Metacognitive Awareness of Writing Strategies, Oral Proficiency, and Writing Instructions: A Structural Equation Model of Academic Writing Skills in Filipino Language

ABSTRACT

Aims: To determine the best-fit model for the academic writing skills of students in the Filipino language using metacognitive awareness of writing strategies, oral proficiency, and writing instructions as exogenous variables and academic writing skills as endogenous variables.
Study design: The study used Structural Equation Modeling (SEM).
Place and Duration of Study: The study was conducted at private schools in Region 12, Philippines, during the school year 2023-2024.
Methodology: The study's respondents were Grade 12 students from private schools selected using Raosoft. A four-part questionnaire was employed to collect the data. All items in each indicator revealed an excellent interpretation, which means they were all valid and reliable.
Results: The study revealed that students frequently manifested a high level of metacognitive awareness of writing strategies, oral proficiency, writing instruction, and academic writing skills. In addition, there was also a significant relationship and influence between the three exogenous variables and the endogenous variable, which presents a strong correlation. Out of the five models examined, model 5 was the best-fit model of academic writing skills as its indices match the value corresponding to the most appropriate model.
Conclusion: Employing metacognitive awareness of writing strategies, such as obtaining and applying knowledge to certain conditions, along with goal setting, helps students enhance their academic writing skills. Furthermore, proficiency in comprehension and grammar influences students' academic writing skills with explicit instruction and teacher and student feedback. Students also believed that basic academic writing skills would lead them to succeed in their academic careers and prepare them for their future goals.

Keywords: Education, metacognitive awareness of writing strategies, oral proficiency, writing instruction, academic writing skills, structural equation model, Philippines

1. INTRODUCTION

Learning poverty, particularly in academic writing, has emerged as one of the biggest challenges since the return of in-person teaching and learning procedures in schools. Writing is essential for participation in the global community, lifetime learning, and academic success; it is one of the most complex macro skills for students to master (Hajan et al. 11). Writing in a global context can be challenging for Iraqi students due to their lack of experience (Canada and Miralles 201). Balinbin (1) reports that in the 2019 Southeast Asia Primary Learning Metrics (SEA-PLM) evaluation, just two percent of Filipino students achieved high marks in academic writing. In addition, Senior High School (SHS) students need help with all types of academic writing. Still, essays are the most challenging for them, according to research by

Pablo and Lasaten, as cited in Hajan et al. 11. Their study also revealed a significant issue with academic writing proficiency: secondary students' academic writing skills in Filipino are not as strong as their speaking skills.

The poor performance in writing assessments is attributed to students' inadequate training, poor spelling and grammar skills, and limited vocabulary (Saavedra and Barredo 1093). Academic writing skills are crucial for academic and professional endeavors, especially for second-language learners. Researchers have investigated various variables to enhance proficiency, including metacognitive awareness of writing strategies, oral proficiency, and writing instructions. However, a model has yet to be identified to enhance these skills, and further research is needed to address these issues and improve students' overall academic writing skills.

This study aimed to investigate the best model for evaluating students' academic writing skills in the Filipino language. It seeks to address the following questions: determine the level of metacognitive awareness of writing strategy, oral proficiency, writing instruction, and academic writing skills of students; determine the significant relationship and influence of metacognitive awareness of writing strategies, oral proficiency, and writing instructions to the academic writing skills of students; determine the influential predictors of academic writing skills; and determine the best model of academic writing skills of students in the Filipino language.

Academic writing involves more than just putting words on paper; it also consists of organizing, giving meaning to, and evaluating our ideas. It is an expression of our growth as individuals and learners. However, academic writing is a complex skill that requires development, particularly for second-language learners (Barroga and Mitoma 1). When considering academic standards, adequate academic writing instruction is critical. It entails teaching proper language usage, developing writing conventions and academic vocabulary, and developing an awareness of higher-order thinking skills (Domantay and Ramos, 2). However, students frequently need more writing experience. They find this problematic because writing involves many intricate details. Thus, one of the biggest challenges for educators is helping students write for various purposes and contexts, including academic writing.

Metacognitive awareness of writing strategy is the ability to control one's thoughts and aids in planning, monitoring, organizing, and editing writing tasks (Schunk and Zimmerman 7–25; Sasaki et al. 169). It is crucial for students' academic writing skills, as it influences their learning outcomes and helps them retrieve, store, and evaluate data effectively. Metacognitive awareness in writing strategy includes declarative, procedural, and conditional knowledge, which significantly impacts students' grades in academic writing, as cited in Teng et al., 185. Learning to speak is a crucial component of language acquisition, as oral language is a system of using words to express viewpoints and knowledge (Hayes & Flower, n.d., cited in Peck 7). According to Spencer and Petersen (573), teachers must provide feedback on students' speeches to boost their writing confidence and improve their writing skills. The structural use of spoken language in the classroom is essential for monitoring students' writing progress and developing written sentences.

Teachers are crucial in giving writing instructions, proper guidance, and constructive criticism (Canada and Miralles 202; Fernandez et al.). Academic writing is a complex second language skill requiring teachers to be proficient in teaching and providing feedback. Students must develop cognitive processes such as planning, organization, translation, and revision. Flavell's metacognitive knowledge theory aligns with academic writing's metacognitive strategy, as it aims to understand how individuals consciously observe and manage their thought processes. This theory encourages metacognition development from an early age, creating a self-

regulating phylum where people with general knowledge and regulation skills can control their cognition in various domains (Teng et al. 169).

