Metacognitive Awareness; its Effects on the Reading Comprehension of the English 2 Students

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Abstract

This study aimed to determine the relationship between the Metacognitive Awareness and the level of Reading Comprehension of English 2 Students in the Mindanao State University - Main Campus. Specifically, it dwelt on the following: (1) the participants’ profile in terms of Gender, Ethnicity, and Degree Program; (2) participants’ Personal Reading History; (3) participants’ Level of Metacognitive Awareness; (4) Participant’s Reading Comprehension skills based on the Reading Comprehension tests; (5) participants’ level of reading comprehension when grouped according to their profile in terms of Gender, Degree Program, and Personal Reading History; (6) the significant relationship between the Metacognitive Awareness and the level of Reading Comprehension skills of participants; and, (7) the extent to which the Metacognitive Awareness predicts reading comprehension skills. A descriptive-evaluative research design was employed. The finding determined that four reading comprehension skill namely, literal, evaluative, inferential, and applied showed poor performance. Moreover, the relationship between the metacognitive awareness and the reading comprehension skills of the participants, only evaluative level resulted to be significant. Thus, this study implies that monitoring comprehension of the students determine whether they understood what they are reading. Parents and teachers alike can promote these skills by providing ample materials and expose them to different genres at a very early age.

Keywords: Metacognitive Awareness; Reading Comprehension; Literal; Evaluative; Inferential; Applied.

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1. Introduction

Indisputably and invariably, reading tops the list of basic academic skills that students need to master, or be fluent and skillful in. This high valuation of reading is understandable since much of the information or knowledge that students seek and need to learn is coded in print, and students’ ability to unlock this knowledge depends on critical reading, or to be more precise, developed comprehension skills. It is disturbing, however, that some literacy authorities like the Brazilian educator Freire and whole language advocate Routman have made pronouncements about a crisis in reading [27,60], as the title of the latter’s book, Literacy at the Crossroad, suggests.

Jonathan Kozol, a well-read critic of American education system, has also written of the “illiteracy crisis” in the United States. In his view, illiteracy is not only a threat to the economic order or stability of society; it also constitutes an injustice that leads to exclusionary designs used against certain sectors of society [39]. Victims are excluded from meaningful participation in the life of the society of which they form an integral part [42]. This injustice has serious consequences: illiterates are incapable of making informed decisions thus cannot meaningfully participate in the political process and count for something as productive members of society. Thus the saying: “Education as expensive? Ask about ignorance.” Stated succinctly, inability to read undermines the very fabric of democracy in a modern society.

With the foregoing serving as backdrop, literacy in these times has become an even more crucial issue in almost every society. While most studies have focused on beginning literacy in early education, adolescent and even adult literacy merit serious attention as an area of inquiry because the content that they learn increases and so, literacy demands also surge [63]. The latter, particularly students, are required to read a far wider range of print and nonprint texts to build an understanding of texts, of themselves, of their own people and culture and of those of other climes; to acquire new information, and to keep abreast with the trends, demands and needs of a rapidly changing knowledge-based society.

Furthermore, reading as these accounts points up has an intricate process. It is fundamental in all academic disciplines [9]. Comprehension of textbooks, scholarly books, and research journal articles, along with identification of important information can be problematic for college students. Unfortunately many college instructors do not see that teaching reading skills is part of their job, and that reading required college-level textbooks and scholarly books is not different from reading general (non-academic) materials. These same instructors are also likely to assume that students have developed proper reading skills from previous academic years. Not a few instructors do not realize that students do often experience difficulty in reading academic subject matter and in comprehending what they have read, resulting in low rates of student success and retention, along with lowered academic standards.

There are various strategies for improving student comprehension of required reading materials. These strategies may include providing students with background knowledge or experience, providing practical homework and classwork, providing learning aids, using the SQ3R (Survey, Question, Read, Recite and Review) and peer teaching methods, practing encoding, as well as teaching flexibility [42].
White, as cited by Aslan, said that reading is basic in all academic disciplines [9]. Good comprehenders are knowledgeable and strategic readers [42]. College students and graduates are not necessarily good readers. Even though college students are reading advanced academic material, it does not mean that they always comprehend the information [9]. In most public schools, reading instruction often ends in the fifth or sixth grade.

Moreover, it is often observed that even though students spend much of their time reading and studying, college-level courses do not emphasize enough reading comprehension. Many instructors think that students already possess the skills that are needed to succeed, and there are those who do not believe it is possible to teach the required skills at the college level. In addition, instructors may not believe that there is much more difficulty involved in reading college level materials.

As a tertiary educational institution catering to students from underprivileged or even impoverished backgrounds and academically disadvantaged communities, the Mindanao State University in Marawi City is no exception in regard to the problem being discussed. Through observation, anecdotal evidence and test outcomes, disturbing exhibits of reading problems have piled up. College instructors constantly complain of students whose reading skills and consequently, academic performance, do not measure up to university-level standards. Poor performance in the reading comprehension part of departmental examination for English 1 given towards the end of every semester attests to this. So do summaries and critical analyses of texts like essays and short stories which are sometimes assigned as seatwork or extra-class work. Numerous quasi-experimental studies on reading comprehension that employed the pretest-posttest design also serve evidence of reading difficulties [23,62].

Also, there were also studies regarding the metacognitive awareness. To name a few, Yüksel & Yüksel designed a study that investigated the students’ metacognitive awareness of reading strategies they use while reading academic texts in University of Turkey [85]. Also, Sun studied The Effects of Meta-cognitive Language Strategies on Learning English [73].

There is thus a compelling need to continue checking on or monitoring the reading achievement of students in the Mindanao State University, as it can safely assumed that students’ reading skills, to a certain extent, can be a predictor of achievement in the higher curriculum years. This study will further check on the achievement as these students are now enrolled in English 2.

This study also tried to determine whether Metacognitive Awareness is related to the reading comprehension of the participants.

1.2 Theoretical Framework and Conceptual Framework

Schema Theory

Schema theory is an explanation of how readers utilize their prior knowledge to comprehend and learn from text [61]. Different theorists have different definitions of the schema. For Rumelhart, a schema is “a data structure for representing the genetic concepts stored in memory.” Anderson and Pearson defined schema as "an abstract
knowledge structure”. It identifies schema as "a general knowledge structure used for understanding" [7]. The basic tenet of schema theory assumes that written text does not carry meaning by itself. Instead, a text-only provides directions for readers as to how they should retrieve or form meaning from their own previously acquired knowledge. This previously knowledge is called the readers' background knowledge (prior knowledge), while schemata refer to the previously acquired knowledge structures.

Other studies such as Gunning defined schema as the organized knowledge that a person already knows about people, places, things, and events [31]. The Schema Theory involves an interaction between the reader’s knowledge and the text, which results in comprehension. Gunning explained that this schema could be broad--such as a schema for natural disasters or a schema for a hurricane. Each “schema” is “filed” in an individual compartment and stored there. In trying to comprehend reading materials, students can relate this new information to the existing information they have compartmentalized in their minds, adding it to these “files” for future use. Based on the Schema Theory, the degree of reading comprehension my vary depending on how extensive their “files” has become. This is the reason why reading history is considered essential in filing up the schema.

Further studies such as Anderson worked on and further developed the Schema Theory [6]. The term ‘schema’ was not a new concept as it was used by Piaget in 1926. Piaget considered schema as the “basic building block” of intelligent behavior and these expectations are presented mentally in some sort of schematic fashion as described above. A Schema is a concept or framework that exists in a person’s mind to organize and interpret information. It is Indeed useful to think of schemata as “units of knowledge, each relating to one aspect of the world, including objects, actions, and abstract concepts.

Anderson further explained, schema is constantly modified. As individuals acquire more and new knowledge, their mental filing cabinets start to reorganize, routinely re-arrange, adapt and restructure concepts based on what is being learned and experienced. Schemata are not only modified by being continuously re-organized within the mind, but they also grow larger and become more specific and detailed from moment to moment as new information is received.

**Psycholinguistic Theory**

In 1960s, reading theory has come under the influence of psycholinguistics model of reading Goodman [29]. Goodman described reading as a “psycholinguistic guessing game” which is viewed mainly as an ongoing, cyclical process of four stages: (a) sampling from the input text; (b) predicting; (c) testing and confirming or revising those predictions, and (d) sampling further. This perspective is by generally well known and widely accepted in the field.

Coady has also developed this basic psycholinguistic model and has suggested a model in which the EFL/ESL reader’s background knowledge interacts with conceptual abilities and process strategies, more or less successfully, to produce comprehension. By conceptual ability means general intellectual capacity and by process strategies, Coady refers to this as the various subcomponents of reading ability, which includes many
which are also more general language processing skills, syntactic information (deep and surface, lexical meaning, and contextual meaning, etc.). The author further says little more about the role of background knowledge other than to observe that students with a Western background learn English faster, on the average, than those without such a background. He also suggests that background knowledge may be able to compensate for some syntactic deficiencies [19].

**Metacognitive Theory**

This theory provides the relationship between the knowledge of students and the new information; it involves the internalization, observation and use of knowledge by students on their own as well as using the metacognitive theory they have learned in new areas involved in reading and constructivist learning theory [79]. Candan defined Metacognition defined as, "thinking about thinking" [17]. Furthermore, Eggen and Kauchak, who limited metacognition as study strategies of students in the form of self-determination, examined this as "learning strategy." Gunstone and Mitchell cited that metacognitive is mainly about recognition of cognitive processes, monitoring and control [32]. Acikgoz also defined metacognition as planning learning, managing comprehension or meaning, and as self-evaluation strategy [1].

The researchers on metacognition found out that the lack of metacognitive skills had caused the students to fail and to have low-performance [79]. Most significant deficiencies of metacognitive skills are inability of students to use the appropriate strategy to work. Learners cannot efficiently move as planned when they cannot determine the appropriate strategy [26]. For example, when questions are asked to students who do not know what to do and what their purpose is, they will fail to produce high-quality answers [1]. Even if the appropriate strategy is determined when a new situation is met, lack of effective strategy can cause deficiency [38].

A student-reader will make use of these three theories as a means of reading comprehension, through the strategies, which are the responsibility of the educator to teach. For the Schema Theory to work efficiently, the students must know the subject they are to discuss. One may assume that if children have little background knowledge on a subject, they will have difficulty in comprehending readings regarding that subject. Students sharing with the class their own schemata could help resolve or at least alleviate the problem. Students who do not have prior knowledge of a subject could begin to build their schema based on their classmates’ experiences and in their reading history.

In addition, the Psycholinguistic Theory is essential to this study. This theory works significantly to the readers if these readers know how to ask questions, how to predict what they read before finishing whatever text they are reading and how to make conclusions about what they have read. If these can be successfully done by the student-readers, then it means they have good reading comprehension; hence, they can be considered good readers.

Metacognitive Theory. The Metacognitive Theory also plays a very significant role in the reading comprehension of the learners. According to Ahmadi and Hairul, reading comprehension is an essential factor in EFL/ESL learning process and should be emphasized in different levels of education and should be one of the
top priorities of ESL/EFL students after completing elementary English courses [3]. However, there are many
learners who have trouble with reading comprehension. The metacognitive theory is believed to be one solution
to the said problem. When students metacognitively reflect upon their learning strategies, they become better
prepared to make conscious decisions about what they can do to improve their learning. Wang and his
colleagues argued that metacognitive reading strategies have various benefits on students’ reading
comprehension and fostering their learning activities. In addition, students who have confidence in their learning
process and can utilize metacognitive reading strategies such as, planning, monitoring and evaluating are more
successful than those students that do not use this strategy in their learning and reading program [82].

There are three factors identified in this proposed study that underlie reading comprehension. These are personal
characters, personal reading history, and metacognitive awareness. Reading comprehension skills are essential
for meaningful, critical, and productive reading. Early reading is grounded in strong cognitive skills -- i.e.
learning styles such as auditory analysis, sound blending and segmenting, memory visualization. Therefore the
key to improving reading comprehension skills is to attack weak language learning skills at the foundational
level. Moreover, Ahmadi, Ismail & Abdullah, among others, cited that there is a positive relationship between
metacognitive awareness and reading comprehension as the former is considered as an essential factors that
needs to be emphasized in the field of reading because it facilitates the reading comprehension and fosters
learning [3].

Personal Characters

It is assumed that personal characters, such as gender and degree program of students, have influence on their
reading comprehension. Time spent for reading was also very much diversified based on gender. Females are
more likely to be avid readers than males [18,70]. Males across the continents are continually not performing as
well in reading as their female counterparts. Much of this is blamed on lack of literature that males are interested
in, television, video games, and teaching methods [33,66,70]. However, this performance factor begins before
they enter school. Males begin school with a lower reading level and their growth in reading occurs at a slower
pace than in females. Typically, males read at a level that is a grade and a half lower than females of the same
age [70]. One problem that exists due to this lack of reading level at the beginning of one’s educational career is
that many times no intervention is sought until a problem is seen later in one’s school career. Many teachers
wait until they see a problem, sometimes this is as late as grades four or five [33]. One study agreed with these
reports, but also found something interesting in addition to these findings. In Taiwan, it was found that females
read more than males at most every age in school; however, females in college did not read more than males in
this same group. Also, this study found that as men grew into older adults, they tended to read more than women
[18].

Personal Reading History

Many older children and adolescents, especially those who were not used of reading or not used to be read with
books by their parents during their early years, experience difficulties with reading comprehension because they
continue to struggle with word-level deficits that impede the extraction of meaning from text, a higher-level
cognitive skill. Also there there are poor comprehenders. These people have difficulty understanding texts despite adequate word-level skills. Other factors, such as those in the domain of oral language, also have been found to predict reading comprehension [24].

Another factor that affects a student’s ability to read proficiently and comprehend is poor working memory [4,74,63]. Working memory allows a student to temporarily store information in short-term or working memory while engaging in cognitive tasks. Thus when a student reads, he can activate prior knowledge about a topic or use context clues to determine the meaning of a word while remembering what has just been read. According to Swanson, Zheng, and Jerman, students who struggle to read are unable to retain ordered information which is directly related to phonological retention processing. Retaining phonological information (i.e. blending sounds within words, or segmenting multi-syllabic words), a task performed through working memory, is essential to learning to read. Additionally, a direct relationship has been found between working memory and learning, which Alloway, Gathercole, Kirkwood, and Eliott posit as related to poor academic performance in both reading and math [4,74,63].

**Metacognitive Awareness**

According to Block, there is now no more debate on “whether reading is a bottom-up, language-based process or a top-down, knowledge-based process.” It is also no more problematic to accept the influence of background knowledge on readers. Research has gone even further to define the control executed by readers on their trial to understand a text. This control is what Block has referred to as meta-cognition [11]. In the context of reading, meta-cognition involves thinking about what one is doing while reading. Strategic readers do not only sample the text, make hypotheses, confirm or reject them, and make new hypotheses while reading. They also involve many activities along the process of reading, whose stages can be divided into three, i.e. before reading, while reading, and after reading. The activities the readers involve before reading are to identify the purpose of the reading, identify the form or type of the text. In the second stage (while reading), they think about the general character and features of the form or type of the text—such as trying to locate a topic sentence and follow supporting details toward a conclusion, project the author’s purpose for writing the text, choose, scan, or read in detail, make continuous predictions about what will occur next based on information obtained earlier, prior knowledge, and conclusions obtained within the previous stages. Finally, in the last stage, they attempt to form a summary, conclude, or make inference of what was read.

Finally, metacognitive awareness or knowledge is assumed to influence, if not determine, the level of reading comprehension. Metacognition, consisting of mental processes, is actively involved in the reading process for obvious reasons. Learners are thought capable of becoming aware of mental processes, for example, recognizing which kinds of learning tasks cause difficulty, which approaches to retention or remembering of information work better than others, and how to solve different kinds of problems. Mental processes are vital to decoding or unlocking meanings, analysis, and interpretation in critical reading, and relating the text to the outside world. The latter requires recall, which presupposes retention and retrieval. Reading comprehension is unimaginable without metacognitive knowledge or awareness. In light of its being a complex process involving metacognitive awareness or knowledge, reading can be problematic for college students. Unfortunately many college
instructors do not see that teaching reading skills is part of their job, and that reading required college-level textbooks and scholarly books is not different from reading general (non-academic) materials. These same instructors are also likely to assume that students have developed proper reading skills from previous academic years. Not a few instructors do not realize that students do often experience difficulty in reading academic subject matter and in comprehending what they have read, resulting in low rates of student success and retention, along with lowered academic standards. Metacognitive knowledge/awareness is thought to influence the kinds of learning strategies learners choose. In this study, the word has the same meaning or usage described. Furthermore, this study identified the four levels of reading comprehension, which are considered as the dependent variables of the study. These are: Literal, Inferential, Evaluative, and Applied [80].

