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Making Connections: A Metacognitive Teaching Strategy in Enhancing Students' Reading Comprehension

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Abstract

Reading comprehension skill is crucial for successbeyondacademic endeavor. However, evenacademic success can never be possible when a student does not understand the importance of developing good reading comprehension.Using one-group pretest–posttest research design, the study explored the effect of making connections as a metacognitive teaching strategy to enhance the students' reading comprehension. Purposively selected college students were given assessments and intervention. Based on the data gathered from the pretest and posttest, findings revealed that application of metacognitive teaching strategy, making connections has a positive effect on enhancing the students' level of reading comprehension as indicated by an increase from average to very high level. The six levels of reading comprehension which were the literal, inferential, appreciative, critique, and evaluative also showed improvement. Results of the Metacognitive Awareness Reading Strategies Inventory (MARSI) indicated that students were unconsciously using Global reading, Problem-solving, and Support reading strategies. Focus group discussion revealed factors that affect the reading comprehension such as interest, teaching styles, and language. The study suggested the important role that educators play in maximizing the benefits of making connections and making use of any other metacognitive strategy towards developing higher level of comprehension leading to academic success.

Keywords: college students, English language, education, making connections, metacognitive teaching strategy, reading comprehension,

A. Introduction

Reading comprehension is a complex cognitive process. It is explored by educational researchers with its multidimensional components, processes, and factors involved in different settings with the aim of finding better ways of developing it among learners. Theoretically, reading comprehension pertains to the correct understanding of the written or oral word or message (Koda, 2007). It is being attained once the reader is able to summarize information using his or her prior knowledge. In broader sense, it is the understanding, using, reflecting on and engaging with written texts, in order to achieve one's goals, to develop one's knowledge and potential, and to participate in society (OECD, 1999 in Kendeou, Van Den Broek, Helder, & Karlsson, 2014).

Reading comprehension is one of the most essential skills that should be developed and nurtured at home and in school because it is fundamental to a person's success in academic life and beyond. It is a complex skill because it requires other skills such as vocabulary and decoding skills (Mohseni Takaloo & Ahmadi, 2017). According to Al Noursi (2014 in Meniado, 2016), the ability to read for various purposes is a precursor to a successful learning in schools, colleges, and universities. It is a survival skill in the 21st century may it be for students or professionals. Businesses and industries expect today's 21st century students to have the capability to analyze and evaluate information that may then be used to solve everyday problems. Studies on college students have shown that students in increasing numbers may not find high school preparation enough for success in college or in the job market (Jobs for the Future, 2005).

Dagget and Hasselbring (2007) consider reading as 'the key enabler of learning for academic proficiency'. Hence, not being able to develop effective reading can have adverse effects on learning across the curriculum, motivation to read, attitudes toward life, and performances in the workplace.

Students frequently enter college without understanding how necessary good reading comprehension skills are for academic success. Those who grasp the information they read in textbooks earn better grades and experience far less stress than those who struggle to fully understand what they are reading. Studies on the college students' level of reading comprehension revealed that most students belong to below average and frustration level which means that they face high difficulties in understanding reading materials (Meniado, 2016; Ismail & Tawalbeh, 2015; Pammu, Amir & Maasum, 2014; Pei, 2014; Zhang & Seepho, 2013; Cabasan,2011).

The same problem had been observed by the researcher among the freshmen college students who have taken literature courses in a private university in the Philippines. With the use of a related material, the researcher evaluated the level of reading comprehension of the students using the six levels such as Literal, Inferential, Appreciative, Critique, Evaluative, and Essential. The researcher gathered data from 30 BS Criminology students who have their own literature books where the evaluation was based. Based on the result, the students got high percentage of correct answers in literal level. Therefore, a low level of reading comprehension was diagnosed among freshmen college students who were the first batch of K-12 program graduates in the Philippines. The students were observed to be dependent readers and have difficulties in answering questions in different levels. The result of this baseline study appeared alarming. As K-12 program completers, college students are expected to have acquired higher level of reading comprehension.