Numerous studies have demonstrated a link between developing academic writing skills and speaking ability or using language in communication. Cognitive theory suggests a mental process relationship between the beginning of the writing process and the finished product, alerting teachers to help students improve their writing skills by understanding each step of the process (Gomez; Rausch). Academic writing proficiency is closely linked to genre pedagogy, a writing instruction method based on Bruner's scaffolding and Vygotsky's cooperative learning theory. In genre pedagogy, the teacher's role in teaching appropriate writing and speaking strategies is critical (Horverak and Haugen 3-23). Teachers must monitor their students' skill development by providing instruction and insightful feedback.

This research can benefit the global education sector by determining the benefits and drawbacks of implementation programs and evaluating the efficacy of various curricula and educational reforms. Students can use these findings to implement recommendations that improve their writing skills in academic texts, considering speaking fluency, writing instructions, and metacognitive awareness in their writing strategy. Future investigators addressing learning poverty in the Philippines should prioritize further research on academic writing skill development.

2. MATERIALS AND METHODS

2.1 Research Design

The study utilized a descriptive-correlational survey design, employing a causal-comparative design and structural equation modeling to examine the relationship between academic writing skills among Filipino students. Three exogenous variables were identified: metacognitive awareness of writing strategies, oral proficiency, and writing instructions, and an endogenous variable, academic writing skills. The correlational analysis determined the relationship between the exogenous variables and students' academic writing skills.

Structural equation modeling, a combination of factor analysis and multiple regression analysis, was used to analyze the structural relationships of each variable. This model, also known as causal modeling, does not estimate cause-and-effect relationships but instead formulates an equation representing the theoretical model of the chosen topic.

The quantitative data was analyzed using modified questionnaires to determine the model of academic writing skills. The research involved seeking relevant questionnaires, validating them, submitting them to the ethics center for initial paper review, compiling necessary documents, and obtaining permission from the adviser and Dean of Professional Schools.

The collected data was analyzed using mean, Pearson r, and regression analysis. The mean determined the level of all variables, Pearson r or product-moment correlation was used to determine the relationship between the three exogenous variables and academic writing skills, Multiple Regression Analysis was used to identify significant predictors of academic writing skills and the Path analysis model was used to determine the most appropriate model for students' academic writing skills in the Filipino language.

2.2 Research Respondents

The study was conducted in four private schools in Region 12, Philippines, involving 12th-grade senior high school students enrolled in the 2023–2024 academic year and assigned to any Filipino subject during the second semester. Participants were selected using a stratified random sampling technique after using the Raosoft Sample Size Calculator to identify 306 survey respondents.

The respondents' parents or guardians signed consent forms, and their participation in the research was free and voluntary. As the research is proportional, the number of participants in each school may differ based on the total population and counted groups in the four local studies. Refusal or suspension was not perceived favorably or dishearteningly by the researcher. It was not a penalty for students to discontinue their participation or revoke their authorization at any given moment.

2.3 Research Instrument

The research utilized questionnaires from reputable and reliable journals. The instrument used to assess metacognitive awareness in writing strategy was adapted from Farahian's Metacognitive Awareness Writing Questionnaire (MAWQ), based on two crucial components of metacognition: knowledge of cognition and regulation of cognition. The oral proficiency assessment from Gomez's research was employed to assess oral proficiency. To measure writing instructions, questionnaires from Horverak and Haugen were used and divided into two components: academic writing and feedback. Hudarenko's questionnaire was utilized to assess academic writing skills.

Students responded to the questionnaires using a five-point scale: very high, high, moderate, low, and very low. Scores in the very high and high categories indicated agreement or frequent observation of the characteristics mentioned in the questionnaire. Moderate scores indicated uncertainty in agreement. Low and very low scores indicated disagreement or rare observation of the mentioned characteristics.

The initial draft was adjusted according to needs and presented to the adviser for corrections, comments, and suggestions. After validation, pilot testing was conducted with 30 students to ensure the questionnaire’s validity. Likert-type scales and Cronbach's alpha coefficient were used to analyze the data and calculate internal consistency reliability. Metacognitive awareness of writing strategies had a .852 (α) that revealed a good interpretation, indicating that all items in the questionnaire are acceptable and valid. Oral proficiency received a .917 (α), writing instruction with .974 (α), and academic writing skills with .942 (α), revealing an excellent interpretation, indicating that all items in the questionnaire are highly acceptable and valid. Data analysis focused on summated scales or subscales rather than individual items.

3. RESULTS AND DISCUSSION

3.1 Metacognitive Awareness of Writing Strategies of Students

Table 1 displays the levels of metacognitive awareness of writing strategies. The levels are based on declarative knowledge (person), declarative knowledge (task), procedural knowledge, conditional knowledge, planning, monitoring, and evaluation. The mean ranges from 3.81 (SD 0.68) to 4.18 (SD 0.78), with an overall mean of 4.02 (SD 0.43), indicating a high descriptive level, suggesting frequent observations of metacognitive awareness in writing strategy among students on various occasions. Upon examining each indicator, all indicators obtained a high descriptive level, with evaluation obtaining the highest mean of 4.18 (SD 0.78)

at a high level and conditional knowledge obtaining the lowest mean of 3.81 (SD 0.68), also at a high level.

