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| RESEARCH ARTICLE

Self-regulatory Writing Strategies of ESL Pre-service Teachers

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ABSTRACT

In the context of post-pandemic education, teachers are implementing novel pedagogical methodologies to enhance the support provided to learners in cultivating vital English communication competencies, particularly in the domain of writing. The acquisition of a second language (L2) writing remains a multifaceted skill, and recent declines in writing proficiency of college students, primarily ascribed to the constraints and inconsistencies inherent in online learning environments, have exacerbated these formidable challenges. Hence, the investigation of self-regulatory writing strategies is imperative, as these strategies are instrumental in facilitating learners' progression towards becoming autonomous, reflective, and proficient writers—specifically within an L2 setting. This study examined the level of utilization and the differences in self-regulatory writing strategies among 230 ESL pre-service teachers across four campuses of Isabela State University, based on their profile variables. Employing a descriptive-comparative design, the data were gathered through validated questionnaires and substantiated by semi-structured interviews and document analysis. The outcomes indicated that sex did not significantly influence the overall self-regulatory writing strategies, although it affected certain specific strategies, suggesting that while instructional approaches do not necessarily need to be differentiated broadly based on sex, there are values in addressing nuanced preferences in particular strategies utilized by male and female students. In contrast, year level showed significant differences in the application of various self-regulatory practices, highlighting that strategies are progressively introduced and reinforced to match students' developmental phases and academic demands. Ultimately, the students exhibited a generally positive engagement with selfregulatory strategies, though domains such as peer learning and artificial intelligence integration remained underutilized, which posited a critical area for improvement in writing pedagogy.

KEYWORDS

Self-regulatory Learning, Writing Strategies, ESL Pre-service Teachers, L2 Writing, Writing Performance

| ARTICLE INFORMATION

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1. Introduction

In the aftermath of the pandemic, educational institutions and educators worldwide have been compelled to reassess and adapt their teaching approaches, methodologies, and instructional strategies to address the increasingly diverse and evolving needs of learners. This shift is particularly evident in the field of English as a Second Language (ESL) education, where the demand for more responsive, inclusive, and learner-centered pedagogies has become paramount. As the global landscape of education transforms, the focus on developing communicative competence in ESL learners has intensified (Raymundo, 2023), highlighting the need for a comprehensive mastery of the five macro skills of communication: listening, viewing, speaking, reading, and writing.

Among these macro skills, writing stands out as one of the most cognitively demanding and challenging to acquire, especially for learners navigating a second language (L2) (Reforsado & Lacar-Raymundo, 2024). Unlike the more immediate and often informal nature of spoken communication, writing requires deliberate planning, organization, and the precise use of language structures. Learners must effectively translate their thoughts into written form while adhering to the conventions of grammar, syntax,

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vocabulary, and coherence. The complexity of these cognitive and linguistic demands makes writing a critical yet often difficult skill to master in second language acquisition.

The reported decline in college students' writing proficiency, as noted in a 2022 article by The Times of India, is largely attributed to the extended periods of lockdown and the shift to online learning, which have presented considerable challenges for teachers. The significance of both oral and written feedback is paramount for pre-service teachers (PSTs), as it offers valuable insights into their competencies and areas necessitating development. The Philippines' educational setting emphasizes the early introduction of writing, accentuating the vital need for efficacious pedagogical strategies to nurture student success.

Accordingly, the K to 12 curriculum in the Philippines adopts a spiral progression approach, expecting students to develop writing proficiency early on. However, limited research explores the L2 writing behaviors and self-regulatory strategies of tertiary learners (Evans et al., 2010). Self-regulation involves conscious efforts to improve writing enjoyment, manage challenges, and enhance effectiveness (Teng & Zhang, 2016; Zimmerman & Risemberg, 1997). Learners' interpretations of feedback significantly affect their confidence and writing self-regulation (Ekholm et al., 2015).

