

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Donnabel D. Abao-an

Master of Arts in Education Major in English, University of Perpetual Help System DALTA, Las Pinas City, Philippines

ABSTRACT: This study assessed the level of vocabulary knowledge depth (VKD) and reading comprehension (RC) skills of 223 Grade 11 student-respondents from Sun Valley National High School enrolled in Reading and Writing Skills for school year 2023-2024, aiming for the development of a suitable reading enhancement program. The study utilized a questionnaire-checklist to gather demographic data, reading habits, English language exposure, VKD, and RC level of the senior high school (SHS) student-respondents. It also used frequency and percentage distribution, weighted mean, one-way ANOVA, t-test for independent sample, and Pearson correlation coefficient to determine the averages, measure the differences and analyze the correlations among students' demographics, reading habits, English language exposure, VKD and RC. The study found that vocabulary knowledge depth varied among the student-respondents based on age, reading frequency, purpose, English language exposure, and Word Associates Test (WAT) score. However, no significant difference was found in RC levels based on age, sex, strand, reading materials, or English language exposure. It also found a significant relationship between VKD, reading habits, reading materials, reading purpose, exposure to English language at home, friends, media, WAT scores, and RC levels. However, no significant relationship was found for critical, literal, interpretive, media, or media exposure levels. Finally, VKD and RC of SHS student-respondents had a significant positive relationship although it was a very low positive or weak correlation. To address these, the researcher offers a reading enhancement program that would provide student-respondents with relevant reading skills and exercises to help improve their VKD and RC levels.

KEYWORDS: reading comprehension, reading intervention program, senior high school, vocabulary knowledge depth, Word Associates Test (WAT).

I. INTRODUCTION

In recent years, educational research has focused heavily on improving reading comprehension skills among senior high school students. Reading comprehension helps students in their academic struggles because almost all their subjects involve reading texts - may they be in Science, Social Studies, Filipino, Philosophy, Humanities, and even Mathematics. Learning how to understand academic texts would help them develop the needed learning competencies, thereby making them successful academic survivors.

Vazquez-Lopez and Huerta-Manzanilla (2021) conducted a quantitative study that used PISA data to build logistic regression models to identify the main factors contributing to students' underperforming reading skills. They divulged that currently, there was no global consensus on the idea of basic literacy skills in secondary school, although most organizations decided to adopt the definition of the OECD's Programme for International Student Assessment (PISA) as a reference. They further stated that according to UN Sustainable Development Goal 4.1, about 217 million high school students (60% of the world's adolescents) did not achieve the required levels of reading competence by the conclusion of secondary school. As a result, identifying this disadvantage early and efficiently, as well as implementing corrective solutions, was crucial for economies.

In the American context, the most recent National Assessment of Educational Progress (NAEP) reading evaluations for Grade 12 students were administered in 2019, before the pandemic. In 2019, Asian students (299), students of two or more races (295), and White students (295) had the highest average reading scores at Grade 12. Students from these racial/ethnic groups had higher average reading scores than Pacific Islander students (278), Hispanic students (274), and American Indian/Alaska Native students (272). Black students had the lowest reading scores (263). (U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 and 2022 Reading Assessments, NAEP Data Explorer).

In the Asian context, Dong et al (2020) said that the specific influence of vocabulary knowledge on reading comprehension was unclear among Chinese students; thus, the role of vocabulary knowledge in reading comprehension for Chinese participants deserved additional exploration.

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

In the Philippine context, Arcilla (2020) reported in Manila Times the release of the 2018 Program for International Student Assessment (PISA) had an impact on the Philippine educational landscape. The survey found that secondary school students in the country performed much worse in reading comprehension than their classmates in other countries. Specifically, more than 80% of Filipino students around the age of 15 earned a reading comprehension grade of 340 points, which was much lower than the global average of 487. As a result, the Philippines finished last among 79 countries.

The Philippine educational system struggled to develop effective readers. According to the 2019 PISA (Programme for Foreign Student Assessment) results as cited in Idulog et al. (2023), Filipino students performed poorly in reading comprehension compared to their foreign counterparts. This showed that there was a need to address the challenges and potential areas for growth in Filipino students' reading abilities.

According to the Philippine Institute for Development Studies (2020, as cited in Mamba et al., 2020), some Filipino senior high school students did not have fundamental reading and numeracy skills, particularly English language skills, which made it impossible for them to provide research work.

Addressing these study gaps could also add a great deal of information to the body of knowledge already available on the relationship between senior high school students' reading comprehension and the depth of their vocabulary, guiding curriculum development, and instructional strategies.

This study would then assess the level of vocabulary knowledge depth of Grade 11 Senior High School students in Sun Valley National High School by administering to them the Word Associates Test (WAT), a psychological and linguistic tool used to explore the person's mental lexicon - all the words a person knew, along with their meanings, usages, and relationships to other words.

Moreover, this study would assess the reading comprehension skill and level of the student respondents by administering them a self-made Reading Comprehension Test with 20 multiple-choice questions. The multiple-choice questions were taken from the reading selection Fear of Missing Out (FOMO) and Social Media Addiction, an excerpt from the online article Social Media and Mental Health. The comprehension test was used to determine the Grade 11 students who would have the lowest possible reading comprehension test marks as well as their problem in reading and need for reading materials.

II. RESEARCH QUESTIONS

1. What is the demographic profile of the study's respondents in terms of age, sex, strand, and socioeconomic status based on father's and mother's educational attainment, and family income?
2. What is the level of vocabulary knowledge depth of senior high school students in terms of reading habits, English language exposure, and Word Associates Test (WAT) results?
3. What is the reading comprehension level of Grade 11 students in terms of literal level, interpretive level, critical level, and creative level?
4. Is there a significant difference in the vocabulary knowledge depth and reading comprehension level of the Grade 11 students?
5. Is there a significant relationship between the level of vocabulary knowledge depth and the extent of reading comprehension skills among senior high school students?