Wineburg (2006) noted that the difficulty lies in reading comprehension, which affects students' reading and writing abilities as well as their ability to perform well on college-level research assignments. When college students read, they oftentimes choose ineffective or inefficient strategies (Wood, Motz & Willoughby, 1998 in Gruenbaum, 2012). This mainly because the students are less aware of reading strategies that they can use and other factors that affect their reading comprehension (Pei, 2014; Nergis, 2013).

College students must be taught the skills to locate and analyze complicated information, to solve problems they encounter while reading, and to connect ideas and concepts (Jobs for the Future, 2005). Thiede, Griffin, Wiley, and Anderson (2010) found that students with poor metacomprehension were unable to use corrective strategies to improve their comprehension. Gruenbaum (2012) defined metacomprehension as the ability to monitor understanding of

information communicated or to recognize a lack of comprehension, and then to apply corrective strategies to clarify comprehension. In this sense, interventions are necessary to direct students on ways to enhance comprehension (Gruenbaum, 2012).

In enhancing the students' reading comprehension, a metacognitive teaching strategy, making connections was used and tested in the study. Although there had been previous studies conducted on the metacognitive strategies, but of course their focuses limit their findings on the students' awareness and application of metacognitive strategies (Magogwe, 2013; Adedipe & Ofodu, 2011; Mokhtari & Reichard, 2002), measuring their effects on reading performance (Ramadhan, 2018; Tavakoli, 2014; Zhang & Seepho, 2013) but among female students only (Ismail & Tawalbeh, 2015), and analysing the relationship between and among variables such as metacognitive reading strategies, reading motivation, and reading comprehension performance of the students (Meniado, 2016; Pammu, Amir& Maasum, 2014; Pei, 2014).Other study aimed at developing students' metacognitive knowledge and skills (Hartman, 2001). But given the nature and characteristics of the student cohort nowadays, a more in-depth study is needed and the students' reading strategies should also be taken into account.

This study generally aimed to assess the effectiveness of using a metacognitive teaching strategy to enhance reading comprehension of college students. It specifically (i) determined the students' level of reading comprehension before and after the implementation of the metacognitive teaching strategy; (ii) identified the reading strategies employed by the students; and (iii) discussed the factors that affect the students' reading comprehension through the use of making connections as a metacognitive teaching strategy.

B. Literature Review

Making Connections as a Metacognitive Teaching Strategy

Making connections is a metacognitive teaching strategy that gives assistance to students' comprehension to become successful and independent readers. This strategic reading allows students to monitor their own thinking and make connections between texts and their own experiences. Students who make connections while reading are better able to understand the text as they are reading. It is important for students to draw on their prior knowledge or schema and experiences to connect with the text (Correia & Bleicher, 2008). There are three types of connections where students make personal connections with the text by using their schema while reading. The three types of connections are text-to-self that refers to connections made between the text and reader's personal experience. Second is text-to-text that refers to connections made between a text being read and to a text that was previously read. The third is text-to-world that refers to connections made between a text being read and something that occurs in the world (Morrison & Wlodarczyk, 2009).

The questions used to assess students are focused on a strand of metacognitive strategies using the schema theory. Schema theory explains how previous experiences, knowledge, emotions, and understandings affect what and how people learn (Harvey & Goudvis, 2007). Schema is the background knowledge and experience readers bring to the text. Good readers draw on prior knowledge and experience to help them understand what they are reading and are thus able to use that knowledge to make connections. Struggling readers often move directly through a text without stopping to consider whether the text makes sense based on their own background knowledge, or whether their knowledge can be used to help them understand confusing or challenging materials. By teaching students how to connect to text, they can better understand what they are reading (Harvey & Goudvis, 2007). Accessing prior knowledge and experiences is a good starting point when teaching strategies. It is because every student has experiences, knowledge, opinions, and emotions that they can draw upon.

