Volume 19 September 2021
Print ISSN 2362-9142 • Elecronic ISSN 2362-9215
DOI: https://doi.org/10.15631/aubgsps.v19i1.159

ACADEME
UNIVERSITY OF BOHOL,
GRADUATE SCHOOL
AND PROFESSIONAL
STUDIES JOURNAL

Reading Fluency of Students, Tagbilaran City College, Tagbilaran City, Bohol

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ABSTRACT

Reading is an essential macro skill everyone should develop, especially students. The primary thrust of this study was to determine the students' reading fluency in Tagbilaran City College, Tagbilaran City, Bohol, for Academic Year 2019-2020. This quantitative research involved 256 first-year students in all degree programs. This study utilized the free reading speed test software of the AceReader program as a tool to determine reading fluency in terms of speed and comprehension. As to the findings, it revealed that the respondents are Instructional readers.

Moreover, the study found that there is no significant relationship between students' profiles and reading fluency. There is no significant difference in reading fluency between male and female respondents. However, there is a significant variance in the reading fluency of the respondents among complexity levels. Furthermore, the post hoc analysis using the Pairwise Comparisons showed that the respondents have a faster reading speed in the Critical, Interpretive, and Applied Complexity levels. Also, it revealed that the respondents have the highest comprehension at the Literal level and the lowest at Critical level. The study also showed that the respondents have better reading fluency in the Literal and Interpretive levels than in the Applied and Critical levels. The study concluded that the respondents tend to read faster as the complexity level increases; however, they tend to comprehend less as the complexity level increases. Hence, the respondents' fluency decreased as the complexity level increased.

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Keywords: Reading Fluency, Speed, Comprehension, Complexity Levels, Chi-square, Spearman Rank Correlation, Mann-Whitney U test or Wilcoxon Rank Sum Test, and Kruskal-Wallis H Test, Philippines, Asia

INTRODUCTION

Reading is the portal to the vast treasures of knowledge the world has accumulated through the ages. Man's experiences would indeed have been minimal, and society's progress much slowed down without reading. Reading is an essential skill that must be developed and enhanced by everyone. More so, it is a means of human fulfillment– responsibility, study, affection, and others. Reading can be challenging, mainly when the material is unfamiliar, technical, or complicated. Moreover, some readers have difficulty comprehending what they read and tend to read slower than ever, leading to poor reading skills and low reading efficiency.

In the 2018 Program for International Student Assessment (PISA) conducted by the Organization for Economic Cooperation and Development (OECD), the Philippines has the lowest reading comprehension and second-lowest in science and mathematics among 79 countries. The results showed that the Philippines had an average reading score of 340, below the OECD average of 487, and the lowest among the countries surveyed.

Meanwhile, Tagbilaran City College (TCC) is a new emerging higher educational institution in the province of Bohol. It is a local college administered by the City Government of Tagbilaran. The school's population is composed of graduates from Senior High, Old Curriculum, and Alternative Learning systems (ALS). With the diverse students TCC has at present, there is a glaring difference perceived in the students' reading performance concerning the learning exposure of the students themselves.

Reading is an essential key to learning in the whole educative process, and it is the royal road to knowledge and is necessary for success in all academic subjects. According to Rumelhart (1980), Schema Theory explains how readers use prior knowledge to comprehend and learn from the text. Gunning (2006) defines a schema as the organized knowledge of people, places, things, and events. Kitao (2003) says the schema theory involves an interaction between the reader's knowledge and the text, which helps promote comprehension. As Gunning (2006) defined,

this schema can be extensive, such as a schema for natural disasters, or narrower, such as a schema for a hurricane. Each schema is "filed" in an individual compartment and stored there. In attempting to comprehend reading materials, students can relate this new information to the existing data they have compartmentalized in their minds, adding it to these "files" for future use. The fundamental principle of the schema theory assumes that written text does not carry meaning by itself. Instead, a book only provides directions for readers on how to retrieve or construct meaning from their previously acquired knowledge (An, 2013).

