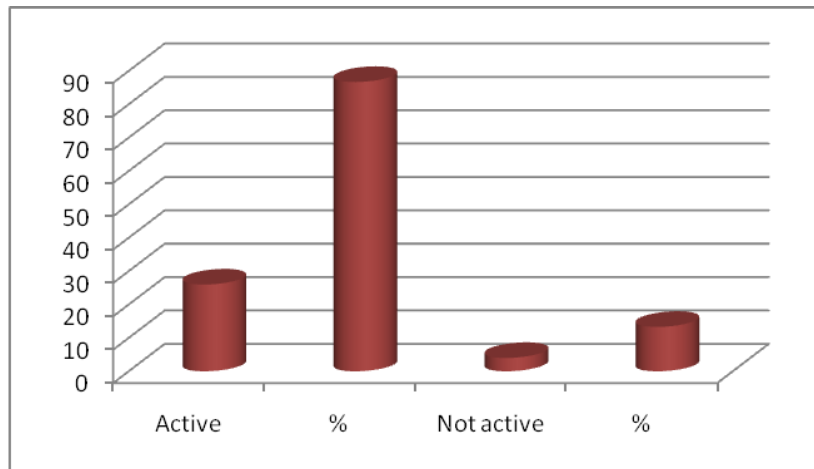


Figure 4. Participation of the students in cycle 2

The data in figure 4 indicate that not all of the students are active. There are still 4 students are not active. It can be seen also in Table 4 that 26 or 86.7% of the students are active and 4 or 13.3% of the students are not active.

	Active	%	Not Active	%
Cycle 2	26	86.7	4	13.3

Table 4. Active participation

The data in table 4 indicate that not all of the students participate actively during the classroom meetings in cycle 2 however; the students' active participation has reached 86.7% or more than ≥ 75 . Since the criteria of success have been achieved, cycle was stopped. In the reflection of cycle 2, it is noted that the students' achievement increase from cycle 1 to cycle 2. The improvement is graphed in figure 5.

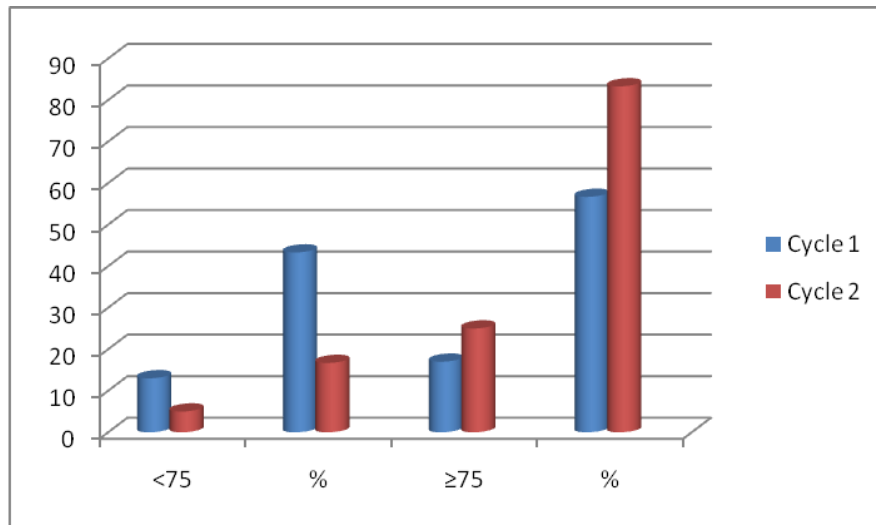


Figure 5. The comparison of the achievement of cycle 1 and 2

The data in figure 5 indicate that the students who passed the criteria increase significantly from cycle 1 to cycle 2. The same case applies to the improvement in the student's active participation during the class meeting. The improvement in the student's active participation between cycle 1 and cycle 2 is graphed in figure 6.