Keene and Zimmerman (1997) concluded that students comprehend better when they make different kinds of connections: Text-to-self connections are highly personal connections that a reader makes between a piece of reading material and the reader's own experiences or life. An example of a text-to-self connection might be, "This story reminds me of a vacation we took to my grandfather's farm."

Sometimes when reading, readers are reminded of other things that they have read, other books by the same author, stories from a similar genre, or perhaps on the same topic. These types of connections are text-to-text connections. Readers gain insight during reading by

thinking about how the information they are reading connects to other familiar text. “This character has the same problem that I read about in a story last year,” would be an example of a text-to-text connection (Keene & Zimmerman, 1997).

Text-to-world connections are the larger connections that a reader brings to a reading situation. People have ideas about how the world works that goes far beyond their own personal experiences. Each person learns about things through television, movies, magazines, and newspapers. Often it is the text-to-world connections that teachers are trying to enhance when they teach lessons in science, social studies, and literature. An example of a text-to-world connection would be when a reader says, "I saw a program on television that talked about things described in this article."

According to Draper (2010), good readers make connections as they read. They can relate the book to their personal experiences (text-to-self), to information from other texts (text-to-text), or from what they know about the world (text-to-world). Making connections is linking what the students read, to what they already know. This strategy helps students comprehend text, by activating their prior knowledge and making meaning of what they read. She suggested questions that students may ask themselves as they read to help them make connections with the text. The use of teacher modeling, the teacher think-aloud process, and student practice of the reading comprehension strategies which included predicting, making connections, visualizing, inferring, questioning, and summarizing had a positive impact on student comprehension (Hartman, 2001; McKown & Barnett, 2007).

C. Methodology

1. Research Design

The study employed a one-group pretest–posttest research design. It is used to determine the effect of a treatment or intervention on a given sample (Cranmer, 2017). The study used this design for these two main reasons/features: first is it employed a single group of respondents (i.e., a one-group design). This feature denotes that all student-respondents were part of a single condition—meaning all of them have been exposed to a metacognitive teaching strategy and level of reading comprehension assessments. The second feature is that a linear ordering that requires the assessment of a dependent variable before and after a treatment was implemented (i.e., a pretest–posttest design). Within this pretest–posttest research design, the effect of the metacognitive teaching strategy was determined by calculating the difference in results between the first and second assessment of the students’ level of reading comprehension.

The study utilized a combination of quantitative and qualitative data, where qualitative data came from the focus group discussion with the selected group of students.

2. Population and Sample

This study chose purposively selected college students on the basis of the following criteria: (i) officially enrolled in a private university during the second semester of the academic year 2018-2019; (ii) first year college students, completers of senior high school; and (iii) course takers of ENG 600 Purposive Communication, a core subject taken by first year college students. Specifically, a total of 159 students from selected sections of first year college students under the bachelor degree program in Hospitality Management (n=91), Aircraft Maintenance and Technology (n=31) and Secondary Education (n=37) were given assessment and intervention. They were 84 per cent of the total 190 student population.

3. Instruments

The instruments used in this study were metacognitive making connection learning plan, reading materials (essays) with metacognitive comprehension questions, rubrics for reading comprehension: making connections, and Metacognitive Awareness of Reading Strategies Inventory (MARSI) Version 1.0.

A metacognitive learning plan was adapted for the study. The metacognitive teaching strategy, making connections was applied to the core subject ENG 600 Purposive Communication of the first-year college students. The reading materials used in this study were taken from the Philippine Literature book. These materials contain questions with “making connections” at the end of the reading to assess the level of reading comprehension.

The selected metacognitive learning plan and reading materials were checked by the language coordinator of the university. These were validated by three language experts from various universities in the Philippines.

Adapted pretest and posttest assessments and the focus group discussion guide questions were used in the study. The researcher used a metacognitive strategy, making connections in teaching ENG 600 to motivate and increase the students' interest towards reading. The Metacognitive Awareness Reading Strategy Inventory (MARSI) was administered after the pretest to identify the reading difficulties, strengths, and attitude of the students toward reading.