**Literal comprehension**

It involves what the author is actually saying. The reader needs to understand ideas and information directly stated in the reading material. Some of this information is in the form of recognizing and recalling facts, identifying the main idea, supporting details, categorizing, outlining, and summarizing. The reader is also locating information, using context clues to give meaning, following specific directions and a sequence, identifying stated conclusion, and distinguishing explicitly stated relationships and organizational patterns. These organizational patterns can include cause and effect as well as comparison and contrast [80].

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**Inferential comprehension**

It deals with what the author means by what is said. The reader must only read between the lines and make inferences about things not directly stated. Again these inferences are made in the main idea, supporting details, sequence, and cause and effect relationships. Inferential comprehension could also involve interpreting figurative language, drawing conclusions, predicting outcomes, determining the mood, and judging the author’s point of view [80].

**Evaluative comprehension**

It writes questions and answers that require the reader to make a judgment about an aspect of the story such as a character’s actions. Write all possible judgments about characters and issues within story [80].
Applied comprehension. Villanueva further said that understanding at the literal and interpretive levels are combined, reorganized and restructured at the applied level to express opinions, draw new insights and develop fresh ideas. Guiding students through the applied level shows them how to synthesize information, to read between the lines and to develop a deeper understanding of the concepts, principles and implications presented in the text.

Figure 1 depicts the Schematic Diagram of the Conceptual Framework of this study. At far left are three boxes showing the Independent Variable. There are categories comprising the Independent Variable: the respondents’ profile (gender, degree program/course pursued, ethnicity), the personal reading history and the metacognitive awareness.

At far right is the Dependent Variable, the Level of Reading Comprehension. As the lines connecting the first and third boxes and the arrow pointed in the direction of the Dependent Variable suggest, a positive link or correlation between the two sets of variables is hypothesized. The level of reading comprehension is posited as influence or determined by the respondents’ profile and the factors identified as affecting level of reading comprehension.

![Schematic Diagram](image_url)

**Figure 1:** Schematic Presentation of the interplay of variable of the study

1.3 Statement of the Problem

This study was undertaken with the aim to determine the relationship between the metacognitive awareness and the level of reading comprehension among English 2 students in the Mindanao State University. Specifically, it seeks to answer the following questions:

1. What is the profile of the participants in terms of:

1.1 Gender,
1.2 Ethnicity, and
1.3 Degree Program?

2. What is the Personal Reading History of the Participants?

3. What is the Level of Metacognitive Awareness of the Participants?

4. What is the participants’ level of reading comprehension skills based on the reading comprehension test?

5. Would the level of reading comprehension differ when grouped according to the participants’ profile in terms of:
   1.1 Gender,
   1.2 Degree Program,
   1.3 Ethnicity, and
   1.4 Personal Reading History?

6. Is there a significant relationship between the metacognitive awareness and the level of reading comprehension skills of the participants?

7. To what extent does metacognitive awareness predict reading comprehension skills?

1.4 Hypotheses

Ho1: There is no significant difference on the level of participants’ profile, gender, and personal Reading History on their level of reading comprehension skills.

Ho2: There is no significant relationship between the metacognitive awareness and the level of reading comprehension skills of the participants.

Ho3: Metacognitive awareness does not predict reading comprehension skills.

1.5 Significance of the Study

This study sought to contribute to the existing literature on reading comprehension of college students at this point in their development, that is, on the threshold of engaging with more advanced and cognitively demanding materials usually required in major courses. Skills developed in English 2 are posited as critical or pivotal to achievement in the higher curriculum years. The results or findings of this study should therefore prove
informative and beneficial to the following:

**School Administrators**

This study adds to baseline data urging and guiding school administrators to craft and implement programs designed to address the reading comprehension difficulties of certain groups of students. They will have an idea of where to come in and what they can do to provide an intentional, truly challenging and supportive learning environment that conduces to increasing student achievement and success in all domains: academic, intellectual, social, emotional, and moral-spiritual.

**Curriculum Planners**

The study’s findings will serve as heuristics and cultivate in teachers what N.S. Prabhu calls “sense of plausibility”, that is, sensitivity to context and students’ individual needs. This can serve as a starting point for them to move towards teaching based on principles, and motivate to adopt differentiated instruction and guide them in developing strategies or techniques and instructional aids designed to help enhance students’ reading interest and reading comprehension as an essential step towards critical reading.

**Students**

This study’s findings ought to draw traction for students who will perhaps identify with the participants and recognize in the latter’s situation limitations as well as opportunities for growth that also apply to them. By becoming aware of the “ecology” of learning, particularly of effective reading, and the significance of a high level of reading comprehension, they can work out strategies for coping with their own problems or difficulties, and develop into critical readers.

**Researchers**

The findings of this research work will serve as a point of departure or jumpstart and reference for other studies on reading comprehension.

**1.6 Scope and Delimitations of the Study**

The study is limited to the level of reading comprehension of English 2 students of the Mindanao State University as phenomenon of interest. Only English 2 (Writing in the Discipline) students officially enrolled in the Second Semester of Academic Year 2016-2017 in the Mindanao State University in Marawi City were chosen as participants. The MSU system has eleven (11) campuses strategically spread across four (4) regions in Mindanao. MSU at Marawi is the Main Campus and has the largest population and most comprehensive bulletin of offerings. Focus on English 2 students is decided on the basis of the course’s emphasis on writing essays and a Term paper; therefore, Various reading activities and reading comprehension are given to the students since they cannot write effectively without reading a number of materials regarding their chosen topic for the term paper, for instance.
1.7 Definition of Terms

For a common framework and understanding of key words and high frequency terms used in this study, these are conceptually and operationally defined.

Applied Reading Comprehension

In this study, it is identified as one of the dependent variables. It is defined as the combination of the understanding of literal and interpretive levels to express opinions, ideas, etc.

Background Knowledge

This denotes prior or learned knowledge about a specific domain, for example, some natural phenomenon like eclipse or earthquake; encompassed by the concept of schema.

Bottom-up Processing

Applied to reading, the term means understanding the text mainly by analyzing the words and sentences in the text itself.

Comprehension Skills

These refer to the skills which are used to understand a message. These skills may include noting details or sequencing ideas, or arranging details or incidents, or simply answering “why” question as an after-reading strategy/activity.

Critical Literacy

It refers to literacy that goes beyond the mechanical process which overemphasizes the technical acquisition of reading and writing skills.

Critical Reading

This kind or level of reading goes beyond the “basics” that involves no more than decoding the words on a literal level.

Decode/ Decoding

This denotes the process of trying to understand the meaning of a word, phrase, or sentence. The word is also used to mean the interpretation of any set of symbols which carry a meaning.
Evaluative Comprehension

It is one of the levels of comprehension identified as dependent variable in this study. It is done by asking the readers to make a judgment about an aspect of the story such as a character’s actions.

Inferential Comprehension

In this study, it is identified as one of the dependent variables. It means that readers will simply read between the lines and make inferences about things that are indirectly stated.

Input and Output

These are terms used in applied linguistics, psychology, cognitive psychology and other related disciplines to refer to information that a person receives (input), behavior which results from it (output) and the relationship between the two.

Interactive Reading/Learning

Interactive reading/learning designates active, engaged and authentic learning that entails discussion, dialogue, negotiation, and problem solving.

Literal Comprehension

This refers to one of the levels of comprehension identified as dependent variable of the study. This means understanding ideas and information explicitly as stated in the reading material.

Metacognitive Awareness

In this study, it refers to the awareness of the readers about what they are doing while reading.

Reading Comprehension

This refers to how readers perceive a written text, decode and/or determine the meaning, and understand the results from the process.

Receptive skills

In this study, they are the passive skills, reading and listening.

Schema (pl. schemata)

This denotes a concept or framework that exists in a person’s mind to organize and interpret information. In this study, this refers to one of the theories of reading comprehension.
Scan, Scanning

In reading, this is a type of speed reading technique which is used when the reader wants to locate a particular piece of information without necessarily understanding the rest of a text (book, for example).

Skimming or skim-reading

in contrast to scanning, is a type of rapid reading used when the reader wants to get the main idea or ideas from a passage.

Top-down Processing

This signifies processing that makes use of previous knowledge (“higher level knowledge”) in analyzing and processing information; arriving at or constructing meaning builds upon the reader’s previous knowledge, his or her experiences and expectations.

Whole-to-Parts Reading. Briefly, this approach to reading is described as looking at the picture of the whole puzzle first and then putting the pieces together.

2. Review of Literature and Studies

Related literature and studies into which the materials are broadly categorized and organized are drawn upon for theoretical, methodological, and empirical support.

Personal Reading History

Reading is the mother of all study skills. It is one of the most complex and valuable skills a person can acquire. It is not merely an ability to recognize written or printed words, but it also refers to putting meaning to what a person reads and drawing a unified thought of what is read. Thus it cannot be taught in isolation (Tizon, 2013). Reading comprehension is the ability to understand what is read where words have context and texts have meaning. Reading comprehension was defined by Grabe and Stoller as the skills that allow one to read proficiently, learn effectively, and to conceptualize. These skills are, basically, based on earlier stages of reading development, including oral reading and reading fluency. Without developing these earlier skills students must continually focus on decoding letters and words, rather than progressing to meaning and understanding (Grabe &Stoller, 2002; as cited by Roebl &Shiue, 2013). The key to developing proficient reading skills in the early years of education, assert Brewster and Ellis in 2002, is an even earlier foundation underlying language learning skills (Roeb &Shiue 2003). Therefore, good reading comprehension skills are viewed as being dependent on the strength of the cognitive strategies established in the early years.

Reading competence

does not happen in a vacuum. It has a history behind it that can be traced back to early childhood or pre-school age. This is the thesis that can be drawn from the Structured Reading of Quitman and Wayne (2009). According
to reading experts, children that are read to grow to become lifelong good readers. Reading, as earlier explained, is not just looking at and deciphering letters and words. It is a complex process involving distinct yet connected steps that require serious and critical engagement with the text. Thus the more solid one’s reading foundation is, the easier the task of reading for him/her.

**The SQ3R (Question, Read, Recite, and Review) Strategy**

Complexity of reading as a process has forced recognition of the need to devise strategies for facilitating the activity. One of such commonly used strategies is the SQ3R (Question, Read, Recite and Review), which illustrates reading as involving distinct yet connected steps. SQ3R is a study technique that helps maximize comprehension while minimizing reading time. It helps one to master textbook material, learning information to the point of recall, and understanding facts and how they fit together.

**Survey:** Look over the title, headings and subheadings, including captions under pictures, charts, maps, etc. The reader consciously predicts what he thinks the topic will be.

**Question:** Turning the headings and subheadings into a question, using the “five Ws and one H.” By these questions, the reader prepares himself (his mind) to read for answers.

**Read:** Read closely. Keep in mind the questions you have asked about the material. Strive to hook any new material onto what you already know.

**Recite:** Go back to whatever heading/subheading, or boldface words you used to form questions. In your own words, say aloud or to yourself what the material is about.

**Review:** Look over the material again. More concentrated study this time. Take special notice of key spots. Highlight key areas or major ideas. Use see-through marking pens. Next, think through whether your predictions were correct. A Review is intended to pull together the pieces like working on a jigsaw puzzle.

**Reading Comprehension**

Grabe and Stoller said that reading comprehension skills are significant for learners to become effective readers [30]. Reading starts with decoding letters, letter groups, and the sounding out of words. Later, learners begin to read words, sentences, short stories, picture books and other texts. Reading aloud helps learners to develop their decoding skills which can be a valuable diagnostic aid. This process concentrates on the development of fluency. The movement from passive to active reading involves the development of reading comprehension skills [42,59].

Concepts of reading comprehension have changed dramatically over the decades. Theories of language learning have again shifted dramatically during the latter part of the 20th century. The behavioural perspective which dominated the field from the turn of the century to the seventies and eighties had to give way to a holistic or interactive approach, which began in the late eighties, and continues to shape public thinking about reading.
comprehension today. Some researchers view reading as a cognitive, developmental, and socially constructed task that goes beyond understanding the words on a page [34,59]. In the past, reading was considered a relatively static activity. General meaning was embedded in the text, and the reader had to understand what was being transmitted through the words on the page. Current researches view reading as a more dynamic process in which the readers “construct” meaning based on information they gather from the texts. Reading comprehension is defined as a holistic process of constructing meaning from written text through the interaction of (1) the knowledge the reader brings to the text, i.e. word recognition ability, word knowledge, and knowledge of linguistic conventions, (2) the reader’s interpretation of the language that the writer used in constructing the text, and (3) the situation in which the text is read.

University-level reading is much more sophisticated than at high school, and in a special course load, students may encounter and face many more literary genres than ever before. They may be asked to read, comprehend, and apply them in a meaningful way. Understanding these texts are essential for academic success, yet in an average class, attention will not be given to reading strategy training which may be important for the language learning tasks.

Metacognition involves various elements in the reading tasks. They are as follows: the ability to recognize errors or contradictions in text, the ability to understand the different strategies to use with different kinds of text, and the ability to distinguish significant ideas from insignificant ones. While research suggests that many university-level students lack metacognitive skills, intervention studies show that university students can try to learn and understand their level of text comprehension by using different strategies. Studies also reveal that university-age students are highly motivated to use different strategies than younger, less experienced students. Nist and Mealey, as cited by Roebl & Shiue, said that the “Older students seem better able to regulate and control their understanding than do younger children. . .as children become older, their capacity to use metacognitive skills increases, and their reasons for not using these skills change.” There are a number of reading strategies which can help university students to improve both comprehension and metacognition [52].

According to Tok-Awer and Chorun, John McNeil viewed schemata as the reader’s “concepts, beliefs, expectations, processes-- virtually everything from their past experiences are used in making sense of reading. In reading, schemata are used to make sense of the text; the printed word evokes the reader’s experiences, as well as past and potential relationships” [77].

Effective teaching of reading comprehension necessitates an understanding and analysis of its nature and components, including both text and reader variables. Grabe, as cited by Aslan, put it this way: “The central components of reading processing include: orthographic processing, phonological coding, word recognition (lexical accent), working memory activation, sentence parsing, propositional integration, propositional text-model formation, text-model development, and the development of an appropriate situation model (mental model). It is important to understand when and why some readers fail to generate appropriate situation models of the text they read in spite of adaptation applied to the linguistic features [9,30].
Reading comprehension skills are essential for meaningful, critical, and effective reading. Early reading is grounded in strong cognitive skills -- i.e. learning styles such as auditory analysis, sound blending and segmenting, memory visualization. Therefore the key to improving reading comprehension skills is to attack weak language learning skills at the foundational level [59].

Effective reading comprehension requires not only accurate reading skills but also automatic and fluent reading ability. Many struggling university level students have difficulty moving to a level of automaticity and fluency that allows them to comprehend what they are reading. Automaticity is the ability to identify, at the single word level, quickly, accurately, and effortlessly. The speed and accuracy with which single words are identified is taken as a predictor of text comprehension [81]. However, reading fluency involves not only automatic word identification, but also it is suggested that fluency involves the prediction of what comes next in the text. They also say that reading speed or rate and practice are not enough to promote fluency and comprehension. The ability to predict what comes next improves reading speed and is important for text comprehension.

TESOL research was influenced by Krashen’s hypothesis on language acquisition and the Schema Theory on reading comprehension. Increasingly, empirical research attests to the importance of schemata in reading comprehension. Most of the research involved reading comprehension in the first language, although the insights were adapted to the needs of language reading comprehension studies. Attention is given to interactive approaches to reading which suggests that reading comprehension is a combination of word identification and interpretation. Grabe and Stoller lists the five most “Schema theory, language skills and automaticity, vocabulary development, comprehension strategy training, and reading-writing relations [9,30].

The principle of reading comprehension is the cognitive tasks involved in reading as well as the various activities teachers use in teaching reading comprehension. Current research suggests that lack of automaticity in “lower-level processing” (i.e. automatic lexical access through bottom-up process) leads to poor reading skills. Consequently, most current versions of interactive approaches to reading have taken a strong bottom-up orientation to the processing of lower-level linguistic structure through extensive research on eye movement. Research suggests that “most words are recognized before higher-level (non-automatic context information can be used to influence lexical access.”

**Proficient Readers**

Reading involves a communication between the author and the reader. Adept readers apply their prior knowledge of concepts and experiences to ask how they can better understand the content they are reading. Adept readers, researchers have found out, also make connections between texts, from the text to the outside world, and from the text to their own experience while reading. They tend to make mental pictures of what they read, and they ask questions of themselves and of their instructors to enhance their understanding of the text [63]. Researchers have looked into some strategies that have been demonstrated to help poor readers improve their comprehension include: determining importance while reading, self-monitoring comprehension; making predictions and inferences about the text, and questioning while reading [42].
Factors that can influence reading comprehension in the general population. While some empirical studies document the acquisition of word reading skills (i.e., phonological awareness, word recognition, decoding, fluency), less is known about reading comprehension development and disabilities. Decoding and phonological skills are considered significant predictors of reading comprehension. However, they are not the only factors that may contribute to weaknesses in reading. Accordingly, difficulties with reading comprehension within the general population may arise for some reasons [24,83].

