



Managing the Level of understanding in thesis writing among Grade 12 Students

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Abstract – Thesis writing is an important part of senior high school education, especially under the K-12 curriculum. This study looked into how well Grade 12 students understand the different parts of thesis writing. It focused on four main areas: Chapter 1 (the problem and review of related literature), Chapter 2 (methodology), Chapter 3 (presentation, interpretation, and analysis of data), and Chapter 4 (summary, conclusion, and recommendation). The researcher used a descriptive survey method and gathered data from 725 Grade 12 students from selected public schools in Nueva Ecija. A survey questionnaire was used to measure students' level of understanding in each chapter. Results showed that students had a good level of understanding in all four chapters. In Chapter 1, they understood how to explain the importance of their study and relate it to existing literature. In Chapter 2, students could identify research methods and tools, but some needed more help with technical parts like sampling and statistics. In Chapter 3, they could present their findings clearly using visuals like tables and graphs, though some lacked depth in interpretation. In Chapter 4, they were able to write conclusions and recommendations based on their findings, but a few needed to improve clarity and completeness. This study suggests that while students have a generally good grasp of thesis writing, teachers still need to guide them more, especially in areas that are more technical or detailed.

Keywords – Methodology, Research Skills, Senior High School, Student Learning, Thesis Writing

I. INTRODUCTION

Writing is a vital part of the research process. The activity of research involves writing, and research itself is a form of writing (Kamler & Thomson, 2014). Currently, under the new General Education Curriculum (K-12), students are exposed to various domains of knowledge, such as writing a thesis (Acosta, 2016).

According to Reynolds and Thompson (2017), writing a thesis in faculty-mentored undergraduate research is one of the best opportunities for students. But developing good writing skills cannot be achieved automatically. "There are significant challenges, issues and problems involved in the surface features of writing that focus on spelling, punctuation, grammar or simplified models of text structure or

citation rules that supervisors, advisers, coaches or critics need to address to help students develop productive research or thesis writing practices" (Kamler & Thomson, 2014).

However, the most important factor in writing a thesis is the students' scientific and practical capabilities (Pfajfar, Mitrega & Shoham, 2024). "Lacking an appropriate level of understanding in thesis writing, such as in methodology and statistics, familiarity with scientific databases and their usage are the common problems encountered in writing a thesis" (Mizamy et al., 2012). So, in order to know the level of understanding of thesis writing among senior high school students, this study was conducted. Furthermore, this study aimed to answer the level of understanding in thesis writing (Subia et al, 2022) of the Grade 12 students in terms of problem and review

of related literature, methodology, results and discussion, summary, conclusions, and recommendations.

Prospectively, this study could help both educators and students. Educators will become aware of addressing the issue, while students will become more active and attentive to meet the high degree of understanding and capabilities with regard to thesis writing.

Finally, as the research president of the research society for teachers teaching research in the senior high school of DepEd Nueva Ecija, the researcher would easily identify known difficulties in writing research among students and teachers, this would open opportunity to intervene with the identified difficulties and would be able to come up with research output that would make research subject easier to teach and learn.

II. METHODOLOGY

In this study, the researcher chose a descriptive survey research design because it best served to answer the questions and the purposes of the study. A research design is basically a conceptual structure within

which research is conducted. Parahoo (2013) described "the research design as a process that helps in planning the how, when and where of information collection and analysis". A survey questionnaire was used as the major instrument of this study. The questionnaire was a product of a pre-survey and at the same time a product of research after consulting various literature and studies related to the study itself.

Purposive sampling was used in this study. Parahoo (2013) describes purposive sampling as "a method of sampling where the researcher deliberately chooses who to include in the study based on their ability to provide necessary data. Grade-12 Senior High School Students under the Academic Track from the four big schools of DepEd Nueva Ecija were chosen purposively as respondents of this study (Subia, 2018). The set criteria for choosing the respondents were established to ensure accurate and reliable answers. A total of the target population 1929 (N) with 725 target sample (n). The results of the target sample were the total number of students in one section per academic strand. A total of seven hundred twenty-five (725) were served as the respondents of the study. It can be seen at the preceding table.