There is a need for a more in-depth examination of the utilized self-regulatory writing strategies utilized by ESL pre-service teachers. It is essential for research to consider factors like sex and academic year level among ESL PSTs, as existing studies on self-regulation, specifically in writing, are limited (Teng & Zhang, 2016; Palermo & Thomson, 2018; Bai & Guo, 2018). Training in self-regulatory writing strategies can assist PSTs in addressing educational inequalities and academic pressures. Thus, this study focused on the self-regulatory writing strategies among ESL PSTs enrolled at the different campuses of Isabela State University, since it was outlined by Saet and Medico (2023), that the proficiency of these pre-service teachers in English self-regulated learning is deemed to be at a moderate level only. They occasionally monitor their progress in technology-assisted English learning. Hence, it becomes imperative to assess their levels of self-regulation and monitoring concerning their writing strategies for enhancing both control and outcomes.

In line with Sustainable Development Goal 4 (Quality Education), this study promotes inclusive, equitable, and lifelong learning by enhancing writing skills and self-regulatory strategies among ESL pre-service teachers, thereby contributing to improved educational outcomes and global efforts toward educational equity and excellence.

2. Literature Review

Definition and Significance of Writing

According to Saputra et al. (2020), writing is a means of expressing ideas, knowledge, or experiences for the purpose of learning or sharing information. It is also the creation of visual symbols that represent language, requiring both linguistic and symbolic comprehension. In this view, writing is a symbolic representation of language. Reforsado and Lacar-Raymundo (2023) add that writing functions as an indirect form of communication, used to convey information. Hence, writing is a complex process that involves generating meaningful content to engage and inform readers.

National University (2018) defined writing as a constructive activity that supports the development of other language skills—listening, speaking, and reading—by helping transition receptive vocabulary into productive use. Likewise, mastering the four macro skills, listening, speaking, reading, and writing, is essential for effective communication and success. Carolino and Queroda (2019) add that viewing has become a fifth macro skill, enhanced through various print and digital materials.

Golkova and Hubackova (2014) highlight writing as a vital productive skill among the four language macro skills, requiring targeted instruction. Nunan (1989, as cited in Durga & Rao, 2018) describes it as a complex cognitive task involving the simultaneous management of content, structure, vocabulary, spelling, and coherence. Effective writing goes beyond sentence accuracy, requiring clear and cohesive paragraph organization. Teaching writing to ESL learners supports language reinforcement, cognitive development, and skill building. It fosters precise language use, consolidates learning, and prepares students for tasks like role-plays, oral communication, and written assessments.

Factors Affecting Students' Writing

Subsequently, Batalla and De Vera (2019) elucidate that writing skills are crucial to students' academic performance, as many academic tasks, such as assessments, assignments, reports, and research projects, rely heavily on writing. On the other hand, Cole and Feng (2015) highlight writing as a foundational skill in learning English, stressing its role in reinforcing grammar and vocabulary taught by educators.

Writing in a second language (L2), especially for English as a Foreign Language (EFL) learners, poses significant challenges. Composing in L2 is often regarded as one of the most complex skills to acquire, as it requires transforming thoughts into written

form while mastering organization and linguistic elements such as grammar and vocabulary. In many EFL settings, students struggle with written assignments due to difficulties in grammar, coherence, and the lack of strategies for organizing their writing effectively (Paris et al., 2017).

Moreover, students' writing output is often hindered by various challenges throughout their educational journey. These challenges can be classified into cognitive, linguistic, pedagogical, and psychological categories. Fareed et al. (2016) point out that learners often face difficulties with the structural aspects of English, which hinder coherence and make their writing more difficult to understand, thus requiring greater cognitive effort from the reader.

Definition and Importance of Self-Regulatory Writing Strategies

In recent studies, Teng and Zhang (2016) have redefined L2 writing strategies for Self-Regulated Learning (SRL) as purposeful, goal-oriented efforts aimed at making writing more enjoyable, reducing its difficulty, and improving its effectiveness. They align with Zimmerman and Risemberg's (1997) idea that self-regulation in writing involves a writer's ability to control their thoughts, emotions, and actions to enhance their writing skills, improve the quality of their work, and achieve consistent learning outcomes. This process includes a range of strategies such as cognitive, metacognitive, social, and motivational techniques, all of which are crucial in an L2 writing environment.