Many children and adolescents go through difficulties with reading comprehension because they continue to struggle with word-level deficits that hinder the extraction of meaning from text, a higher-level cognitive skill. Moreover, there is what others call “poor comprehenders”. Poor comprehenders refer to people who have difficulty understanding text despite enough word-level skills. Other factors, such as those in the domain of oral language, also have been found to predict reading comprehension. Current reading research shows that several key factors obstruct a learner’s reading comprehension. One of the most important is phonemic awareness, the ability to process the individual sounds of letters, which is significant for word recognition. For example, when a reader hears the word “bug,” he must discriminate the three distinct phonemes within the word. The reader then blends the sounds together to decode the word. Underdeveloped phonemic awareness and phonics skills, as well as poor working memory, interfere with the reader’s ability to read words fluently (i.e., with automaticity), which is linked to reading comprehension deficits. During a student’s first years in school, reading instruction focuses on decoding and fluency, which require both strong phonemic awareness and phonics skills according to the National Reading Panel’s (NRP) report of 2010.

Poor working memory is also a factor that can affect a learner’s ability to read proficiently and comprehend a text [4,74,63]. Working memory permits the learners to temporarily store information in short-term memory while involved in cognitive tasks. Hence, when the learners read, they can activate prior knowledge about a topic or use context clues to determine the meaning of a word while remembering what has just been read. Learners with disabilities often have low working memory capacities, which can negatively affect reading comprehension. According to Swanson, Zheng, and Jerman, students who have difficulty in reading have difficulty retaining ordered information which is directly related to phonological retention processing [63.74]. Retaining phonological information (i.e., blending sounds within words, or segmenting multi-syllabic words), a task performed through working memory, is essential to learning to read. Furthermore, working memory and learning has been found to have a direct relationship which Alloway, Gathercole, Kirkwood, and Elliott posit is related to poor academic performance in both reading and math [4,63].

The Need for Multiple Strategies

College transition students often find that the several types of texts and reading experiences given in college-level courses are difficult to organize and comprehend. In addition, students are frequently required to demonstrate their comprehension of various texts in comparative analyses or other applications of their understanding. As a result, Aslan says that researchers emphasize the importance of tailoring instruction in a given reading strategy to the demands of the specific reading task and topic and providing students with concrete practice in how to apply strategies [9]. The list of strategies provided here should be viewed as a
repertoire of diverse comprehension strategies that can be used in varying ways depending on student needs, teacher goals, and the demands of the reading task. By embedding strategy instruction in classroom content and providing students with a range of strategies, students with histories of reading comprehension difficulties can become more skilled readers and more successful in approaching the many types of texts and reading tasks required for college level work. In an attempt to compare the extent to which high school prepares learners for university reading level, Wilkins, Hartman, Howland, and Sharma used the Lexile Framework for Reading to find out the proportion of grade 11 Texas public school students who indicate the ability to read and comprehend 74 textbooks used in entry-level English courses at the University of Texas. The results of the study showed that about fifty percent of the public school students in grade 11 in Texas were ready to read at the University of Texas system [84].

Tok-Awer and Chorus examined how demographic factors can be a determinant of reading habits and comprehension of undergraduate students in their use of library resources. However, the degree of commitment of students to reading habits and comprehension has no joint effect on demographic factors; the study takes a cursory look at how demographic factors are determinant of reading habits and comprehension of undergraduate students. The study used the descriptive research design, purposive sampling technique also adopted with the sample size of five hundred (500) undergraduate students taken from some selected departments, using all levels of study. Three (3) instruments synchronised into a questionnaire titled Demographic factors as determinant of Reading Habits of Undergraduate Students Questionnaire (DFDRHUS) was used to elicit the needed information. The Statistical Package for Social Sciences (SPSS) software and the use of multivariate and univariate statistical tool were used. Descriptive statistics (gender, age, marital status, level of study and occupation) on reading and comprehension was the bane of analysis. The study revealed that gender, age, marital status, level of study and occupation are good predictors of reading habits of students [77].

Middleton recruited 421 twin pairs (MZ = 168, DZ = 253) from the Western Reserve Reading Project to investigate the relationship between reading comprehension and reading motivation. Reading motivation was examined using the Motivation for Reading Questionnaire, a specific set of scales based on 11 dimensions of reading motivation. On the other hand, the Reading comprehension was examined using the Peabody Individual Achievement Test – Revised and the Woodcock Reading Mastery Test – Revised comprehension subtests. Latent factors were formed for reading motivation and reading comprehension using data from three annual home visits, beginning when children were 6 years old (M =6.09, SD=.69) [47].

Results showed that shared environmental, nonshared environmental influences, as well as genetic were important for both reading motivation and reading comprehension factors. Furthermore, the covariance between reading comprehension and reading motivation factors was influenced both by the genetic pathways and the nonshared environmental pathways. In contrast, estimates for shared environmental overlap between reading motivation and reading comprehension were not statistically significant.

Weissinger’s research study investigated some of the underlying factors that may relate to and predict the reading comprehension of learners in fourth up to the eighth grade (N=47). A subset of these learners previously had been diagnosed with autism spectrum disorders; the remainder are classified as typically-developing. The
participants were examined on basic reading skills (i.e., decoding, word recognition, and reading fluency), receptive vocabulary, executive functioning (i.e., verbal working memory and planning/organization), and theory of mind. Correlational analyses were done for each group to find out the relationships between these measures and performance on the Comprehension subtest of the Stanford Diagnostic Reading Test, a standardized measure that includes different types of passages (i.e., narrative, expository, and functional) and asks different types of questions (e.g., literal, inferential). Next, the performance of the typically-developing participants was compared with children in the ASD group, and finally, predictors of overall reading comprehension and performance on the different passage types were explored. The results indicate that, for typically-developing participants, reading fluency and receptive vocabulary were essentially correlated with overall reading comprehension, performance on all passage types, and on initial understanding and interpretation questions. Likewise, for children in the ASD group, strong relationships were found between receptive vocabulary and performance on the comprehension measure (i.e., overall comprehension as well as performance on all text and question types). These results are consistent with previous research that has underscored the importance of reading fluency and vocabulary knowledge to reading comprehension [83].

Aslan conducted a study that investigated the factors that affect the reading comprehension of Turkish students who are learning English as a second language. Participants of the said study were three hundred university-level students in Turkey. Two different tests including Turkish reading comprehension questions and English reading comprehension questions were given to them. They answered the English reading comprehension questions first before they answered the Turkish reading comprehension questions. There were 25 multiple-choice questions related to the reading passages in each test. After evaluating their test scores, the same participants have been asked to answer a questionnaire that includes 20 different questions [9].

Most of the questions are related with the difficulties they experienced while answering the questions in both tests. After evaluating the results of the sample tests, the result showed that the participants at the higher level classes are the most successful of all the students. Most of these participants, who had good test results in both tests, are the ones who read much in Turkish as much as in English. They are also the ones who are more interested in reading. In general, they have adequate knowledge about the basic reading styles and comprehension strategies.

Sanford conducted a study that investigated the relative importance of working memory, vocabulary, prior knowledge, word recognition, reading strategies, and motivation-to-read for the reading comprehension of secondary SWD. These variables represent the major constructs of Kintsch’s Construction Integration Model of reading and have been identified in reading comprehension research as the factors integral to reading comprehension. Participants were 158 SWD in grades 9 to 12 attending two large urban northern California high schools. Multiple regression analyses were administered with the affective and cognitive variables both individually and jointly and, in order of importance, word recognition, vocabulary, reading strategies, working memory, and prior knowledge were determined to have influence on the reading comprehension of secondary SWD. Of the motivation-to-read factors, extrinsic motivation had a statistically significant negative relationship with reading comprehension indicating that internally motivated students had higher reading comprehension ability. Intrinsic motivation was also a necessary contributor to reading comprehension when the affective
factors were regressed onto reading comprehension. Differences in the relative importance of the cognitive components between low- and high-comprehenders also revealed that high-comprehenders had more internalized reading abilities than low-comprehenders [63].

Cabasan made her study as a springboard to launch a well-designed reading program to be anchored on a data base reading comprehension profile. The instrument was taken from the College and Secondary Reading Inventory of Jerry Johns. Form A of this inventory was used for the individual reading and was also administered to the whole class in silent reading. The group silent reading inventory was done first. 5 minutes was the time allotted for the examinees to read the short passage and another 5 minutes was given to them to answer the questions. The oral reading to detect miscues was conducted one-on-one. The passage was read individually by the examinees. The teacher-researcher took down miscues in the oral reading as each examinee read the assigned passage to be read. After then, the results were analyzed and interpreted to determine the reading levels of the students. The findings were used as bases for the micro reading program for freshman education students where the macro institutional reading program would be anchored. The research was done in Mater Dei College, located in Tubigon, Bohol founded in 1983 by Rev. Fr. Josemaria Luengo. The sole focus of the study was the College of Education [15].

The reading inventory showed that of the 33 subjects, 20 (61%) were among the frustration category, 11 (33%) were in the instructional, and only 2 (6%) were classified in the independent level. Only 2 then could read with sheer understanding of the materials given to them without assistance. Those categorized in the instructional, 11 of them, should be assisted in order to understand materials required for them to read. On the other hand, more than 50 percent of the subjects, the 20 students (61%) in the frustration level, are the struggling readers. These are the students who need rigorous remedial work and intensive monitoring to be able to accomplish the required comprehension level to process information of textbooks and other instructional reading materials. As to the common significant miscues committed, repetitions ranked first (49%) followed by omissions (17%), mispronunciations (18%), substitutions (8%) and insertions (8%). However, the said miscues showed that they have generally slight effect on the comprehension of the subjects. These data revealed almost similar slight effect except for one moderate effect in the percentage in the frustration level.

Kwiatkowska conducted a study to determine the factors that underlie the poor reading comprehension abilities of an older group of students. The dissertation included two studies drawn from a sample of 137 from high school students whose ages is 15. Study One employed archival data from government mandated tests of reading achievement of 78 learners administered in Grades 3, 6, and 10, and results from a commercially available test of reading comprehension used in Grade 10. This longitudinal study investigated the frequency of the stability, cumulative growth, and compensatory models in the development of reading comprehension. Probabilities of later-grade reading achievement categorization conditioned on earlier-grade reading achievement were computed, the frequency of developmental paths was estimated, and tests of regression to the mean were conducted. Overall findings imply considerable stability across time [41].

Study Two investigated the specificity of the comprehension weaknesses of 15-year-old readers who are considered unexpected poor comprehenders. Regression analyses identified two contrast groups (expected
average and unexpected good comprehenders) and the unexpected poor comprehenders. Characteristics of unexpected poor comprehenders are studied after controlling for word-reading accuracy, phonological decoding, reading rate, nonverbal ability, and vocabulary. Madariaga Orbea and Martínez Villabeitia conducted a study in which a program for the direct teaching of reading comprehension and metacomprehension strategies addressed to a sample of Second Cycle Primary Education students was drawn up. The researcher held a series of meetings with the teachers of the target sample students to train them on how to apply the program. The purpose of the training is to make program application in the classroom more natural and to provide further awareness for its practice in the future. There were 457 subjects for this study who were taken from the pupils of a Spanish speaking town of Vizcaya officially enrolled in school in Spanish and Euskera. The results proved the hypothesis that a significant improvement of reading comprehension in both languages is achieved through the program, and that the effect of some attitudinal variables is minimized. The evaluation carried out by the subjects showed that their motivation and the program’s implementation were satisfactory [43].

Alshehri conducted a study that used the reading aloud strategy to improve reading comprehension. The study was conducted in Saudi Arabia during the summer of 2014. This study was participated by 41 male students in the 5th grade. The researcher explained the reading aloud strategy to the participants to increase their reading comprehension. The participants then followed the intended strategy during the reading lectures in order to increase their reading comprehension. This research study chose to use the 5th grade textbook to determine if the reading aloud strategy can improve reading comprehension of the students. This was measured by a comparison of pre-and-post intervention reading comprehension tests. Furthermore, the researcher designed to gauge if the subjects’ enjoyment of reading increased by using the read aloud strategy. Lastly, observations and recorded field notes on subjects’ behaviour during reading lessons was also conducted by the researcher [5].

The results showed that there is a positive effect on the development and improvement of Saudi students’ comprehension. The participants were able to connect their own experiences and their personal knowledge with the daily texts in sharing their opinions and in demonstrating their high level of understanding. Park, Yang, and Hsieh conducted a study on how university-level second language (L2) readers form meaning when reading through online. They studied L2 readers’ information-seeking strategies and decision-making processes as they read online. Seven participants were tasked to read two online texts and then asked to answer comprehension questions. The main sources of data were observation, think-aloud protocols, and interviews. Through careful thematic coding analysis, they were able to characterize L2 readers’ processes of constructing meaning while reading online using Internet resources. The findings showed that L2 readers use considerable prior knowledge of the structure of both offline and online resources to aid their online reading. Moreover, they follow a recursive pattern of self-regulated reading strategies when they form meanings. Some themes highlighted by the study include L2 readers’ online knowledge construction, their demonstration of cognitive flexibility, and the emergence of new literacy skills [55].

Elwer conducted a study to examine the cognitive and language profile in young learners with poor reading comprehension using a longitudinal perspective. Despite the fact that comprehension skills are closely connected to educational success, comprehension deficits in the young learners have been neglected in reading research. Understanding factors underlying reading is essential as it improves possibilities of early identification
of children at risk of developing reading problems. Moreover, targeted interventions may prevent or eliminate future problems. A significant first step is the descriptions of the cognitive and language profile of learners with different types of reading problems from an early age and over time [25].

The three studies included in this thesis have been conducted using data from the International Longitudinal Twin Study (ILTS). In the ILTS, parallel data have been collected in the US, Norway, Sweden, and Australia. Altogether, more than 1000 twin pairs have been studied whose ages range from 5 to 15 years using well known predictors of reading, along with decoding, spelling, reading comprehension and oral language measures. The three studies used the Simple View of Reading as their theoretical framework and the children who exhibited different kinds of comprehension-related. Sittiphrom conducted a study to compare the English reading comprehension abilities of Grade 11 students before and after using metacognitive strategies and to study the students’ attitude towards teaching English reading comprehension using metacognitive strategies. The sample group included 21 Grade 11 students in a secondary school in Udon Thani, Thailand during the second semester of the academic year 201. A cluster random sampling technique was utilized. The research instruments were comprised of an attitude questionnaire, 9 lesson plans, and an English reading comprehension ability test. The instruments in each cycle of the action research includes a teaching observation form, a learning observation form, lesson plan quizzes, cycle quizzes and a student interview form. To analyse the data, Percentage, mean, standard deviation and t-test for dependent samples were used. Three cycles of action research were utilized in this study. The findings showed as follows. 1. the students’ average pretest and posttest scores on English reading comprehension ability were 55.83% and 80.24%, respectively. The students’ English reading comprehension revealed to be significantly higher after learning using metacognitive strategies at the .05 level. 2. The students’ attitude towards teaching English reading comprehension was at a good level. (x̄ = 4.64) [68].

Arellano made an empirical research on the differences of girls’ and boys’ achievement in reading comprehension in English as a foreign language at the end of their Spanish Compulsory Secondary Education (4th year of CSE). It aimed to analyze both the global and the specific objectives of reading comprehension development in this subject about to the students’ gender. Finally, the average female and male students’ level in reading comprehension in English was described. The results conclude that female students obtain better global results than their male partners. They also get better marks in the specific objectives: getting specific information, getting general information, understanding textual structure and deducing meaning from the context [8].

Shuie, Roebl, and Bragg conducted a meta-study of three previous studies on the same topic done by the authors over the past few years. It attempted to assess the validity of the results and conclusions reached in these studies. The former studies attempted to examine the comprehension skills developed by students in class. The studies were done over a two year period where the subject groups were followed and their progress monitored. The data used in these three papers was reworked and analyzed using the Z-Test. The pre-tests and post-test for each study are taken more than six months apart using the same test, thus ensuring that as many variables as possible are avoided. This meta-analysis shows that the experimental group improved significantly better than the control group, thus supporting the hypothesis that reading comprehension skills are of genuine value to EFL university level students [67].
Mancilla-Martinez and Lesaux conducted a longitudinal study that examined the process of English reading comprehension at age 11 for 173 low achieving Spanish-speaking children. The influence of growth rates, from early childhood (age 4.5) to pre-adolescence (age 11), in vocabulary and word reading skills on this complex process were evaluated using structural equation modeling. Standardized measures of word reading accuracy and productive vocabulary were administered annually, in English and Spanish, and English reading comprehension measures were administered at age 11. Latent growth curve analyses revealed that English skills accounted for all unique variance in English reading comprehension outcomes. Moreover expected developmental shifts in the influence of word reading and vocabulary skills over time were not shown, likely on account of students’ below grade level reading comprehension achievement. This work underscores the need for theoretical models of comprehension to account for students’ skill profiles and abilities [44]. To sum up, all the above-mentioned provide support to the analysis and interpretations of the data gathered in this study.

