

METACOGNITIVE STRATEGIES OF UNDERGRADUATE AND POSTGRADUATE STUDENTS IN READING

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Abstract

Metacognitive strategies are widely used by students in learning activities, often without them realizing it. In this article, the researchers aimed to observe postgraduate and undergraduate students' metacognitive strategies in reading. Reading is a memory construction, it is essential for successes in the future. Students who are self-determined and motivated are successful readers. Metacognitive strategies of student teachers in reading maturity inspire students to integrate ideas with experiences into the transformation of actions. As reading maturity shapes character, it is identified to those who are independently and eagerly participates in the activity. It focuses on critical thinking and reflection. This assessment of metacognitive strategies in reading may offer an idea to be a good readers and teachers in the future. Using mixed method approach, particularly questionnaires and interviews, the data were collected using procedural statistic SPSS independent t-test in order to have the description of how the two groups applied metacognitive strategies in reading. The findings showed that both postgraduate and undergraduate students utilized metacognition strategies. However, postgraduate students demonstrated more metacognitive strategies and maturity in reading.

Keywords: metacognitive strategies, undergraduate, postgraduate, reading

Introduction

Learning is an act of acquiring knowledge and skills by practicing, training, experiencing, observing, and reflecting. In this study, the researchers intended to observe the learning process of teacher education university students as adult learners, particularly in reading. As stated by Merriam (2001, p. 96), adult learners are considered to own their intelligence, memories, conscious and subconscious domains, feelings, dreams, and a physical shape in their learning process, as it is a life meaning-making process which transforms what to study and how the learning process is going. By this account, it is safe to say that metacognitive learning strategies play an important role in adult learning, especially since they have had experiences in learning, either it is emotionally, physically, spiritually, or intellectually.

Metacognition refers to how students become aware and have control for their learning process (Schraw and Moshman, 1995, p. 358). Metacognition is related

to one's knowledge which is the process of cognitive and the products of that process (Flavell, 1976, p. 232). More specifically, it is one of the cognition types and a process higher order thinking that include active regulation over the cognitive processes (Wenden, 1998, cited in Rahimi & Katal, 2012, p.74). As Schraw and Moshman (1995, pp. 352-355) contend that metacognition comprises two aspects, namely cognition knowledge and cognition regulation. Cognition knowledge is related to what one knows about one's cognition. Generally, cognition itself is classified into three forms of knowledge: declarative, procedural, and conditional. In the other hand, cognition regulation refers to controlling process of one's thinking; planning, monitoring and evaluating.

A study conducted by Diaz (2014, p. 91) describes five cycle phases of Chamot and O'Malley's, (1994) instructional model. Cognitive academic language learning approach (CALLA) comprises "an introductory phase, teaching phase, practicing phase, evaluating phase, and phase for the application. These phases are very useful to implement metacognitive strategies in learning. In this matter, these learning strategies give opportunities for students to do a reflection so that they become conscious of their strengths and weaknesses, hence, they can take part actively in their learning. By implementing this learning strategy training, students have great chances to improve their habits to advance their strategies in learning and to become more and more aware of the processes happen in their learning (Diaz, 2014, p. 91).

This study, how metacognitive strategies were applied by students of English Education Study Program of Sanata Dharma University in the context of reading comprehension was observed. This study particularly focused on how different or similar the metacognitive strategies in reading that were used by two different groups of students in the context: undergraduate and postgraduate. This study expected to discover how these two groups of students apply experience the effectiveness, significance, and value of metacognitive strategies in their reading activities. It is vital to note that both groups of students experienced similar reading activities in order to know, understand, and grasp the materials they learn. Two research questions were formulated to direct this research:

1. What metacognitive strategies are implemented by the undergraduate and postgraduate students in reading?
2. Is there a difference between undergraduate and postgraduate students' metacognitive strategies in reading?