Reader-oriented Theory (Fish, 1960) argues that no text has any meaning until it has been read and emphasizes the reader's role in actively constructing versions rather than passively consuming them. Therefore, the meaning is not taken from the book, and the reader is the maker of meaning. The reader-response critic's job is to examine the scope and variety of reader reactions and analyze how different readers, sometimes called "interpretive communities," make meaning out of purely personal opinions and inherited or culturally conditioned ways of reading. Moreover, Mental Model Theory (Johnson-Laird and Byrne, 1991) anchors on the idea that a reader constructs a mental model or mental imagery of the circumstances that they are reading. This particular case is when people read fiction. This construction of a mental model then assists the reader in their comprehension of the text. The mental model is reconstructed or updated to reflect the new circumstances as the situation changes. Still, the items relevant to the main character remain in the foreground, according to Gunning (2006). Perkins (2005) identifies that sometimes misconceptions about important concepts reflect misleading mental models of the topic itself or the subject matter within which it sits. However, there are interventions the teacher can do to help the reader stay on track and create a more accurate picture.

Proposition Theory (Gunning, 2006) involves the reader constructing a central idea or macrostructure as they process the text. These central ideas are hierarchical, with the most important things given the highest priority to be memorized. It argues that the reader constructs main and broad ideas as they process the text. These ideas are prioritized so that the ones that the reader believes are most important are given the highest priority to be committed to memory. Furthermore, according to the Metacognitive Theory (Block, 1992), there is 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 further defined the control readers execute on their trial to understand a text. This control is what has been referred to as meta-cognition.

Reading comprehension is the process of constructing meaning from text. The goal of all reading instruction is to help a reader comprehend text. Reading comprehension involves at least two people: the reader and the writer. Understanding consists of decoding the writer's words and then using background knowledge to construct an approximate understanding of the writer's message. Mikulecky (2011) states that reading is a complex conscious and unconscious mental process in which the reader uses a variety of strategies to reconstruct the meaning that the author is assumed to have intended, based on data from the text and the reader's prior knowledge.

The levels of reading knowledge involve more of an active role on the reader's part (Heilman, Blair, & Rupley, 1988). (1) Literal comprehension. This level of comprehension represents the minimum involvement on the part of the reader. It is a simple understanding of the words and ideas of the author. The author's message is received but not examined, evaluated, or utilized in any way. (2) Interpretive comprehension. At this level, the reader knows what the author said and goes beyond that pure knowledge. It involves an effort to grasp relationships, compare facts with personal experiences, understand sequences, see cause-and-effect relationships, and generally interpret the massage. It requires more active participation on the part of the reader. (3) Applied comprehension. At this level reader does more than merely receiving and interpreting the massage. The reader evaluates the author's ideas, either accepting or rejecting them or applying them to some new situation. (4) Critical comprehension. At this level, the reader analyzes, evaluates, and personally reacts to information presented in a passage. Generally, this level of knowledge emphasizes actively bringing the reader's general understanding to bear on the ideas and concepts contained in the reading passage. The synthesis is necessary for higher knowledge, especially on challenging material.

In the 2018 Program for International Student Assessment (PISA) conducted by the Organization for Economic Cooperation and Development (OECD), the Philippines has the lowest reading comprehension and second-lowest in science and mathematics among 79 countries. The results showed that the Philippines had an average reading score of 340,

below the OECD average of 487, and the lowest among the countries surveyed.

Research indicates that at least one out of five students has significant difficulty in reading acquisition (Therrien, 2004). Although reading fluency and comprehension are essential skills to acquire, many children do not learn the necessary skills for achieving proficiency. According to a recent study, 40% of fourth graders do not have the skills and knowledge to adequately perform the required grade-level work (Bursuck, Smith, Munk, Damer, Mehlig, & Perry, 2004). Similarly, Calhoon (2005) found 595 fourth-grade students are performing below a basic literacy level on standardized reading tests. Also, as children age, data shows proficiency levels are still a concern. Thirty-one percent of boys and 21% of girls in eighth grade did not reach a basic literacy level when given a standardized test (Calhoon, 2005).