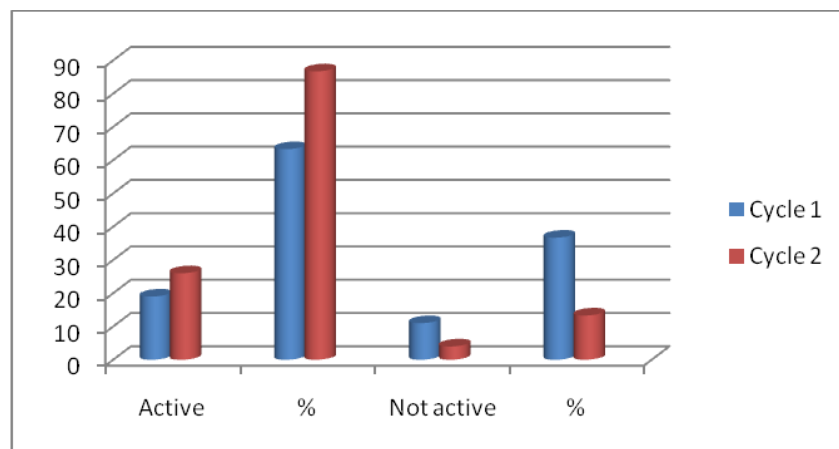


Figure 6. The comparison of the active participation in cycle 1 and cycle 2

The data in figure 6 indicate that most of the students who are not active in cycle 1 become active in the classroom meeting cycle 2. The improvement of the students' reading comprehension and the active participation during the classroom meeting is believed to be affected by the implementation of the revised plan.

4. Discussion

The research question has been answered during the implementation of cycle 1 and cycle 2. The reading comprehension of the students gets improved through the employment of cognitive reading strategy in the reading class in two cycles. There are at least two potential factors that have been implemented during the cycles to overcome those problems, the first is the way to choose instructional materials (reading text) for each pair and the second is the instructional procedures which employed cognitive reading strategies.

4.1 The reading text selection

Referring back to the previous identified problems in the reading class difficulty to identify the topic and the main idea of the passage, difficulty to find the meaning of the unknown words, difficulty to identify the tone of the passage and the author's purpose, and difficulty to understand what implies in the text or inferring from the text, It is noted that the way of selecting the topic of the reading text in cycle 1 holds important role. The change of the way of selecting topic of the reading text in cycle 1 and in cycle 2 provides the students with opportunities to choose topic of the reading text in which they are interested in. The opportunity to freely choose topics of the reading text given opens up wide possibility for the students to choose topic of the reading text which is contextual with their prior knowledge and based on their interest. This technique seems potential to create efficient and joyful learning to increase the students active participation in reading class and to improve their reading comprehension ability in the following ways; Firstly, the topic of the reading text that the students is interested in motivates them to read and discuss with others; Secondly, the students should have got previous knowledge and experiences related to the topics and consequently there have been at least stock of vocabularies related to the topics of the reading text; Third, when the topic is contextual and related to their prior knowledge, the students get opportunities to hear or even to listen to the topics in their daily encounter and hence help them broaden their understanding of the topics.

4.2 The instructional procedures

The second potential factor that has contributed to the way to solve the problems in reading comprehension and the improvement of the reading comprehension ability is the instructional procedures. The instructional procedures help solve the reading problems of the students in the following ways; firstly, the pre-reading phase, the students were guided and requested to use the title to predict the content of the text and paying attention to words or phrases that show how text is organized. This strategy helped the students to comprehend the content of the text in general case and in a very limited time. Secondly, in while-reading phase, the students were demanded to guess the meaning of a word from the context, skipping the unknown words, associating the text to the students' background knowledge, and writing down key words and concepts in abbreviated verbal, graphic, or numerical form while reading. It makes students active participants in their learning, helps them organize important concepts, remember information, and becomes one of their study aids. Third, in post-reading phase, the students were guided and demanded to summarize the main ideas of the paragraphs and researcher focusing ended up the class by highlighting to guide the students in employing cognitive reading strategies more effectively. Finally, the scoring system which was based on the reading test during the classroom could train the students in employing cognitive reading strategies more effective and efficiently. In short, the implemented teaching and learning procedures in this CAR (Classroom Action Research) proposes three main phase, pre-reading, while-reading, and post-reading. The steps can be briefly proposed as follows: 1) pre-reading: freely choose a topic of reading text for a pair, use the title to predict the content of the text and paying attention to words or phrases that show how text is organized; 2) while-reading: guess the meaning of a word from the context, skip the unknown words, associating the text to the students' background knowledge, and write down key words and concepts in abbreviated verbal, graphic, or numerical form while reading; 3) post-reading: summarizing the main idea of the text.