Literature Review

Students Metacognition

As stated by Tavakoli (2014), "among language learning strategies, metacognitive strategies are regarded as high order executive skills that make use of knowledge of cognitive processes and constitute an attempt to regulate ones' own learning by means of planning, monitoring and evaluating" (p. 316). In the same light, Tobias & Everson (2002, pp. 21-22) also claim that the capacity to detect what the lesson they have learned and what they have not learned is the main aspect to be successful in all educational aspects. The good monitoring of one's knowledge is the only aspect of metacognition that might be significant for success in learning the lessons. Promoting metacognition development can be established by sharing

thoughts between friends. In this matter, the thoughts arise can be an object for thinking (Conrady, 2015, p. 134).

Metacognition, in a simple way, is thinking about thinking. The capacity of knowing own thoughts will inspire people to be more open for their greater efficacy, flexibility, and transferability to adjust to their learning demands, in which they lead to a better learning process (Pintrich, 2002; Sarver, 2006, cited in Conrady, 2015, p. 134). A study by Conrady (2015, p. 134) shows that students must have the capacity to evaluate their own learning activities in order to acquire the advantage of metacognitive monitoring. As acknowledged by Tobias & Everson (1996; 2002, p. 1), learning would be effective for those who have metacognitive skills. Its main point is to help students to improve their capacity to monitor their comprehension because it will assist the students to be creative in solving their problems in the learning process.

Using a theory by Schraw and Moshman (1995), the researchers focussed on the metacognitive process of the participants. As has been stated, metacognition is related to learners' ability to be conscious of and monitor their own process of learning (Schraw, 1998, p 114). One of the components in metacognition, cognition knowledge, is related to what a person can understand about the process of how one obtains certain knowledge - which falls into three types: declarative, procedural, and conditional awareness. Declarative awareness is related to knowing about one's capacity, limitation, and how to integrate them in the learning process. Procedural awareness is related to the time one enters the learning process. Conditional awareness is about the way one knows when and why cognitive action is used. Regulation of cognition includes essential skills during the process of controlling one's thinking or learning, such as planning, which refers to selecting appropriate strategies and allocation before doing the tasks, monitoring, which refers to self-knowledge on how one knows and performs knowledge and capacities in learning the materials, and evaluating, which refers to the products and process of learning regulation. Based on the result of the learning process, a person will see the process and the improvement that is achieved. He or she also will know the parts that need to be improved.

Many researchers also support the theory by Schraw (1998) with the method by Chamot and O'Malley (1994, cited in Diaz, 2014, p. 91). The method consists of phases which are classified into five layers. They are: introductory phase - the introduction about the meaning and goals of metacognitive learning strategies, teaching phase - the presentation of the ideal of the strategies, practicing phase - giving chance for students to apply them in their assignments given, evaluating phase - giving students opportunities to evaluate and reflect about their learning strategies in order to know the things that need improvement or development, and expansion phase - inspiring the students to apply what they have learned in their own lives.

Reading Comprehension

Having a reading comprehension planning skill is very helpful for one to be successful in reading. According to Upton and Thompson (2001), reading is not monolingual occurrence; for L2 readers to enter into the process of reading L2 text, they have to access their first language as a strategy to help them comprehend the

meaning). Many researchers on the area of Second Language Acquisition (SLA) seems to agree that the most essential skill in English language learning is reading (Koch, 1974; Alderson, 1984; Carrell & Carrell, 1988; (Rajab, 2015, p. 4). Reading skill is considered as an important skill for survival in this modern era as well as the main skill for academic life (Pugh, Pawan, & Antommarchi, 2000; Rajab, 2015, p. 4).