Table 1. Metacognitive Awareness of Writing Strategies of Students

Indicators	SD	Mean	Descriptive Level
Declarative Knowledge (Person)	0.41	4.12	High
Declarative Knowledge (Tasks)	0.53	4.07	High
Procedural Knowledge	0.61	4.04	High
Conditional Knowledge	0.68	3.81	High
Planning	0.59	3.91	High
Monitoring	0.51	4.02	High
Evaluation	0.78	4.18	High
Overall	**0.43**	**4.02**	**High**

The research results are consistent with previous studies on students' metacognitive awareness of writing strategies. The research by Ramadhanti and Yanda (200) found that students have a moderate level of metacognitive awareness in writing strategy overall. On the other hand, the study by Rosdiana et al. (336) emphasized that students have a very high level in this variable, as it obtained means ranging from 4.30 to 4.90, as well as the research by Teng et al. (178) with means ranging from 4.46 to 4.84. According to the research findings, declarative knowledge, evaluation, and procedural knowledge indicators have the highest means, while planning and conditional knowledge have the lowest means (Ramadhanti and Yanda 196–199; Rosdiana et al. 336; Teng et al. 178). The study's results proved that students in Region XII demonstrated a high level of metacognitive awareness in their writing strategy, which means they frequently employ strategies in their writing tasks as they know the procedures from planning to evaluation.

3.2 Oral Proficiency of Students

The proficiency level of students' oral proficiency, measured according to comprehension, fluency, vocabulary, pronunciation, and grammar, is shown in Table 2, with means ranging from 3.49 (SD 0.88) to 3.94 (SD 0.68). The overall mean is 3.73 (SD 0.61), with a descriptive level indicating high proficiency in speaking, often observed among students in various instances. Upon analyzing each indicator, pronunciation garnered the highest mean of 3.94 (SD 0.68), indicating a high level, followed by comprehension, grammar, and vocabulary with high levels. At the same time, fluency obtained the lowest mean of 3.49 (SD 0.88), with a high level. The proficiency level in speaking skills of students in Region XII was found to be high.

Table 2. Oral Proficiency of Students

Indicators	SD	Mean	Descriptive Level
Comprehension	0.68	3.92	High
Fluency	0.88	3.49	High
Vocabulary	0.82	3.52	High
Pronunciation	0.68	3.94	High
Grammar	0.71	3.78	High
Overall	**0.61**	**3.73**	**High**

The research findings are consistent with previous studies regarding assessing students' proficiency level in speaking. In Torevillas's research (129), it was found that students have a high proficiency level in speaking overall, with means ranging from 3.33 to

3.80, emphasized by Gomez's research (168) on the very high level of students in said variable, as well as by the research of Satriawan and Skolastika (744), and Lasismi (32) who found that students' proficiency level in speaking is high. Comparing the results of various research studies, pronunciation and comprehension obtained high means, while fluency was the indicator with the lowest mean (Gomez, 168; Lasismi, 32; Satriawan and Skolastika, 744; Torevillas, 129).

3.3 Levels of Writing Instructions

Table 3 illustrates the level of writing instruction among students, measured according to indicators such as learning to write narrative texts, personal confidence in writing narrative texts, learning to write factual texts, personal confidence in writing factual texts, learning to write formal and informal texts, feedback according to standards, writing for development, impact on self-efficacy, focus on feedback, self-evaluation, and peer evaluation, with means ranging from 3.80 (SD 0.69) to 3.94 (SD 0.68). The overall mean is 4.19 (SD 0.48), with a descriptive level indicating a high level of writing guidelines often observed among students in various instances. Upon analyzing each indicator, the impact on self-efficacy obtained the highest mean of 4.50 (SD 0.59), indicating the highest level, followed by indicators such as personal confidence in writing narrative texts with the lowest mean of 3.80 (SD 0.59), also with a high level. The level of writing guidelines among students in Region XII was found to be high.

Table 3. Levels of Writing Instructions

Indicators	SD	Mean	Descriptive Level
Learning to write narrative texts	0.72	4.21	Very High
Self-confidence in writing narrative texts	0.69	3.80	High
Learning to write factual texts	0.70	4.15	High
Self-confidence in writing factual t texts	0.73	4.02	High
Learning to write formal and informal texts	0.64	4.26	Very High
Clear evaluation criteria	0.60	4.36	Very High
Criteria-related feedback	0.60	4.34	Very High
Working to improve	0.66	4.35	Very High
Effect on self-efficacy	0.59	4.50	Very High
Focus of feedback	0.82	3.85	High
Self-assessment	0.64	4.25	Very High
Peer assessment	0.66	4.27	Very High
Overall	**0.48**	**4.19**	**High**

The research findings are consistent with previous studies regarding assessing students' level of writing guidelines. The research by Canada and Miralles (217) found that students have a high level of writing guidelines overall, with means ranging from 3.49 to 3.56. The study revealed that indicators such as learning to write narrative texts, personal confidence in writing narrative texts, learning to write factual texts, personal confidence in writing factual texts and learning to write formal and informal texts have high to very high levels, indicating that students often or always experience writing guidelines. Meanwhile, the research by Wu and Schunn (511) also noted high results in writing guidelines, particularly in the focus on feedback and peer evaluation. The research results by Wale and Bogale (10) also show a high level of writing guidelines, particularly in student feedback.