MARSI Version 1.0 developed by Mokhtari and Reichard (2002) is divided into three subscales: the Global Reading Strategies (GLOB Subscale), Problem-Solving Strategies (PROB Subscale), and Support Reading Strategies (SUP Subscale). It contains 30 items. The global factor reflects strategies related to the global analysis of text. The problem-solving factor includes repair strategies that are used when text becomes difficult to read. The support factor reflects practical strategies like taking notes and consulting a dictionary. Each subscales' statement was rated using the five-point Likert scale with ratings from one (as "I never or almost never do this") to five (as "I always or almost always do this"). The weighted means for each item were computed the same as the overall weighted mean of the subscales. They were interpreted as high, medium, and low.

Lastly, a posttest was conducted after using the strategy in identifying the effects of the metacognitive teaching strategy, making connections on their comprehension level.

The focus group discussion was conducted to 25 student respondents to gather their personal insights on the metacognitive teaching strategy being applied to them by their professor, how it motivated them, and helped to improve their level of reading comprehension.

4. Technique of Data Analysis

The data gathered from the assessment tools were analyzed using descriptive analysis. This was to describe and compare the difference of the students' reading comprehension level from the scores in the pretest and posttest. The eight-item pretest has a total of 40 points, and the 10-item posttest has 50 points. Each item was scored accordingly. The scores were allocated to ranges with their corresponding interpretation. In the pretest' scores from 0 – 8 were interpreted as 'very low'; scores from 9 – 16 were 'low' level; scores from 17 – 24 were on the 'average' level; scores from 25 – 32, were on the 'high' level'; and scores from 33 – 40, are on the 'very high' level. For the results of the posttest, scores from 0 – 10 were on the 'very low' level; scores from 11 – 20 were on the 'low' level; scores from 21 – 30 were on the 'average level; scores from 31 – 40 were on the 'very high' level; and scores from 41 - 50 were on the 'very high' level.

Each item in the pretest and posttest is grouped according to its level of comprehension. For the pretest, item numbers one and three are on the Literal level, item number six is Inferential level, item numbers two and five are Appreciative level, item number seven is Critique level, item number four is Evaluative level, and item number eight is Essential level. On the posttest, item numbers one and nine are Literal level, item number three is inferential level, item numbers two, four, and eight are Appreciative level, item numbers five and seven are Critique level, item number six is Evaluative level, and item number 10 is Essential level.

Finally, the results from the focus group discussion were analyzed through thematic analysis. From the data gathered, difficulties and other concerns regarding their attitude and behavior toward reading were discussed. In addition, students also stated some factor affecting their reading comprehension.

D. Findings and Discussion

1. Students' Level of Reading Comprehension

In the analysis of the reading comprehension levels, the items in each reading materials were grouped according to the six levels of reading comprehension namely: the literal, inferential, appreciative, critique, evaluative, and essential level. The summary of the results of pretest and posttest for each level was presented on Table 1.

Based on the data gathered from the pre-test and posttest, there has been an increase on the students' level of reading comprehension from average to very high level as showed in their scores. The six levels of reading comprehension which were the literal, inferential, appreciative, critique, and evaluative also increased. A gradual increase was observed in the essential level. In particular, the percentage of the students who got very high level was higher than those who got very low level of reading comprehension in the posttest. With these results, the students had very low essential level before the application of the metacognitive teaching strategy and that which increased to average essential level.

Table 1. Summary of student's level of comprehension in pretest and posttest

Comprehension Level	Per cent of students in 40-Point Pretest	Comprehension Level	Per cent of students in 50-Point Posttest
Very High (33-40)	6.47	Very High (41-50)	9.62
High (25-32)	15.8	High (31-40)	22.4
Average (17-24)	33.1	Average (21-30)	37.8
Low (9-16)	29.5	Low (11-20)	20.5
Very Low (0-8)	15.1	Very Low (0-10)	11.5

2. Reading Strategies Employed by the College Students

This section presents the result of the Metacognitive Awareness Reading Strategies Inventory (MARSI) which is divided into the following subscales:

2.1 Global Reading Strategies (GLOB Subscale)

The Global Reading Strategies with 13 items are global factors that reflect strategies related to the global analysis of text. The GLOB subscale consists of thirteen statements (items 1, 3, 4, 7, 10, 14, 17, 19, 22, 23, 25, 26, and 29).