Reading comprehension is a memory construction, in this matter, it identifies comprehension as the consistency which the reader build an idea based on the ones' intention, the connection between the reader's reinterpretation and the interpretation aimed by the author. A reader interpretation detects the implicit and explicit correlation of author intentions. The criteria that the readers have effectively understood the text is whatever the facts in the reading can be related to the interpretations they have made to that goal in their process of reading. (Lorch Jr. & Broek, 1997, p.224). Reading comprehension is about the coherent between process and product in reading. In the process of reading the reader enlarge and develop the meaning into the representation, which can be used to actualize other goals. Therefore, the implication of reading has an essential part in the reading process too. What a reader does in the process of reading has effects on the implication of how the reader has after reading. (Lorch Jr.& Broek, 1997, p.232). In the process of learning, the object of reading is to understand well the reading, if the readers do not actively involved in the process of reading in order to help their comprehension then the goals of learning will be unproductive. Reading is essential for successes in the future. Students who are self-determined and motivated are successful readers. (Sanford, 2015, p. 182).

Armbruster, Echolsand, and Brown (1983, pp. 3-20) conclude that metacognitive in reading is extended to include the knowledge of four variables such as the text, task, strategies, and learner characteristics. Text, as a variable, implies that a reader has to be conscious about its difficulty, importance, structure, and contextual limitations, which are the important parts of a text. In the task a reader has to know that the main reading purpose is to understand the meaning of the content, not to interpret the words. In strategies, a reader has to find strategies in order to really comprehend the reading itself. In addition, learner characteristics imply that a reader has to know what the differences between good and poor readers are and what to do about it. Having a reading comprehension planning skill is very helpful for one to be successful. In addition, it is also important that one should have a higher-level executive skill in planning and working memory (Baddeley, 2003; Vellutino, Scanlon, & Lyon, 2000, cited in Kendeou¹, Papadopoulos, & Spanoudis, 2016, p. 122).

Metacognition in reading

Reading becomes one of the English basic skills that is most emphasized in the context of traditional foreign language teaching and learning; even, nowadays reading is still considered as the most important English skill for instruction many foreign countries (Susser & Robb, 1990, cited in Tavakoli, 2014, p 316). Most EFL students have limited opportunities to communicate with native English speakers. However, they have a number of facilities to access many literatures and scientific written materials in English to help them in their studies and work (Rivers, 1981, as cited in Tavakoli, 2014, p. 317). The learners do not necessarily need to speak English daily in order to learn; instead, they can just read to find a great deal of information in English (Eskey 2005, cited in Tavakoli, 2014, p. 317). Alderson (1983, as cited in Tavakoli, 2014) concluded that “a reading ability is often all, that is needed by learners of English as a foreign language (EFL)” (p.317).

In the process of reading, metacognition - the process of thinking about thinking – strategies are applied. Therefore, one should have a higher-level executive skill in planning and working memory. In this process, there is planning, monitoring, and evaluating. Graves, Juel, & Graves (2001 as cited in Mbato, 2013, p. 31) argue that good readers are metacognitive; the readers are able to monitor their understanding about reading text, and they can focus on what they want to gain; they can also distinguish if they do not understand the context of the reading so that they can find the solutions to understand the reading text better. O’Malley and Chamot (as cited in Mbato, 2013) state that “stress the importance of students’ use of a wide range of reading strategies that match their purpose for reading and teach them how to do the right ways should be a prime consideration in the reading classroom.” (p. 32).

Anderson (2004, p.17) contend that there are five components of metacognitive in reading, namely “(a) preparing and planning for effective reading; (b) deciding when to use particular reading strategies; (c) knowing how to monitor reading strategy use; (d) learning how to orchestrate various reading strategies; and (e) evaluating reading-strategy use” (p. 17). In the postgraduate learning, most of the materials should be comprehended so that they can do other related activities such as writing journal articles, doing classroom presentations, and making reflections. They unconsciously have to make an extra effort in order to reach a good comprehension of the reading materials in order to finish the assigned tasks. As explained by Palincsar and Brown (1984, p.124), there are four key strategies in reading which are generally applied in metacognitive strategies, namely; summarizing, questioning, clarifying, and predicting.