3.4 Academic Writing Skills of Students

Table 4 presents students' proficiency in academic writing, measured according to their basic academic writing skills, more advanced academic writing skills, and prospective role in future careers, with means ranging from 3.49 (SD 0.80) to 4.03 (SD 0.78). The overall mean is 3.83 (SD 0.62), with a descriptive level indicating a high proficiency in academic writing, often observed among students in various instances. Upon analyzing each indicator, the prospective role in future career obtained the highest mean of 4.03 (SD 0.78), indicating a high level, followed by the basic academic writing skills with a high level, garnering a mean of 3.98 (SD 0.58). At the same time, the more advanced academic writing skills obtained the lowest mean of 3.49 (SD 0.80), also with a high level. The level of proficiency in academic writing among students in Region XII was found to be high.

Table 4. Academic Writing Skills of Students

Indicators	SD	Mean	Descriptive Level
Basic academic writing skills	0.58	3.98	High
More advanced academic writing skills	0.80	3.49	High
Prospective role in the future career	0.78	4.03	High
Overall	**0.62**	**3.83**	**High**

Various research results have shown the high level of students' proficiency in academic writing due to various influencing factors. In Hudarenko's research (93), students exhibited a proficient level in their primary skill in academic writing, indicating their preference for writing tasks, their pre-writing activities, and their utilization of writing strategies. Additionally, consistent with the research results, the developed skill in academic writing obtained the lowest mean, which is also consistent with Hudarenko's research (96). Similarly, students demonstrated a high level in their prospective role in future employment (97). Meanwhile, the study by Purnamasari et al. (101) found that students have a moderate to high level of proficiency in academic writing across various academic texts.

3.5.1 Relationship between Metacognitive Awareness of Writing Strategies and Academic Writing Skills

Table 5.a shows a significant relationship between metacognitive awareness of strategy and proficiency in academic writing among students, with a total r-value of .599 and a corresponding p-value of .000, lower than the .05 level of significance set in this study. The results rejected the hypothesis in favor of the alternative hypothesis, indicating a significant relationship between metacognitive awareness of strategy and proficiency in academic writing among students. This reinforces that when students have high metacognitive awareness of writing strategies in academic writing, their proficiency in academic writing is also high.

The table also displays the results of correlational analysis between each indicator of metacognitive awareness of strategy in writing and each indicator of proficiency in academic writing. Declarative knowledge (person) showed an r-value of .394 and a p-value of .000 (significant), declarative knowledge (task) with an r-value of .432 and a p-value of .000 (significant), procedural knowledge with an r-value of .302 and a p-value of .000 (significant), conditional knowledge with an r-value of .508 and a p-value of .000 (significant), planning with an r-value of .402 and a p-value of .000 (significant), monitoring with an r-value of .454 and a p-value of .000 (significant), and evaluation with an r-value of .365 and a p-value of .000 (significant). It can be observed that all indicators of each variable have the same p-value of .000, indicating a significant relationship among them.

The research results highlight the significant relationship between metacognitive awareness of strategy in writing and proficiency in academic writing of Filipino students, which is consistent with the findings of various studies showing a strong and significant relationship between metacognitive awareness of strategy in writing, including indicators such as declarative knowledge (person), procedural knowledge, conditional knowledge, planning, monitoring, and evaluation, and proficiency in academic writing of students (Ramadhanti & Yanda, 203; Rosdiana et al., 338; Teng et al. 185). The results only demonstrate the consistency of indicators of metacognitive awareness of strategy in writing as predictors of students' proficiency in academic writing. The findings emphasize that metacognition may stem from a systematic knowledge structure mentioned in metacognition theory, which encompasses a wide range of strategies related to indicators of metacognitive awareness of strategy in writing (Teng et al., 183). Ramadhanti and Yanda (203) also proved that metacognitive awareness of strategy in writing is the primary factor affecting academic texts, such as explanatory texts, reinforcing the relationship between the two variables.

Table 5.a. Relationship between Metacognitive Awareness of Writing Strategies and Academic Writing Skills

Metacognitive Awareness of Writing Strategies	**Academic Writing Skills**			
	Basic academic writing skills	More advanced academic writing skills	Prospective role in the future career	**Overall**
Declarative Knowledge (Person)	.440**	.240**	.369**	**.394****
	(.000)	(.000)	(.000)	**(.000)**
Declarative Knowledge (Tasks)	.469**	.343**	.330**	**.432****
	(.000)	(.000)	(.000)	**(.000)**
Procedural Knowledge	.353**	.267**	.186**	**.302****
	(.000)	(.000)	(.001)	**(.000)**
Conditional Knowledge	.566**	.454**	.327**	**.508****
	(.000)	(.000)	(.000)	**(.000)**
Planning	.404**	.326**	.323**	**.402****
	(.000)	(.000)	.000	**(.000)**
Monitoring	.547**	.317**	.351**	**.454****
	(.000)	(.000)	(.000)	**(.000)**
Evaluation	.459**	.223**	.301**	**.365****
	(.000)	(.000)	(.000)	**(.000)**
Overall	**.636****	**.427****	**.423****	**.559****
	(.000)	**(.000)**	**(.000)**	**(.000)**

3.5.2 Relationship between Oral Proficiency and Academic Writing Skills

Table 5.b demonstrates a significant relationship between proficiency in speaking and proficiency in academic writing among students, with a total r-value of .499 and a corresponding p-value of .000, which is lower than the .05 level of significance set in this study. The results indicate that the hypothesis was rejected in favor of the alternative hypothesis,

indicating a significant relationship between speaking proficiency and academic writing proficiency among students.