The relationship between reading speed and reading comprehension is of considerable interest because it has significant implications for assessment. It is imperative that students learn the testing materials quickly and accurately and can comprehend what they are reading. The study by Macalister (2008) himself showed that students who do a speed reading course are very likely to increase their reading speed. His research also demonstrated that students who do a speed reading course tend to show more significant gains in reading rate than those who do not (Macalister, 2008). Another implication of his research was that students who do a speed reading course are significantly better than those who do not answer reading comprehension questions.

Chung and Nation (2006) conducted a study on a speed reading program with a group of forty-nine (49) Korean university students. The findings showed that almost all students made some improvement. This improvement for most of the students was gradual rather than a sudden jump in the speed. However, the study contained no control group, reading comprehension was assessed but not reported in the study, and some reading was done outside the class, which may have affected the study dramatically because some variables needed to be improved. While the results were compared to Macalister (2008), Macalister cautiously examined that the improvements in reading rate at the end of the speed reading curriculum may be due to the “practice effect.” Practice effect refers to the development of reading rate at the end of the course due to students’ practice in the type of texts in the class.

Some studies have shown that the student's performance (reading comprehension) is affected by several factors. Marquez (2008), with his research on the reading comprehension of fourth-year high school students of Iligan, made the following conclusions: (1) Parents' monthly income and educational attainments have contributed to the student's reading performance. (2) The kind of materials that the respondents read enhanced their ability to comprehend a text. (3) The respondents' attitudes towards reading differed from each other. (4) The availability of reading materials at home and in school and the students' curiosity to learn enhanced their reading comprehension.

Abdelrahman and Bsharah (2014) conducted a study on the effect of speed reading strategies on developing reading comprehension among secondary students in the English language. The study aimed to find the effect of speed reading strategies on developing reading comprehension among secondary literary stream students in the English language. The researchers concluded that there were significant differences among the students' means in favor of the experimental group. They recommended that teachers train students extensively on using speed reading strategies.

Paz (2018) conducted a study on Reading Comprehension Levels in English among Grade 7 Students in Caraga State University, Philippines. He found out that there was no significant relationship between the participants' profiles and factors of reading toward their reading comprehension level. It gave way to deal with some of the weak reading comprehension levels, namely interpretative, critical, and application that requires a desirable intervention program.

Cabardo (2016) conducted a study on the Reading Proficiency Level of Students: Basis for Reading Intervention Program. The results revealed that the majority of the students belonged to the frustration level of reading proficiency in silent reading. In contrast, in the instructional level for oral reading, the majority of the males are less proficient in reading than females in both quiet and oral interpretation. Furthermore, there is no significant difference in the levels of reading proficiency levels when analyzed according to their year levels and gender. However, a considerable difference in students' reading proficiency levels in silent and oral reading came out.

A study on the Role of Reading Time Complexity and Reading Speed in Text Comprehension (Wallot, O'Brien, Haussmann, Kloos, and Lyby, 2014) found that reading speed is commonly used as an index of reading

fluency. However, reading speed is not a consistent predictor of text comprehension when speed and comprehension are measured on the same text within the same reader. This might be due to the somewhat ambiguous nature of reading speed regarded as a feature of the reading process and as a product of that process.

This study utilized a free reading speed test software called the AceReader program. According to this software, speed reading is the process of reading more quickly and involves being able to read and process multiple words at a time instead of moving word by word. Many resources indicate that the average reading speed of most adults is around 200 to 250 words per minute. College students, probably because they must practice reading, move that pace up a notch to about 300 words per minute (Nowak, 2018).

This software has themed and leveled reading comprehension tests. It has three areas: theme, complexity level, and story, that any user should choose and set before answering the comprehension test. For consistency's sake, this study focused on the General theme and Story 1. More so, this software has thirteen (13) complexity levels that are classified accordingly as Literal (Levels 1 to 4), Interpretive (Levels 5 to 7), Applied (Levels 8 to 10), and Critical (Levels 11 to 13). After answering the questions about the story read, the speed and comprehension will show significantly.

Being threatened by the possible effects of poor reading skills and low reading efficiency among students of Tagbilaran City College (TCC), the researcher feels the dire need to conduct a study on students' reading speed and comprehension level. Moreover, the result of this study would generate insights to propose reading intervention measures.