Table 1 Distribution of the Respondents

Schools	Sections				Total
	ABM	GAS	HUMSS	STEM	
Bongabon NHS	40	53	42	32	167
Cabiao NHS	43	52	54	36	185
Nueva Ecija NHS	50	49	49	43	191
Talavera NHS	48	50	50	34	182
Total					725

Appropriate statistical tools were used in this study. To assess the level of understanding of the respondents regarding research writing, the following scale was used:

Scale Mean Interpretation

1.00-1.74	Poor
1.75-2.49	Low
2.50-3.24	Good
3.25-4.00	Excellent

For a better understanding of the verbal descriptions, these are interpreted as follows:

For the level of understanding of research writing:

Excellent. The understanding is highly extensive. The respondents have full knowledge of research writing.

Good. The understanding is extensive. There are items which the respondents are not aware of. Similarly, there are areas that the respondents do not give 100% attention to.

Low. The knowledge of the respondents is usual. There are items which they are aware of, while others are not known.

Poor. The respondents have little knowledge of the item.

III. RESULTS AND DISCUSSION**1. Level of Understanding in Research in terms of Problem and Review of Related Literature**

Table 2 Level of Understanding in Writing Research The Problem and Review of Related Literature

		STUDENTS	
	ITEMS	WM	Verbal Description
	Chapter 1		
1	I know that I need to show that the conduct of the study is urgent.	2.88	Good
2	I know that I need to be aware of all the contents of my study.	2.81	Good
3	I know that research has a specific problem that needs to be identified.	2.78	Good
4	I know how to identify variables that are needed in my research problems.	2.69	Good
5	I know how to identify possible beneficiaries of my study.	2.69	Good
6	I know that I need to discuss the importance of my study.	2.77	Good
7	I know that I need to determine the area covered in my study.	2.70	Good
8	I know that I need to identify the duration/time of my study.	2.71	Good
9	I know that I need to discuss the purpose of my research study.	2.77	Good
10	I know that I need to identify specific accomplishments that my research is trying to achieve.	2.78	Good
11	I know that I need to be aware that I may define words conceptually or operationally.	2.70	Good
12	I know that I need to determine a theory that would support my study.	2.69	Good
13	I know that my study may contribute information material to a specific type of development.	2.73	Good
14	I know how to distinguish if the related literature and studies are also aligned in my study.	2.86	Good
15	I know that I need to avoid plagiarism.	2.78	Good
	Overall Weighted Mean	2.76	Good

Legend: 1.00-1.74 – Poor; 1.75-2.49 – Low; 2.50-3.24 – Good; 3.25-4.00 – Excellent

Table 2 presents the data gathered on the understanding of the grade 12 students in writing the research Chapter 1. From the table, it may be seen that the 15 items all obtained an average weighted mean of 2.76 and interpreted as "Good". Of the 15 items, "*I know that I need to show that the conduct of the study is urgent*" obtained the highest weighted mean of 2.88.

This was followed by "*I know how to distinguish if the related literature and studies are also aligned in my study*" 2.86; "*I know that I need to be aware of all the contents of my study*" (2.81).

With the overall weighted mean of 2.76 from the responses of the students, it is clear that the respondents described their understanding of writing research, particularly on "The Problem and Review of Related Literature", to be extensive. There were items or parts of the research work that the respondents were not aware of. Similarly, there are areas that the respondents do not give 100% attention to.

To surpass challenges in research, a student-researcher must choose an effective research topic, develop a doable topic, determine the availability of time, money, and personnel, be knowledgeable and, more importantly, have an interest with regard to the chosen topic (Caintic & Cruz, 2011).

A full understanding of Chapter 1 is necessary since here; the research problem is located. It is the main organizing principle guiding the analysis of the topic. "It represents the core subject matter of scholarly communication, and the means by which it includes other topics of conversation and the discovery of new knowledge and understanding" (Alvesson & Jorgen, 2013).

2. Level of Understanding in Research in terms of Methodology

Table 3 Level of Understanding in Writing Research Methodology

	ITEMS	STUDENTS	
		WM	Verbal Description
1	I know that I need to identify a method that is going to be used in my study.	2.84	Good
2	I know that I need to determine the nature or characteristics of the respondents of my study.	2.75	Good
3	I know what I need to identify a sampling procedure that will be used in my study.	2.75	Good
4	I know that I need to identify the research methods, approaches and design used throughout my study.	2.74	Good
5	I know that I need to identify or create criteria used to choose respondents.	2.76	Good
6	I know that I need to identify which research instrument should be used in my study.	2.73	Good
7	I know that I need to identify the statistical treatment that is going to be used in the study.	2.69	Good
8	I know that I need to identify what technique or process is going to be used in order for me to gather information.	2.72	Good
9	I know I must be aware of the rationale for why a specific methodology is being used.	2.72	Good
10	I know that I need to be aware of the background and rationale of methodologies that are used in the study.	2.68	Good