3. Methodology

This chapter describes in enough detail the research design and methodology-related matters, specifically research site, respondents of the study, sampling technique and procedure used to draw a representative sample from the population, data-gathering instrumentation, data gathering procedure, and statistical tools employed in data analysis

3.1 Research Setting

This inquiry was conducted in the Mindanao State University in Marawi City, which is the Main Campus of the MSU system. From a uni-campus at its inception in 1961 by virtue of Republic Act 1387, the Mindanao State University has grown into a multi-university composed of eleven (11) campuses strategically spread across four (4) regions in Mindanao. Among the one hundred ten (110) state universities and colleges (SUCs), the Mindanao State University is second only to the University of the Philippines in terms of population, budget, and prestige. The latter is based on its graduates’ performance in the national licensure examinations and the number of faculty with masters and doctoral degrees.

The Mindanao State University came into existence through the vision and efforts of the late Senator Domocao Alonto who authored R.A. 1387 and R.A. 1893. Since its founding on September 1, 1961, the MSU has become one of the government’s major partners and instrumentalities in educating people especially coming from the MINSUPALA region. Conceived not only as a training ground for future leaders in government, business, the industries and various professions, but also as a social laboratory and catalyst of change, the University has the unique mission of integrating the Muslim groups and other cultural groups into the national body politic. It is also the only university directly charged by the government to advance the cause of national unity, and to actively pursue integration through education.

3.2 Research Design

Based on the purpose of this inquiry – i.e., to determine the respondents’ level of reading comprehension and the variables or factors that can influence it -- a descriptive research design was deemed most appropriate. Data
gathered are a combination of the quantitative and the qualitative. The personal profile of the respondents and their levels of reading comprehension required statistical treatment. Ascertaining the kind or degree of relationship between the respondent variables (personal profile and the factors hypothesized as underlying or influencing reading comprehension) and the respondents’ level of reading comprehension necessitated the use of the correlation technique.

Qualitative and observational data were generated by the individual, face-to-face interviews and classroom observation that the researcher intended to conduct. Use of the above described design which makes for a mixed method is inspired by Cresswell’s rationale [20] for the mixed method. All methods have limitations and it has been argued that weaknesses or biases inherent in any single method could neutralize or cancel the weaknesses or biases of other methods. Moreover, triangulation for greater validity of data was ensured. This is a descriptive-evaluative study concerned with the status of the phenomenon of interest, that is, the participants’ level of reading comprehension and the various factors that come into play and account for this.

3.3 Respondents of the Study

The participants of the study were purposively selected from a large population of well over five hundred English 2 students distributed among some ten to twelve (10-12) sections. Due to the exorbitant cost entailed by covering the entire population of English 2 students, it was deemed practical to resort to the five sections handled by the researcher herself during the second semester of school year 2016-2017. Identified below are the distribution of respondents per section

<table>
<thead>
<tr>
<th>Section</th>
<th>Number of Students</th>
<th>Participants Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ce3</td>
<td>26</td>
<td>23</td>
</tr>
<tr>
<td>Dd2</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>Ee</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Ff</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>Uu</td>
<td>25</td>
<td>23</td>
</tr>
</tbody>
</table>

Total Number of Respondents = 114 Students

3.3 Sampling Design

The five sections of English 2 classes handled by the researcher herself were chosen as the participants of this study. They were selected to make it convenient to administer the tests to the students. Since each section of
English 2 may be safely assumed to consist of 25-30 students, as is customary, the final sample can range from 100 to 150 students.

### 3.4 Research Instruments

To accomplish this research paper, the researcher employed the following instruments to collect the necessary data:

- **Researcher-constructed Questionnaire.** This questionnaire was used to obtain the needed personal data from the study’s participants to determine their profile. Data yielded by the survey questionnaire are essential to the correlation technique that was used in this study to determine the existence of the relationship between levels of reading comprehension as the dependent variable and the personal characteristics of the respondents. Personal Reading History [56]. Use of this questionnaire is based on the belief that reading habits acquired and established over the years influence or determine level of reading comprehension.

- **Metacognitive Awareness of Reading Strategies Inventory (MARSII).** This MARSII is a self-report instrument developed by [48].

- **Reading Comprehension Tests.** So as not to reduce the exercise, particularly the assessment of the participants’ reading comprehension level (which is affected by metacognitive awareness) to a one-shot affair, three texts were taken up in class. For each text, a test was constructed by the researcher to assess or to ascertain the students’ level of reading comprehension and metacognitive awareness. The tests consisted of two questions of each level of comprehension. Before use in the field, the tools were administered to one section of English 2 handled by another instructor for reliability testing. The tests are based on the prompts or selections, most likely essays and short stories. The texts used for the stated purpose are the literary texts found on their English 1 manual. Criteria are adopted by the researcher to guide her selection of texts, among which are the following: grade-appropriate, age-appropriate, appeal or impact to the student readers (including force or power to activate students’ schemas), and human significance (intellectual/academic and moral-spiritual). Students were required to read the texts and answer the questions following them. The procedure -- i.e. reading and testing -- took one hour and thirty minutes only or one meeting/session.

### 3.5 Validity and Reliability of the Instrument

Both the questionnaires and the Reading Comprehension tests were checked by a panel before they were used in the field. After then, they were pilot tested on 40 English 2 students who are not included among the participants of this study to investigate its validity. Also, the instruments went through a series of validation from her thesis adviser. To examine the validity of the tests, the Cronbach’s Alpha is presented below:

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>N of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.974</td>
<td>30</td>
</tr>
</tbody>
</table>

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310
According to the book of Fraenkel, Wallen, and Hyun, entitled “How to design and Evaluate Research in Education” 8th Edition c 2012, page 157, the reliability of a self-made test must be 0.70 (70.0%) or higher. The test instruments showed that the reliability of survey instrument is 0.974 or 97.4%. Thus, it can safely be used to conduct the study.

3.6 Scoring Procedure

The Likert Scale was used in determining the scoring procedures on the data gathered, specifically the Metacognitive Awareness of Reading Strategies Inventory. The range and interpretation are shown below:

<table>
<thead>
<tr>
<th>Rating Scale</th>
<th>Qualitative Description</th>
<th>Qualifying Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.21-5.00</td>
<td>High</td>
<td>“I always or almost always do this”</td>
</tr>
<tr>
<td>3.41-4.20</td>
<td>Average</td>
<td>“I usually do this”</td>
</tr>
<tr>
<td>2.61-3.40</td>
<td>Fair</td>
<td>“I sometimes do this”</td>
</tr>
<tr>
<td>1.81-2.60</td>
<td>Needs Improvement</td>
<td>“I do this only occasionally”</td>
</tr>
<tr>
<td>1.00-1.80</td>
<td>Poor</td>
<td>“I never or almost never do this”</td>
</tr>
</tbody>
</table>

3.7 Data Gathering Procedure

In conducting the study, particularly data gathering in the field, the researcher was guided by a timetable to ensure economy of means and a rigorously methodical, systematic inquiry. To this end, protocols and principles, specifically participants’ informed consent, anonymity and confidentiality safeguards, governing data gathering were strenuously observed.

Official permission to conduct the study was secured by a letter request addressed to the dean of the School of Graduate Studies of Liceo de Cagayan University. In the letter, the significance of the inquiry and of the need for their cooperation and support was explained to them. After the sought permission is secured, the researcher sought another permission from the chairperson of the Department of English of MSU-Main to conduct her study among her students. The researcher then asked her English 2 students whether they are willing to be the participants for her research paper. She assured to them that their answers would be kept confidential and their scores on the three test will not be part of their academic grades. The students immediately agreed to be the participants. Hence, the researcher administered the test including the Personal Reading History questionnaire and the Metacognitive Awareness Reading Strategies Inventory to her five sections of English 2 classes. The
body of data, particularly those needing statistical treatment, were tabulated and analyzed under the guidance of a statistician.

3.8 Statistical Treatment and Data Analysis

This study made use of the following statistical tools to determine the effects of metacognitive awareness of the respondents to their reading comprehension skills. Problem no. 1 and 4 used frequency and percentage to collect the data needed. Problem no. 2 used frequency, percentage, mean and standard deviation for the ranking of the data. Problem no. 3 utilized mean and standard deviation for the ranking of the Metacognitive Awareness of the respondents. Problem no. 5 and 6 used the chi square formula to test significant relationship. Problem no. 7 used linear regression to identify the predictive power of MARSI to the reading comprehension skills of the students.

4. Presentation, Analysis, and Interpretation of Data

The report on the inquiry conducted is organized into seven parts. The first part is about the profile of the participants. The second part deals with the participants’ personal reading history. The third part is concerned with the participants’ level of metacognitive awareness. The fourth part provides an analysis and interpretation of the reading comprehension test administered to the participants to determine their level of reading comprehension on four levels: literal, interpretative, evaluative, and applied. This part is followed by an examination of the result of the attempt to find out if the respondents’ profile, specifically sex, degree program, and personal reading history, have any influence on their level of reading comprehension. The fifth part focuses on the relationship or link between the respondents’ level of reading comprehension and level of metacognitive awareness. The sixth part presents the answer to the question about the extent of the influence of level of metacognitive awareness on the level of reading comprehension skills.

Problem 1. 1. What is the profile of the respondents in terms of:

1.1 Gender

1.2 Ethnicity

1.3 Degree Program

Gender in this study refers to the cultural differentiation of male from female, of being a man and being a woman. This social or cultural construct has given rise to a system of differences between man and woman [54]. Gender difference between masculinity and femininity are culturally determined, or all culture in contrast to sex which is all biology and can be ascertained based on physiological features. In this study, gender is considered as salient based on findings of studies on so-called gender-based differences evident in the performance of boys and girls in certain fields or areas of interest, for example, reading.
Table 3 below presents the data on the gender of the sample of one hundred fourteen (114) English 2 students purposively picked to participate in this study.

**Table 3: Frequency and Percentage Distribution of the Respondents by Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>57</td>
<td>50.0</td>
</tr>
<tr>
<td>Female</td>
<td>57</td>
<td>50.0</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>100</td>
</tr>
</tbody>
</table>

As shown above, the sample of one hundred and fourteen (114) is equally divided into males and females: females, 57; males, 57. This finding is quite interesting when viewed against those of previous studies which pointed up the numerical dominance of females [45,23,49,62]. The number or percentage of female students compared to males in numerous studies completed in the last ten years is from 60-70 percent upwards. This observation is true across the grade levels, that is, from elementary through the tertiary level.

Tocalo in her study on the reading comprehension of Grade Six pupils in public schools in Maguing offered an explanation for the greater number of female pupils in the sixth grade: girls tended to take their studies more seriously than boys, while the latter were observed as more vulnerable to distractions such as playing or hanging out with friends, hence, the greater survival rate of the former and the drop in the number of boys in the higher grade levels. The researcher also learned from interviews with some pupil respondents and observational data that boys had to help their parents with work in the field or prepare farm produce to be brought to the market. Under such conditions, the male pupils hardly had time to read their books, work on their assignment or homework, or go to class regularly [76].

In her study on the career path and success of CPT graduates of the MSU-College of Education, Naga posited that the numerical dominance of women in Education programs is a foregone conclusion [49]. Education, like nursing, can be considered as a profoundly “gendered” profession. Teaching and nursing are associated with women's femininity and role as mothers, caretakers and nurturers. These two are typically viewed as quintessentially "women's work". Domato describes education as a veritable “woman’s world” [23]. The female species outstrip their male counterparts in the pursuit of education. This can be impugned as stereotyping, particularly by feminist groups. However, it cannot be denied that "essential" psychological differences between men and women have been reported in numerous studies.

Said differences have been claimed and affirmed in gender studies, specifically Gilligan’s work which popularized the “care perspective,” a moral perspective which emphasizes relationships or connectedness, and care or concern for others as distinguishing women from men who tend to place more premium on status and the rights of individuals. This particular dividing line between the male and the female species is an ongoing debate.
that Giligan in her core perspective, and Kholberg through his justice perspective shed light on [64].

What is clear is, gender similarities and differences in academically relevant domains have long served as fodder or area of concern for numerous studies as pointed out by [64]. Results are mixed and cannot therefore be considered as conclusive. For example, gender differences on math skills tend to be small. Thus gender experts warn against making statements like “males outerperform females in math” Such statements, they argue, refer to averages.

**Ethnicity**

Ethnicity, from the Greek ethnos, means ‘nation’. It is a label for a group, implicitly defined in terms of racial or national characteristics where the main emphasis falls on cultural practices and beliefs. In this study, it is treated as another salient like gender. The Mindanao State University caters for the educational needs of culturally and linguistically diverse groups. Focusing the inquiry on the student respondents’ ethnicity promises interesting findings, for example, the link between ethnic groups and level of reading comprehension and level of metacognitive awareness.

As shown on the Table 4, the participants are distributed according to ethnicity as follows: Meranaw, 67 (58.8%); Cebuano, 12 (10.5%); Bisaya, 8 (7.0%); Subanen, 5 (4.4%); Iranun, 5 (4.4%); Surigaonon, 3 (2.6%); Manobo, 3 (2.6%); Maguindanaon, 2 (1.8%); Tausog, 2 (1.8%); and Ilonggo, 2 (1.8%). The rest are thinly distributed among other ethnic groups, for example, T’Boli (.9%) and Kamayo (.9%).

The Meranaw group is followed by the Cebuano (10.5%) and the Bisaya (7.0%). The Iranun (4.4%) and the Subanen (4.4%) follow closely. The Iranuns are the ethnic group with whom the Meranaws are most closely linked, culturally and linguistically. They are concentrated in settlements in Parang and their language, Iranun, and Meranaw are not only mutually intelligible, but are extraordinarily similar.

**Table 4: Frequency and Percentage Distribution of Respondents by Ethnicity**

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISAYA</td>
<td>8</td>
<td>7.0</td>
</tr>
<tr>
<td>CEBUANO</td>
<td>12</td>
<td>10.5</td>
</tr>
<tr>
<td>CHRISTIAN</td>
<td>3</td>
<td>2.6</td>
</tr>
<tr>
<td>ILONGGO</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>IRANUN</td>
<td>5</td>
<td>4.4</td>
</tr>
<tr>
<td>KAMAYO</td>
<td>1</td>
<td>.9</td>
</tr>
<tr>
<td>MAGUINDANAON</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>MANOBO</td>
<td>3</td>
<td>2.6</td>
</tr>
<tr>
<td>MERANAO</td>
<td>67</td>
<td>58.8</td>
</tr>
<tr>
<td>SUBANEN</td>
<td>5</td>
<td>4.4</td>
</tr>
<tr>
<td>SURIGAONON</td>
<td>3</td>
<td>2.6</td>
</tr>
<tr>
<td>T'BOLI</td>
<td>1</td>
<td>.9</td>
</tr>
<tr>
<td>TAUSOG</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>114</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

That of the total of participants, one hundred fourteen (114) in all, well over fifty percent (58.3%) should
comprise of Meranaws is expected or understandable. The study was conducted in the homeland of the Meranaws, the “People of the Lake”. The Mindanao State University Main Campus in Marawi City is located right in the heart of Lanao Del Sur. Although the student population is undeniably heterogeneous, it remains predominantly Meranaw. The rest of the population is distributed among the other ethnic groups which form statistical minorities. On the record, there were more of these statistical minorities in the Main Campus in Marawi in the earlier years of the institution. Their number began to dwindle as the MSU grew from a one-campus university to a multi-university encompassing several autonomous campuses strategically located in different parts of Mindanao, for example MSU-Iligan Institute of Technology, MSU-General Santos, MSU-Maguindanao, MSU-Buug in Sibugay, and MSU-TCTO in Tawi-Tawi. Members of the other major Muslim groups, the Maguindanaons and Tausogs, as well as Indigenous Peoples (IPs) called Lumads, no longer see the need to come to distant Marawi, as there are already MSU campuses operating in their regions. Natives of Jolo and the rest of the Sulu archipelago find it more practical to enroll in MSU-SDTC in Jolo or MSU-TCTO in Tawi-Tawi. The same can be said of the Maguindanaons and the people of South Cotabato, including indigenous peoples like T’Boli, B’Laan, Manobo and Tiruray who could gain admission to MSU-Maguindanao in Dinaig or MSU-General Santos, respectively. However, in pursuit or fulfillment of its mandate as social laboratory of integration, the MSU strives to maintain a heterogeneous mix of student population.

