

Metacognitive Strategy Awareness and Reading Comprehension of Prospective Pre-Service Secondary Teachers

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Abstract –*Reading is done to extend one’s knowledge, to enrich one’s experience and to develop desirable attitudes, habits, skills, and interests in reading. It is the most useful means for learning among students. Employing Metacognitive strategies enable students to comprehend easier and read faster. This research aims to draw the relationship between the awareness on metacognitive strategies and reading comprehension levels of prospective pre-service secondary teachers. Results revealed the respondents’ reading comprehension level had a significant relationship towards Metacognitive strategies they apply in understanding text in English that is, those who apply effective strategies in reading had higher comprehension level in reading. It is recommended that the teachers should teach and emphasize the advantages of applying Metacognitive strategies in reading. Thus, students’ reading comprehension level will be enhanced.*

Keywords –*Metacognitive strategy awareness, reading comprehension, prospective pre-service secondary teachers*

INTRODUCTION

The role of metacognition in the area of research is now a subject of different studies especially on reading. Metacognition is a relatively new nomenclature for body of theory and research that answers learners’ knowledge and use of their cognitive resources[1]. According to Sen [2], metacognition engages a child’s knowledge about his or her own thought processes through exploration of learning activities, including reading, thinking process, self-awareness, understanding memory techniques and learning characteristics. Furthermore, metacognition includes thinking about strategies that help students in understanding their schema with new information and to code them in their memories [3],[2].

Knowledge on tasks may include extracting and magnifying the level of difficulty of information. For instance, in the area of reading, it is said that the familiar topic information is easier to understand than that of the unfamiliar. Concerning strategies, it is also known that the verbal expansion of material assists in retrieval or prediction of article; and that of content based on titles improves comprehension. Metacognitive awareness, therefore, involves levels of

comprehension and conscious application of one or more strategies to improve knowledge [4].

Metacognitive strategies are related to how a person think and learn [5]. Baker and Brown [6] conducted several different studies on the aspects of the relationships between metacognitive ability and effective reading. From this, two dimensions of metacognitive ability have been recognized. These are: (1) knowledge of cognition or metacognitive awareness, and (2) regulation of cognition which as stated includes the reader’s knowledge about his or her own cognitive resources. For example, if a reader is cognizant to the demand of performing effectively, then the reader take steps to meet the demands of a reading situation more effectively. If, however, the reader is not conscious of the task complexity, then the reader can hardly be expected to take action or to anticipate activities or to recover from task difficulties [7],[8]. Many studies have found a correlation between effective use of metacognitive skills and fluent reading. In fact, a typical of good readers must possess the metacognitive skills e.g., adjusting reading rate, skimming, previewing, monitoring, cognition as well as self-regulation strategies such as

planning ahead, or being aware of and revising strategies.

In like manner, skilled readers are believed to be involved on deliberate activities that require a well organized thinking, flexible strategies and periodic self-monitoring [3], [9]. Studies have shown that better readers are also better strategy users. In fact, this was proven by Carrell [7], who conducted a study to investigate the metacognitive awareness of second language readers about reading strategies in both their L1 and L2; and the relationship between their metacognitive awareness and comprehension in both L1 and L2 reading. Two groups of 45 native speakers of Spanish enrolled at an ELS intensive program and 75 native speakers of English studying Spanish of varying proficiency levels were the subjects of the study. Results of the study show that in the L1, respondents' performance negatively correlated with local strategies; e.g. focusing grammatical structures, sound-letter, word meaning and text details. On the other hand, reading in the L2, the ESL group, of more advanced proficiency levels, tended to be more global (used of background knowledge, text gist, and textual organization) or top-down in their perceptions of effective and difficulty-causing reading strategies, while Spanish-as-a-foreign language group, at lower proficiency levels have the tendency to be more local or bottom-up, maybe because they have been more dependent on bottom-up decoding skills.

However, Carrell [7] pointed out that there is a need to conduct further research in this field.