5. Conclusion

The implementation of cognitive reading strategies improves the reading comprehension ability of the students. The improvement in the reading comprehension is seen in the individual student in answering the questions based on the text correctly, the ability to use the title to predict the content of the text, to guess the meaning of a word from context, and to consider other sentences in the paragraph to figure out the meaning. There are two ways on how the improvement is achieved using the cognitive reading strategies; the first is the reading text selection provides the students with opportunities to choose topic of the reading text in which they are interested in. The opportunity to freely choose topics of the reading text given opens up wide possibility for the students to choose topic

of the reading text which is contextual with their prior knowledge and based on their interest. This technique seems potential to create efficient and joyful learning to increase the students active participation in reading class and to improve their reading comprehension ability; the second is the instructional procedures of cognitive reading strategies which cover various strategies such as resourcing, repetition, deduction, skimming-scanning, elaboration, inferencing, note-taking, and summarizing help the students to understand the text and motivates students to actively participate in the classroom teaching and learning process. These procedures allow the students to actively participate in the classroom teaching and learning process such as asking questions and discussing in pairs. The implementation of the cognitive reading strategies in the instructional process allow the students to read the text individually and then in pairs prior to classroom teaching and learning. The findings imply that cognitive reading strategies potentially improve the reading comprehension of the students in the EFL class teaching at the university level.

6. References

- [1] Adler, C.R. (2004). *Seven strategies to teach students text comprehension*. Retrieved September 6, 2016, from <http://www.readingrockets.org/article/3479>.
- [2] Aebersold, J.A. & Field, L.M. (1997). *From reader to reading teacher: Issues and strategies for second language classrooms*. New York: Cambridge University Press.
- [3] Bell & Woodard. (1998). *Reading: strategies for parents*. Cullowhee: The reading center. Retrieved September 6, 2016, from <http://www.paec.org/david/reading/parents.pdf>.
- [4] Chorney, (2005). *Interactive reading, early modern texts and hypertext: A lesson from the past*. Retrieved September 4, 2016, from <http://www.academiccommons.org/commons/essay/early-modern-texts-and-hypertext>
- [5] Frase, L. (2008). *Reading strategies good readers use*. Retrieved September 4, 2016, from <http://ezinearticles.com/?Reading-Strategies-Good-Readers-Use&id=1824654>.
- [6] Ghonsooly, B. & Eghtesadee, A. (2006). *Role of cognitive style of field-dependence/independence in using metacognitive and cognitive reading strategies by a group of skilled and novice iranian students of english literature*. Retrieved September 4, 2016, from http://www.asian-efl-journal.com/Dec_06_bg&are.php.
- [7] Goodwin, W. L. & Goodwin, L. D. (1996). *Understanding quantitative and qualitative research in early childhood education*. New York: Teachers College Press.
- [8] Hamdan, A. R., Ghafar, M. N., Sihes, A. J. & Atan, S. B. (2010). The cognitive and metacognitive reading strategies of foundation course students in teacher education institute in malaysia, *European Journal of Social Sciences*, 13 (1).
- [9] Hernandez, J.M., Rodriguez, M., & Bulnes, M.A. (2009). *Reading comprehension strategies: A case study in a bilingual high school*. *Revista Electronica Matices en Lenguas Extranjeras*. Retrieved 24 August, 2016, from www.revistamatices.unal.edu.co.
- [10] Hood. (2005). *Focus on reading*. Sydney: NCELTR.
- [11] Keshavarz, M.H., and Mobarra, M.K. (2003). *The effects of simplification and elaboration on reading comprehension of iranian EFL students*. *JAL*, 6(1), 171-184.
- [12] McMillan, J.H. and Schumacher, S. (2001). *Research in education: A conceptual introduction* (5th Ed.). New York: Addison Wesley Longman.
- [13] McNamara, D. S. (2007). *Reading comprehension strategies*. New Jersey: Lawrence Erlbaum Associates.
- [14] Ming Xu, L. (2007). *A comparative study of reading strategies among college students*. Retrieved August 23, 2016, from <http://www.celea.org.cn/pastversion/pdf/liumingxu.pdf>.
- [15] National Capital Language Resource Center (NCLRC). *The essentials of language teaching*. Retrieved August 23, 2016, from <http://nclrc.org/essentials>.
- [16] O'Malley, J. and Chamot, A. (1990). *Learning strategies in second language acquisition*. New York: Cambridge University Press.

- [17] Oxford, R.L. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House Publishers.
- [18] Ozek, Y & Civelek, M. (2006). *A study on the use of cognitive reading strategies by ELT Students*. Retrieved September 2, 2016, from <http://www.asian-efl-journal.com>.http://www.asian-efl-journal.com/PTA_August_06_ozec%26civelek.pdf
- [19] Pressley, M. (2000). *A focus on reading comprehension strategy*. Retrieved September 12, 2016, from <http://www.readingonline.org/articles/handbook/pressley/index.html>.
- [20] Richard, J.C. (1997). *From reader to reading teacher: issues and strategies for SL classroom*. New York: Cambridge Language Education.
- [21] Spielvogel, J. (2005'). *Journey across time-the early ages*. New York: McGraw Companies.
- [22] Wallace, C. (1992). *Reading*. Oxford: Oxford University Press.