A more holistic approach to SRL in writing is now being recognized, one that incorporates all these strategies to help learners improve their writing skills and complete tasks more effectively. It's about equipping students with the tools to manage challenges and apply the right strategies when needed. On the other hand, Yang et al. (2022) emphasized how SRL-based feedback positively affected EFL students' writing. The students not only improved their performance in writing tasks, particularly in areas like organization, vocabulary, and content, but they also strengthened their SRL strategies, such as goal-setting and feedback management. This suggests that by focusing on feedback that supports the writing process and fosters self-regulation, educators can significantly enhance students' writing abilities.

Other research, such as that by De Silva and Graham (2015), reinforces the link between SRL strategies and improved writing outcomes. Similarly, Sun and Wang (2020) identified the importance of both writing self-efficacy and SRL strategies in boosting students' writing competence. Meanwhile, Arnawa and Arafah (2023) showed that teaching self-regulated strategies not only improves writing accuracy but also reduces writing-related anxiety. However, without strong self-efficacy, some students may struggle to fully implement these strategies.

Tian et al. (2022) brought attention to how self-regulated strategies, particularly in response to feedback, are vital during revision. Teachers can enhance the revision process by encouraging students to use cognitive strategies with automated feedback and motivational strategies with teacher feedback. This approach, coupled with quality feedback, can improve students' ability to revise and refine their writing. In online environments, incorporating automated feedback tools can further support the development of self-regulated writing strategies, providing students with the opportunity to engage with multiple feedback sources and strengthen their writing skills.

Integration of Self-regulatory Writing Strategies into Writing

Incorporating self-regulatory writing strategies such as planning, goal-setting, emotional control, and metacognitive judgment can significantly enhance the writing performance of young EFL learners. Educators can improve students' writing skills by focusing on these strategies, providing a more structured and effective approach to writing instruction. Similarly, a study by Seker and Karagul (2021) found that students who used the Self-Monitoring Chart for Effective Writing Strategies experienced significant benefits. This tool not only helped them understand SRL techniques but also increased their motivation and engagement with writing tasks, ultimately leading to improved writing proficiency.

In addition, Nabhan (2019) observed that pre-service educators demonstrated strong self-regulated learning strategies and motivation in EFL academic writing. This study highlights the importance of revising key writing elements such as organization, citation, and language usage. These areas were identified as crucial for improving students' writing and enhancing overall writing proficiency. Furthermore, Umamah et al. (2022) argue that all EFL learners, regardless of their writing proficiency, should actively employ self-regulated writing strategies. Although these strategies are fundamental, the study also points out that additional support and techniques are necessary to maximize writing outcomes.

Moreover, Zakaria and Adibah (2023) focused on the role of feedback-driven assessment tasks in fostering SRL in higher education. They recommend that teachers not only provide constructive feedback but also design assessments that promote discussion and group work. This approach encourages students to take greater responsibility for their learning and motivates them to improve. Finally, Baroudi et al. (2023) found that using feedforward strategies significantly enhanced pre-service teachers' critical thinking

and academic writing skills. Their research showed that improving students' critical thinking skills had a positive impact on their writing, particularly in using relevant vocabulary and making strong connections to course content. However, while research on SRL strategies in L2 writing has mainly focused on their effects on writing performance, motivation, and self-efficacy, there is still a need for more emphasis on how individual differences influence the use of SRL strategies specifically in English writing (Bai & Guo, 2018; Palermo & Thomson, 2018).

Artificial Intelligence Integration in the Self-Regulatory Writing Strategies

Alhafidh (2024) highlights the potential of artificial intelligence (AI) to transform self-regulated learning (SRL) environments by offering personalized support, adaptable feedback, and data-driven insights. AI technologies like machine learning and natural language processing allow educators to create tailored learning experiences, addressing scalability and differentiation challenges. While AI can enhance learning, it should complement, not replace, human educators who foster collaboration and social interaction. AI tools, such as Reflective Writing Analytics, offer feedback on metacognitive awareness and self-regulation by analyzing students' reflective journal entries. These tools assist teachers with formative assessments and help students improve their self-regulation skills.