III. RESEARCH METHOD

The study used a descriptive-correlation design to analyze vocabulary knowledge depth and reading comprehension scores among Grade 11 senior high school students from various strands at Sun Valley National High School. Random sampling was used to ensure representativeness, with 223 students from various classes selected for the academic year 2023-2024. The reading habits questionnaire was adapted from Bamise and Akande's 2021 study. The Word Associates Test (WAT) by Read was used to measure vocabulary knowledge depth, while a self-made reading comprehension test was administered to assess all Grade 11 students' reading comprehension. Data analysis techniques included frequency and percentage distribution, weighted mean, one-way ANOVA test, and Pearson correlation coefficient. The findings provide valuable insights into the reading habits and vocabulary knowledge of Grade 11 students.

IV. RESULTS AND DISCUSSION

Table 1. Demographic profile of senior high school student-respondents in terms of age

Age (in years)	f	%
15 - 16	63	28.3
17 - 18	140	62.8
19 - 20	12	5.4
21 and above	8	3.6
Total	223	100.0

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

The data indicate that most senior high school students (62.8%) are aged 17–18, aligning with the Department of Education's admission guidelines. A smaller percentage (3.6%) of students are 21 years or older, suggesting delayed entry or extended studies.

Table 2. Demographic profile of senior high school student- respondents in terms of sex

Sex	F	%
Male	131	58.7
Female	92	41.3
Total	223	100

The findings reveal that 58.7% of respondents are male and 41.3% are female. This contradicts common educational trends where females typically outnumber males in school populations.

Table 3. Demographic profile of senior high school student-respondents in terms of strand

Strand	f	%
ABM	23	10.3
GAS	56	25.1
HUMSS	38	17.0
STEM	26	11.7
HE	39	17.5
ICT	41	18.4
Total	223	100

The General Academic Strand (GAS) has the highest enrolment (25.1%), suggesting uncertainty in career paths. Meanwhile, the Accountancy, Business, and Management (ABM) strand has the lowest enrolment (10.3%), indicating a lack of interest in business-related fields.

Table 4. Demographic profile of senior high school student-respondents in terms of socio-economic status based on father's educational attainment

Educational Attainment	F	%
Elementary level	27	12.1
Elementary graduate	13	5.8
High School level	50	22.4
High School graduate	70	31.4
College level	32	14.3
College graduate	31	13.9
Total	223	100

The data shows that most respondents' fathers are high school graduates (31.4%), with a smaller percentage completing college or reaching college level without graduating (13.9%). This suggests limited parental education affects students' academic engagement and literacy skills, emphasizing the need for school-based interventions.

Table 5. Demographic profile of senior high school student-respondents in terms of socio-economic status based on mother's educational attainment

Educational Attainment	f	%
Elementary level	16	7.2
Elementary graduate	17	7.6
High School level	39	17.5
High School graduate	88	39.5
College level	33	14.8
College graduate	30	13.5
Total	223	100

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

The data shows that 39.5% of respondents' mothers are high school graduates, while 17.5% have only some education, which may influence students' academic support. Limited college-educated mothers could reduce opportunities for literacy development and exposure to academically enriching activities.

Table 6. Demographic profile of senior high school student-respondents in terms of socio-economic status based on family's monthly income

Monthly Income	f	%
Below P10,000	117	52.5
P10,000 - P19,999	50	22.4
P20,000 - P29,999	25	11.2
P30,000 - P39,999	14	6.3
P40,000 & above	17	7.6
Total	223	100

Most respondents' families (52.5%) earn below ₱10,000 per month, highlighting financial disadvantages that can limit students' access to educational resources and affect academic performance. To address this, schools should offer additional support, including literacy programs and financial assistance, to help bridge learning gaps.

Table 7. Level of vocabulary knowledge depth of senior high school student-respondents in terms of reading habits based on frequency of reading

Frequency	Level	f	%
More than four hours every day	High	6	2.7
Two to four hours every day	Moderate	29	13.0
One hour every day	Low	53	23.8
Less than one hour every day	Very low	135	60.5
Total		223	100

Majority (60.5%) of students read for less than an hour daily, reflecting a limited engagement with reading, which affects vocabulary development. Encouraging habitual reading is crucial for literacy improvement.

Table 8. Level of vocabulary knowledge depth of senior high school student-respondents in terms of reading habits based on materials read

Reading Materials	Weighted Mean	Verbal Description
1. Textbooks/Workbooks	2.90	Weekly
2. Newspapers/Magazines	2.65	Weekly
3. Notes given by teachers	3.38	Daily
4. Past questions and solutions	3.11	Weekly
5. Handbook/manual	2.81	Weekly
6. Magazines	2.43	Monthly
7. Dictionary, Biography, encyclopedia (reference materials)	2.70	Weekly
8. Novel (story and drama books)	3.12	Weekly
9. Electronic devices and online materials	3.13	Weekly
Over-all Weighted Mean	2.91	Weekly

Students primarily read teacher-provided notes (WM = 3.38), while newspapers and magazines are less frequently read. Exposure to diverse reading materials is necessary for broader vocabulary acquisition.

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Table 9. Level of vocabulary knowledge depth of senior high school student-respondents in terms of reading habits based on the purpose of reading

Frequency	Weighted Mean	Verbal Description
1. I read to get better grades in tests and examinations.	3.13	True
2. I read to improve my vocabulary.	3.22	True
3. I read to enhance my mental capability.	3.12	True
4. I read for a better understanding of topics taught by the teacher.	3.24	True
5. I read to do my assignments and Projects.	3.25	True
6. I read for pleasure.	2.86	True
Over-all Weighted Mean	3.13	True

The main motivations for reading include academic tasks (WM = 3.25) and vocabulary improvement (WM = 3.22). However, reading for pleasure scores lower (WM = 2.86), indicating a lack of intrinsic motivation for reading.

Table 10. Level of vocabulary knowledge depth of senior high school student-respondents in terms of English language exposure at home

Indicators	Weighted Mean	Verbal Description
1. My parents talk in English.	2.25	Rarely
2. English is spoken at home.	2.13	Rarely
3. I converse in English among my family members.	2.26	Rarely
4. I engage in home activities where English is used.	2.52	Rarely
Total	2.29	Rarely

The study shows that English exposure at home is rarely experienced, potentially hindering vocabulary development and language proficiency. To improve fluency and comprehension, schools should offer additional opportunities for English practice, such as reading programs and speaking activities.