Degree Program

Degree program refers to the course or program of study pursued by each respondent. In this study, it is restricted to four-year or five-year degree programs. Two-year technology programs do not require English 2. Students in these programs take English Essentials which is the English course required of all students who could qualify only for a two-year technology program because their score did not reach the cut off score. Table 5 on the next page presents the data on this particular variable. As data set out in Table 5 show, the participants are distributed according to degree program (by college) in the following manner: College of Agriculture 12 (10.5%), College of Business Administration and Accountancy 17 (14.9%), College of ED 8 (7.0%), College of Health Sciences 1 (0.1%), College of Natural Sciences and Mathematics 14 (12.3%), College of Public Administration 18 (15.8), College of Sports, Physical Education and Recreation 1 (0.9%), College of Social Sciences and Humanities 2 (1.8%), College of Engineering 14 (12.3%), College of Fisheries 1 (0.9%), College of Information Technology 9 (7.9%), King Faisal Center for Islamic and Arabic Studies 17 (14.9%).

![Table 5: Frequency and Percentage Distribution of Respondents by Degree Program](image-url)
Among the eighteen colleges in the MSU-Main Campus, the Colleges of Public Affairs, King Faisal Center for Islamic and Arabic Studies, Business Administration and Accountancy, College of Agriculture, College of Engineering, and College of Natural Sciences and Mathematics consistently record the largest enrolment year after year. This is reflected in the data on distribution of the respondents by degree programs. The College of Public Affairs is shown leading the pack, followed by the College of Business Administration and Accountancy, and King Faisal Center for Islamic and Arabic Studies.

Of the general studies courses required in the various curricula, English 2 is a constant. English 2 (Writing in the Disciplines) is designed to hone students’ skills in written English like technical writing (reports and term papers) and academic writing, specifically research writing and its conventions which, as revealed in the study of Sarcina (2008) on “Technical Writing Curricular Contents and Learners’ Communication Skill Needs: A Congruency Study” are among the skills demanded in the job market. Said study polled the views of industries based in Iligan City which are prospective employers of MSU-Marawi graduates.

English 2, a course preparatory to more advanced courses in writing, specifically English 8 (Technical Writing), guides students through various techniques of paragraph development, outlining, proper citations and mechanics, and shaping, organizing, and constructing whole texts, and the cardinal virtues of effective prose, specifically coherence, unity, and emphasis. As the course description indicates, it employs the genre-based approach (use of relevant genres or types of texts, for example, business letters, critiques, and research reports).

2. What is the Personal Reading History of the Respondents?

Personal Reading History (questionnaire) is presented in Structured Reading by Quitman and Wayne [56] who believe that reading is a complex process that involves distinct yet connected steps, for example, concentration or focus, and that this process is mastered or formed like a habit by the individual’s reading history that can be tracked to early childhood. Reading experience in early childhood shapes attitude towards reading, interest, motivation and purposes, and develops reading habits and even taste (for example, penchant for certain types of reading materials like magazines, newspapers, and novels). These, including problems encountered when already attending school (from 1st through 12th year), are essential information that can be elicited through the Personal Reading History questionnaire.

4.2 Early Reading Background

4.2.1 At your early age, did any of your family members read to you?

As earlier mentioned, the development of reading as a habit, interest or passion dates back to early childhood. Family members, particularly parents as caretakers, and older siblings play an important role at this stage of the child’s development.
Table 6: The Family Role in Introducing Respondents to Reading

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3 years old</td>
<td>15</td>
<td>13.2%</td>
</tr>
<tr>
<td>4-5 years old</td>
<td>39</td>
<td>34.2%</td>
</tr>
<tr>
<td>Never</td>
<td>8</td>
<td>7.0%</td>
</tr>
<tr>
<td>Can’t Recall</td>
<td>52</td>
<td>45.6%</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>100%</td>
</tr>
</tbody>
</table>

As depicted in Table 6, the respondents are distributed according to the age when they were introduced to reading by family members, as follows: 4-5 years old, 39 (34.2%) and 2-3 years old, 15 (13.2%). Respondents who candidly answered “Never” numbered eight (8) forming 7.0% of the sample and those who as honestly admitted they “Can’t recall” comprised the largest group, fifty-two (52) constituting 45.6% of the total of 114 participants.

Reading is a great help to a child’s learning and in developing his/her first language. Children who are read with any books in their early lives will become a good reader in the future. Ghosn also aver that reading is essential in the learning of every child; this includes language acquisition [23]. As in the case of adults, young children who enjoy the delights of bedtime stories read to them become more curious and inquisitive about certain things, and even critical, and gain enrichment through the broader vistas opened up to them, expanding their horizons.

Early exposure to reading serves as a foundation for successful reading by fostering favorable impressions of what is derived from books, especially stories. Research has shown that children with rich experiential and language backgrounds are better prepared for beginning reading than children who lack such background [23]. A child immersed in an environment that encourages reading is likely to develop a more positive attitude towards it. Children who become early readers and who manifest an interest in books have been found to come from homes in which parents, siblings, or other individuals read to them regularly [23]. According to the same source, parents of early readers tend to be habitual readers themselves. Frequent story readings at home help children become familiar with book language and recognize the function of written language. Story readings are pleasurable social events or ritual that develop in young minds a genuine interest in and love of reading.

Research on home storybook readings has further identified a number of specific interactive behaviors that support the positive effects of read-aloud activities. These behaviors include questioning, scaffolding (modeling dialogue responses as forming an adjacency pair), praising, offering information/clarification or elaboration, directing discussion, sharing personal reactions, and relating concepts of life experiences. The parent-child
interaction in this natural context is, in fact, seen as a good model that teachers see fit to urge parents to practice more regularly.

Reading to young children or even infants is encouraged. Infants, as observed in various studies, begin very early to be attentive in story reading situations. The sounds of expressive or dramatic reading engage them. The frequency with which parents or caretakers read to them, as well as how the reading is done, can influence how well children speak and eventually how soon and how well they read. According to Papalia and his colleagues children who learn to read early are generally those whose parents read to them frequently when they were young. This provides support to Rice’s findings about the positive effects of reading to an infant or toddler: opportunities for emotional intimacy and fostering or strengthening parent-child communication [45]. Adults as caretakers help a child’s language development when they paraphrase what the child says, elaborate it, talk about what interests or engages the child’s attention, remain quiet long enough to give the child a chance to respond and ask specific questions. Read-aloud sessions offer a perfect opportunity for this kind of meaningful interaction. Thus parents, grandparents, older siblings, and other adults in the child’s immediate environment are encouraged to read to younger children. They should let reading become a ritual or kind of bonding, done at the same time and in the same place each day. Bedtime stories are a good habit to establish because both child and parent can look forward to them as something to share at the end of the day. It has a relaxing effect and establishes a routine for children, who will eventually learn to read by themselves before going to bed.

Spontaneous readings are encouraged as well. If a parent finds another time for reading aloud to a child more convenient than at bedtime, this is certainly more desirable than not finding or making time for the activity. According to McKenna in his work on reading attitude, children’s perceived reading outcomes are relational, that is, children weigh the pleasure of reading against other available alternatives, such as playing games or watching television [46]. A child who is transported, in imagination, to some fairyland or enchanted kingdom, and enjoys vicarious gratification from the happy ending or the triumph of the forces of good over evil will seek more of this “treat” or bliss. It is believed that children’s attitude towards reading changes when they expect greater satisfaction or profitable results from doing other activities. Thus a child’s memory of the enjoyment or pleasure derived from the experience of being read to at bedtime wields a kind of spell or influence that is not likely to be easily dispelled by alternative activities.

Overall, the result is somewhat mixed. The responses of the greater number of respondents, specifically “Never” by 7.0% and “Can’t recall” by 45.6%, added up, yield a total of 52.6% against the 13.2% for ages 2-3 and 34.2% for ages 4-5 which, when added up, give a sum of 47.4%.

The difference is not considerable, although not exactly a cause for celebration. Apparently, as the general result indicates, reading aloud to young children cannot be confidently declared as enjoying a vogue among the families of the respondents of the study. The “can’t recall” answer of the largest cluster may be interpreted as reticence or cautiousness on the part of the respondents who eschewed giving a categorical or particular answer probably because they did not want to put themselves or their families in an unflattering light. On the other hand, it can be read as candor or simple honesty.

As can be gleaned from the overall result, parents’ role in the early reading background of their children needs
more explicit elucidation. The far from encouraging picture the result makes suggests lack of full awareness of
the critical role of parents in giving their children a headstart early on, by introducing reading to them.

4.2.2 Did you enjoy it?

The question is concerned with the purpose or effect of reading in early childhood on the child. This purpose or
effect is summed up in the word pleasure. Data on this is presented in Table 5 below.

Based on the Question ‘Did you enjoy it?’

Table 7: Frequency and Percentage Distribution of Respondents.

<table>
<thead>
<tr>
<th>Respondent’s Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>66</td>
<td>57.9</td>
</tr>
<tr>
<td>No</td>
<td>30</td>
<td>26.3</td>
</tr>
<tr>
<td>No Answer</td>
<td>18</td>
<td>15.8</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The participants’ answers to the question are distributed as follows: yes, 66 (57.9%); no, 30 (26.3%); and no
answer, 18 (15.8%). The sixty-six respondents who found pleasure or enjoyment in being read to by members of
the family form a clear majority (57.9%). The number is greater than those who claimed to have been read to by
family members in their early childhood, that is, at age 2-3 and 4-5 which, added up, comprised 47.4%. There is
a 10% discrepancy.

However, the fact is, the overall result is positive. Well over 50% of the respondents claimed to recall early
exposure to reading as a pleasurable or enjoyable experience. Pleasure is a valid concern here since as
propounded by Freud himself, pleasure is the end in life; it is a basic and all-powerful instinct or drive. The
importance of pleasure is further emphasized in the behaviorists’ S-R theory [69]. In the Stimulus-Response
theory, response is the behavior which is produced as a reaction to a stimulus, and reinforcement is a stimulus
which follows the occurrence of a response and affects the probability of that response occurring or not
occurring. Reinforcement which increases the likelihood of a response is known as a positive reinforcement.
This theory operates in the theme under consideration. As explained in an earlier section, a child’s pleasurable
experience of early exposure to reading reinforces reading. Even infants and toddlers that are read to, as
observed in various studies, show attentiveness in story reading situations. The sounds of expressive or
dramatic reading engage them. The frequency with which parents or caretakers read to them, as well as how the
reading is done, can influence how well children speak and eventually how soon and how well they read. As
children grow up and other activities compete for their attention, it is their fond memory of the pleasure derived
from reading that carries the day for reading. McKenna’ explanation of this phenomenon is convincing [46].
Children’s perceived reading outcomes are relational, that is, children weigh the pleasure of reading against
other available alternatives, such as playing games or watching television. A child who discovered that “there is
no frigate like a book/to take us lands away” and experienced vicarious gratification from the happy ending or
the triumph of the forces of good over evil will seek more of this “treat” or bliss and is likely to opt for reading
over other activities. It is believed that children’s attitude towards reading changes when they expect greater
satisfaction or profitable results from doing other activities. A child’s memory of the delight or pleasure derived from the experience of being read to at bedtime wields a kind of spell or influence that is not easily dispelled or outgrown.

4.2.3 Can you still recall the very first book or story or book that you read as a child?

The question, a follow up to the previous one, is concerned with memory which is an important concept or component in Information Processing. The basic point stressed here is, there is no real learning if there is no retention or effective storing away of some experience in one’s memory bank. The distribution of the respondents based on their response to this particular question is presented in Table 6.

Table 8: Frequency and Percentage Distribution of Respondents by their Response to the Question: ‘Can you still recall the very first book or story you have read as a child?’

<table>
<thead>
<tr>
<th>Respondent’s Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>28.1</td>
</tr>
<tr>
<td>No</td>
<td>81</td>
<td>71.1</td>
</tr>
<tr>
<td>No Answer</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Based on their responses, the respondents are distributed as follows: yes, 32 (28.1%); no, 81 (71.1%); no answer, 1 (.9%). The great majority (71.1%) admit having no memory of the first book or story he read as a child. One could not be sanguine about the overall result which clearly indicates that a huge proportion of the total number of respondents do not have the vaguest memory of what can be considered a “milestone” moment in the life of a child, that is, reading his/her first book or story, which is nearly as memorable as taking one’s first step or producing one’s first word. “Milestone” moments such as those mentioned are properly stored up in long-term memory. In his discussion of the different kinds of memory, Stevick differentiated long-term memory from short term memory [71]. The former can be understood better from the characteristics of short-term memory: limited duration; its being a stage through which information passes on its way to long-term memory; with short-term memory, researchers/scholars are interested in what passes through it. On the other hand, the most obvious points about long-term memory are that it can retain an enormous amount and variety of information, and that it can retain or hold these for long periods of time. As Stevick pointed up, “some things that are available for longer than 20 seconds are in fact available years and even decades later” [71]. This, according to him, is what the term “permanent memory” refers to. Such materials as so-called “firsts” or “milestone” moments are metaphorically “in the files”. It is thus baffling that a great majority of the respondents (7.1%) have no recollection of the first book or story read by them. As reading requires both short-term memory and long-term memory to optimally benefit the reader, the result does not augur well for the respondents’ future reading and their development or growth as readers. However, some explanations for this failure of retention can, perhaps, be hazarded. It is possible that the text was not interesting or striking enough, thus making no impact or impress on the mind of the young reader. Another is, the book’s contents or the story did not draw traction for the child because it was about something he/she could not relate to. Erm goes back to the classic work of Bartlett [10]. This calls to mind the concept or term “schema” popularized by the literature of cognitive psychology where it referred to a “mental organization or framework based on cultural experience.
into which new facts are fitted.” Piaget, in Santrock, took up the concept and developed it further [64]. In his theory, it is defined as “a framework that exists in a person’s mind to organize and interpret information”. When there is no activation of the reader’s schema, a text is not likely to engage him. Failure to recall the first book or story read may be attributed to the context or situation in which the reading was done, for example, picking up a book just to shut out or insulate one’s self from an unpleasant family scene or “to belong,” that is, gain acceptance. The idea that it did not conduce to engaged or effective reading, thus not much, or nothing registered, cannot be precluded.

The role of memory was taken up in the section on Theoretical Framework. Poor working memory was posited identified as another factor that affects a student’s ability to read proficiently and comprehend [4,38,74]. Working memory allows a student to temporarily store information in short-term or working memory while engaging in cognitive tasks. Thus when a student reads, he can activate prior knowledge about a topic or use context clues to determine the meaning of a word while remembering what has just been read. According to Swanson, Zheng, and Jerman [63,74], students who struggle to read are unable to retain ordered information which is directly related to phonological retention processing. Retaining phonological information (i.e. blending sounds within words, or segmenting multi-syllabic words), a task performed through working memory, is essential to learning to read. Additionally, a direct relationship has been found between working memory and learning, which Alloway, Gathercole, Kirkwood, and Elliott posit as related to poor academic performance in both reading and math [63.74].

4.2.4 How often do you read?

4.2.4. The question “How often do you read?” is an attempt to determine the frequency or regularity of the reading done by the respondents. Data on this are found in Table 7.

Table 9: Distribution of the Respondents Based on their Answer to the Question.