This study aimed to determine students' reading fluency in Tagbilaran City College, Tagbilaran City, Bohol, Academic Year 2019-2020. The findings of which served as a basis for proposed reading intervention measures. Specifically, the study sought to answer the following questions: What is the profile of the respondents in terms of age, sex, and degree program? What is the reading fluency of the respondents in the different levels of complexity in terms of speed and comprehension, namely, literal, interpretive, applied, and critical? Is there a significant degree of relationship between the student profile and reading fluency? Is there a significant degree of correlation between reading speed and comprehension? Is there a significant degree of difference in the reading fluency between

male and female respondents? Is there a significant degree of variance in the reading fluency among the three groups of respondents? Is there a significant degree of variance in the reading fluency of the respondents in the different complexity levels? What intervention measures can be designed based on the findings of this study?

METHODOLOGY

The study utilized the descriptive survey of the quantitative research method through AceReader Reading Speed and Comprehension Software. Subsequently, the gathered data were subjected to various statistical treatments and analyzed and interpreted in accord with the study's specific problems. The preferred locale of the study is Tagbilaran City College, a fledgling higher education institution in the province located in Satellite Road, Dampas District, Tagbilaran City. The 256 respondents to the study were first-year students. There were 49 who took Bachelor of Science in Tourism Management, 148 took Bachelor of Science in Office Administration, and 59 took Bachelor of Science in Entrepreneurship in the Academic Year 2019-2020. Before the statistical test of data, the research examined first the normality of the data sets using the Shapiro-Wilk test of normality. It was found out that the test of normality on the reading speed, reading comprehension, and reading fluency revealed the Shapiro-Wilk W of .987, and .972, .301 with p-values .018, .000, and .000, suggested to reject the normality assumption at .05 level of significance. Thus, these imply that the three variables being studied were not normally distributed. Hence, nonparametric tests such as Chi-square, Spearman Rank Correlation, Mann-Whitney U test or Wilcoxon Rank Sum Test, and Kruskal-Wallis H Test were used.

RESULTS AND DISCUSSION

Respondents' Fluency in the Complexity Levels in terms of Reading Speed and Reading Comprehension. Findings revealed the reading fluency of the respondents in the different levels of complexity in terms of reading speed and reading comprehension. Results highlighted the following findings.

Speed. The highest mean is Critical with 215.70, interpreted as Average Reader, whereas the lowest mean is Literal with 186.01, interpreted

as Slow Reader. The other complexity levels, such as Interpretive and Applied, are also interpreted as Average Readers. Most respondents are considered Average Readers with an overall mean of 203.30 and words per minute (WPM) within 200-300.

Comprehension. The highest mean is Literal, with 74.53, interpreted as Good Comprehension. The lowest mean is Critical, with 55.53, interpreted as Average Comprehension. Most respondents have Good Comprehension, with an overall mean of 63.64.

Fluency. The highest mean is Literal with 2.172, interpreted as Instructional, whereas the lowest mean is Critical with 1.945, also interpreted as Instructional. The result shows that all complexity levels as Instructional with an overall mean of 2.050.

This result implies that most of the respondents are Instructional readers with very good comprehension but are slow readers, good comprehension and average readers, good comprehension and slow readers, average comprehension and fast readers, average comprehension and average readers, or average comprehension slow readers. This result is supported by Cabardo (2016) with his study on the Reading Proficiency Level of Students: Basis for Reading Intervention Program. The findings demonstrated that most students had a frustration level of reading competence in silent reading and an instructional level of reading proficiency in oral reading, with males being less proficient in quiet and oral interpretation than females.

Relationship between Student Profile and Reading Fluency. Table 1 presents the results of the correlation between reading fluency and student profile in terms of age, sex, and degree program. Age. The computed p-value of fluency, which is 0.918, is greater than the alpha of 0.05, interpreted as “Insignificant.” Therefore, the null hypothesis is accepted. This finding shows that there is no significant relationship between student profile and age.

Sex. The computed p-value of fluency, which is 0.693, is greater than the alpha of 0.05, interpreted as “Insignificant.” Therefore, the null hypothesis is accepted. This result shows that there is no significant relationship between the student profile and sex.