The table also presents the results of correlational analysis between each indicator of proficiency in speaking and each indicator of proficiency in academic writing. Comprehension showed an r-value of .462 and a p-value of .000 (significant), fluency with an r-value of .252 and a p-value of .000 (significant), vocabulary with an r-value of .450 and a p-value of .000 (significant), pronunciation with an r-value of .495 and a p-value of .000 (significant), and grammar with an r-value of .407 and a p-value of .000 (significant).

It can be observed that all indicators of each variable have the same p-value of .000, indicating a significant relationship among them. This reinforces that when students have high proficiency in speaking, their proficiency in academic writing is also high, emphasizing the importance of proficiency in speaking for students as it helps broaden their knowledge to be utilized in their writing tasks.

The significant relationship between proficiency in speaking and proficiency in academic writing among students in the Filipino language continues to be proven by various studies, including those by Gomez, Lasismi, and Torevillas. Gomez also demonstrated that increasing proficiency in speaking significantly correlates with increasing proficiency in academic writing. Safariyan and Shakroki's research also showed a strong correlation between speaking proficiency and academic writing proficiency.

Table 5.b. Relationship between Oral Proficiency and Academic Writing Skills

Oral Proficiency	**Academic Writing Skills**			
	Basic academic writing skills	More advanced academic writing skills	Prospective role in the future career	**Overall**
Comprehension	.504**	.411**	.306**	**.462****
	(.000)	(.000)	(.000)	**(.000)**
Fluency	.323**	.274**	.079	**.252****
	(.000)	(.000)	(.166)	**(.000)**
Vocabulary	.496**	.443**	.251**	**.450****
	(.000)	(.000)	(.000)	**(.0000**
Pronunciation	.597**	.362**	.366**	**.495****
	(.000)	(.000)	(.000)	**(.000)**
Grammar	.561**	.310**	.235**	**.407****
	(.000)	(.000)	(.000)	**(.000)**
Overall	**.599****	**.440****	**.293****	**.499****
	(.000)	**(.000)**	**(.000)**	**(.000)**

3.5.3 Relationship between Writing Instructions and Academic Writing Skills

In Table 5.c, a significant relationship between writing instruction and proficiency in academic writing among students is depicted, with a total r-value of .572 and a corresponding p-value of .000, which is lower than the .05 level of significance set in this study. The null hypothesis was rejected, and the alternative hypothesis suggesting a significant relationship between writing instruction and proficiency in academic writing among students was accepted.

Table 5.c. Relationship between Writing Instructions and Academic Writing Skills

Writing Instructions	**Academic Writing Skills**			
	Basic academic writing skills	More advanced academic writing skills	Prospective role in the future career	Overall
Learning to write narrative texts	.502** (.000)	.301** (.000)	.281** (.000)	**.403** (.000)**
Self-confidence in writing narrative texts	.594** (.000)	.442** (.000)	.378** (.000)	**.533** (.000)**
Learning to write factual texts	.528** (.000)	.327** (.000)	.344** (.000)	**.449** (.000)**
Self-confidence in writing factual t texts	.577** (.000)	.370** (.000)	.388** (.000)	**.502** (.000)**
Learning to write formal and informal texts	.567** (.000)	.289** (.000)	.427** (.000)	**.480** (.000)**
Clear evaluation criteria	.482** (.000)	.220** (.000)	.333** (.000)	**.385** (.000)**
Criteria-related feedback	.435** (.000)	.195** (.001)	.311** (.000)	**.349** (.000)**
Working to improve	.478** (.000)	.216** (.000)	.298** (.000)	**.367** (.000)**
Effect on self-efficacy	.456** (.000)	.192** (.001)	.346** (.000)	**.370** (.000)**
Focus of feedback	.234** (.000)	.279** (.000)	.165** (.004)	**.262** (.000)**
Self-assessment	.549** (.000)	.303** (.000)	.352** (.000)	**.449** (.000)**
Peer assessment	.425** (.000)	.235** (.000)	.303** (.000)	**.360** (.000)**
Overall	**.677** (.000)**	**.398** (.000)**	**.454** (.000)**	**.572** (.000)**

The correlational analysis results between each indicator of writing instruction and each indicator of proficiency in academic writing are also shown. Learning to write narrative texts, personal confidence in writing narrative texts, learning to write factual texts, personal confidence in writing factual texts, learning to write formal and informal texts, clear evaluation standards, feedback according to standards, writing for improvement, impact on personal ability, feedback focus, self-evaluation, and peer evaluation all demonstrated significant relationships, with p-values of .000 across all indicators.

These results affirm that when students receive effective writing instruction, their proficiency in academic writing also improves. The significant relationship between writing instruction and proficiency in academic writing among students in the Filipino language is consistent with the

findings of various studies, including those by Canada and Miralles, Wale and Bogale, Torevillas, and Wu and Schunn.