Results showed that most of the students rated GLOB between three and four with overall high rating (X=3.57). The result (Table 2) indicated that students had a purpose in mind while they were reading. They think about what they know that helped them understand the reading material. They also tried to connect the text with their reading purpose while they were reading. They mentioned that tables, figures, and pictures increased their understanding, and they paid attention to bolded or italicized ideas.

However, the students' overall weighted mean was only a few points above the medium scale which means the students have to develop more in terms of the global reading strategies. They still need more time to practice attitude and behavior in GLOB to further help themselves in developing their reading comprehension.

Majority of the items were rated by most of the students with scales from three and four that resulted to 'high' weighted mean in the global reading strategies. Except for items 10, 19, and 22 that were rated with scale of three interpreted as 'medium'. Item number 10 got the lowest rating with 3.26 that was interpreted as medium. This indicates that most students may not have an interest in skimming texts. On the other hand, item number three with the highest mean (X=3.83) shows that students think about what they know which lets them connect themselves to what they read. This implies that there are global strategies in reading that the students need to develop and practice among themselves. Positively, students showed high global reading strategies which help them increase their level of reading comprehension even in self-reading. This finding is supported by Magogwe, (2013) who found out that with the Global Reading Strategies, students reported high use of reading with a purpose, using personal experiences and background knowledge, and reading closely to decide what to take and what to ignore.

Table 2. Students' rating on global reading strategies

Statement no.	Mean	Rating
3. I think about what I know to help me understand what I read.	3.83	High
25. I check my understanding when I come across conflicting information.	3.70	High
1. I have a purpose in mind when I read.	3.67	High

29. I check to see if my guesses about the text are right or wrong.	3.65	High
4. I preview the text to see what it's about before reading it.	3.63	High
26. I try to guess what the material is about when I read.	3.56	High
7. I think about whether the content of the text fits my reading purpose.	3.54	High
17. I use tables, figures, and pictures in text to increase my understanding.	3.54	High
14. I decide what to read closely and what I'm reading.	3.51	High
23. I critically analyze and evaluate the information presented in the text.	3.51	High
19. I use context clues to help me better understand what I'm reading.	3.49	Medium
22. I use typographical aids like bold face and italics to identify key information.	3.46	Medium
10. I skim the text first by noting characteristics like length and organization.	3.26	Medium
Overall Weighted Mean Score	3.57	HIGH

Range: 3.5 or higher = High; 2.5 – 3.4 = Medium; 2.4 or lower = Low

2.2 Problem-Solving Strategies (PROB Subscale)

The Problem-solving strategies with eight items including repair strategies are used when text becomes difficult to read or to understand. This can be implored in solving problems while reading. PROB subscale consists of eight statements (items 8, 11, 13, 16, 18, 21, 27, and 30).

Most of the students (Table 3) rated the PROB between scales three and four, and only item number 11 got a high rating ($\bar{X}$=3.91). This means that students go back and re-read the part of a reading material when they lose their attention or concentration. Item number 18 had the greatest number of students who gave a medium rating. This indicates that students do not stop and think of what they are reading. This further implies that there is quite a problem with their willingness to understand a statement and would just ignore it. The positive thing is, students would pay closer attention when the text becomes difficult as indicated in item 16 with high rating ($\bar{X}$=3.84). This means that students do not let themselves get lost in reading. In general, students got an overall high rating ($\bar{X}$= 3.76) in PROB, which was higher than the GLOB. This indicates that students have intuitions in helping themselves to understand texts through reading slowly and adjusting reading speed; re-reading; paying close attention especially when the text becomes difficult. They occasionally stop, take a pause to think about the text, and visualizing the information to increase retention.