Metacognition (Flavell 1979; Kuhn 2000, p. 178; Veenman 1993: 1997; O’Neil & Abedi 1996; as cited in Cubukcu, 2008, p. 84) is comprised of two aspects: self-awareness of understanding how, when, and where to use a certain appropriate

strategy and how to utilize that strategy in the process of learning the material. “Reading comprehension is one of the most essential study skills in higher education. Academic, and even technical courses demand substantial readings, so there is a need for students to be able to comprehend what they read in order to succeed in their academic life and beyond” (Meniado, 2016, p. 117). In reading activity, metacognitive strategy is utilized in the process of “procedural, purposeful, effortful, wilful, essential, and facilitative in nature” (Alexander & Jetton, 2000, p.295). Reiss (1983) agree that the more students read, the more they will be accustomed to the native speakers’ “vocabularies, idioms, sentence patterns, organization flow, and cultural assumptions” (as cited in Tavacoli, 2014, pp. 316-317). In English language learning, particularly focuses in terms of literacy, reading is the most of the works which have related metacognition. (Mbato, 2013, p. 28). In reading, reflection and awareness have been connected to metacognition. (p. 29).

Method

In order to elucidate the metacognitive strategies used by the undergraduate and postgraduate students in reading, the researchers employed mixed-method. As contended by Creswell (2003), the mixed-method study combines both quantitative and qualitative approach. The researchers used questionnaires with Likert-type statements in the first part of this study to measure the three metacognitive strategies: planning, monitoring, and evaluating in reading. In addition, for measuring the difference between the two samples, independent sample t-test is applied. Therefore, two hypotheses are presented:

Ho: There is no difference between undergraduate and postgraduate students’ metacognitive strategies in reading.

Ha: There is a difference between undergraduate and postgraduate students’ metacognitive strategies in reading.

If the result shows $\text{Sig} > 0,05$, Ho is accepted whereas if $\text{Sig} < 0,05$, Ho is rejected. To support the quantitative data, the researcher analyze the qualitative data which was collected by interviewing the participants.

Participants

As the participants of this research, 33 undergraduate and 40 postgraduate students of the English Education Program of Sanata Dharma University were selected. The participants filled out the questionnaire related to the metacognitive strategies that they used. This study also used the interview with six participants, three from the undergraduate program and three from the postgraduate program. The participation was voluntary and the confidentiality of the participants was guaranteed.

Instruments

The researchers used a set of questionnaire and interview as the instruments of this study. As stated by Cubukcu (2009, p. 160), a questionnaire is frequently used as a tool to measure metacognition. In this study, the questionnaire itself was to measure how metacognitive strategies were applied in reading. The questionnaire was set to cover all of the aspects of metacognitive strategies: planning, monitoring, and evaluating. The questionnaire was adapted from Mbato (2013, p. 150) and Chamot, Barnhardt, El-Dinary, and Robbins (1999) comprising 18 items of Likert-type statements that accommodate three essential skills of regulation of cognition. The first part consists of six items to measure students' planning in reading. The second part contains six items, which collect the data related to the students' monitoring in reading whereas the final six items aim to measure the students' evaluation in their reading.

To have a good and deep understanding of the topic, the researchers conducted an interview, which allows the students to share their answers more (Akturk & Sahin, 2011, p.4). The interview protocols were adapted from Balcikanli (2011, p.15) and they were simplified into six simple questions utilized to understand how metacognitive strategies were applied by the undergraduate and postgraduate students in relation to the theory proposed by Schraw and Moshman (1995) elaborated in the previous section.

Findings and Discussion

According to the result based on the independent t-test, specifically Levene's test for equality of variances, it is shown that $\text{sig}=.0.000$, is less than 0.05, so, the H_0 that 'there is no difference between undergraduate and postgraduate students in applying metacognitive strategies in reading' is rejected. The conclusion is there is a difference between undergraduate and postgraduate students. The description is listed in table 1. The differences between these two groups can be seen in the average (mean) of the two groups in table 2.