<table>
<thead>
<tr>
<th>Respondent’s Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost Everyday</td>
<td>22</td>
<td>19.3</td>
</tr>
<tr>
<td>Twice a week</td>
<td>32</td>
<td>28.1</td>
</tr>
<tr>
<td>Once a week</td>
<td>24</td>
<td>21.1</td>
</tr>
<tr>
<td>Once a month</td>
<td>13</td>
<td>11.4</td>
</tr>
<tr>
<td>Others</td>
<td>16</td>
<td>14.0</td>
</tr>
<tr>
<td>No Answer</td>
<td>7</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>114</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Based on their answer to the question concerning frequency or regularity of reading, the respondents are distributed in the following manner: almost every day, 22 (19.3); twice a week, 32 (28.1%); once a week, 24 (21.1%); once a month, 13 (11.4%); Others, 16, (14.0%). A few, 7 (6.1%), offered no answer. Larger numbers are grouped in those frequency categories “twice a week” (28.1%), “once a week” (21.1%), and “almost every day” (19.3%). Based on the overall result, there is warrant for the conclusion that a great number of the respondents read at an acceptable rate or frequency. This is especially true of the three categories just mentioned. Obviously, there is a problem with those who are content to read only once a month (11.4%) and respondents who answered “Others” which could mean anything from once in two months to once in three month or even once in a year. One can only wonder if there is basis for a statement made by one observer that the “Filipinos are not a nation of readers.” In the article “Reading – and More” which he wrote for his column
in the *Philippine Daily Inquirer*, Conrado de Quiros virtually said as much of the present generation. De Quiros described as “epochal” the difference between his time and the time his children grew up. In his growing up years, in the 50s and 60s, there was no T.V. in the province, there were not that many movies. As he put it, there was nothing to fire up the imagination, except books. Unfortunately, there were fewer bookstores and as few books available in the school library. However, those few books were for him the “equivalent of Ali Baba’s cave, every nook holding the promise of treasure [21]. There are now more bookstores and countless books in libraries. Ironically, the generations that grew up in the Age of Computers—the so called digital revolution, do not read. They are a usually fixated generation that has developed their visual skills, but not reading skills. They are fixated on the Internet and its hoard of wonders—games, huge information, databases, and more. Thus he welcomed the campaign launched by the PDI in pursuit of its mission to make reading fashionable with today’s generation. This campaign took the form of a Reading Along session in Marikina, which also saw the launching of the Zonta Club of Marikina’s literacy program. Several well-known people, including Jeffrey Hidalgo and writers Vim Madera, May Tobias-Papa, and Dyali Justo took turns reading children’s stories (their own in the case of the writers) to the pupils of Kapitan Moy Elementary School. De Quiros believes and hopes that by firing up children’s imagination with stories, “they are going to look at that strange contraption called book, not as a source of punishment but as a treasure trove of wonder.  De Quiros described the difference between readers of his parents’ and his generation and that of his children as epochal. The culprit is advanced information and communication technology, particularly, television and the Internet. However, he also asserted that a change of tack is all that is needed. Technology does not have to be regarded as an adversary of Reading teachers; it can in fact serve as an ally. For example, film videos can be used as a springboard for the discussion of novels or plays on which they are based. Further, since the present generation, the millennials, tend to spend more time glued to the Internet, tablets, and the like, texts that make up teachers’ reading list can be transferred to these modern gadgets. The trick, according to him, is to bring teaching-learning materials to the pupils’ or students’ turf [21]. Seizing on the foregoing for support, Tocalo in her thesis “An Inquiry on the English Language Proficiency Focused on Reading Comprehension Levels of Grade Six Pupils of Maguing Elementary Schools” pins the blame for many elementary pupils’ inability to read or low level of literary on lack of motivation to read [76]. This problem is in turn intertwined with poor reading comprehension skills. They lack reading practice because they are not motivated enough, thus pass up the opportunity to develop their critical skills. This problem is especially prevalent in the rural areas where the distractions provided by technology such as those mentioned by De Quiros are replaced by a compendium of ‘lacks’ that include lack of reading materials, lack of time for leisure, lack of support or encouragement from parents, and fatigue or exhaustion from helping parents with the household chores or work in the field, and more. It is noteworthy that the problem of illiteracy or inability to read is a global concern and can afflict even developed countries like the United States as revealed in books like Jonathan Kozol’s *Illiterate America* and Regie Routman’s *Literacy as the Crossroads: Critical Talk about Reading, Writing, and Other Teaching Dilemmas* [39,60]. Kozol offered an analysis of the “illiteracy” crisis in the United States where according to him over sixty million Americans are illiterate or functionally illiterate. He emphatically warned against the implications of a high level of illiteracy which are unfortunately ignored. Illiteracy is not only a threat to the economic order of society; its more profound effect is serious injustice in the form of the exclusionary design it creates: people are excluded from meaningful participation in the life of the community. Ultimately, illiteracy undermines the very fabric of
democracy in a modern society as the illiterate segment of society are unable to make decisions for themselves and to participate in the political process.

4.2.5 What reading difficulties were encountered when already attending school?

Also given emphasis in the Personal Reading History are difficulties encountered in the course of reading. An attempt was made to identify and isolate these through a set of statement indicators. Results of the inquiry on the kinds of difficulties experienced by the respondents when already attending school are presented in Table 8 on the next page. The top five ranking “problems”, as disclosed by the respondents, are: reads without expression, 1st; tires easily while reading, 2nd; reads slowly, 3rd; has difficulty blending sounds into words, 4th; and reads without recognizing punctuation, 5th. The results for all these are interpreted as selected. This means these indicators describe the problems experienced by the participants.

Table 10: Types of Difficulties Encountered in Reading in School.

<table>
<thead>
<tr>
<th>Difficulties in Reading</th>
<th>Sum (Selected)</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reads without expression</td>
<td>64</td>
<td>1</td>
</tr>
<tr>
<td>Tires easily while reading</td>
<td>57</td>
<td>2</td>
</tr>
<tr>
<td>Reads slowly</td>
<td>56</td>
<td>3</td>
</tr>
<tr>
<td>Has difficulty blending sounds into words</td>
<td>54</td>
<td>4</td>
</tr>
<tr>
<td>Reads without recognizing punctuation</td>
<td>54</td>
<td>5</td>
</tr>
<tr>
<td>Has difficulty manipulating sounds within words</td>
<td>47</td>
<td>6</td>
</tr>
<tr>
<td>Exhibits weak comprehension of information or ideas read</td>
<td>46</td>
<td>7</td>
</tr>
<tr>
<td>Guesses at words while reading</td>
<td>42</td>
<td>8</td>
</tr>
<tr>
<td>Adds, omits, or transposes sounds in words (friends/friend; beard/bread)</td>
<td>38</td>
<td>9</td>
</tr>
<tr>
<td>Substitutes or eliminates words while reading</td>
<td>38</td>
<td>10</td>
</tr>
<tr>
<td>Has trouble recognizing or making rhymes</td>
<td>37</td>
<td>11</td>
</tr>
<tr>
<td>Has difficulty naming letters and remembering letters</td>
<td>34</td>
<td>12</td>
</tr>
<tr>
<td>Confuses visually similar words (supper/slipper)</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>Confuses similar letters (d/b; p/q)</td>
<td>26</td>
<td>14</td>
</tr>
<tr>
<td>Has difficulty recognizing sight words</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Loses place while reading</td>
<td>24</td>
<td>16</td>
</tr>
<tr>
<td>Omits or adds parts of words while reading</td>
<td>19</td>
<td>17</td>
</tr>
</tbody>
</table>

Legend: 1=selected, 0=not selected

A closer and more critical look at the highest ranking indicators reveals a close link between these. To illustrate: reading speed or rate indicated by “reads slowly” may be affected by phonetic problem, specifically that involving the sound-word relationship, as indicated by the “difficulty of blending sounds into words” and “has difficulty manipulating sounds within words.” The top indicator, “reads without expression” can be linked to
the 5th, “reads without recognizing punctuations”. The second complaint, “tires easily while reading”, can be explained by the expenditure of more effort than necessary. These five indicators form an image of readers who have problems with phonics. Apparently, reading for them is a strained and strenuous activity, which is symptomatic of reading comprehension problem. Expressionless reading and failure to make necessary pauses signaled by stops – for example, comma, period and semicolon – are suggestive of poor comprehension. All these indicators together work against reading comprehension, which, after all, is the goal or end of a reading activity.

4.2.6 Types of Reading Materials Read

A look at the reading materials read by the respondents reveal their inclinations, predilections, preferences, or interests and should provide information on what motivates them to read. The latter should be useful information for teachers whose teaching is informed by learner-centeredness. Data on these are presented in Table 11.

<table>
<thead>
<tr>
<th>Reading materials read (N=114)</th>
<th>Sum</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>99</td>
<td>1</td>
</tr>
<tr>
<td>Dictionary</td>
<td>62</td>
<td>2</td>
</tr>
<tr>
<td>Magazines</td>
<td>58</td>
<td>3</td>
</tr>
<tr>
<td>Newspapers</td>
<td>57</td>
<td>4</td>
</tr>
<tr>
<td>Encyclopedia</td>
<td>36</td>
<td>5</td>
</tr>
<tr>
<td>Catalogs</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>Phone Book</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>Maps</td>
<td>28</td>
<td>8</td>
</tr>
<tr>
<td>Email</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td>Others</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>Cookbooks</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>Pamphlets</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Junk Mail</td>
<td>3</td>
<td>13</td>
</tr>
</tbody>
</table>

Topping the list of materials read by the respondents are the following: books, 1st; dictionary, 2nd; magazines, 4th; and encyclopedia, 5th. With some facility, the participants’ top five choices reading can be accounted for. These include reading materials that they need for their studies, particularly books, dictionary, encyclopedia and newspapers. To delve deeper into the matter of interest or preferences, the books could have been categorized as in the study of Mangoranda on “Instructional Materials for MSU-University Training Center Senior Students Based on Needs and Interests Analysis” [45], as cited in the inquiry of Domato on “The Reading Behavior of Junior Students of MSU-University Training Center” [23]. Mangoranda adopted a typology that includes adventure stories, mystery/detective (whodunits) stories, romances, historical novels, biographies, horror or ghost stories, and more. Based on literature cited in the study of Domato, at the junior high school level, readers show a penchant or preference for violence and adventure, love, private life, and glamour [23]. In many studies, respondents are nearly equally divided in regard their choice of reading materials: forty-five (45) named
historical stories, animals, teen-age life and career books, how-to-do-it books, biographies, science and discovery; forty-six (46) boys expressed keen interest in books or stories dealing with adventure, school life, mystery, humor, and animals. Girls, on the other hand, registered their preference for stories about adventure (without grimness), humor, animals, love, home and family life. It was also found that girls read fiction for adults earlier than boys. However, for both groups, ninety percent of their reading was expended on fiction. According to the same source, the peak of book reading occurred in grades seven and eight, while newspaper and magazine reading increased thereafter. In a summary of investigations on adolescence reading up to 1956, Smith in Robinson found that most senior high school and junior college students read one or more newspapers regularly for an average of fifteen to thirty minutes per day [70]. More recent studies such as Clarke’s using factor analysis at ninth and eleventh grades, found newspaper interest of boys to be public affairs, science, speed and violence, teen news, and sports [58]. The following were reported also of thirteen- and fourteen-year-old students in England: 79 percent were fond of reading comics; 74 percent were drawn to magazines; 94 percent read newspapers; and 20 percent admitted having read no book, or only one, in the past month. In a study on the interests of 134 eight-grade students, Vaughan asked each one to choose book titles representing twelve categories and from these list their top five choices [58]. Boys ranked mystery, science, invention, history and biography, in that order. The least appealing categories included fairy tales, novels, and poetry. Girls, in contrast, demonstrated interest in stories about the home and school, novels, mystery, fairy tales, and history in that order. Least preferred were nature, adventure and invention. Some differences were noted between the choices or preferences of bright and low-performing or dull boys. While bright boys chose adventure and invention, the latter went for detective stories, biography and fairy tales. In the same study, Vaughan listed fourteen magazines from which students were asked to choose [58]. Sports was ranked high by 52 percent of the boys and only 6 percent of the girls. A larger proportion of dull than bright boys expressed preference for comics. Both boys and girls evinced great interest in the comic section of newspapers. Boys ranked the sports section second while girls preferred news and stories. The students’ least liked were editorials. These findings more or less provide support to those of Mangoranda although the ranking somewhat differs from those of Smith [58,70]. For entertainment or enjoyment, Mangoranda’s high school respondents’ top choice was comics, followed by inspirational books/articles, and fiction [45]. Popularly preferred for educational purposes were magazines, newspapers, and almanacs and encyclopedias. In Tomindug-Macarambon’s study on “The Genre-Based Approach to Teaching Writing as Mediation Technique Applied to High School Students,” comics did not get the topmost rank but it was consistently in the top five choices, coming after books (e.g. Almanac and Encyclopedia) and magazines, and sometimes, fiction. The researcher opined that if Almanacs and Encyclopedias, which are leading sources of information are part of the reading fare of her high school respondents, the reason could only be that “the respondents being students, they naturally look for materials that are rich in information and facts; these are academically useful to them.” She added, “Such information could come handy in preparing reports, assignments and term papers, and research for certain projects and activities like debate contests.”

The fashionable appeal of comics to high schools students may be attributed to the graphic pictures or images they present. This is, after all, a visually fixated. However, interests or taste do change. Individuals tend to outgrow old habits and interests. Since the respondents in the present study are 2nd year college students, it is
not surprising that they should turn out to be already weaned from their interest in comics, adventure and mystery which are of high entertainment value and understandably have great appeal to high school students. In fact, a comparison of studies conducted here and abroad seems to suggest that high school students, regardless of clime, race, or nationality, to a certain extent, have some things in common like reading interests. As shown in this study, high school reading interests have given way to more serious materials like books, magazines and newspapers, and reference materials, specifically dictionary and encyclopedia. This does not mean that there is no more room for reading for pleasure or enjoyment in the life of college students; it merely is relegated to the background, that is, it takes a backseat to the search for knowledge or need for information that is the primary concern of college students.

4.3. What is the Level of Metacognitive Awareness of the Respondents?

Meta-cognitive knowledge or awareness refers to the mental processes which are involved in different kinds of learning. Learners are believed to be capable of becoming aware of their own mental processes, which include recognizing which kinds of learning tasks cause difficulty, which approaches to remembering information work better than others, and how to solve different kinds of problems [57]. Meta-cognitive knowledge/awareness is thought to influence the kinds of learning strategies learners choose, hence, the need to determine the level of this kind of knowledge/awareness in the study’s respondents. A summary of the result is set out in Table 12.

Table 12: Level of Meta-Cognitive Awareness/Knowledge of the Participants.

<table>
<thead>
<tr>
<th>Indicators (Metacognitive Awareness) N=114</th>
<th>Mean</th>
<th>SD</th>
<th>Qualitative description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have a purpose in mind when I read.</td>
<td>3.404</td>
<td>1.173</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>2. I take notes while reading to help me understand what I read.</td>
<td>2.904</td>
<td>1.290</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>3. I think about what I know to help me understand what I read.</td>
<td>3.421</td>
<td>1.174</td>
<td>I usually do this</td>
</tr>
<tr>
<td>4. I preview the text to see what it is about before I read.</td>
<td>3.228</td>
<td>1.262</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>5. When text becomes difficult, I read aloud to help me understand what I read.</td>
<td>3.149</td>
<td>1.365</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>6. I summarize what I read to help me reflect on important information in the text.</td>
<td>3.149</td>
<td>1.365</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>7. I think about whether the content of the text fits my reading purpose.</td>
<td>3.216</td>
<td>1.280</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>8. I read slowly but carefully to make sure I understand what I am reading.</td>
<td>2.921</td>
<td>1.122</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>9. I discuss what I read with others to check my understanding.</td>
<td>3.325</td>
<td>1.300</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>10. I skim the text first by noting characteristics like length and organization.</td>
<td>3.256</td>
<td>1.257</td>
<td>I do this only occasionally</td>
</tr>
<tr>
<td>11. I try to get back on track when I lose concentration.</td>
<td>2.193</td>
<td>1.104</td>
<td>I do this only occasionally</td>
</tr>
<tr>
<td>12. I underline or circle information in the text to help me remember it.</td>
<td>3.237</td>
<td>1.352</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>13. I adjust my reading speed according to what I am reading.</td>
<td>3.361</td>
<td>1.422</td>
<td>I sometimes do this</td>
</tr>
<tr>
<td>14. I decide what I read closely and what to ignore.</td>
<td>3.018</td>
<td>1.241</td>
<td>I sometimes do this</td>
</tr>
</tbody>
</table>
15. I use reference materials such as dictionaries to help me understand what I read.  
16. When text becomes difficult; I pay closer attention to what I am reading.  
17. I use tables, figures, and pictures in text to increase my understanding.  
18. I stop from time to time and think about what I am reading.  
19. I use context clues to help me better understand what I am reading.  
20. I paraphrase (restate ideas in my own words) to better understand what I read.  
21. I try to picture or visualize information to help remember what I read.  
22. I use typographical aids like boldface and italics to identify new information.  
23. I critically analyze and evaluate the information presented in the text.  
24. I go back and forth in the text to find relationships among ideas in it.  
25. I check my understanding when I come across conflicting information.  
26. I try to guess what material is about when I read.  
27. When text becomes difficult; I reread to increase my understanding.  
28. I ask myself questions I like to have answered in the text.  
29. I check to see if my guesses about the text are right or wrong.  
30. I try to guess the meaning of unknown words or phrases.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Mean (m)</th>
<th>Standard Deviation (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. I use reference materials such as dictionaries to help me understand what I read.</td>
<td>3.658</td>
<td>1.247</td>
</tr>
<tr>
<td>16. When text becomes difficult; I pay closer attention to what I am reading.</td>
<td>3.614</td>
<td>1.194</td>
</tr>
<tr>
<td>17. I use tables, figures, and pictures in text to increase my understanding.</td>
<td>2.719</td>
<td>1.307</td>
</tr>
<tr>
<td>18. I stop from time to time and think about what I am reading.</td>
<td>2.763</td>
<td>1.115</td>
</tr>
<tr>
<td>19. I use context clues to help me better understand what I am reading.</td>
<td>2.842</td>
<td>1.231</td>
</tr>
<tr>
<td>20. I paraphrase (restate ideas in my own words) to better understand what I read.</td>
<td>2.833</td>
<td>1.282</td>
</tr>
<tr>
<td>21. I try to picture or visualize information to help remember what I read.</td>
<td>3.140</td>
<td>1.330</td>
</tr>
<tr>
<td>22. I use typographical aids like boldface and italics to identify new information.</td>
<td>2.553</td>
<td>1.384</td>
</tr>
<tr>
<td>23. I critically analyze and evaluate the information presented in the text.</td>
<td>2.939</td>
<td>1.091</td>
</tr>
<tr>
<td>24. I go back and forth in the text to find relationships among ideas in it.</td>
<td>2.868</td>
<td>1.186</td>
</tr>
<tr>
<td>25. I check my understanding when I come across conflicting information.</td>
<td>3.079</td>
<td>1.174</td>
</tr>
<tr>
<td>26. I try to guess what material is about when I read.</td>
<td>2.939</td>
<td>1.243</td>
</tr>
<tr>
<td>27. When text becomes difficult; I reread to increase my understanding.</td>
<td>3.509</td>
<td>1.257</td>
</tr>
<tr>
<td>28. I ask myself questions I like to have answered in the text.</td>
<td>2.939</td>
<td>1.243</td>
</tr>
<tr>
<td>29. I check to see if my guesses about the text are right or wrong.</td>
<td>3.097</td>
<td>1.269</td>
</tr>
<tr>
<td>30. I try to guess the meaning of unknown words or phrases.</td>
<td>3.316</td>
<td>1.264</td>
</tr>
</tbody>
</table>