According to Magogwe (2013) students reported high use of guessing the meaning of unknown words and phrases, and from time to time thinking about what they were reading. The students claimed to have no problems with solving reading difficulties. They indicated that when the text is difficult, they re-read it, pay close attention to it, and slowly and carefully they try to understand the text to regain concentration.

Table 3. Students' rating on problem-solving strategies

Statement no.	Mean	Rating
11. I try to get back on track when I lose concentration.	3.91	High
8. I read slowly but carefully to be sure I understand what I'm reading.	3.90	High
27. When text becomes difficult, I re-read to increase my understanding.	3.85	High
16. When text becomes difficult, I pay closer attention to what I'm	3.84	High

reading.		
21. I try to picture or visualize information to help remember what I read.	3.81	High
30. I try to guess the meaning of unknown words or phrases.	3.74	High
13. I adjust my reading speed according to what I'm reading.	3.73	High
18. I stop from time to time and think about what I'm reading.	3.30	Medium
Overall Weighted Mean Score	3.76	HIGH

Range: 3.5 or higher = High; 2.5 – 3.4 = Medium; 2.4 or lower = Low

2.3 Support Reading Strategies (SUP Subscale)

The Support Reading Strategies are factors that reflect practical strategies like note-taking and searching for meaning through a dictionary to help readers unlock unfamiliar and difficult words. These also let readers to use other references to widen understanding on the text being read. SUP subscale consists of nine statements (items 2, 5, 6, 9, 12, 15, 20, 24, and 28).

Most students were scattered from scales three to five (Table 4). Six out of the nine statements were rated with 'high' which were items 5, 6, 12, 20, 24, and 28. Three items were rated with 'medium'. Items number two and nine had the lowest and medium rating ($\bar{X}$=3.38). This indicates that the greatest number of students sometimes took notes while reading and discussing what they read to check understanding. Meanwhile, item number 12 had a high rating ($\bar{X}$=3.76), which indicates that students always underline or circle information in the text for remembering.

The overall rating for the support reading strategies was high ($\bar{X}$= 3.55), though it has the lowest rating as compared to the other strategies. This indicates that students still need to develop their support reading strategies through taking notes, summarizing, discussing connections to others, using references materials like dictionaries, and asking themselves questions related to the reading material. The support reading strategies suggest that students should practice helping themselves use other ways to support their understanding in reading to be competent in individual reading.

According to Magogwe (2013) students use Support Reading Strategies to underline and circle information, take notes and paraphrase or restate ideas in their own words. Given the above, the students were qualified as proficient readers because proficient readers aid reading through note taking, underlining and highlighting textual information (Mokhtari & Sheorey, 2002).

Table 4. Students' rating on support reading strategies

Statement no.	Mean	Rating
12. I underline or circle information in the text to help me remember it.	3.76	High
24. I go back and forth in the text to find relationships among ideas in it.	3.67	High
20. I paraphrase (restate ideas in my own words) to better understand what I read.	3.63	High
6. I summarize what I read to reflect on important information in the text.	3.61	High
5. When text becomes difficult, I read aloud to help me understand what I read.	3.53	High
28. I ask myself questions I like to have answered in the text.	3.54	High
15. I use reference materials such as dictionaries to help me understand what I read.	3.47	Medium
2. I take notes while reading to help me	3.38	Medium

understand what I read.		
9. I discuss what I read with others to check my understanding.	3.38	Medium
Overall Weighted Mean Score	3.55	HIGH

Range: 3.5 or higher = High; 2.5 – 3.4 = Medium; 2.4 or lower = Low

Based on the results of the MARSI, students showed that they were using global reading strategies, problem-solving strategies, and support reading strategies but they were not fully aware of it and not all of them use specific reading strategies (X=3.63). Though it was interpreted as high, the numbers obviously showed that the mean was on the borderline which has to be increased or at least be sustained.