Table 11. Level of vocabulary knowledge depth of senior high school student-respondents in terms of English language exposure with friends

Indicators	Weighted Mean	Verbal Description
1. I Interact with friends in English on a regular basis, ensuring consistent exposure to the language.	2.83	Sometimes
2. I use various media for English communication (text messaging, chats, video calls) with friends.	3.27	Sometimes
3. I engage in English-language activities (watching English movies, playing games in English) with friends.	3.82	Frequently
4. I join study groups or language clubs with friends to explore language learning materials together and share insights.	2.18	Rarely
Total	3.03	Sometimes

The study shows that students communicate in English with friends and participate in English-language activities but use it infrequently in text messages or everyday conversations and rarely join study groups or language clubs. Schools should promote greater engagement through academic discussions and extracurricular activities to enhance language use.

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Table 12. Level of vocabulary knowledge depth of senior high school student-respondents in terms of English language exposure in school

Indicators	Weighted Mean	Verbal Description
1. My teachers speak in English.	4.15	Frequently
2. The activities in my school are conducted in English.	3.92	Frequently
3. My classmates speak in English.	2.92	Sometimes
4. The medium of instruction used in the classroom is English.	3.46	Frequently
Total	3.61	Frequently

The study shows that English exposure in school is frequent, with teachers frequently speaking English and activities conducted in English. However, peer interactions are limited, suggesting schools should encourage student-led discussions and language-focused activities for better vocabulary development.

Table 13. Level of vocabulary knowledge depth of senior high school student-respondents in terms of English language exposure with media

Indicators	Weighted Mean	Verbal Description
1. I text or chat online in English.	3.20	Sometimes
2. I listen to songs, watch movies and TV shows in English.	4.25	Always
3. I read newspapers, magazines and books written in English.	3.14	Sometimes
4. I browse webpages and social media that are in English.	3.66	Frequently
Total	3.57	Frequently

The study shows that English is frequently encountered through media, with respondents listening to English songs, watching movies, browsing websites, and reading books. It suggests that passive media consumption aids vocabulary recognition, while active engagement, such as reading and writing, strengthens language skills.

Table 14. Level of vocabulary knowledge depth of senior high school student-respondents in terms of Word Association Test (WAT) results

WAT Scores	Verbal Description	Frequency	%
120 and above	Very High	12	5.4
80 - 119	High	163	73.19
40 - 79	Moderate	43	19.3
Below 40	Low	5	2.2
	Total	223	100
Mean Score	90.8	High level	

Most respondents (73.1%) scored within the 80–119 range, indicating a high vocabulary knowledge depth. However, a minority (2.2%) scored below 40, demonstrating limited word association skills.

Table 15. Reading comprehension level of senior high school student-respondents in terms of literal level

Level	Score	Frequency	%
Advanced	5	14	2.3
Proficient	4	32	14.4
Developing	3	53	23.8
Emerging	2	53	23.8
Beginning	0 -1	71	31.8

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Total		223	100
Mean Score	2.30	Emerging	

Students struggle with identifying explicit details, with most scoring at the emerging level (mean = 2.3). This indicates difficulty in extracting direct information from texts.

Table 16. Reading comprehension level of senior high school student-respondents in terms of interpretive level

Level	Score	Frequency	%
Advanced	5	40	17.9
Proficient	4	37	16.6
Developing	3	30	13.5
Emerging	2	49	22.0
Beginning	0 -1	67	30.0
Total		223	100
Mean Score	2.58	Developing	

The developing level (mean = 2.58) suggests students can infer meaning but struggle with deeper analysis. Strengthening inferential reading strategies is needed.

Table 17. Reading comprehension level of senior high school student-respondents in terms of critical level

Level	Score	Frequency	%
Advanced	5	39	17.5
Proficient	4	24	10.8
Developing	3	39	17.5
Emerging	2	55	24.7
Beginning	0 -1	66	29.6
Total		223	100
Mean Score	2.54	Developing	

With a mean score of 2.54, students show difficulty in evaluating and questioning text content. This highlights the need for critical reading exercises.

Table 18. Reading comprehension level of senior high school student-respondents in terms of creative level

Level	Score	Frequency	%
Advanced	5	10	4.5
Proficient	4	26	11.7
Developing	3	45	20.2
Emerging	2	70	31.4
Beginning	0 -1	72	32.3
Total		223	100
Mean Score	2.17	Emerging	

The lowest comprehension level (mean = 2.17) is found in creative interpretation, indicating difficulty in applying new ideas from reading materials.

Table 19. Significant difference on the vocabulary knowledge depth in terms of reading habit of the senior high school student-respondents when grouped by age

Factors	Age Group	Mean Extent	Computed value	f -	p-value	Decision	Interpretation
Reading Frequency	15 – 16	1.58	22.989		<0.001	Reject Ho	Significant
	17 – 18	1.64					
	19 – 20	1.33					

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Reading Materials	21 & above	4.00	1.149	0.330	Accept Ho	Not Significant
	15 – 16	2.88				
	17 – 18	2.93				
	19 – 20	3.04				
Reading Purpose	21 & above	2.60	3.826	0.011	Reject Ho	Significant
	15 – 16	3.19				
	17 - 18	3.12				
	19 - 20	2.92				
	21 & above	2.60				

The study reveals significant differences in reading frequency and purpose among age groups, with older students having higher reading frequency and younger students reading less frequently. However, no significant difference was found in reading materials, suggesting age-related changes impact vocabulary development. Schools should encourage consistent reading habits.

Table 20. Significant difference on the vocabulary knowledge depth in terms of English language exposure and WAT score of the senior high school student-respondents when grouped according to age

	Age Group	Mean Extent	Computed f - value	p-value	Decision	Interpretation
Exposure at home	15 – 16	2.48	1.780	0.152	Accept Ho	Not Significant
	17 – 18	2.23				
	19 – 20	1.96				
	21 & above	2.31				
Exposure with friends	15 – 16	2.99	0.816	0.486	Accept Ho	Not Significant
	17 – 18	3.07				
	19 – 20	2.75				
	21 & above	2.88				
Exposure in school	15 – 16	3.62	0.276	0.843	Accept Ho	Not Significant
	17 – 18	3.61				
	19 – 20	3.73				
	21 & above	3.50				
Exposure with media	15 – 16	3.58	0.010	0.999	Accept Ho	Not Significant
	17 – 18	3.56				
	19 – 20	3.56				
	21 & above	3.59				
WAT score	15 – 16	88.40	2.873	0.037	Reject Ho	Significant
	17 – 18	93.12				
	19 – 20	77.58				
	21 & above	88.13				

The study found no significant difference in English language exposure across age groups, but a significant difference in vocabulary depth (WAT) scores, with 17-18-year-olds scoring highest and 19-20-year-olds lowest. Age does not influence English exposure but affects vocabulary knowledge, suggesting schools should implement age-adaptive strategies.