In relation to metacognitive awareness, successful readers appear to utilize more strategies more often than less successful readers. Better readers, however, have enhanced metacognitive awareness of their own strategies and interfaced their knowledge to greater reading ability and proficiency [6],[1],[10].

Many researchers in the field found out that generally, more proficient readers exhibit different types of reading behaviours such as overview before reading, employ context clues, look for important details, pay greater attention, attempt to relate important points in the text to holistically understand the text, activate and the use of schema to interpret text, reconsider and revise hypotheses about the meaning of text on content, attempt to infer information from text, determine the meaning of unfamiliar words, monitor text comprehension, identify or infer main ideas, use strategies to remember text (paraphrasing, repetition, making notes, summarizing, etc.) understand relationships

between parts of text, recognize text structure, change reading strategies when comprehension to text turns vague; evaluate the qualities of text, reflect on a process additionally after a part has been read, and anticipate or plan to integrate knowledge gained from reading [11], [10]. The present study, therefore, was conducted in relation with the above-mentioned information and that metacognition plays an important role in the academic endeavor of educators. Pre-service teachers must therefore be equipped with metacognitive strategies and reading comprehension in order to instil among them quality instruction. The conduct of this investigation is necessary in order to provide information and awareness and later develop a concrete level of comprehension. Moreover, there is a dearth of this kind of research when it comes to strategy awareness and reading comprehension in the Philippine context.

OBJECTIVES OF THE STUDY

In view of the foregoing, this study attempted to answer the following questions: 1) What is the metacognitive awareness of prospective pre-service secondary teachers? 2) What is the reading comprehension level of prospective pre-service secondary teachers? 3) Is there a relationship between the metacognitive awareness and the reading comprehension level of the prospective pre-service secondary teachers?

MATERIALS AND METHODS

This research employed a descriptive correlational study that aimed to establish the significant relationship between the metacognitive awareness and the levels of comprehension in reading. The simple arithmetic mean and Pearson Product Correlation were utilized in the present research to describe the data. Out of 133 prospective pre-service secondary students, a total of 40 students coming from first year to fourth year were selected using the simple random sampling among the Bachelor of Secondary Education (BSEd) students of Isabela State University, Cabagan, Campus, Philippines.

The instruments used include a 15-item reading comprehension test (RCT) test to determine the students' comprehension level. The metacognitive questionnaire was adapted from Carrell [7]. This was utilized to measure readers' concepts of reading on awareness of their reading strategies. The said instruments were subjected for validation by experts in the field. The students were tasked to answer the

RCT for 30 minutes after which, they completed the metacognitive questionnaire which was divided into 5 sections: readers' self-assessment, repair strategies, effective reading strategies, reading difficulties and perception on a good reader. The reading comprehension level of the respondents was determined through following arbitrary intervals and descriptions: 1-3, very poor, 4-6, poor, 7-9, fair, 10-12, satisfactory, 13-14, very satisfactory. The metacognitive strategy awareness of the respondents was determined through the following arbitrary levels: 1.00-1.49, very unfavorable, 1.50-2.44, unfavorable, 2.50-3.49, average, 3.50-4.49, favorable, 4.50-5.0, very favorable.

Furthermore, the Likert scale was used to determine the degree of their agreement to each statement: Strongly Disagree to Strongly Agree statements are coded in ascending order while negative statements are coded in reverse order.

The relationship between the metacognitive strategy awareness and the reading comprehension level of the students was determined through the use of Pearson Product Correlation coefficient formula. Likewise, to the test the hypothesis, the study made use of t-test and Spearman rank correlation coefficient at 0.05 level of significance.

RESULTS AND DISCUSSION

It can be gleaned from the table that 5 or 50% of the students obtained scores from 7-9, described as fair in their reading performance level. There were 2 or 20% who obtained satisfactory from the same range of 10-12. Two students or 20% got the same between 4 and 6 which was described as poor. Only 1 or 10% obtained very poor whose reading comprehension level ranged from 1-3. As a whole, the mean level of reading comprehension of the students is 7.4. The

main reason of obtaining this score is the fact that there is a carryover of the performance of these students from their high school days without discounting the fact that there exists a stringent retention policy at the College Teacher Education.