Table 1. Independent Samples T-Test for PBI and MPBI Groups

Independent Samples Test										
Levene's Test for Equality of Variances							T-test for Equality of Means			
Std. Error Difference							95% Confidence Interval of the Difference			
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	E	Lower	Upper
Metacognitive strategies	Equal variances assumed	1.626	.206	-4.149	71	.000	-.46528	.11215	-.68889	-.24167
	Equal variances not assumed			-4.060	60	.000	-.46528	.11460	-.69447	-.23609

The results of this study showed that both postgraduate and undergraduate students applied metacognitive strategies in reading. They demonstrated high scores in all metacognitive strategies, including in the three strategies of regulation of cognition. Quantitative analysis of this study, however, proved that there were some differences between undergraduate and postgraduate students' metacognitive strategies in reading. The postgraduate students displayed more metacognitive strategies compared to undergraduate students.

Table 2. Mean of undergraduate and postgraduate students' metacognitive strategies

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Undergraduate metacognitive strategies	33	2.40	4.70	3.7000	.53327
Postgraduate metacognitive strategies	40	3.11	4.94	4.1653	.42506
Valid N (listwise)	33				

The result of the data analysis shows that postgraduate students, compared to undergraduate students, have a different level of metacognitive strategies. In table 2. it is listed that mean of undergraduate students is **3.7000 < 4.1653 of postgraduate's** metacognitive strategies, **so the mean of postgraduate students is more than undergraduate students.** However, it is still safe to say that both groups demonstrated high metacognitive scores. In the following table 3, 4, 5, it can be closely seen that the postgraduate students have a higher average degree of metacognitive strategies in reading compared to the undergraduate students which

this study focuses on the three metacognitive strategies: planning, monitoring and evaluating.

Table 3. Mean of undergraduate and postgraduate students' planning strategies in reading

Statement No		Mean	
		PBI	MPBI
1.	I decide in advance what my reading purpose is, and I read with that goal in mind.	3.7576	4.2000
2.	I decide in advance specific aspects of information to look for, and I focus on that information when I read.	3.9697	4.2500
3.	Before I read, I think of what I already know about the topic.	3.7273	4.0750
4.	I try to predict what the text will be about	3.8182	4.2250
5.	While reading, I periodically check if the material is making sense to me.	3.7576	4.1750
6.	6. I imagine things, or draw pictures of what I am reading.	3.4242	4.1250

The results of the average of postgraduate students and undergraduate students in planning strategies were quite high. In here, both groups demonstrated metacognitive and it can be seen that postgraduate students showed a slightly higher mean than the undergraduate students in planning. The lowest average of undergraduate students is found in helping oneself to remember what one has read by imagining things, drawing graphics, making tables, etc. It is described as the lowest average of monitoring strategy but the average is in the high level of applying metacognitive strategies. For the post graduate students, the mean between these six statements are in the high level. Thus, it can be concluded that postgraduate students were considered mature enough to manage themselves in terms of having a good planning before doing the reading. They knew the purpose of reading and how to find strategies and information from different sources. They could also focus, evaluate, predict, monitor while they were reading and they could summarize the topic of the reading. Furthermore, they could find strategies in order to have information about the topic of the readings.

Table 4
Mean of undergraduate and postgraduate students' monitoring strategies in reading

Statement No		Mean	
		Undergraduate	Postgraduate
1.	I encourage myself as I read by saying positive statements such as "You can do it."	3.4545	4.0750
2.	I work with classmates when reading English texts or solve problems.	3.4848	3.6500
3.	When I encounter a difficult or unfamiliar word I try to work out its meaning from the context surrounding it (such as other words or pictures)	4.0909	4.4500
4.	I identify what I don't understand in the reading, and I ask a precise question to solve the problem.	3.7273	4.1250
5.	I use reference materials (such as a dictionary, textbook, or website) to help solve a comprehension problem.	4.2121	4.6000

Statement No		Mean	
		Undergraduate	Posgraduate
6.	After reading, I check to see if my prediction is correct.	3.6364	4.2000