11	I know that I need to perform some statistical computation with the aid of programs and applications.	2.68	Good
12	I know that I need to double-check the solutions to have clear findings.	2.76	Good
13	I know that I need to observe the seal of confidentiality.	2.75	Good
14	I know that I need to find out data that would back up the results from my research subject.	2.70	Good
15	I know that I need to be familiar with all methodological approaches used in my study.	2.80	Good
Overall Weighted Mean		2.74	Good

Legend: 1.00-1.74 – Poor; 1.75-2.49 – Low; 2.50-3.24 – Good; 3.25-4.00 – Excellent

Table 3 presents the data gathered on the understanding of the respondents in writing the research chapter 2. As can be gleaned from the table, the student respondents responded to the item stating "I know that I need to identify a method that is going to be used in my study", obtaining the highest weighted mean of 2.84. It was also followed by an item stating, "I know that I need to be familiar with all methodological approaches used in my study," with a weighted mean of 2.80.

The responses of the student respondents unanimously fall under the verbal interpretation of "Good". It means that their understanding is

extensive, and there are only some items that the students are not aware of regarding writing research, particularly on Methodology.

Based on the Journal of Research Guide (2018), "the methods section describes actions to be taken to investigate a research problem and the rationale for the application of specific procedures or techniques used to identify, select, process and analyze information applied to understand the problem, thereby allowing the reader to critically evaluate a study's overall validity and reliability".

3. Level of Understanding in Research in terms of Presentation, Interpretation, and Analysis of Data

Table 4 Level of Understanding in Writing Research Presentation, Interpretation, and Analysis of Data

	ITEMS	STUDENTS	
		WM	Verbal Description
1	I know that I need to present the results and findings of my study.	2.79	Good
2	I know that I need to follow the flow on how to present the data being treated.	2.73	Good
3	I know that I need to present my findings clearly using words that can be easily understood.	2.72	Good
4	I know that I need to deliver details of my findings that are scholarly in nature.	2.68	Good
5	I know that I need to research further in order to support my interpretation and analysis.	2.70	Good
6	I know that I need to present tables in order to show clearly all data being treated and gathered.	2.68	Good

7	I know that I need to distinguish data or findings which is considered key findings of my research.	2.70	Good
8	I know that I need to show findings that are only based on the facts that I have gathered.	2.66	Good
9	I know how to provide graphs illustrating the results of the research.	2.65	Good
10	I know how to gather references to support my findings.	2.69	Good
11	I know that I need to point out some ideas that could also be a subject for further studies.	2.64	Good
12	I know that I need to be aware of the relationship between current and previous studies.	2.70	Good
13	I know that I need to analyze only significant findings and not simply repeat the results section with more commentary.	2.66	Good
14	I know how to point out the statistical test used in obtaining the result (if applicable).	2.64	Good
15	I know that I need to observe proper English tenses.	2.68	Good
Overall Weighted Mean		2.69	Good

Legend: 1.00-1.74 – Poor; 1.75-2.49 – Low; 2.50-3.24 – Good; 3.25-4.00 – Excellent

Table 4 presents the data gathered on the understanding of Grade 12 students in writing Chapter 3. From the table, it may be seen that the fifteen items obtained an average weighted mean of 2.69 and interpreted as "Good". Of the fifteen items, "*I know that I need to present the results and findings of my study*" obtained the highest weighted mean of 2.79; this was followed by "*I know that I need to follow the flow on how I present the data being treated*" with 2.73; "*I know that I need to present my finding clearly using words that can be easily understand*" with 2.72; "*I know that I need to research further for me to support my interpretation and analysis*", "*I know that I need to distinguish data or findings which is considered to be a key findings of my research*" and "*I know that I need to be aware on the relationship of the current and previous studies*" with 2.70.

The finding shows that the respondents unanimously agreed that they have a "Good" understanding when

it comes to writing Chapter 3. With the overall weighted mean of 2.69 from the responses of the students, it is clear that the respondents described their understanding of writing research, particularly on "Presentation, Interpretation, and Analysis of Data", to be extensive. There were items or parts of the research work that the respondents were not aware of. Similarly, there are areas that the respondents do not give 100% attention to.