Degree Program. The computed p-value of fluency, which is 0.676, is greater than the alpha of 0.05, interpreted as “Insignificant.” Therefore, the null hypothesis is accepted. This finding shows that there is no significant relationship between student profile and degree program.

Table 1. Relationship between Student Profile and Reading Fluency (N = 256)

Student Profile	Components of Reading Fluency		p-value		Decision	Interpretation
	Speed	3.571	.467	.05	Accept H_o	Insignificant
Age	Comprehension	7.565	.272	.05	Accept H_o	Insignificant
	Fluency	**.942**	**.918**	**.05**	**Accept H_o**	**Insignificant**
	Speed	1.351	.509	.05	Accept H_o	Insignificant
Sex	Comprehension	1.780	.619	.05	Accept H_o	Insignificant
	Fluency	**.734**	**.693**	**.05**	**Accept H_o**	**Insignificant**
	Speed	3.093	.542	.05	Accept H_o	Insignificant
Degree Program	Comprehension	6.491	.370	.05	Accept H_o	Insignificant
	Fluency	**2.328**	**.676**	**.05**	**Accept H_o**	**Insignificant**

Table 1 implies that the readers' age, sex, and degree program do not significantly serve as factors or bases for the respondents' fluency in comprehension and speed. This finding is further supported by Paz (2018), who conducted a study on Reading Comprehension Levels in English among Grade 7 Students in Caraga State University, Philippines. He found out that there was no significant relationship between the participants' profile and factors of reading toward their reading comprehension level.

Correlation between Reading Speed and Comprehension. Table 2 presents the correlation between Reading Speed and Comprehension. The table shows no significant relationship exists between the speed and comprehension of the respondents. The computed p-value of the variables, which is 0.072, is greater than the alpha of 0.05, interpreted as "Insignificant." Therefore, the null hypothesis is accepted. This result implies that speed is not a significant factor in achieving better comprehension. Hence, these two variables work independently in the context of reading fluency.

Table 2. Correlation between Reading Speed and Comprehension (N = 256)

Variables		*p*-value		Decision	Interpretation
Reading Speed vs Reading Comprehension	-.113	.072	.05	Accept H_o	Insignificant

The table shows no significant relationship exists between the speed and comprehension of the respondents. The computed p-value of the variables, which is 0.072, is greater than the alpha of 0.05, interpreted as "Insignificant." Therefore, the null hypothesis is accepted. This result implies that speed is not a significant factor in achieving better comprehension. Hence, these two variables work independently in the context of reading fluency.

However, Macalister (2008) demonstrated that students who do a speed reading course tend to show more significant gains in reading rate than those who do not. Another implication of his research was that students who do a speed reading course are significantly better than those who do not answer reading comprehension questions. The study by Chang and College (2010) claimed that reading comprehension improved only marginally. An explanation for the limited comprehension improvement in that study was that students' reading rate had not reached the optimal level to enhance understanding.

The Difference in the Reading Fluency between Male and Female Respondents. Speed. The computed p-value of both males and females, which is 0.249, is greater than the alpha of 0.05, interpreted as "Insignificant." Therefore, the null hypothesis is accepted. It shows that there is no significant difference in the speed between male and female respondents.

Comprehension. The computed p-value of both males and females, 0.464, is greater than the alpha of 0.05, interpreted as "Insignificant." Therefore, the null hypothesis is accepted. It shows no significant difference in the comprehension between male and female respondents. This result is supported by the study of Miñoza and Montero (2019), titled Reading Comprehension Level among Intermediate Learners, which revealed no significant difference in the level of comprehension in silent reading between males and females.

Fluency. The computed p-value of both males and females, which is 0.967, is greater than the alpha of 0.05, interpreted as "Insignificant." Therefore, the null hypothesis is accepted. It shows no significant difference in reading fluency between male and female respondents. Table 3 presents the result of the difference between the reading fluency and the sex of the students.