The problem with students' poor reading and comprehension is not because of their awareness and application of metacognitive strategies but because of their need to be trained on how to apply these strategies for successful comprehension of academic materials. Therefore, learners should be guided in using different metacognitive strategies in reading and comprehension since students who demonstrate a wide range of metacognitive skills perform better in examinations and complete work more efficiently (Adedipe & Ofodu, 2011).

The MARSI is a means to foster an environment that is conducive for reading and supporting for instructional intervention. It is for designing a program that emphasizes reading for students, and training for faculty and staff. As the researcher discovered the students' attitudes, styles, and strategies in reading, the researcher concluded that this helped the students demonstrate improvement in the comprehension of academic reading material; improvement in academic vocabulary knowledge; and an increased level of awareness of reading and vocabulary acquisition strategies. Truly, the awareness and use of reading strategies had a positive and strong correlation with reading comprehension achievement (Tavakoli, 2014). Even the EFL (English as a Foreign Language) students who employ more strategies and use them as frequently as possible are likely to show higher success in reading comprehension (Meniado, 2016; Ismail & Tawalbeh, 2015; Pei, 2014; Zhang & Seepho, 2013).

3. Factors Affecting Students' Reading Comprehension

3.1 Interest

Most of the respondents made reference to their own interest as one of the major factors that affect their reading comprehension. As stated by the students, their mood is a big factor when reading which also affects their attention and focus towards reading materials. They emphasized that their interest affects their mood. Hence they suggested that reading materials' content or main topic must be suitable for them so they can relate. The reading materials must be either their preferred content, useful and necessary, or related to their course. If not, they will surely find it difficult to pay attention in reading. With their statements, the students expressed the importance of having a clear purpose of reading. Given the fact that the reading material is also a subject of their own interest, or it may be something they can talk about because they have a background or experience. All these together with their motivation to read contribute to their overall reading comprehension (Mohseni Takaloo & Ahmadi, 2017; Meniado, 2016; Ebrahimi & Javanbakht, 2015; Unsworth & McMillan, 2013). Indeed, the more interesting the topic is, the more comprehensible the reading text will be. If the reading material is inflicted without their interest, they find it difficult to absorb the content and main purpose which make them need to gather background first, cite examples, and discuss main ideas from anyone reliable. Also, they may feel tired to look for meanings, and search through other references due to their lack of patience and time. Because of this, they found it useful when the professor briefly discussed a short background of the given reading material unlike when nothing was shared. They also found it easier to relate with the reading material when the sample situations were familiar to them. Student A said, "we only read when needed, but if we don't like the topic, we don't read the content that much". Students also tend to be occupied by their personal lives and social media as they stated. So, they have to take some effort and time to be aware of the current events. They also need to gather more information to share in class and so they could relate to new ideas. Students may make tangential connections that can distract them from the text. Throughout instruction, students need to be challenged to analyze how their

connections are contributing to their understanding of the text. Text connections should lead to text comprehension (Harvey & Goudvis, 2007).

3.2 Teaching style

The second factor that the students shared was their professors' teaching styles. Being in college requires them to read and study on their own, discover things on their own ways, and input new ideas. However, according to the students, not all professors let them share their ideas. Some do not motivate them to think. And some would just lecture and give activity or seatwork afterwards. Some professors would not also allow them to interact with their classmates to maximize the time for discussion. As specified by 15 students, "…some of our professors just give seatwork or quiz right after the discussion".

Clearly based on the students' statements, teaching styles of the professors limit them which make them get a little connection with the topics. If the students found it difficult to comprehend through listening, then what more in reading without any guide. The students expressed themselves wishing their professors to be more open and motivate them to give their personal insights. Accordingly, they suggested that the professors should also cite current events and other related situations so the students may know how to relate with, think and share their own opinions as well. The use of teacher modeling, the teacher think-aloud processes, and student practice of the reading comprehension strategies such as predicting, making connections, visualizing, inferring, questioning, and summarizing had proven to have a positive impact on student comprehension (Hartman, 2001; McKown & Barnett, 2007).