This is also one of the reasons of the diverse causes of reading struggles as expounded by Johnson [12]. From this, a student must be fluent when it comes to decoding. In this case, student reading is low and by the end of the day, loses track of the ideas and thoughts. Further, it is noteworthy to note that out of 10 students, 5 or 50% had scores between 7 and 9 described as fair. There were 4 or 40% whose scores fall between 10 and 12 described to be satisfactory. The least number of students as supported by the frequency of 1 or 10% whose score fall between 4 and 6 had poor reading comprehension ability. While it is through that exposure to different reading materials is a good practice, it is also believed that it contributes to the reading comprehension level of students. In the case of second year students, although the mean rating is fair, it is noteworthy to note that it had an increase in the score range of 10-12 with 40% performance.

Further, with their stay in the University for a year, this reflects the improvement of their reading habits. It implies therefore that comprehension is very much imperative because it lays the underpinning of knowledge. It is accorded by the ability to understand what is being read. Butler et. al. [13] expounded that those who cannot comprehend what they read are unlikely to increase the requisite skills to contribute in any endeavor of their life.

Moreover, the table shows that based on the data presented, the reading comprehension level of third year BSEd students is fair as implied by the mean score of 8.9.

Table 1. Performance in Reading Comprehension Test among BSEd Students

Score	Description	1 st Year		2 nd Year		3 rd Year		4 th Year	
		F	%	F	%	F	%	F	%
1-3	Very Poor	1	10	0	0	0	0	0	0
4-6	Poor	2	20	1	10	0	10	0	0
7-9	Fair	3	50	5	50	6	60	3	30
10-12	Satisfactory	4	20	4	40	4	40	5	50
13-15	Very Satisfactory	5	0	0	0	0	0	2	20
Total		6	100	10	100	10	100	10	100
Mean	Fair	7.4		8.9		9.9		10.7	

Table 2. Distribution of Strategies Awareness Level among BSEd Students

Strategies	Weighted Mean				Description
	1 st Year	2 nd Year	3 rd Year	4 th Year	
Readers' Self Assessment	2.6	4.0	4.1	4.1	3.7 (Favorable)
Repair Strategies	2.4	3.1	3.2	3.2	2.9 ((Average)
Effective Reading Strategies	3.6	4.1	4.1	4.1	3.9 (Favorable)
Reading Difficulties	3.5	3.1	3.1	3.1	3.2 (Average)
Perception on a good reader	4.2	4.2	4.3	4.3	4.2 (Favorable)
Overall Mean	3.56	3.7	3.76	3.76	3.7 (Favorable)

As reflected, 6 or 60% among the third year students received scores between 7 and 9 described as fair. The remaining 4 students or 40% obtained scores ranging from 10 to 12 or "satisfactory. This implies that deficiency of comprehension, reading is really that frustrating. One of the goals of reading comprehension instruction, therefore, is to facilitate students build up the understanding, skills, and experiences they must encompass if they are to become proficient and passionate readers.

Finally, the above table presents that 5 or 50% of the fourth year students obtained satisfactory with scores between the range of 10 and 12, 30% or 3 got scores between 7 and 9 described as fair. Two or 20% earned scores from 13 to 15 described as very satisfactory in their reading comprehension level. It must be noted therefore that students who make use of reading comprehension strategies while reading hold on to supplementary in sequence and grasp the text better. It was also hypothesized that students who have superior reading comprehension skills perform better on reading comprehension tests Baier [14].

It is shown in table 2 that the students obtained a mean of 3.56, "favorable" in both readers' self assessment and effective reading strategies. As regards their repair strategies, it was found out to be average with a mean of 2.9. Their perception on a good reader was considered to be favorable having a mean of 4.2. With a mean of 3.5, these reading difficulties were favorable and regarded to be the highest among the four year levels. In a broad-spectrum, their metacognitive strategy awareness is 3.56 described to be favorable. This implies that these students are betrothed in their own thinking when it comes to academic tasks. In fact, it develops knowledge information, control and awareness of individual independent learning [15].