Table 21. Significant difference on the reading comprehension level of the senior high school student-respondents when grouped according to age

Level	Age Group	Mean Extent	Computed f - value	p-value	Decision	Interpretation
Literal	15 - 16	2.65	4.560	0.004	Reject Ho	Significant
	17 - 18	2.27				
	19 - 20	1.25				

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Interpretive	21 & above	1.63	1.800	0.148	Accept Ho	Not Significant
	15 - 16	2.90				
	17 - 18	2.52				
	19 - 20	2.17				
Critical	21 & above	1.75	0.668	0.572	Accept Ho	Not Significant
	15 - 16	2.75				
	17 - 18	2.49				
	19 - 20	2.17				
Creative	21 & above	2.38	2.434	0.066	Accept Ho	Not Significant
	15 - 16	2.37				
	17 - 18	2.17				
	19 - 20	1.58				
	21 & above	1.38				

The study found a significant difference in literal comprehension between younger and older students, suggesting younger students have stronger basic comprehension skills. However, no significant differences were found in interpretive, critical, or creative comprehension across age groups, suggesting students struggle with higher-order thinking skills.

Table 22. Significant difference on the vocabulary knowledge depth of the senior high school student-respondents when grouped according to sex

Factors		Mean Extent		Computed t- value	p-value	Decision	Interpretation
		Male	Female				
Reading Habit	based on	1.50	1.70	-1.687	0.093	Accept Ho	Not Significant
	Reading Frequency	3.00	2.79	2.845	0.005	Reject Ho	Significant
	Reading Materials	3.12	3.15	-0.380	0.704	Accept Ho	Not Significant
	Reading Purpose						
English Language Exposure	at home	2.21	2.40	-1.625	0.106	Accept Ho	Not Significant
	with friends	2.98	3.09	-1.025	0.307	Accept Ho	Not Significant
	in school	3.62	3.60	0.166	0.868	Accept Ho	Not Significant
	with media	3.57	3.55	0.209	0.835	Accept Ho	Not Significant
WAT score		89.63	94.40	-1.021	0.309	Accept Ho	Not Significant

The study found no significant difference in vocabulary knowledge depth between male and female students, but males were more frequently engaged with reading materials, suggesting they may be more exposed to various resources. Schools should encourage both genders to explore a variety of reading materials to enhance vocabulary acquisition.

Table 23. Significant difference on the reading comprehension level of the senior high school student-respondents when grouped according to sex

Level	Mean Extent		Computed t- value	p- value	Decision	Interpretation
	Male	Female				
Literat	2.11	2.57	-2.478	0.014	Reject Ho	Significant

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Interpretive	2.50	2.70	-0.853	0.395	Accept Ho	Not Significant
Critical	2.45	2.67	-1.061	0.290	Accept Ho	Not Significant
Creative	2.10	2.26	-0.921	0.358	Accept Ho	Not Significant

The study found that females outperform males in literal comprehension, indicating stronger early reading skills. However, there was no significant difference in interpretive, critical, or creative comprehension, suggesting both genders face similar challenges in higher order thinking skills. The findings suggest enhanced reading strategies for both genders.

Table 24. Significant difference on the vocabulary knowledge depth in terms of reading habit of the senior high school student-respondents when grouped according to strand

Factors	Strand	Mean	Computed f - value	p-value	Decision	Interpretation
Reading Frequency	ABM	2.17	7.645	<0.001	Reject Ho	Significant
	GAS	1.55				
	HUMSS	1.61				
	STEM	2.04				
	HE	1.15				
Reading Materials	ICT	1.39	1.093	0.365	Accept Ho	Not Significant
	ABM	2.68				
	GAS	2.90				
	HUMSS	2.97				
	STEM	2.99				
Reading Purpose	HE	2.98	5.226	0.0001	Reject Ho	Significant
	ICT	2.89				
	ABM	3.18				
	GAS	2.94				
	HUMSS	3.17				
	STEM	3.49				
	HE	3.03				
	ICT	3.22				

The study found significant differences in reading frequency and purpose among strands, with STEM students showing higher motivation and engagement, and HE students showing minimal engagement. However, no significant difference in reading materials was found, suggesting academic strand influences reading habits. Schools should implement strand-specific interventions.

Table 25. Significant difference on the vocabulary knowledge depth in terms of English language exposure and wat score of the senior high school student-respondents when grouped according to strand

	Age Group	Mean	Computed f	p-value	Decision	Interpretation
Exposure at home	ABM	2.67	5.230	0.0001	Reject Ho	Significant
	GAS	2.22				
	HUMSS	2.33				
	STEM	2.86				
	HE	1.97				
Exposure with friends	ICT	2.07	2.189	0.057	Accept Ho	Not Significant
	ABM	3.14				
	GAS	2.93				
	HUMSS	3.24				
	STEM	3.27				
	HE	2.79				
	ICT	2.95				
	ABM	3.75				

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Exposure in school	GAS	3.58	1.556	0.174	Accept Ho	Not Significant
	HUMSS	3.77				
	STEM	3.64				
	HE	3.54				
	ICT	3.47				
Exposure with media	ABM	3.88	7.068	<0.0001	Reject Ho	Significant
	GAS	3.31				
	HUMSS	3.82				
	STEM	4.00				
	HE	3.17				
WAT score	ICT	3.60	6.248	<0.0001	Reject Ho	Significant
	ABM	101.78				
	GAS	86.96				
	HUMSS	86.47				
	STEM	104.85				
	HE	84.74				
	ICT	90.59				

The study found that STEM students have the highest exposure to English language at home, media, and WAT scores, indicating stronger vocabulary knowledge and engagement. However, HE students showed the lowest exposure and vocabulary depth. The findings suggest that schools should enhance English integration strategies for lower exposure strands.