In the monitoring phase, the undergraduate students demonstrated lowest mean in the affirmation of self in order to help in motivating and encouraging oneself in facing the challenge in reading. The most frequent strategy the undergraduate and postgraduate students applied was monitoring strategy because the average of the two groups are higher than other areas. In this monitoring strategy, postgraduate students did not really apply the strategy of working with friend every time they face problems and difficulties in reading since postgraduate students got the lowest average in this area. They solved their problems in looking for information and sources by their own self instead of directly approaching friends to solve it. Generally, postgraduate students were more independent than the undergraduate students. The highest point of postgraduate students in the whole areas of the process of three regulation of cognition is found in this area which is that they are capable to find their own strategies. They knew, reflected, and decided the best ways and strategies to comprehend the reading well. They used tools in facing problems and difficulties in reading such as dictionaries and inputs and information from the websites. They also sought help.

Table 5. Mean of undergraduate and postgraduate students' evaluating strategies in reading

Statement No		Mean	
		PBI	MPBI
1.	I summarize (in my head or in writing) important information that I read.	3.6970	4.4500
2.	I evaluate my comprehension by reflecting on how much I understand what I read.	3.6364	4.1000
3.	After reading, I decide whether the strategies I used helped me understand, and think of other strategies that could have helped.	3.2727	3.9500
4.	I check whether I have accomplished my goal for reading.	3.4848	4.0250
5.	I focus on key words, phrases, and ideas.	3.8485	4.3000
6.	I write down important words and concepts.	3.7576	4.0500

In the evaluating phase, both groups applied evaluation strategies in reading. However, as the means were still quite high, it is safe to say that the two groups still applied metacognitive strategies in reading. Summarizing is the most frequent strategy that the postgraduate students used to evaluate their reading process. The lowest average of both groups is found in the same area that is the evaluating of the result of the reading texts by looking back again to the strategy which has been applied. In metacognitive strategy, evaluation is intended to find another new

strategy in case the previous strategy is not helpful or repeat the previous strategy because it had given a good impact.

Discussion

Gray and Rogers (1956, as cited in Thomas, 2013, pp. 148-149) declares that reading maturity is a stage in which a person reaches the reading ability of an adult as a result of the whole progress, training, experience, and long involvement of extensive reading. It means that the person has good level of accurateness, comprehension, and objective thinking. Furthermore, he or she must be able to discuss about what he or she has read with both analytical skill and fluent level of speaking.

By comparing the two groups of students, postgraduate and undergraduate students, this study found that postgraduate students were more mature in relation to their age. They might have longer time to develop reading habit as they had finished their undergraduate study. In addition, the significance of familiarity with assignments and tasks demanding autonomous memorization of information could be due to the higher-level needs of comprehension (Schaie, 1978, as cited in De Beni, Borella and Carreti, 2007, p. 190).

In terms of living their own life, they were more stable. Many of them were working and studying at the same time. These reasons might influence their autonomous decision to continue study in the master's degree. Furthermore, their independent decision could influence their standard in studying and reading. Gray and Rogers (1956, p.149) argue that reading maturity is interpreted as a stage in which a person has a strong interest, attitudes, and skills that permit that person to profoundly, autonomously, and effectively engage in a reading activity and extract many meaningful lessons from the reading. The postgraduate students' motivation to study was to improve and expand their knowledge more in order to have a better life. Some of them financed their postgraduate study by themselves; this would influence their motivation to be more serious in their study.

Additionally, many researchers have proven that most of the mature readers are able to read intensively and extensively without other people telling them to do so. (Thomas, 2001, p. 1, Manzo, Manzo, Barnhill, & Thomas, 2000; Gray & Rogers, 1956). They are able to cognitively and emotionally understand what they have read. This was what the postgraduate students had shown. They had a strong aptitude of critical attitude in reading. This applied to both emotional and intellectual senses. They were also able to catch ideas in reading and adjust to the events and the difficulties in reading the materials. It is not easy, as admitted by Thomas (2008, p. 12) that "reading maturity should be treated deliberately not left to chance as a hoped-for by-product of schooling that some students acquire but others apparently do not."