Table 3. Difference in the Reading Fluency between Male and Female Respondents

Component	Sex	Mean	U	p-value		Decision	Interpretation
Speed	Male	209.84	-1.154	.249	.05	Accept H_o	Insignificant
	Female	199.56					
Comprehension	Male	63.53%	-.732	.464	.05	Accept H_o	Insignificant
	Female	64.76%					
Fluency	Male	2.050	-.042	.967	.05	Accept H_o	Insignificant
	Female	2.051					

This finding implies that there is no apparent circumstance that males have a better reading fluency and efficiency than females or vice versa. Instead, the result shows that both male and female respondents have almost the same reading fluency in comprehension and speed. However, there are some studies proved the difference in the reading performance of male and female. Cabardo (2016), with his study on the Reading Proficiency Level of Students: Basis for Reading Intervention Program, stated that the majority of the males are less proficient in reading than females in both quiet and oral interpretation. Also, Calhoon (2005) found out in his study that 31% percent of boys and 21% of girls in eighth grade did not reach a basic literacy level differently when given a standardized test.

Variance in the Reading Fluency among Degree Programs. Speed. The computed p-value of the three-degree programs, which is 0.289, is greater than the alpha of 0.05, interpreted as "Insignificant." Therefore, the null hypothesis is accepted. It shows that there is no significant variance in the speed among degree programs.

Comprehension. The computed p-value of the three-degree programs, which is 0.164, is greater than the alpha of 0.05, interpreted as "Insignificant." Therefore, the null hypothesis is accepted. It shows

that there is no significant variance in the comprehension among degree programs.

Fluency. The computed p-value of the three-degree programs, 0.443, is greater than the alpha of 0.05, interpreted as "Insignificant." Therefore, the null hypothesis is accepted. It shows that there is no significant variance in reading fluency among degree programs. Table 4 presents the results of the variance between the students' reading fluency and degree program.

Table 4. Variance in the Reading Fluency among Degree Programs

Component	Degree Program	Mean	H	p-value		Decision	Interpretation
Speed	BSOA	200.01	2.485	.289	.05	Accept H_o	Insignificant
	BSE	199.33					
	BSTM	211.07					
Comprehension	BSOA	64.21	3.621	.164	.05	Accept H_o	Insignificant
	BSE	63.02					
	BSTM	67.03					
Fluency	BSOA	2.03	1.629	.443	.05	Accept H_o	Insignificant
	BSE	2.07					
	BSTM	2.08					

This finding implies that there is no degree program better than the others when it comes to students' reading fluency. Also, it shows that all students in the different degree programs have almost the same level of reading fluency in terms of reading comprehension and speed. This is supported in the study on the Reading Proficiency Level of Students: Basis for Reading Intervention Program conducted by Cabardo (2016). He claimed that there is no significant difference in students' reading proficiency levels when analyzed according to their year levels and gender.

Variance in the Reading Fluency of the Respondents among Complexity Levels. Table 5 presents the variance in the reading fluency of the respondents in the different complexity levels.

Table 5. Variance in the Reading Fluency of the Respondents among Complexity Levels

Component	Complexity Level	Mean	H	p-value		Decision	Interpretation
Speed	Literal	186.01	29.516	.000	.05	Reject H_o	Significant
	Interpretive	207.97					
	Applied	203.51					
	Critical	215.70					
Comprehension	Literal	74.53	188.122	.000	.05	Reject H_o	Significant
	Interpretive	64.91					
	Applied	59.60					
	Critical	55.53					
Fluency	Literal	2.172	43.488	.000	.05	Reject H_o	Significant
	Interpretive	2.105					
	Applied	1.977					
	Critical	1.945					

Speed. The computed p-value of the complexity levels, which is 0.000, is lesser than the alpha of 0.05, interpreted as "Significant." Therefore, the null hypothesis is rejected. It shows that there is a significant variance in the speed of the respondents among complexity levels.

Comprehension. The computed p-value of the complexity levels, which is 0.000, is greater than the alpha of 0.05, interpreted as "Significant." Therefore, the null hypothesis is rejected. It shows that there is a significant variance in the comprehension of the respondents among complexity levels.

Fluency. The computed p-value of the complexity levels, which is 0.000, is lesser than the alpha of 0.05, interpreted as "Significant." Therefore, the null hypothesis is rejected. It shows that there is a significant variance in the reading fluency of the respondents among complexity levels.

This finding implies that the results of the reading fluency in all complexity levels are diverse. The respondents perform differently in all complexity levels concerning the difficulty and understandability that each level has.