Table 26. Significant difference on the reading comprehension level of the senior high school student-respondents when grouped according to strand

Level	Age Group	Mean Extent	Computed f - value	p-value	Decision	Interpretation
Literal	ABM	2.52	8.335	<0.0001	Reject Ho	Significant
	GAS	1.73				
	HUMSS	2.79				
	STEM	3.35				
	HE	1.77				
Interpretive	ICT	2.34	4.855	0.003	Reject Ho	Significant
	ABM	2.65				
	GAS	2.23				
	HUMSS	2.92				
	STEM	3.77				
Critical	HE	2.00	5.224	0.0002	Reject Ho	Significant
	ICT	2.51				
	ABM	2.52				
	GAS	2.38				
	HUMSS	2.39				
Creative	STEM	3.88	9.167	<0.0001	Reject Ho	Significant
	HE	2.08				
	ICT	2.51				
	ABM	2.39				
	GAS	1.84				
	HUMSS	1.87				
	STEM	3.50				
	HE	1.79				
	ICT	2.27				

The study found that STEM students scored highest in reading comprehension, indicating stronger analytical and problem-solving skills. Conversely, HE and GAS students had the lowest scores, indicating weaker overall reading abilities. The findings

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

suggest schools should implement strand-specific reading interventions to support students' higher-order thinking and comprehension skills.

Table 27. Significant difference on the vocabulary knowledge depth in terms of reading habit of the senior high school student-respondents when grouped according to father's educational attainment

Factors	Strand	Mean	Computed f - value	p-value	Decision	Interpretation
Reading Frequency	Elem. Level	1.63	0.479	0.792	Accept Ho	Not Significant
	Elem. Grad	1.46				
	High Sch Level	1.57				
	High Sch Grad	1.50				
	College Level	1.64				
Reading Materials	College Grad	1.74	0.826	0.532	Accept Ho	Not Significant
	Elem. Level	3.03				
	Elem. Grad	2.93				
	High Sch Level	2.78				
	High Sch Grad	2.92				
Reading Purpose	College Level	2.97	1.590	0.164	Accept Ho	Not Significant
	College Grad	2.93				
	Elem. Level	3.27				
	Elem. Grad	3.06				
	High Sch Level	3.01				
	High Sch Grad	3.11				
	College Level	3.28				
	College Grad	3.15				

The study found no significant difference in reading frequency, materials, or purpose of reading by father's educational attainment, suggesting that students' reading habits remain consistent regardless of their father's education level, suggesting the need for literacy programs and parental engagement strategies.

Table 28. Significant difference on the vocabulary knowledge depth in terms of English language exposure and wat score of the senior high school student-respondents when grouped according to father's educational attainment

	Age Group	Mean	Computed f - value	p-value	Decision	Interpretation
Exposure at home	Elem. Level	2.32	1.785	0.118	Accept Ho	Not Significant
	Elem. Grad	1.94				
	High Sch Level	2.13				
	High Sch Grad	2.24				
	College Level	2.48				
Exposure with friends	College Grad	2.57	5.308	0.0001	Reject Ho	Significant
	Elem. Level	2.98				
	Elem. Grad	2.79				
	High Sch Level	2.97				
	High Sch Grad	3.09				
Exposure in school	College Level	3.70	5.117	0.0002	Reject Ho	Significant
	College Grad	2.99				
	Elem. Level	3.72				
	Elem. Grad	3.50				
	High Sch Level	3.57				
	High Sch Grad	3.76				
	College Level	3.70				
	College Grad	3.20				
	Elem. Level	3.37				

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Exposure with media	Elem. Grad	3.25	1.180	0.320	Accept Ho	Not Significant
	High Sch Level	3.57				
	High Sch Grad	3.58				
	College Level	3.76				
	College Grad	3.63				
WAT score	Elem. Level	86.96	1.025	0.404	Accept Ho	Not Significant
	Elem. Grad	89.23				
	High Sch Level	89.18				
	High Sch Grad	89.91				
	College Level	97.06				
	College Grad	92.48				

The study found that English language exposure differs according to fathers' educational attainment, with college-educated fathers linked to the highest exposure, though no significant differences were observed at home, in media, or in WAT scores. This suggests that school and peer interactions play a key role in language development, highlighting the need for schools to strengthen language engagement strategies.

Table 29. Significant difference on the reading comprehension level of the senior high school student-respondents when grouped according to father's educational attainment

Level	Age Group	Mean	Computed f - value	p-value	Decision	Interpretation
Literal	Elem. Level	2.52	2.487	0.032	Reject Ho	Significant
	Elem. Grad	2.38				
	High Sch Level	2.04				
	High Sch Grad	2.04				
	College Level	2.79				
	College Grad	2.81				
Interpretive	Elem. Level	2.63	0.297	0.914	Accept Ho	Not Significant
	Elem. Grad	2.77				
	High Sch Level	2.45				
	High Sch Grad	2.47				
	College Level	2.79				
	College Grad	2.71				
Critical	Elem. Level	2.67	2.821	0.017	Reject Ho	Significant
	Elem. Grad	3.08				
	High Sch Level	2.14				
	High Sch Grad	2.41				
	College Level	3.09				
	College Grad	1.97				
Creative	Elem. Level	2.11	1.078	0.373	Accept Ho	Not Significant
	Elem. Grad	2.31				
	High Sch Level	2.45				
	High Sch Grad	2.16				
	College Level	2.64				
	College Grad	1.97				

The study found that higher paternal education levels can improve reading comprehension, particularly in understanding explicit information and critically evaluating text. However, there was no significant difference in interpretive or creative comprehension, suggesting the importance of parental education in shaping reading comprehension skills and ensuring equal opportunities for academic success.

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Table 30. Significant difference on the vocabulary knowledge depth in terms of reading habit of the senior high school student-respondents when grouped according to mother's educational attainment

Factors	Strand	Mean	Computed f - value	p-value	Decision	Interpretation
Reading Frequency	Elem. Level	1.75	1.145	0.338	Accept Ho	Not Significant
	Elem. Grad	1.29				
	High Sch Level	1.54				
	High Sch Grad	1.59				
	College Level	1.49				
Reading Materials	College Grad	1.81	1.856	0.103	Accept Ho	Not Significant
	Elem. Level	3.10				
	Elem. Grad	2.92				
	High Sch Level	2.69				
	High Sch Grad	2.93				
Reading Purpose	College Level	3.03	0.212	0.957	Accept Ho	Not Significant
	College Grad	2.91				
	Elem. Level	3.17				
	Elem. Grad	3.05				
	High Sch Level	3.12				
	High Sch Grad	3.14				
	College Level	3.11				
	College Grad	3.19				

The study found no significant difference in reading frequency, materials, or purpose based on the mother's educational level, suggesting that students from all backgrounds exhibit similar reading habits, suggesting schools should implement literacy programs and parental engagement initiatives.