**Over-all Mean**: 3.054

5. Scaling:

6. 4.21-5.00—“I always or almost always do this”,
7. 3.41-4.20—“I usually do this”,
8. 2.61-3.40—“I sometimes do this (about 50 per cent of the time)”
9. 1.81-2.60—“I do this only occasionally”
10. 1.00-1.80—“I never or almost never do this”

As shown in the table above, the top ranking indicators of meta-cognitive awareness are the following: I use reference materials such as dictionaries to understand what I read, m = 3.658, SD = 1.247 (usually done), 1st ; “When text becomes difficult, I pay closer attention to what I read,” m = 3.614, SD = 1.194 (usually done), 2nd ; “When text becomes difficult, I re-read to increase my understanding,” m = 3.509, SD = 1.257 (usually done), 3rd ; “I think about what I know to understand what I read, m = 3.421, SD = 1.174 (usually done), 4th; “I have a purpose in mind when I read,” m = 3.404, SD = 1.173 (usually done), 5th ; “I adjust my reading speed according to what I’m reading,” m = 3.351, SD = 1.219 (sometimes done), 6th ; “I read slowly but carefully to make sure I understand what I’m reading,” m = 3.325, SD = 1.300 (sometimes done), 7th ; “I underline or
circle information in the text to remember it,” m = 3.316, SD = 1.422 (sometimes done), 8.5th. All the preceding indicators reveal strategies employed by the participants to aid understanding of what they read. The end or purpose of reading is attainment of understanding or comprehension; when no comprehension or only a modicum understanding occurs, reading is a failure. Thus readers deliberately adopt some strategies to come as close as possible to the ideal: full comprehension of the text, or at least an acceptable level of comprehension such as required by the task at hand. Among these familiar strategies are using a dictionary, focus or concentration on what is being read, re-reading, adjusting reading speed, and circling or underlining some information to remember these. However, the need to adopt some strategies and the type to utilize depends on the kind of reading being done, or the purpose for the reading. For example, scanning which is a kind of speed reading technique is used when all the readers wants is to locate a piece of information without necessarily understanding the rest of a passage or text. A reader may just read through a chapter of a book as rapidly as possible to find out information about a particular event, date, or locale. In contrast, skimming (skim-read) is a type of rapid reading which is used when the reader wants to get the gist or idea from a passage. For example, a reader may skim-read a chapter to find out what the position of the author is on a particular issue. Care, adjusting speed, and some ‘aid’, for example, underscoring or circling some key or pivotal words, are needed to achieve one’s purpose in reading. Also emphasized is “what the reader knows” which refers to his/her schema. As defined in Jean Piaget’s theory, schema is a concept or framework that consists of prior knowledge or experience existing in a person’s mind to organize and interpret information [64]. Activation of the reader’s schema gets him/her interested and engaged in what is being read. Other strategies, although less commonly used than those already mentioned, merit attention: “I try to guess the meaning of unknown words or phrases,” m = 3.316, SD = 1.264 (sometimes done), 8.5th; “I try to preview the text to see what it’s about before I read,” m = 3.328, SD = 1.262 (sometimes done), 11th; “When the text becomes difficult, I read aloud to help me understand it,” m = 1.419, SD = 1.365 (sometimes done), 12th; “I try to picture or visualize information to help remember what I read,” m = 1.140, SD = 1.330 (sometimes done), 13th; “I decide what to read closely and what to ignore,” m = 3.018, SD = 1.241 (sometimes done), 16th; “I critically analyze and evaluate information presented in the text,” m = 2.939, SD = 1.091 (sometimes done), 18th; and “I take notes while reading to help me understand what I read,” m = 2.842, SD = 1.231 (sometimes done) 23rd; and “I summarize what I read to help me reflect on the information in the text,” m = 2.816, SD = 1.282 (sometimes done), 25th. Readers will surely recognize their own strategies in these indicators, particularly reading aloud what is read, analyzing and evaluating carefully information presented in the text, visualizing or picturing information read, using context clues, and summarizing what is read to reflect on it. Only three indicator, ranked 28th, 29th, and 30th are declared as used only occasionally. These are: “I use typographical aids like boldface and italics to identify new information,” m = 2.553, SD = 1.284; “I discuss what I read with others to check my understanding,” m = 2.526, SD = 1.257; “I skim the text first by noting characteristics like length and organization,” m = 2.193, SD = 1.104. Compared to the other strategies, these are less commonly used for obvious reasons. Unlike such aids as underlining or circling information which can be done directly on the printed text, use of boldface or italics is resorted to when working with the computer and not all students have ready access to the Internet and the needed text. Discussing what one has read with others to check understanding should be a very interesting and helpful socio-affective strategy [53]. In schools in the United

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States, this is done through study groups (Brown, 1994), hence, the term “socio-affective”. The rationale for the technique is expressed in the homespun proverbial saying “More heads are better than one.” Indeed one can more easily arrive at a fuller or more accurate understanding through discussion with others, which is an enriching experience. However, as pointed out by experts on learning strategies, working or studying with a group depends on one’s personality; there are individuals (introverts, for example), who learn more effectively all by themselves. Based on the overall result, that is, the respondents’ awareness or knowledge of important aspects of their mental processes as evidenced by their recognition of difficulties encountered in straining after understanding of the meaning of a text and their use of strategies or techniques to deal with these problems the respondents have an acceptable level of metacognitive awareness.

4.4. What is the respondents’ level of reading comprehension skills based on the reading comprehension test?

Reading comprehension is the perceiving of a written text, decoding or determining its meaning, and the understanding that results from the process (Richards, 1993). It refers to the process of understanding or getting meaning from a printed or recorded text [16]. Different types of comprehension are often distinguished, according to the reader’s purpose(s) in reading and the type of reading done. Moreover, there are various models. In one model, the reading comprehension levels are referred to as literal, inferential, critical or evaluative, and appreciative. Another model includes only three level -- literal, interpretative, and evaluative -- such as that used by Cabural in his study on “Differential Effects of CD-Assisted Technique on the Reading Comprehension of High School Students of Misamis Occidental National High School” [16]. For purposes of this study, the four-level Reading Comprehension model is used. Table 13 presents a summary of the results of the Reading Comprehension Test on the four levels: literal, evaluative, inferential, and applied.

Table 13: Level of Reading Comprehension Skills of the Respondents Based on the Reading Comprehension Test.

<table>
<thead>
<tr>
<th>Level</th>
<th>Literal</th>
<th></th>
<th>Evaluative</th>
<th></th>
<th>Inferential</th>
<th></th>
<th>Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Poor</td>
<td>41</td>
<td>36.0</td>
<td>56</td>
<td>49.1</td>
<td>45</td>
<td>39.5</td>
<td>36</td>
</tr>
<tr>
<td>Fair</td>
<td>27</td>
<td>23.7</td>
<td>37</td>
<td>32.5</td>
<td>30</td>
<td>26.3</td>
<td>41</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>25</td>
<td>21.9</td>
<td>16</td>
<td>14.0</td>
<td>21</td>
<td>18.4</td>
<td>28</td>
</tr>
<tr>
<td>Very satisfactory</td>
<td>19</td>
<td>16.7</td>
<td>5</td>
<td>4.4</td>
<td>9</td>
<td>7.9</td>
<td>8</td>
</tr>
<tr>
<td>Outstanding</td>
<td>2</td>
<td>1.8</td>
<td>0</td>
<td>0.0</td>
<td>9</td>
<td>7.9</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>100.0</td>
<td>144</td>
<td>100.0</td>
<td>144</td>
<td>100.0</td>
<td>144</td>
</tr>
</tbody>
</table>

4.4.1 Literal Comprehension

First to be considered is the participants’ comprehension performance at the literal level. Literal comprehension refers to reading to understand, remember, or recall the information explicitly contained in a passage. It involves essential skills in understanding, remembering, and using what one has read, finding details, and understanding the paragraph organization [16]. It can cover finding answers to certain questions, recognition of main ideas and details, understanding of common or visual words, and recalling ideas or information [76]. The reading comprehension skill or proficiency of the respondents at the literal level is shown below.
Table 14: Reading Comprehension Skill.

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>41</td>
<td>36.0%</td>
</tr>
<tr>
<td>Fair</td>
<td>27</td>
<td>23.7%</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>25</td>
<td>21.9%</td>
</tr>
<tr>
<td>Very satisfactory</td>
<td>19</td>
<td>16.7%</td>
</tr>
<tr>
<td>Outstanding</td>
<td>2</td>
<td>1.8%</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Distribution of the respondents according to their level of comprehension at the literal level is as follows: Poor, 41 (36.0%); Fair, 27 (23.7%); Satisfactory, 25 (21.9%); Very Satisfactory, 19 (16.7%), Outstanding, 2 (1.8%). The overall result can be considered fair. Although the largest number of respondents fall into the Poor category (36.0%), adding up the number of those in the Fair, Satisfactory, Very Satisfactory, and Outstanding categories gives a sum of seventy-four (74). In a way this offsets the dismal record of those classified as Poor. However, it is apparent that the result at the literal level does not measure up to expectations. The respondents could have turned in a better performance since comprehension at the literal level should not cause any difficulty, as the term “literal” suggests. It deals with surface facts, information, happenings, ideas and details, and understanding of words; comprehension at this level entails remembering or recall. For example, finding answers to the basic questions What, Who, Where, When, Why, and How is done at the literal level. In the study of Cabural, the insignificant difference between the scores obtained by the Experimental Group and Control Group at the literal level was interpreted by the researcher as suggesting that the form of intervention tried out – i.e. CD-assisted technique – did not work wonders as expected or hoped [16]. The respondents’ so-so performance since comprehension at the literal level is vital to comprehension at the higher levels, not too good performance at the former is a cause for worry.

4.4.2 Evaluative Comprehension

Evaluative comprehension refers to reading in order to compare information in a passage/text with the reader’s own knowledge and values. Synonymous with evaluation is application, which involves comparison of information provided by the text and the reader’s own experiences or beliefs. It is what is meant by the statement “he could relate to what the text conveys”. Also, the evaluative skill needed at this level refers to identifying facts from opinion and the skill of judging emotional response to what is read [16]. In another sense, evaluative skill refers to the reader’s understanding of the worth or value of the content of the printed material read. Describing this worth is done with value judgment expressed by words like “good,” “mediocre,” “sublime”.

Table 17
Based on their comprehension performance/skill at the evaluative level, the respondents are deployed as follows: Poor, 56 (49.1%); Fair, 37 (32.5%); Satisfactory, 16 (14.0%); and Very Satisfactory, 5 (4.4%). At this point, a pattern seems to emerge: at the lower end of the scale, Poor, a greater number of students cluster and as the line rises to the higher end of the scale, the number steadily decreases, for example from 37% (Fair) down to 16% (Satisfactory), and still further down to 4.4% (Very Satisfactory). Again, as done with the figures at the literal level, the numbers for the Fair, Satisfactory, and Very Satisfactory are added up and yields a sum of 58 (50.5%), which is greater than the 49.1% for Poor. Thus the overall result may be considered fair like the result for the literal level, but still not good enough. Only 16 (14.0%) and 5 (4.4%) made it to the Satisfactory and Very Satisfactory levels rungs. In Cabural’s study, the respondents performed better in terms of evaluative comprehension, on the Posttest, that is, after exposure to intervention (CD-assisted learning), thus leading him to conclude that the improved evaluative performance must be a function or result of the technique introduced [16].

Since evaluation has to do with how the reader connects with, or relates to what the text is about, the text or reading selection, that is, what it deals with significantly matters. Tomlinson in Evaluating Instructional Materials Tomlinson formulated principles to guide instructional material making and evaluation, among which are the following: Impact -- materials can achieve impact through novelty, variety, attractive presentation, and appealing content; Ease -- materials should help learners feel at ease, for example, through texts and illustrations that the learners can relate to, as much as possible avoiding culturally exotic or too alien material, and through the use of a more relaxed and supportive “voice”; and Relevance and Utility -- materials should convince learners of the personal importance of what can be learned from it [78].

In addition to the principles formulated by Tomlinson to guide choice of instructional materials like reading selections, the Schema theory suggests itself as a relevant account [78]. Schema is a sort of framework, plan, or script. Students whose prior knowledge or experience enables them to relate to what is read should find it easy to compare the contents/subject matter of the text and their own knowledge and values, as well as judge their emotional response to what is read.

4.4.3 Inferential Comprehension

Inferential comprehension is reading for the purpose of finding information which is not explicitly stated in a passage, using the reader’s experience and intuition, and by inferring. Inferencing, the means used in this kind of reading, is the process of arriving at some idea or judgment on the basis of other knowledge, ideas, or judgment.

<table>
<thead>
<tr>
<th>Table 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inferred</td>
</tr>
<tr>
<td>Poor</td>
</tr>
<tr>
<td>Fair</td>
</tr>
<tr>
<td>Satisfactory</td>
</tr>
<tr>
<td>Very satisfactory</td>
</tr>
<tr>
<td>Outstanding</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Regarding their level of inferential comprehension, the participants are distributed as follows: Poor, 45 (39.5%); Fair, 30 (26.3%); Satisfactory, 21 (18.4%); Very Satisfactory, 9 (7.9%); Outstanding, 9 (7.9).

The same pattern observed of the literal and evaluative comprehension levels is seen in the distribution of the participants by inferential comprehension level. The number of participants thins or dwindles at the higher end of the scale. It drops from 26.3% for Fair to 18.4% for Satisfactory, and (7.9%) for both Very Satisfactory and Outstanding. On the whole, the result is better than fair. There are nine (7.9%) who made it to the Very Satisfactory category and another group of nine who rose to the Outstanding category. This result is a significant improvement on the previous record – literal and evaluative comprehension levels -- examined and analyzed, which shows only 2 (1.8%) attaining this level of performance at the literal level and 0 at the evaluative. Moreover, considering the fact that inferencing or making inferences, compared to the skills or methods associated with literal and evaluative comprehension, is more complicated, the improvement (7.9%) is impressive enough. The strategy calls to mind an algebraic equation; one has to look for the missing figure through so-called ‘givens’.

### 4.4.4 Applied Comprehension

The term ‘applied’ is self-explanatory. Applied comprehension is the kind of reading that relates or connects the text to human life through application. Questions like “What would you have done in such a predicament?” “How would you have dealt with that kind of problem?” or “Would you have made the same choice?” belong to this comprehension level.

<table>
<thead>
<tr>
<th>Applied</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>36</td>
<td>31.6%</td>
</tr>
<tr>
<td>Fair</td>
<td>41</td>
<td>36.0%</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>28</td>
<td>24.6%</td>
</tr>
<tr>
<td>Very Satisfactory</td>
<td>8</td>
<td>7.0%</td>
</tr>
<tr>
<td>Outstanding</td>
<td>1</td>
<td>0.9%</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>100%</td>
</tr>
</tbody>
</table>

Distribution of the respondents according to their Applied Comprehension level is as follows: Poor, 36, (31.6%); Fair, 41, (36.0%); Satisfactory, 28, 24.6%; Very Satisfactory, 8 (7.0%); and Outstanding, 1 (.9%).

Again, the same pattern is noted. The numbers get more lean at the higher end of the scale. There is, however, one remarkable improvement in the performance of the respondents at this level. More of them rose from the Poor (31.6%) to the Fair category (36%).

However, as the summary of the overall result shows below, the great majority of the respondents numbering 74 (69.9%) fall into the Poor category, followed at some distance by a smaller group of 27 (23.7%) in the Fair category, and a still leaner group of 11 (9.6%) in the Satisfactory level. Only 2 (1.8%) have made it to the Very Satisfactory level. There is no trace of the Outstanding record set by a few, from 2 to 9, in the final presentation.
The above summary of overall comprehension level indicates that a great number of the respondents (64.9%) can be diagnosed as at risk of comprehension difficulty or even disability.