Table 6. Post-Hoc Pairwise Comparisons on the Speed among the Complexity Levels

Component	Pairings	Test Statistic	p-value		Decision	Interpretation
Speed	Literal-Applied	-81.395	.011	.05	Reject Ho	Significant
	Literal-Interpretive	-88.688	.004	.05	Reject Ho	Significant
	Literal-Critical	-140.254	.000	.05	Reject Ho	Significant
	Applied-Interpretive	7.293	1.000	.05	Accept Ho	Insignificant
	Applied-Critical	-58.859	.146	.05	Accept Ho	Insignificant
	Interpretive-Critical	-51.566	.291	.05	Accept Ho	Insignificant

Pairwise Comparisons of Complexity Levels

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
Literal-Applied	-81.395	26.141	-3.114	.002	.011
Literal-Interpretive	-88.688	26.141	-3.393	.001	.004
Literal-Critical	-140.254	26.141	-5.365	.000	.000
Applied-Interpretive	7.293	26.141	.279	.780	1.000
Applied-Critical	-58.859	26.141	-2.252	.024	.146
Interpretive-Critical	-51.566	26.141	-1.973	.049	.291

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is .05. Significance values have been adjusted by the Bonferroni correction for multiple tests

The pairwise comparison shows that the respondents have a faster reading speed in Critical, Interpretive, and Applied complexity levels which lie on the same reading speed level. On the other hand, the Literal level has the slowest reading speed among complexity levels. This implies that the students tend to read faster as the complexity level increases.

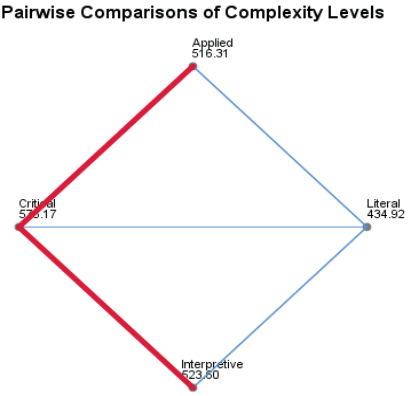


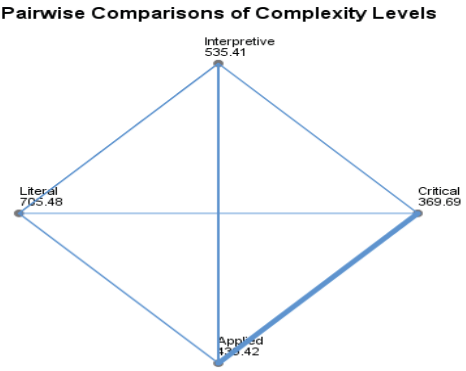
Table 7. Post-Hoc Pairwise Comparisons on the Comprehension among Complexity Levels

Component	Pairings	Test Statistic	p-value		Decision	Interpretation
Comprehension	Critical-Applied	69.729	.044	.05	Reject Ho	Significant
	Critical-Interpretive	165.715	.000	.05	Reject Ho	Significant
	Critical-Literal	335.783	.000	.05	Reject Ho	Significant
	Applied-Interpretive	95.986	.001	.05	Reject Ho	Significant
	Applied-Literal	266.055	.000	.05	Reject Ho	Significant
	Interpretive-Literal	170.068	.000	.05	Reject Ho	Significant

Pairwise Comparisons of Complexity Levels

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
Critical-Applied	69.729	25.982	2.684	.007	.044
Critical-Interpretive	165.715	25.982	6.378	.000	.000
Critical-Literal	335.783	25.982	12.924	.000	.000
Applied-Interpretive	95.986	25.982	3.694	.000	.001
Applied-Literal	266.055	25.982	10.240	.000	.000
Interpretive-Literal	170.068	25.982	6.546	.000	.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is .05. Significance values have been adjusted by the Bonferroni correction for multiple tests.



Each node shows the sample average rank of Complexity Levels.

The pairwise comparison shows that the respondents have the highest comprehension in Literal level and the slowest in Critical level, while applied and interpretive levels lie between the two latter levels. However, the respondents in the Interpretive level perform higher than the applied level. This finding implies that the students tend to comprehend less as the complexity level increases.