Table 31. Significant difference on the vocabulary knowledge depth in terms of English language exposure and wat score of the senior high school student-respondents when grouped according to mother's educational attainment

	Age Group	Mean	Computed f - value	p-value	Decision	Interpretation
Exposure at home	Elem. Level	2.08	2.966	0.013	Reject Ho	Significant
	Elem. Grad	2.13				
	High Sch Level	2.21				
	High Sch Grad	2.14				
	College Level	2.59				
Exposure with friends	College Grad	2.67	1.536	0.180	Accept Ho	Not Significant
	Elem. Level	2.98				
	Elem. Grad	2.91				
	High Sch Level	2.78				
	High Sch Grad	3.07				
Exposure in school	College Level	3.07	1.117	0.352	Accept Ho	Not Significant
	College Grad	3.26				
	Elem. Level	3.75				
	Elem. Grad	3.57				
	High Sch Level	3.70				
Exposure with media	High Sch Grad	3.61	1.299	0.265	Accept Ho	Not Significant
	College Level	3.64				
	College Grad	3.42				
	Elem. Level	3.64				
	Elem. Grad	3.29				
	High Sch Level	3.49				
	High Sch Grad	3.58				

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

WAT score	College Level	3.47	1.221	0.300	Accept Ho	Not Significant
	College Grad	3.83				
	Elem. Level	89.44				
	Elem. Grad	79.94				
	High Sch Level	93.08				
	High Sch Grad	91.61				
	College Level	92.24				
	College Grad	90.58				

The study found that students with college-educated mothers reported the highest English language exposure at home, indicating a positive impact of higher maternal education on language development. However, no significant difference was found in English exposure with friends, school, media, or WAT scores. Schools should offer parental literacy programs.

Table 32. Significant difference on the reading comprehension level of the senior high school student-respondents when grouped according to mother's educational attainment

Level	Age Group	Mean	Computed f - value	p-value	Decision	Interpretation
Literal	Elem. Level	2.19	0.937	0.458	Accept Ho	Not Significant
	Elem. Grad	2.53				
	High Sch Level	2.44				
	High Sch Grad	2.10				
	College Level	2.27				
	College Grad	2.65				
Interpretive	Elem. Level	1.81	0.9903	0.425	Accept Ho	Not Significant
	Elem. Grad	2.82				
	High Sch Level	2.62				
	High Sch Grad	2.52				
	College Level	2.73				
	College Grad	2.84				
Critical	Elem. Level	2.00	1.888	2.256	Accept Ho	Not Significant
	Elem. Grad	1.82				
	High Sch Level	2.18				
	High Sch Grad	2.52				
	College Level	2.73				
	College Grad	2.62				
Creative	Elem. Level	2.13	0.943	0.454	Accept Ho	Not Significant
	Elem. Grad	1.82				
	High Sch Level	1.87				
	High Sch Grad	2.29				
	College Level	2.24				
	College Grad	2.32				

The study found no significant difference in students' reading comprehension abilities based on their mother's educational level, suggesting that parental education influences early literacy, but school instruction and personal reading habits are more crucial. Schools should implement targeted programs.

Table 33 Significant difference on the vocabulary knowledge depth in terms of reading habit of the senior high school student-respondents when grouped according to family's monthly income

Factors	Monthly Income	Mean	Computed f - value	p-value	Decision	Interpretation
Reading Frequency	Below P10,000	1.51	1.387	0.239	Accept Ho	Not Significant
	10,000-19,999	1.53				
	20,000-29,999	1.72				

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Reading Materials	30,000-39,999	1.71	2.649	0.034	Reject Ho	Significant
	40,000 & above	1.94				
	Below P10,000	2.99				
	10,000-19,999	2.69				
	20,000-29,999	2.90				
	30,000-39,999	3.02				
	40,000 & above	2.95				
Purpose of Reading	Below P10,000	.13	2.353	0.055	Accept Ho	Not Significant
	10,000-19,999	3.01				
	20,000-29,999	3.21				
	30,000-39,999	3.18				
	40,000 & above	3.43				

The study found that students from higher-income families have a wider variety of reading materials, potentially affecting vocabulary development. However, no significant difference was found in reading frequency or purpose. The findings suggest school-based initiatives to ensure equal access to diverse reading materials for lower-income students.

Table 34 Significant difference on in the vocabulary knowledge depth in terms of English language exposure and WAT score of the senior high school student respondents when grouped according to family's monthly income

	Monthly Income	Mean	Computed f - value	p-value	Decision	Interpretation
Exposure at home	Below P10,000	2.03	11.305	<0.0001	Reject Ho	Significant
	10,000-19,999	2.36				
	20,000-29,999	2.59				
	30,000-39,999	2.32				
	40,000 & above	3.34				
Exposure with friends	Below P10,000	2.97	3.696	0.006	Reject Ho	Significant
	10,000-19,999	2.86				
	20,000-29,999	3.33				
	30,000-39,999	2.98				
Exposure in school	40,000 & above	3.53	0.610	0.656	Accept Ho	Not Significant
	Below P10,000	3.62				
	10,000-19,999	3.66				
	20,000-29,999	3.64				
	30,000-39,999	3.54				
Exposure with media	40,000 & above	3.43	3.702	0.006	Reject Ho	Significant
	Below P10,000	3.44				
	10,000-19,999	3.58				
	20,000-29,999	3.68				
WAT score	30,000-39,999	3.59	1.560	0.175	Accept Ho	Not Significant
	40,000 & above	4.19				
	Below P10,000	89.08				
	10,000-19,999	90.71				
	20,000-29,999	88.8				
	30,000-39,999	99.93				
	40,000 & above	97.88				

The study found that English exposure at home, with friends, and through media significantly differs across family income groups, with higher-income students reporting greater exposure, while school-based exposure and WAT scores showed no significant differences. This indicates that family income affects certain types of English exposure but not school-based learning or measured vocabulary depth.