As further seen in table 2, second year students obtained a mean of 3.1 or "average" in their repair strategies. With regard to their self-assessment,

effective reading strategies, and perception on a good reader, the students obtained a mean of 4.0, 4.1 and 4.2, respectively. Students had a mean of 3.1 which was described to be average in their reading difficulties. These strategies as explained by Kuhn [16] and Hong-nam & Page [17] believed to be causative in the purpose of the strategies that develops new information. In other words, the application of metacognitive processing help students reveal on their thoughts prior to, at some stage in, and after they read.

It is further shown in this table that third year students had a favorable self-assessment of 4.1 with a mean of 3.2, their repair strategies fall under the average description. Both their effective reading strategies of 4.1 and perception on a good reader of 4.3 are favorable. Their reading difficulties had a mean of 3.1 which was described to be average. With this data, reading strategy awareness provides a major function in reading comprehension and in educational endeavor. In spite of its magnitude, metacognitive strategy has long been the disregarded skill in English language teaching, research, learning, and assessment [18].

Fourth year students on the other hand had a very favorable readers' self assessment with a mean of 4.5, their effective reading strategies of 4.2 and perceptions on a good reader of 4.3 were described to be favorable. As regards to their repair strategies, they were described to be average and were noted to be the lowest mean, the least reading difficulty among the fourth year levels. Taking its implication, reading strategy awareness, are strategies that lend a hand to students to conform or examine cognitive strategies. They are the philosophy of thinking about thinking, and are defined as, planned, intentional, goal directed, and future-oriented mental processing that can be used to accomplish cognitive tasks [19].

Table 3 presents the Correlation value between students' reading comprehension level and metacognitive awareness.

Table 3 Correlation value between students' reading comprehension level and metacognitive awareness

Correlation value	Critical value
0.76	0.304

The computed correlation value was 0.76 described as "substantial" which means that there is correlation existing between the reading comprehension level and awareness on metacognitive strategies of students. This further implies that those students with high metacognitive strategy awareness are also those with high level of reading comprehension. Metacognitive reading comprehension skill has an affirmative consequence on learning a second language and students can expand the skills they need for a successful message in English.

CONCLUSIONS AND RECOMMENDATION

Results showed that the students who obtained high scores employed repair strategies such as reviewing the problematic part of reading and searching for the unknown words in a dictionary. Moreover, they also have effective reading strategies which include sounding out mentally parts of the words, understanding meaning of each word, getting the overall meaning of the text, relating the text to what they already know about the topic, looking up words in the dictionary and considering the grammatical structures. These factors affect the level of reading comprehension students. Findings of the study also revealed that the reading comprehension level of the students was fair. The metacognitive strategy awareness was favorable. Furthermore, there is a significant relationship between the two variables which implies that the applications of such strategies by the prospective secondary students are high with that of their level of reading comprehension. Based on the computed mean, students' reading comprehension level increases as their year gets higher which means that among the four, the fourth year BSEd students had the highest comprehension level while the first year had the lowest. It is therefore concluded that the four year stay of these students in the university contributed to the success and levels of their comprehension. First year students on the other hand need to strategize and read more in order to be at par with the seniors.

Thus, it is recommended that students should be taught with strategies on metacognition since they are in college level already. Teacher developers of reading comprehension skills should evaluate strategy awareness of students using a metacognitive

comprehension. Through these, students should be taught on how to choose appropriate strategies and develop their reading comprehension level in order to be prepared when they go to the next ladder of education through reading texts written in English. It is also suggested that a replicate of this study across disciplines may be conducted. Since this study focused more on assessment using standardized instruments, triangulation technique may also be utilized using observation and think aloud protocols particularly on assessing reading comprehension.

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