The Journal of Research Guide (2018) "strengthen the claim that the purpose of Chapter 3 is to have a scholarly discussion with the purpose of interpreting and describing the significance of findings in light of what was already known about the research problem being investigated, and to explain any new understanding or insight about the problem".

4. Level of Understanding in Research in terms of Summary, Conclusion, and Recommendation

Table 5 Level of Understanding in Writing Research Summary, Conclusion, and Recommendation

	ITEMS	STUDENTS	
		WM	Verbal Description
1	I know that I need to present a summary of my study.	2.88	Good
2	I know that I need to present logical reasoning and answers to the questions posted in my study.	2.73	Good
3	I know that I need to strengthen my discussion in order for readers to identify ideas that are material for further studies.	2.78	Good
4	I know that I also need to indicate specific measures or directions that can be taken in my study.	2.71	Good
5	I know that I need to understand the progression of the study and summarize it.	2.71	Good
6	I know that I must be aware of the scope and limit of the study for future researchers.	2.65	Good
7	I know how to figure out the answer to the main research question concisely.	2.67	Good
8	I know that I need to present the conclusion of my study.	2.75	Good
9	I know that I need to explain the main discovery of my study.	2.69	Good
10	I know how to distinguish the important findings that should be included in the summary.	2.69	Good
11	I know the relevant recommendations made for future researchers.	2.69	Good
12	I know how to recognize what must be included in the conclusion.	2.65	Good
13	I know that I need to figure out what must be written in the summary of my study.	2.65	Good
14	I know that I need to determine the ideas to form a conclusion.	2.63	Good
15	I know how to explain new understanding or fresh insights about the problem after taking the findings into conclusion.	2.69	Good
Overall Weighted Mean		2.70	Good

Legend: 1.00-1.74 – Poor; 1.75-2.49 – Low; 2.50-3.24 – Good; 3.25-4.00 – Excellent

Table 5 presents the data gathered on the understanding of the respondents regarding their understanding of writing Chapter 4.

From the table, it may be seen that the fifteen items obtained an average weighted mean of 2.70 and interpreted as "GOOD". Of the fifteen items, "I know that I need to present a summary of my study" obtained the highest weighted mean of 2.88 and was labelled as "Good". This was followed by "I know that

I need to strengthen my discussion for readers to identify ideas that is material for further studies." with 2.78; "I know that I need to present conclusion of my study." with 2.75; "I know that I need to present logical reasoning and answers to the question posted in my study." with 2.73; "I know that I need also to indicate the specific measures or directions that can be taken on my study." and "I know that I need to

understand the progression of the study and summarize it." with 2.71.

All of the student respondents agreed that they have a "Good" understanding of Chapter 4, which means that their understanding is extensive. There are items which the respondents are not aware of. Similarly, there are areas that the respondents do not give 100% attention to.

Understanding Chapter 4 is necessary, though a higher level of understanding is required to have a better presentation of summary, recommendation, and conclusion, since this chapter appreciates having a severe perseverance and ability to construct ideas effectively.

In order to complete the study, a researcher must survive and surpass this final challenge, which is dealing with the data and its respective findings. It can be overcome through a strict focus and interest on the chosen topic from the start of conducting the research up to the final stage of presenting data (Suryani, Muspawi & Aprillitzavivayarti, 2023).

IV. CONCLUSIONS AND RECOMMENDATIONS

1. Students demonstrated a good level of understanding in writing Chapter 1 of the research, particularly in identifying the urgency, alignment of literature, and scope of the study, though some areas still require deeper attention to ensure a well-founded research foundation.
2. Students showed a good level of understanding in writing the research methodology chapter, particularly in identifying appropriate methods, sampling procedures, and research instruments, although some methodological concepts still require further clarification and reinforcement.
3. Students exhibited a good level of understanding in presenting, interpreting, and analyzing research data, particularly in organizing findings and using supporting visuals, though some aspects still need greater attention to ensure depth and scholarly interpretation.
4. Students demonstrated a good level of understanding in writing the summary, conclusion, and recommendation of their research, particularly in presenting findings and formulating insights, though

some aspects still require greater focus to ensure clarity and completeness in final outputs.

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