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Table 35 Significant difference on the reading comprehension level of the senior high school student-respondents when grouped according to family's monthly income

Level	Age Group	Mean	Computed f - value	p-value	Decision	Interpretation
Literal	Below P10,000	2.17	0.760	0.552	Accept Ho	Not Significant
	10,000-19,999	2.31				
	20,000-29,999	2.48				
	30,000-39,999	2.57				
	40,000 & above	2.65				
Interpretive	Below P10,000	2.61	1.865	0.118	Accept Ho	Not Significant
	10,000-19,999	2.14				
	20,000-29,999	2.76				
	30,000-39,999	2.79				
	40,000 & above	3.29				
Critical	Below P10,000	2.50	0.572	0.683	Accept Ho	Not Significant
	10,000-19,999	2.37				
	20,000-29,999	2.72				
	30,000-39,999	2.71				
	40,000 & above	2.94				
Creative	Below P10,000	2.04	1.669	0.158	Accept Ho	Not Significant
	10,000-19,999	2.29				
	20,000-29,999	2.00				
	30,000-39,999	2.21				
	40,000 & above	2.82				

The study found that reading comprehension levels across literal, interpretive, critical, and creative domains slightly increase with higher family income, but these differences are not statistically significant. This indicates that family income does not have a significant effect on the reading comprehension of senior high school students, contrary to previous studies linking poverty to educational disadvantage.

Table 36 Significant relationship between the level of vocabulary knowledge depth in terms of reading habit based on reading frequency and level of reading comprehension of the senior high school student-respondents

Level	Pearson r	Degree of Relationship	p-value	A	Decision	Interpretation
Literal	0.22	Very Positive	Low 0.001	.05	Reject Ho	Significant
Interpretive	0.14	Very Positive	Low 0.036	.05	Reject Ho	Significant
Critical	0.12	Very Positive	Low 0.087	.05	Accept Ho	Not Significant
Creative	0.20	Very Positive	Low 0.003	.05	Reject Ho	Significant

The study found a very low but positive relationship between vocabulary knowledge depth based on reading frequency and reading comprehension, with significant correlations in the literal, interpretive, and creative levels. This suggests that more frequent reading is associated with better comprehension in these domains, while no significant relationship exists at the critical level, supporting previous findings that strong reading habits enhance comprehension.

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Table 37 Significant relationship between the level of vocabulary knowledge depth in terms of reading habit based on reading materials and level of reading comprehension of the senior high school student-respondents

	Pearson r	Degree of Relationship	of	p-value	A	Decision	Interpretation
Literal	0.12	Very Positive	Low	0.075	.05	Accept Ho	Not Significant
Interpretive	0.03	Very Positive	Low	0.654	.05	Accept Ho	Not Significant
Critical	0.04	Low Positive		0.507	.05	Accept Ho	Not Significant
Creative	0.06	Very Positive	Low	0.345	.05	Accept Ho	Not Significant

The study found very low positive correlations between vocabulary knowledge depth based on reading materials and reading comprehension across all levels, but these were not statistically significant. Since all p-values exceeded 0.05, the null hypothesis was accepted, indicating that reading habits based on reading materials are not significantly related to students' reading comprehension.

Table 38 Significant relationship between the level of vocabulary knowledge depth in terms of reading habit based on purpose of reading and reading comprehension level of the senior high school student-respondents

Reading Comprehension Level	Pearson r	Degree of Relationship	of	p-value	A	Decision	Interpretation
Literal	0.10	Very Positive	Low	0.136	.05	Accept Ho	Not Significant
Interpretive	0.12	Very Positive	Low	0.080	.05	Accept Ho	Not Significant
Critical	0.16	Very Positive	Low	0.016	.05	Reject Ho	Significant
Creative	0.16	Very Positive	Low	0.017	.05	Reject Ho	Significant

The study found a very low positive relationship between vocabulary knowledge depth based on reading purpose and reading comprehension, with significant correlations at the critical and creative levels. This suggests that having a clear reading purpose enhances higher-order comprehension skills, while it has little impact on literal and interpretive understanding.

Table 39 Significant relationship between the level of vocabulary knowledge depth in terms of English language exposure at home and the level of reading comprehension of the senior high school student-respondents

Reading Comprehension Level	Pearson r	Degree of Relationship	of	p-value	A	Decision	Interpretation
Literal	0.23	Very Positive	Low	0.001	.05	Reject Ho	Significant
Interpretive	0.09	Very Positive	Low	0.197	.05	Accept Ho	Not Significant
Critical	0.15	Very Positive	Low	0.023	.05	Reject Ho	Significant
Creative	0.16	Very Positive	Low	0.016	.05	Reject Ho	Significant

The study found a very low positive relationship between vocabulary knowledge depth based on English language exposure at home and reading comprehension, with significant correlations in the literal, critical, and creative levels. This suggests that greater

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

English exposure at home supports basic and higher-order comprehension skills, while its impact on interpretive comprehension is limited.

Table 40 Significant relationship between the level of vocabulary knowledge depth in terms of English language exposure with friends and level of reading comprehension of the senior high school student-respondents

Reading Comprehension Level	Pearson r	Degree of Relationship	p-value	A	Decision	Interpretation
Literal	0.07	Very Low Positive	0.266	.05	Accept Ho	Not Significant
Interpretive	0.01	Very Low Positive	0.921	.05	Accept Ho	Not Significant
Critical	0.03	Low Positive	0.693	.05	Accept Ho	Not Significant
Creative	0.07	Very Low Positive	0.333	.05	Accept Ho	Not Significant

The study found a very low positive relationship between vocabulary knowledge depth based on English language exposure with friends and reading comprehension across all levels. However, since all p-values exceed 0.05, the null hypothesis is accepted, indicating that exposure to English with friends is not significantly related to the reading comprehension level of the senior high school student-respondents.