Table 8. Post-Hoc Pairwise Comparisons on the Fluency among Complexity Levels

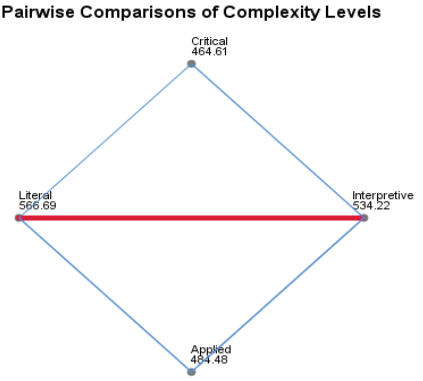
Component	Pairings	Test Statistic	p-value		Decision	Interpretation
Fluency	Critical-Applied	19.871	1.000	.05	Accept Ho	Insignificant
	Critical-Interpretive	69.613	.000	.05	Reject Ho	Significant
	Critical-Literal	102.078	.000	.05	Reject Ho	Significant
	Applied-Interpretive	49.742	.024	.05	Reject Ho	Significant
	Applied-Literal	82.207	.000	.05	Reject Ho	Significant
	Interpretive-Literal	32.465	.361	.05	Accept Ho	Insignificant

Pairwise Comparisons of Complexity Levels

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.[a]
Critical-Applied	-19.871	17.272	1.150	.250	1.000
Critical-Interpretive	-69.613	17.272	4.030	.000	.000
Critical-Literal	-102.078	17.272	5.910	.000	.000
Applied-Interpretive	-49.742	17.272	2.880	.004	.024

Applied-Literal	-82.207	17.272	4.760	.000	.000
Interpretive-Literal	-32.465	17.272	1.880	.060	.361

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is .05. Significance values have been adjusted by the Bonferroni correction for multiple tests.



The pairwise comparisons show that the respondents have a better reading fluency in the Literal and Interpretive literal levels than the Applied and Critical levels. This finding implies that the students tend to be less fluent as the complexity level increases. This result is supported by the study of Paz (2018) about Reading Comprehension Levels in English among Grade 7 Students in Caraga State University, Philippines. It gave way to deal with some of the weak reading comprehension levels, namely interpretative, critical, and application that requires a desirable intervention program.

CONCLUSIONS

After interpreting the data and discussing the findings, the researcher concludes the following:

Most of the respondents are Instructional readers. The reading speed and comprehension of the students are not significantly dependent on each other. The student profile in terms of sex, age, and degree program has no impact on the reading fluency of the respondents. There is a significant variance in the reading fluency of the respondents in the different complexity

levels. The respondents have a faster reading speed in Critical, Interpretive, and Applied levels which lie on the same reading speed level and slowest in Literal level. The respondents tend to read faster as the complexity level increases. The respondents have the highest comprehension in the Literal level and lowest in Critical level. The respondents tend to comprehend less as the complexity level increases. The respondents have a better reading fluency in the Literal and Interpretive levels than the Applied and Critical levels. The respondents tend to be less fluent as the complexity level increases. Male and female respondents have no significant difference in their reading fluency in terms of comprehension and speed. There is no significant difference in the reading fluency among degree programs. Any reading intervention tool to improve the reading fluency could be designed for both males and females in all degree programs.

RECOMMENDATIONS

The researcher offers the following relevant recommendations:

1. The researcher shall present this research undertaking to the administration of Tagbilaran City College for information dissemination.
2. The school administrators shall highly consider and utilize the proposed reading intervention measures for Instructional readers.
3. The administrators shall provide an entrance examination for students that includes Reading Comprehension Test and shall offer a special course in Reading Development.
4. The administrators shall create a Reading Development Committee to craft and implement continuing reading intervention activities for the struggling and slow readers and monitor their progress.
5. The English instructors shall assess the students' reading fluency in terms of comprehension and speed by providing appropriate and reliable reading exercises that help students improve, especially those who are considered frustrated and instructional.
6. The students, especially those in frustration and instructional levels, shall actively involve themselves in the reading intervention activities proposed herein.
7. Future researchers may conduct another study to verify the result of the study.

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