The undergraduate students here were students who graduated from senior high school and continued their study in the university in order to have a better job one day. More or less, in terms of the financial matter, they were still leaning towards their parents. This could influence their motivation in study. Furthermore, they were still in the age of exploration to find their future. They had a lower degree of reading habit than the post graduate students had because during this period, they were still in the process to reach the graduation time. Regarding all of these reasons,

Thomas (2001, cited in Theiss, et al., 2009, p.60) describes maturing reader roughly in six areas.

Area 1 is reading attitudes and interests. Maturing readers have profound interest in reading assorted topics and they love reading to study about things hold interest to them. Since the postgraduate students autonomously decided to continue their study in order to have more knowledge and better work, they would find reading as something that brought more knowledge and information to help them reach their goal. For them, the autonomous decision also created interest in studying. That interest was in reading the subject materials.

Area 2 is reading purposes. Maturing readers are flexible and conscious about the purpose for reading and they will find proper strategies for them to achieve effective reading. They put effort to engage actively in reading. Furthermore, the postgraduates here were more stable in terms of living their own life; many of them were working and studying in the same time. These reasons could influence their autonomous decision to continue study in the master degree.

Area 3 is reading ability. In terms of reading ability, maturing readers read competently and fluently. They understand most of what they read and they can get a good, accurate grasp. Postgraduate students were more mature. Most likely, they had more experiences in reading because they had graduated from their undergraduate program.

Area 4 is reaction to and use of ideas apprehended (higher-order literacy). Maturing readers have the ability to generalize and make personal conclusion about what they have read. Additionally, they can also combine ideas from the reading and their personal ideas to form new understanding.

Area 5 is kinds of reading materials. A maturing reader does further than just 'easy reading'. They read a more cognitively challenging material. This is true as the subjects in the postgraduate used English as the language of instruction and the reading were all in the English language. They needed to immerse themselves into the reading materials as the readings were about reflecting, exploring, inspiring, motivating, and making life decision in being a teacher as they were studying in the master degree of English Education which intention was to shape a professional teacher.

Area 6 is personal adjustment to reading/transformational reading. Reading affects personal reflection. It influences the decisions that a person has to make in life. Since the content of the materials in the postgraduate were more intense for the preparation of a professional teacher in the future, it promoted reflection for self-transformation of a professional teacher. Reading maturity is a concept that largely focus on reading development in terms of not only basic reading skills, but also reading attitudes, habits, and dispositions (Thomas, 2001, p.142).

As concluded by Thomas (2001, p 157), reading maturity exceeds the level of reconstructive reading. It further touches on the level of constructive reading which demands the readers to build a solid connection towards the whole growth of maturity.

“Reading maturity is panacea for all the challenges facing us, nor a golden pathway to all we aspire to become. Overall health, wellness, and human flourishing surely involve many factors including physical fitness, nutrition, sleep, spiritual

growth, relational contentment, mental health, and sound general learning and appreciation of life.” (Thomas 2013, p.157). Metacognitive strategies in reading might be very helpful strategies to transform oneself in order to be a person for others.

Limitations of the study

Having the positive result in the discussion, the researcher believes that there are also limitations found in this research. First, the researcher used accessible sampling that limits the capability to generalize the findings to the population of postgraduate and undergraduate students in Yogyakarta. Second, regarding the participants in this research, they were close friends of the researcher. Thus, some biases might happen during the interpretation of the data. Regardless, the researcher believes that this research has provided some beneficial information about the awareness of applying metacognitive strategies in the educational field especially in reading.

Conclusion

In conclusion, this study found out that both postgraduate and undergraduate students were practicing metacognitive strategies in reading. Based on the data's average, the postgraduate students had better score compared to the undergraduate students, even though the difference was small. This research further concluded that between those two groups, the one who had better average score had almost all the description of a mature reader. Therefore, from the findings, the utilization of metacognitive strategies in reading and in learning is believed to have a positive impact for the students in learning. Continuous process of checking and developing one's understanding about written or spoken text will help him or her to always see the progress of one's process of learning as well as life itself.

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