Table 41 Significant relationship between the level of vocabulary knowledge depth in terms of English language exposure at school and level of reading comprehension of the senior high school student-respondents

Reading Comprehension Level	Pearson r	Degree of Relationship	p-value	A	Decision	Interpretation
Literal	0.04	Very Low Positive	0.519	.05	Accept Ho	Not Significant
Interpretive	0.04	Very Low Positive	0.587	.05	Accept Ho	Not Significant
Critical	0.01	Low Positive	0.914	.05	Accept Ho	Not Significant
Creative	0.01	Very Low Positive	0.861	.05	Accept Ho	Not Significant

The study found a very low positive relationship between vocabulary knowledge depth based on English language exposure in school and reading comprehension across all levels, but none of the correlations are statistically significant. Since all p-values exceed 0.05, the null hypothesis is accepted, indicating that school-based English exposure does not significantly influence students' reading comprehension, even though prior studies suggest that schools and media can provide moderate English exposure and encourage its use as a medium of instruction.

Table 42 Significant relationship between the level of vocabulary knowledge depth in terms of English language exposure with media and level of reading comprehension of the senior high school student-respondents

Reading Comprehension Level	Pearson r	Degree of Relationship	p-value	A	Decision	Interpretation
Literal	0.23	Very Low Positive	0.001	.05	Reject Ho	Significant
Interpretive	0.09	Very Low Positive	0.179	.05	Accept Ho	Not Significant
Critical	0.18	Very Low Positive	0.007	.05	Reject Ho	Significant

Level of Vocabulary Knowledge Depth and Reading Comprehension of Senior High School: Basis for Reading Intervention Program

Creative	0.17	Very Positive	Low	0.012	.05	Reject Ho	Significant
----------	------	---------------	-----	-------	-----	-----------	-------------

The study found a very low positive relationship between vocabulary knowledge depth based on English language exposure with media and reading comprehension, with statistically significant correlations in the literal, critical, and creative levels. This indicates that media-based English exposure enhances comprehension in these areas, while no significant relationship is observed at the interpretive level, suggesting that daily engagement with English media supports certain reading skills but has limited impact on interpretive comprehension.

Table 43 Significant relationship between the level of vocabulary knowledge depth in terms of word association test (WAT) score and level of reading comprehension of the senior high school student-respondents

Reading Comprehension Level	Pearson r	Degree of Relationship	of	p-value	A	Decision	Interpretation
Literal	0.30	Low Positive		<0.0001	.05	Reject Ho	Significant
Interpretive	0.22	Very Positive	Low	0.001	.05	Reject Ho	Significant
Critical	0.23	Very Positive	Low	0.001	.05	Reject Ho	Significant
Creative	0.25	Very Positive	Low	0.0002	.05	Reject Ho	Significant

The study found a very low to low positive relationship between vocabulary knowledge depth, as measured by Word Associates Test (WAT) scores, and reading comprehension across all levels. Since all p-values are below 0.05, the null hypothesis is rejected, indicating that higher WAT scores are significantly associated with higher reading comprehension among the senior high school student-respondents.

CONCLUSIONS

Based on the findings, majority of senior high school respondents are 17–18 years old, male, enrolled in the GAS strand, have high school graduate parents, and come from families earning below ₱10,000 per month. The respondents generally have very low to moderate vocabulary knowledge depth in terms of reading habits, low to high English language exposure depending on the context, and a high level in WAT scores, while their reading comprehension is at an emerging level in literal and creative domains and developing in interpretive and critical domains. Vocabulary knowledge depth and reading comprehension show significant variations across age, strand, parents' educational attainment, and family income in certain areas, but many domains show no significant differences based on sex, parental education, or family income. Significant relationships exist between vocabulary knowledge depth and reading comprehension in terms of reading frequency, reading purpose (for higher-order comprehension), English exposure at home and with media, and WAT scores, while no significant relationships are found with reading materials or English exposure with friends. Overall, the findings indicate that specific reading habits, English language exposure, and vocabulary knowledge contribute to reading comprehension, with variations influenced by demographic and contextual factors.

ACKNOWLEDGMENT

The researcher expresses deep gratitude to the thesis advisor, Dr. Rodrigo C. Morales, for his unwavering support, insightful guidance, and expertise, which were instrumental from the conception of ideas to the final revisions of the work. Sincere appreciation is also extended to the members of the research review panel – Dr. Dennis Marquez, Dr. Eloy Aenlle, and Dr. Luningning Mendoza – for their encouragement, wisdom, and professional insights that significantly contributed to the success of the study. The researcher acknowledges the support of DepEd colleagues, particularly Dr. Herrey C. Balisacan and Dr. Nelita Belena, for their valuable suggestions, discussions, and steadfast assistance throughout the research journey. Special gratitude is given to the researcher's family for their love and encouragement, and above all, to Almighty God, for providing guidance, wisdom, and the strength to overcome challenges and complete the study.

REFERENCES

- 1) Arcilla, J. (2020, February 19). DepEd: PH will still join PISA. The Manila Times. <https://www.manilatimes.net/2020/02/20/campus-press/dep-ed-ph-will-still-join-pisa/690654>
- 2) ong, Y., Tang, Y., Chow, B. W., Wang, W., & Dong, W. (2020). Contribution of vocabulary knowledge to reading Comprehension among Chinese students: A Meta-Analysis. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.525369>
- 3) Idulog, M. V., Gadiano, R., De Toledo, E., Hermosada, M., Casaldon, H., Mariposa, M., Geron, C., Dequito, E., Genanda, J., Malipot, M. A., Pentang, J., & Bautista, R. (2023). Filipino Students' reading abilities: A note on the challenges and potential areas for improvement. *International Journal of Education and Teaching Zone*, 2(2), 233–242. <https://doi.org/10.57092/ijetz.v2i2.128>
- 4) Mamba, M. T., Tamayao, A. I., & Vecaldo, R. T. (2020). College Readiness of Filipino K to 12 Graduates: Insights from a Criterion-Referenced Test. *International Journal of Education and Practice*, 8(4), 625–637. <https://doi.org/10.18488/journal.61.2020.84.625.637>
- 5) U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 and 2022 Reading Assessments, NAEP Data Explorer.
- 6) Vazquez-Lopez, V., & Huerta-Manzanilla, E. L. (2021). Factors Related with Underperformance in Reading Proficiency, the Case of the Programme for International Student Assessment 2018. *European Journal of Investigation in Health, Psychology and Education*, 11(3), 813–828. <https://doi.org/10.3390/ejihpe11030059>



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.