Wu and Schunn's results confirm the significant relationship between writing instruction and improving students' academic writing skills, particularly in providing feedback. They noted that feedback inspires students to consider its implementation in their writing, which they believe enhances their problem-solving skills in writing tasks. Similarly, Wale and Bogale found that writing instruction in classes teaching academic writing improves students' academic writing skills by providing them with shared processes for writing. Canada and Miralles also support the relationship between writing instruction, particularly in teaching writing and the feedback process, as essential factors in enhancing and increasing proficiency in academic writing, reducing writing anxiety, and replacing it with confidence derived from the teaching and feedback process in academic writing.

3.6 Influence of Metacognitive Awareness of Writing Strategies, Oral Proficiency and Writing Instructions on Academic Writing Skills

In Table 6, a significant influence of all exogenous variables, metacognitive awareness in writing strategy, oral proficiency, and writing instructions, can be observed on the endogenous variable of academic writing skills of senior high school students. It is also noted in the table that it has an f-value of 63.195 with a corresponding p-value of .000, which is significantly lower than the .05 level of significance, confirming a significant positive relationship between the three exogenous and endogenous variables. The results show that the exogenous variables predict the academic writing skills of senior high school students.

Upon further analysis of the table regarding the significance of the study's variables, it obtained an R2 of .386, indicating that 38.6% of the variance in students' academic writing skills is explained by predictor variables such as metacognitive awareness in writing strategy, proficiency in speaking and writing instructions. This means the remaining 61.4% of the variance in their academic writing skills comes from other factors besides the three exogenous variables.

Table 6. Influence of Metacognitive Awareness of Writing Strategies, Oral Proficiency, and Writing Instructions on Academic Writing Skills

Academic Writing Skills					
Variables	*B*	β	*t*	*Sig.*
Constant	.190		.685	.494
Metacognitive Awareness of Writing Strategies	.368	.255	3.749	.000
Oral Proficiency	.152	.150	2.427	.016
Writing Instructions	.381	.294	4.276	.000
R	.621			
R^2	.386			
∆R	.380			
F	63.195			
ρ	.000			

Table 6 also shows the unstandardized and standardized coefficients and the corresponding p-values of each exogenous variable to the endogenous variable. The writing instructions, with

the highest beta of .294 and a p-value of .000, signify that this variable has a significant influence and relationship with academic writing skills in the Filipino language of senior high school students. Meanwhile, metacognitive awareness in writing strategy with a beta of .255 and a p-value of .016, and oral proficiency with a beta of .294 and a p-value of .000, both indicate significant influence and show significant positive relationships with academic writing skills of senior high school students.

The research results demonstrate that all exogenous variables significantly influence the endogenous variable, making them predictors of students' skills in academic writing. The study by Ramadhanti and Yanda (203) confirms that metacognitive awareness in writing strategy significantly influences students' academic writing skills, emphasizing its importance in developing academic writing skills, particularly in academic texts like explanatory texts. They also explained the need to increase metacognitive knowledge through intensive training following each academic text's structure and specific standards. They also emphasized the role of teachers in the classroom as facilitators and not just error correctors. Similarly, the research by Teng et al. (183) also proves that metacognitive awareness in writing strategy is a predictor of academic writing skills, stating that metacognition constructs stem from a systematic structure of knowledge, and indicators of these exogenous variables are factors for improving students' academic writing skills. Further evidence is provided by Rosdiana et al. (341) that exogenous variables significantly influence students' skills in academic writing.

Meanwhile, based on various research outcomes, oral proficiency shows moderate to high influence depending on the low or high level of proficiency in speaking (Gusti Nur, 369). According to their research results, the proficiency level in speaking indicates whether it will predict academic writing skills, as their research results show a low and not robust relationship between the variables. Rausch's research (53) also proved that students' speaking proficiency influences the development of academic writing skills. He added that the teacher plays a significant role in guiding students to utilize their proficiency in speaking in academic writing. Peck's research (41) emphasized that when students are exposed to activities that enhance their speaking skills, their writing skills also improve, reinforcing that proficiency in speaking significantly influences their writing skills.

The influence of writing instructions, which can be aligned with teaching and providing feedback from teachers and students on their writing skills, is also essential. The research by Wale and Bogale (14) confirms the significant influence of writing instructions on students' academic writing skills. They further stated that providing clear writing instructions improves students' academic writing skills because of the content of each type of academic writing, particularly its form, characteristics, nature, processes, and ethical considerations, which guide students in understanding the writing process. The research by Canada and Miralles (223) also supports the influence of writing instructions, particularly in teaching writing and the feedback process, as essential factors in developing students' academic writing skills in the Filipino language.

3.7 Summary of Goodness of Fit of Measures of the Five Generated Models

Table 7 analyzes the relationship between metacognitive awareness in writing strategy, proficiency in speaking, and writing instructions on students' academic writing skills. Five alternative models were developed and tested against fit indices to determine whether the generated models would be accepted or rejected concerning the academic writing skills of senior high school students in the Filipino language. All its indices must meet the required standards to determine the most appropriate model. The chi-square/degrees of freedom value should be less than 5, with a p-value higher than 0.05. The root mean square error approximation value should be less than 0.05, and its equivalent P-close value should be

greater than 0.05. Other indices, such as the normed fit index, Tucker-Lewis's index, comparative fit index, and goodness of fit index, should all be higher than 0.95.