In fact, the students were not aware of the metacognitive teaching strategy during its application, but they were able to compare the difference of the teaching style when the reading material was given for the pretest and posttest. They said that they were able to answer easier and faster the reading comprehension exercises when the professor asked them some questions that encouraged them to share their personal thoughts. This led them to deeply relate and understand the main point of the reading material given in the posttest.

3.3 Language

The students admitted that English language has been a medium of instruction in schools and they were also required to answer using this language. However, they still could not have an excellent command of the English language since they use Filipino language in communicating most of the time. They only speak in English when the professor tells them so, or when it is needed. The students said that they understand reading materials written in English, but some unfamiliar terminologies hinder their deep understanding which unfortunately, make them ignore the problem. Only eight of the students said that they search for the meanings. Some admitted that they do not pay enough attention to the meaning of any term that they have to learn. They also admitted that despite searching for the word meanings, they still do not learn how to use the word in a sentence properly. Another dilemma was grammar structure which makes them hesitant to answer since they become unsure of their idea. Student C said, "it is difficult to speak in English, we don't also understand some words instantly".

The students' statements clearly showed that language is one of the biggest factors that affect their comprehension. Students find it difficult to understand the text due to their vocabulary limit. And whenever they understand, they still find the most appropriate words to use in expressing their ideas.

The stated dilemmas of the students toward reading were then put at ease during the metacognitive teaching strategy. They stated that it was very useful when the professors let them look for the unfamiliar and difficult words for their meanings and showed several ways on using them in sentences. They were also tasked to search for similar and opposite terms to further learn the words. However, vocabulary activity takes too much time. To avoid this, students must collaborate so they can get insights faster and easier from others. Enhancing vocabulary can also enhance students' comprehension. It was shown that students' ability to learn textbook vocabulary is improved when explicit vocabulary instruction is integrated with content-area reading (Taboada Barber, Buehl, Kidd, Sturtevant, Richey Nuland, & Beck, 2015).

The application of the metacognitive teaching strategy among college students was found to be helpful. However, college students are expected to be competent, comprehensive, and be independent in reading. The risk in applying metacognitive teaching strategies in reading

ensures not to spoon-feed the students. Instead, they must only be guided and be motivated to think and express more on their own. This finding is supported by Hains and Smith (2012) who promoted student empowerment to become self-directed and independent learners.

Unlocking vocabulary is a quite long part of a lesson but it is very essential. Teachers must not bore students with long list of vocabularies but must provide different creative ways for them to be familiar with the terms. Students must also be familiar with the use of dictionaries and to practice them learning independently.

This strategy must be student-centered however, there is a risk that teachers might overlook of the time. In this sense, teachers must achieve lesson objectives with metacognitive teaching strategy without consuming too much time.

E. Conclusion

The study discusses the effectiveness of using making connections as a metacognitive teaching strategy to enhance the level of reading comprehension from the average level to very high in all of the six levels including the literal, inferential, appreciative, critique, evaluative, and essential.

Although, college students are expected to be independent in reading, still they need guidance and further instructions since today's generation is occupied by several factors that affect their reading comprehension such as interest, teaching styles, and use of language.

The application of metacognitive teaching strategy, making connections, has a positive effect on enhancing the students' level of reading comprehension. However, there were difficulties encountered that should be avoided. Such difficulties are what the professors need to take into account to maximize its effectiveness. The instructions of metacognitive teaching strategy might consume too much time. Thus, professors must be cautious with the use of time, that is, maximizing it without compromising the lesson objectives. The strategy might also mislead teachers to spoon-feed students which should be avoided to promote independent reading and learning to students.

Indeed, educators play an important role in realizing the essence of any teaching strategy. With adequate support and proper guidance, students will be able to maximize the benefits of making connections and make use of any other metacognitive strategy towards developing higher level of comprehension leading to its ultimate goal of achieving academic success.

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