4.5. Would the level of reading comprehension differ when grouped according to the respondents’ profile in terms of gender, degree program, ethnicity and personal reading history?

Data on the result of the grouping of the respondents according to gender, degree program, ethnicity, and personal reading history and what this grouping shows about their reading comprehension level is illustrated in Table 14.

Table 14: Reading Comprehension Level of Respondents When Grouped According to Gender, Degree Program, Ethnicity and Personal Reading History.

<table>
<thead>
<tr>
<th>Difference</th>
<th>Test statistic</th>
<th>p-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>( \chi^2 = 7.572 )</td>
<td>0.023</td>
<td>Significant</td>
</tr>
<tr>
<td>Degree Program</td>
<td>( \chi^2 = 2.132 )</td>
<td>0.344</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>( \chi^2 = 0.059 )</td>
<td>0.217</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Enjoyability</td>
<td>( \chi^2 = 4.510 )</td>
<td>0.035</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Frequency of Reading</td>
<td>( \chi^2 = 9.538 )</td>
<td>0.049</td>
<td>Significant</td>
</tr>
<tr>
<td>Reading Difficulties</td>
<td>( \chi^2 = 18.320 )</td>
<td>0.010</td>
<td>Significant</td>
</tr>
<tr>
<td>Role of Family</td>
<td>( \chi^2 = 0.709 )</td>
<td>0.702</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Types of Reading Materials</td>
<td>( \chi^2 = 1.443 )</td>
<td>0.486</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

The above table illustrates that gender 7.572, enjoyability of reading 9.536, as well as frequency of reading 18.320 are the variables that turned out to have significant link on the level of reading comprehension of the respondents. Degree programs 2.132, ethnicity 3.056, role of family 4.310, reading difficulties 0.709 and types of reading materials 1.443 were found to have no significant link with the reading comprehension level of the respondents.

It is not surprising that gender made a significant relationship with the level of reading comprehension because half of the respondents are females and females [22,64], tend to be more engaged with academic endeavors, more focused in class, and likely to exert more effort, and participate more actively in class. Half of the respondents, too, are males who have somehow contributed to the significant relationship between gender and level of reading comprehension. Recent analyses show that there may be a little or no differences in the same skills between males and females. As a proof, the SAT test indicated that males scored as high as females on its verbal part [64]. Also the researcher made some interviews to most of the respondents as to their interest and frequency of reading and according to them, aside from the reading requirements tasked to them by their
instructors, they also read some books and literature they find enjoyable to read. When asked how often they do it, the students responded that it depends on their free time and the availability of the books they want to read. Others said that since they became college students, they try their best to cope with the school requirements by reading both their manuals/textbooks and their favorite reading materials. Another query asked to the respondents is whether they enjoy reading or not. According to them, they find reading enjoyable or engrossing when they like the reading materials. Their answers give support to Ismael’s study which concluded that students comprehend better when they are motivated and interested in what they are reading [37]. To elaborate on this, students are motivated to read texts to which they can relate, on which plucks a positive chord in their hearts and stimulate their interest because they can bring their schema or prior experiences and knowledge to bear on their reading. Schema theories, including Barlette and Gunning, state that when individuals reconstruct information, they fit into information (schema) that already exists in their minds [10,31]. Other variables such as degree programs, ethnicity, role of family, reading difficulties and types of reading materials did not prove to have significant difference in the level of reading comprehension of the respondents. The researcher asked the respondents if they were motivated by their parents or anybody from their house to read when they were younger. Some answered “no” or “they can’t recall” because their parents were either busy making a living for the family or the parents are illiterate. Others said they were just told by their parents to read or study their lessons but that was not enough to encourage them to develop love reading at an early age. Because of this, the reading difficulty and types of reading materials turned out to be immaterial or insignificant. It is also possible that students respondents who answered in this manner came from low-print homes. They could not be too choosy or selective about reading materials, and distinguishing between two types (for example, classic and pulp or run-of-the-mill works because of lack of exposure to a variety of materials.

4.6 Is there a significant relationship between the metacognitive awareness and the level of reading comprehension skills of the students?

Data gathered on the relationship of the metacognitive awareness and the level of reading comprehension skills of the students are presented on table 15.

Table 15: The Relationship between the Metacognitive Awareness and the Level of Reading Comprehension Skills of the Students.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Correlation coefficient</th>
<th>p-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of reading</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comprehension skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literal</td>
<td>$\chi^2 = 2.086$</td>
<td>0.142</td>
<td>Not significant</td>
</tr>
<tr>
<td>Evaluative</td>
<td>$\chi^2 = 13.034$</td>
<td>0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Inferential</td>
<td>$\chi^2 = 5.176$</td>
<td>0.020</td>
<td>Not significant</td>
</tr>
<tr>
<td>Applied</td>
<td>$\chi^2 = 9.087$</td>
<td>0.002</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

As can be gleaned from the summary of results presented above, only evaluative level 13.034 of the reading comprehension skills is significantly related to the metacognitive awareness of the respondents. Other levels, such as Literal 2.686, Inferential 5.176 and Applied 9.087 were found to be insignificant to the metacognitive awareness of the respondents.
Of the four levels of reading comprehension, only Evaluation Level appeared to be significantly related to the metacognitive awareness of the respondents. Barrette defined Evaluation level as demonstration by students when they make judgments about the content of a reading selection by comparing it with external criteria, e.g., information provided by the teacher on the subject, authorities on the subject, or by accredited written sources on the subject, or with internal criteria, e.g., the reader’s experiences, knowledge, or values related to the subject under consideration [10].

The above results are similar to the study undertaken by Saclote on the Reading Speed and the Reading Comprehension of the English 4 Tertiary Students conducted in the Mindanao State University-Main Campus [62]. This study revealed that the evaluation level ranked 1st on the respondents’ level of reading comprehension. Hence, the result presented above should not be surprising as this study was also conducted in the same university.

Surprisingly though, literal level of reading comprehension resulted to have no significant relationship with the metacognitive awareness of the respondents. These results significantly differ from the results of reading assessments, specifically, the federally funded National Assessment of Educational Progress (NAEP), done in the United States. Outcomes reveal that U.S. students are competent at literal levels but incompetent at critical and analytic levels [60,62]. Which on the hierarchy of reading comprehension levels are the higher rungs. Moreover, Inferential and Applied levels showed no significant link related to metacognitive awareness of the respondents [62].

However, researchers argue that one cannot be too dogmatic about the sequence or order of the levels of comprehension. That the linear ordering of the levels should remain inviolable is not etched in stone. Although these levels may be seen as interdependent—this is not necessarily true in an absolute sense. It is probably more prudent to say that ideally, comprehension must proceed in linear fashion from the lowest level to the higher levels. Another way of putting it is, higher levels of comprehension like the critical and evaluative are, or should be, informed by literal comprehension. In a way, the funding regarding evaluative comprehension reported by Cabural in his study on “Differential Effects of CD-Assisted Techniques on the reading comprehension of High School Students of Misamis Occidental National High School” [16] support the above stated view. It seems to indicate the independence or separateness of evaluation comprehension from the other levels. In his study, Only evaluative comprehension improved on the post-test. This led Cabural to advance the recommendation that CD-Assisted reading technique has efficacy as evident in judging facts and opinions, and judging emotional response to what is read. The improvement, credited to use of CD-assisted technique, occurred independent of the post-test results for literal and interpretative levels.

4.7 To what extent does metacognitive awareness predict reading comprehension skills of the participants?

Figure 2 shows the predictive power of Metacognitive Awareness of Reading Strategies Inventory (MARSI) in relation to the reading comprehension skills of the respondents.
| MARS | Reading Comprehension Skills | 0.069 | 0.464 | Not significant |

**Figure 2:** The Predictive Power of MARS to the Reading Comprehension Skills of the Participants

Marsi vs, test (regression, correlation).

Model: (reading comprehension score)

If the reading comprehension score is set to 0, the MARS score is 2.8372.

The Reading comprehension score (Score) is set to 10.871 + (0.257) MARS (mean score). If the respondent had zero MARS score, this model predicts that the reading comprehension score of the respondent would be 10.871. Also, for each additional MARS mean score, the model predicts 0.257 point increase in the reading comprehension score. The line represents the predicted reading comprehension score for each mean score of MARS.

As can be gleaned from the above described interpretation guide, the metacognitive awareness of the participants predicted their reading comprehension skill by 26% only. This result does not necessarily, categorically, or unequivocally determine whether the participants are capable of comprehending the texts they were asked to read. It is only evaluative comprehension—i.e, application of understanding—that was assisted by metacognition. On the other hand, this 26%, relatively low as it is, cannot be ignored or dismissed outright as insignificant. It is not a complete negation of the possibility of a link between the metacognitive awareness of readers and their reading comprehension level. As to the usefulness of metacognition for evaluative comprehension, this link or relationship makes sense; it is inevitable. It takes metacognitive knowledge or metacognition to be able to relate one’s understanding of the text’s message/meaning to real life situations. Application of a reader’s understanding of the ultimate central point of Frost’s “The Road not Taken” to between a scholarship abroad and staying close to home and family, and the like) draws upon metacognition.

5. **Summary, Conclusions, and Recommendations**

5.1. **Summary**
This study was undertaken with the aim to determine the relationship between the metacognitive awareness and the level of reading comprehension among English 2 students in the Mindanao State University - Main Campus. Specifically, it discussed further on the following: (1) the respondents’ profile in terms of Gender, Ethnicity, and Degree Program; (2) respondents’ Personal Reading History; (3) participants’ Level of Metacognitive Awareness; (4) participants’ Level of Reading Comprehension skills based on the reading comprehension test; (5) participants’ level of reading comprehension when grouped according to their profile in terms of Gender, Degree Program, Ethnicity and Personal Reading History; (6) the significant relationship between the metacognitive awareness and the level of reading comprehension skills of the respondents; and, (7) the extent to which the metacognitive awareness predicts reading comprehension skills.

A descriptive-evaluative research design was employed to determine the participants’ level of reading comprehension and the variables or factors that can influence it. Data gathered are a combination of the quantitative and the qualitative. The personal profile of the respondents and their levels of reading comprehension has required statistical treatment. Ascertaining the kind or degree of relationship between the respondent variables (personal profile and the factors hypothesized as underlying or influencing reading comprehension) and the participants’ level of reading comprehension necessitated the use of the correlation technique. The study is not restricted to gathering all available data on the condition or status and the nature of the phenomena under consideration—metacognitive awareness and level of reading comprehension. It is also sought to ascertain the extent or magnitude of the relationship between the two, thus the need to use the correlation technique. The study is also evaluative in terms of nature and purpose since it aimed to measure the level of reading comprehension of the student participants through the reading comprehension test administered to them.

Participants were asked to answer 3 sets of questionnaires: the Personal Reading History Questionnaire, the Metacognitive Awareness questionnaire, and the three literary texts that were used to determine their level of comprehension.

The findings and the test result are presented below:

1. A total of one-hundred fourteen participants are equally divided into 57 males and 57 females. More than fifty percent are Meranao participants. In terms of degree programs, the highest number of the respondents (15.8%) were from College of Public Affairs.

2. In terms of the Personal Reading History, almost half of the participants or 45% admitted that they could not recall the age when their family members started to read to them. While, more than 34% said that this was done in between ages four to five years old. More than 50% said that they found pleasure in being read to by the members of the family. Moreover, 72.1% claimed that they cannot recall the very first books or stories they have read as a kid. As to the frequency of reading, only 19.3% said that they read almost every day. Furthermore, the participants disclosed that reading without expression is among the difficulties encountered during reading. This was followed by the respondents saying that they simply get tired while reading. Among the many categories of reading materials, books, dictionaries, magazines, newspapers and encyclopaedias top...
the list of frequently read materials revealed by the students participants in their Personal Reading History.

3. In terms of the level of the Metacognitive awareness of the participants, what the participants usually do is to use reference materials such as dictionaries in order for them to understand what they read. The least that they do is to skim the text first by noting characteristics like length and organization when they read.

4. With respect to all the four reading comprehension skills of the participants namely, evaluative, inferential and applied the participants showed poor performance.

5. With level of reading comprehension being grouped according to gender, degree programs, ethnicity and personal reading history (role of family, enjoyability of reading, frequency of reading, reading difficulties, and type of reading materials read), the results showed that only gender, enjoyability of reading and frequency of reading have significant relationship on the reading comprehension skills of the participants. Other variables, such as degree programs, ethnicity, role of family and reading difficulties, do not have significant relationship on the comprehension skills of the respondents.

6. In terms of the relationship between the metacognitive awareness and the reading comprehension skills of the participants, only evaluative level proved to have significant relationship with metacognitive awareness. Other levels, specifically the literal the inferential and applied turned out to have no significant link to metacognitive awareness.

7. The metacognitive awareness of reading strategies inventory (MARSII) has only 26% predictive power in relation to the reading comprehension skills of the respondents.

5.2. Conclusions

The study shows that there is a significant relationship between the reading history of the participants and their reading comprehension skills. The result of the study showed that the reading comprehension of the participants is low Therefore, the participants of this study have to be encouraged and need to be motivated to improve and develop their reading skills for them to comprehend better their subjects They have a poor reading background because they were not exposed to readings in their early childhood Thus, they were not able to grasp the importance of reading and reading comprehension in these critical, formative years. It is noteworthy that in developed or First World countries like United States of America, The importance of early schooling is recognized, the argument being that the early years are a critical period of development. Learning to read at this stage gives young learners a head start. The advantage of Pre-K training is the theme of the newly published book, “The most Important Year”, authored by child development expert Suzanne Bouffard [12]. Numerous studies show that children’s brains develop at a much faster rate during the Pre-K years meaning better schooling can lead to better skills in later years, in reading, for example Their reading teachers, both in their elementary and high school years, played a significant role in the development of the participants’ reading comprehension abilities. Moreover, the participants’ metacognitive awareness, such as looking up the meanings of unfamiliar words in the dictionary is predictive of their reading comprehension. The students have to learn how to appreciate reading and the value of reading. This is where the parents and teachers alike can help each
other to develop the reading skills of the students since reading begins at home and further develops at school. Also, for the students to appreciate reading, teachers must cultivate their reading skill. It is a challenge for the teachers to enrich and integrate their strategies with more metacognitive awareness activity for the students to be able to improve their reading comprehension skills. The 26% power of MARSI (Metacognitive Awareness of Reading Strategies Inventory) to predict reading comprehension level may seem low, but not exactly negligible to warrant outright dismissal of it as a factor or essential to consider. Raising the level of metacognitive awareness through activities or tasks that integrate strategies such as devising ways of remembering new words one comes across in reading and evaluating one’s own progress and making decisions about what concentrate on in the future [53]. The result points to the need for greater attention to this. Only use of references like dictionary is employed by the participants to understand what they are reading.

Furthermore, teachers can help enhance the reading comprehension skills of the students by consistently requiring them with reading assignments, and closely monitoring or checking on the latter’s improvement/progress throughout the semester/school year. This watchful attentiveness on the part of the teachers pays off as shown in the study of the case of the three non-readers conducted by Strickland and his colleagues [72]. After three months of patiently tutoring the three “hopeless cases” as they were described by their kindergarten teachers, the result showed awe-inspiring progress such as ability to read syllables, recognize words, and read passages. Building reading comprehension skills requires a long term strategy in which all the reading skills areas must be considered.

5.3. Recommendations

1. The university administration, through the Office of the Vice Chancellor for Academic Affairs, may provide more opportunities to reading/instructors, such as attending seminar-workshops and trainings within or outside the university to enhance or enrich their repertoire of teaching strategies, specifically those integrating techniques for increasing metacognitive awareness given its link with reading comprehension. There must be plentiful use of demonstrations in these seminar-workshops.

2. Language Arts/Communication and Reading Teachers may heed the advice of experts like N. Prabhu and wean themselves from dependence on generic materials. They may, instead, be more critical and context-sensitive in their choice of reading selections. Reading selections must be informed by students’ interests, needs, goals, and schema. Materials to which students can relate will surely gain traction with them.

3. Considering the importance of reading comprehension for effective learning and success in other courses, remediation or intervention programs are deemed essential extension service to student found wanting in this respect. Tutorials and peer coaching are worth trying.

4. To determine whether a student needs to undergo a remedial or tutorial program, a Reading Comprehension Test may be administered to the freshman students.

5. The English Department or College of Social Sciences and Humanities may encourage the organization of the students into Book Clubs or Study Groups that engage in interactive reading, group discussion of selections read, and sharing of materials to better appreciate reading as an activity and process, develop reading comprehension skill. Through the group discussion and interactive reading, learning becomes a more active process takes place in interaction. It can be argued that knowledge, given its being fundamentally social and
shared, is negotiated only in collaborative contents [40].

6. For further study, focal attention may be trained on the following: Extending this study (using MARSI as predictor of level of reading comprehension) with another group of respondents, for example, English majors of freshmen in another campus; Extending the study with freshmen in a private schools.

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