Hypothesized Structural Model 1, found in Appendix A on page 93, demonstrates a direct relationship between the exogenous variables of metacognitive awareness in writing strategy, proficiency in speaking and writing instructions, and their causal relationship with the endogenous variable, academic writing skills. However, none of the indices reached the acceptable number listed in the standard: CMIN/DF < 2, GFI, CFI, NFI, TLI > 0.95, RMSEA < 0.05 with P-Close > 0.05. Hypothesized Structural Model 2, also found in Appendix A on page 95, shows a similar direct relationship between the exogenous variables and the endogenous variable, academic writing skills. However, all indices did not reach the acceptable number listed in the standard.

Hypothesized Structural Model 3, found in Appendix A on page 98, presents a direct relationship between the exogenous variables and the endogenous variable, academic writing skills. However, not all indices reached the acceptable number listed in the standard. Hypothesized Structural Model 4, found in Appendix A on page 101, exhibits a direct relationship between the exogenous variables and the endogenous variable, academic writing skills. However, all indices did not reach the acceptable number listed in the standard.

Model 5 shows the results of goodness of fit. Its Chi-Square value divided by degrees of freedom (CMIN/DF) is 1.290; the Normed Fit Index (NFI) is .962; the Tucker-Lewis Index (TLI) is .987; the Comparative Fit Index (CFI) is .991; the Goodness of Fit Index (GFI) is .966; the Root Mean Square Error Approximation (RMSEA) is .031; and the P of Close Fit (P-close) is .960. The goodness of fit results indicate that all indices are highly acceptable as they meet the set standards: CMIN/DF < 2, GFI, CFI, NFI, TLI > 0.95, RMSEA < 0.05 with P-Close > 0.05, suggesting that this is the best and most appropriate model for the academic writing skills of students.

Table 7. The Goodness of Fit with the Comparative Criterion Indices

Model	P-value (>0.05)	CMIN / DF (0<value<2)	GFI (>0.95)	CFI (>0.95)	NFI (>0.95)	TLI (>0.95)	RMSEA (<0.05)	P-close (>0.05)
1	.000	4.628	.724	.767	.722	.745	.109	.000
2	.000	3.939	.752	.813	.765	.794	.098	.000
3	.000	3.939	.752	.813	.765	.794	.098	.000
4	.000	3.258	.770	.856	.806	.842	.086	.000
5	.000	1.290	.966	.991	.962	.987	.031	.960

Legend:

CMIN/DF	*Chi-Square/Degrees of Freedom*	*NFI*	*Normed Fit Index*
GFI	*Goodness of Fit Index*	*TLI*	*Tucker-Lewis Index*
RMSEA	*Root Mean Square of Error Approximation*	*CFI*	*Comparative Fit Index*

3.8 Best Fit Model

In Figure 1, the standard estimates in the most appropriate model, Model 5, are showcased. The model illustrates the relationship between the exogenous variables of metacognitive awareness in writing strategy and proficiency in speaking and writing instructions and their direct causal relationship with the endogenous variable, academic writing skills of students in the Filipino language. All result indices must fall within an acceptable range to determine the most appropriate model.

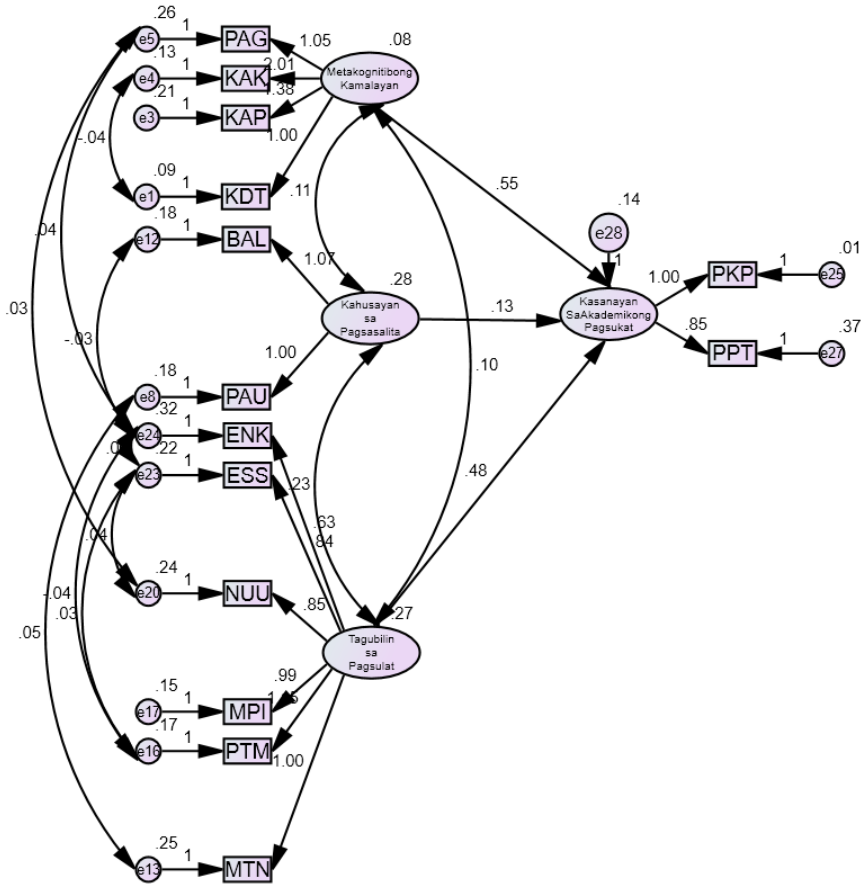

Figure 1. Best-Fit Structural Model on Academic Writing Skills

Legend:

PAG	*Planning*	*ESS*	*Self-assessment*
KAK	*Conditional Knowledge*	*NUU*	*Writing to improve*
KAP	*Procedural Knowledge*	*MPI*	*Learning to write formal and informal texts*
KDT	*Declarative Knowledge-Person*	*PTM*	*Self-confidence in writing factual texts*
BAL	*Grammar*	*MTN*	*Learning to write narrative texts*
PAU	*Comprehension*	*PKP*	*Basic academic writing skills*
ENK	*Peer Assessment*	*PPT*	*Prospective role in the future career*
Metakognitibong Kamalayan		*Metacognitive Awareness of Writing Strategies*	
Kahusayan sa Pagsasalita		*Oral Proficiency*	
Tagubilin sa Pagsulat		*Writing Instructions*	
Kasanayan sa Akademikong Pagsulat		*Academic Writing Skills*	

A chi-square/degrees of freedom value below 5 with a p-value higher than 0.05 is required to identify the most appropriate among the generated models. Meanwhile, the root mean square

error approximation value should be less than 0.05, and its corresponding P-close value should be greater than 0.05. Additionally, indices such as the normed fit index, Tucker-Lewis index, comparative fit index, and goodness of fit index should all be higher than 0.95 to be considered the most appropriate model.

Five alternative models were developed to analyze the relationship between the exogenous variables of metacognitive awareness in writing strategy and proficiency in speaking and writing instructions with the endogenous variable of academic writing skills of students in the Filipino language. Each model consists of two sub-models: the measurement model representing the measure loads of each factor in their latent construct and the structural model that interprets the relationships of the latent variables.

The hypothesized Model 5 obtained results that aligned with the standards for selecting the most appropriate model for academic writing skills. In the process of choosing the most appropriate model, it appeared that out of the seven indicators of metacognitive awareness in writing strategy, the predictors of planning (PAG), conditional knowledge (KAK), procedural knowledge (KAP), and declarative-personal knowledge (KDT) remained significant predictors of students' academic writing skills.

Meanwhile, among the five indicators of the exogenous variable of proficiency in speaking, articulation (BAL) and comprehension (PAG) remained significant predictors of students' academic writing skills in the Filipino language. For the writing instruction with 12 indicators, six of them remained significant predictors of the academic writing skills of students in the Filipino language: evaluation of inclusion (ENK), self-evaluation (ESS), writing to progress (NUU), learning to write formal and informal texts (MPI), personal confidence in writing truthful texts (PTM), and learning to write narrative texts (MTN). Based on the results, it can be inferred that students' academic writing skills are primarily measured by primary academic writing skills (PKP) and prospective duties in future work (PPT).

Writing is a macro skill, and academic writing as a genre is crucial for students to develop so they can attain a high level of knowledge and be prepared for various fields, especially in their prospective careers or professions in the future. Developing their metacognitive awareness in writing strategy and enhancing their speaking skills are significant factors that can help them become knowledgeable and proficient in academic writing. Additionally, the role of the teacher as a supervisor of writing instructions, particularly in teaching and providing feedback, is also essential in improving their academic writing skills.

4. CONCLUSION

The research revealed that students generally have a high metacognitive awareness of writing strategies, oral proficiency, writing instructions, and academic writing skills. However, there are indications that these skills are reaching the highest level, suggesting that these indicators could be further improved through seminars or workshops on writing strategy enhancement and oral proficiency. These activities could be incorporated into Filipino subject curricula to enhance writing and speaking skills, such as public speaking and writing various academic texts. Teachers play a crucial role in writing subjects as facilitators of learning, not just evaluators. They must clearly articulate standards, needs, and steps in writing and provide teacher feedback to help students develop their academic writing skills. Feedback helps students learn about the requirements of each type of academic writing according to its standards and ethical considerations.

The exogenous variables significantly influence Filipino students' academic writing skills. This supports Flavell's Metacognitive Knowledge Theory, which states that individuals with high

metacognitive knowledge can control their thinking processes for success in tasks like academic writing. Out of the five models examined, model 5 was identified as the most appropriate model for academic writing skills, supported by Flavell's Metacognitive Knowledge Theory, Peck's cognitive theory, and genre pedagogy. Teachers' roles in teaching proper writing and speaking strategies are essential, and effective teaching and feedback are crucial parts of the teaching-learning process.

In conjunction with goal setting, metacognitive awareness of writing strategies, such as acquiring and applying knowledge to specific circumstances, assists students in improving their academic writing skills. In addition, explicit instruction and feedback from teachers and students strengthen students' academic writing skills through proficiency in grammar and comprehension. Students additionally considered that having basic academic writing skills would equip them for future endeavors and guarantee success in their academic pursuits.

CONSENT AND ETHICAL APPROVAL

The research conducted ensured adherence to ethical standards evaluated by the University of Mindanao Review Ethics Committee (UMERC), such as voluntary participation, privacy, confidentiality, informed consent process, recruitment, risks, benefits, harm, fabrication, falsification, conflict of interest (COI), deception, permission from organization/location, and authorship.

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