Al's role in academic writing is growing, with generative Al (GAI) applications helping scholars with content creation, summarization, and feedback (Nguyen et al., 2024; Dwivedi et al., 2023). While Al tools aid in overcoming language and style challenges in writing, concerns about academic integrity persist (Kasneci et al., 2023). Nonetheless, GAI tools support critical thinking and creativity, enhancing writing coherence and quality (Yan, 2023). Multimedia platforms are also becoming essential in English instruction, improving writing competence and supporting cooperative learning. These tools help students produce various text types and develop multiple literacies.

Implications to Writing Pedagogy

Mahrous (2023) indicated that using self-regulatory writing strategies can greatly enhance EFL students' writing skills while also reducing anxiety, particularly among education majors specializing in English. Building on this, self-regulation is a key element in the writing process, with skilled writers often demonstrating stronger self-regulatory behaviors than novices. Instructional strategies that involve self-monitoring and self-assessment help learners evaluate their own work more effectively. However, without prior experience in identifying writing issues, techniques such as self-questioning may offer limited benefits.

Furthermore, Ahiskali et al. (2022) highlight that pre-service teachers can benefit from observing how their peers navigate writing challenges. Teachers can support this process by incorporating cognitive, emotional, and practical guidance into writing instruction. In relation to this, peer review activities in L2 writing courses encouraged pre-service English teachers to become more independent learners by helping them identify their own mistakes. The experience also made students more aware of the importance of delivering clear and constructive feedback. This finding points to the value of developing students' feedback skills as part of writing instruction. In conclusion, regular peer review sessions can promote collaboration, improve communication, and enhance students' writing proficiency. A structured approach to peer review offers continuous learning opportunities, allowing students to refine their skills through mutual feedback and reflection.

3. Methodology

This discussed the methods and procedures that were used to attain the objectives of the study. It included the research design, locale of the study, respondents of the study, research instrument, data gathering procedure, and statistical treatment of the study.

3.1 Research Design

The study employed a descriptive-comparative design. The descriptive design was suitable for this study since it focused on describing the profile and self-regulatory writing strategies of ESL pre-service teachers at Isabela State University (ISU). Additionally, the comparative part was aligned with the objective of assessing the potential significance of the difference between the profile and self-regulatory writing strategies of ESL pre-service teachers at Isabela State University – Cabagan, Cauayan, Echague, and Ilagan Campuses.

3.2 Locale of the Study

The study was conducted at the College of Education (CED) of Isabela State University (ISU) in Cabagan, Cauayan, Echague, and Ilagan Campuses. It is one of the universities that covers Teacher Education Institutions (TEI) that focuses on the preparation of teachers and holds accreditation from the state board of education or a state-authorized agency within its jurisdiction. The four big clusters of Isabela State University system were chosen as the locale of the study because their respective College of Education departments offer a Bachelor of Secondary Education major in English, unlike the other campuses. With this, there was a wide spectrum and enough sample size for the study. Thereafter, since the institution is responsible for offering professional

development opportunities to pre-service teachers, this study is applicable and beneficial to them because the institution is amenable to excellence and quality education.

3.3 Respondents of the Study

The target respondents of the study were all year levels of the College of Education (CED), particularly the Bachelor of Secondary Education (BSE) major in English, as they are considered ESL pre-service teachers at Isabela State University (ISU), Cabagan, Cauayan, Echague, and Ilagan Campuses. Stratified random sampling was applied to obtain the total number of respondents who responded to the designed questionnaire using Cochran's formula, observing a 95% confidence level and a 5% margin of error. The following is the frequency count of respondents within each stratum or segment.

Table 1. Population and Sample of BSED ESL Pre-service Teachers in Isabela State University-Cabagan, Cauayan, Echague, and Ilagan Campuses

Campus	Year Level	Population	Sample
ISU Cabagan	1 st	51	21
_	2 nd	30	12
	3 rd	32	13
	4 th	20	8
ISU Cauayan	1 st	50	20
•	2 nd	30	12
	3 rd	25	10
	4 th	30	12
ISU Echague	1 st	50	20
	2 nd	37	15
	3 rd	27	11
	4 th	27	11
ISU Ilagan	1 st	52	21
	2 nd	42	17
	3 rd	35	14
	4 th	32	13
Total		570	230

The tabular presentation showed the population of ESL pre-service teachers at Isabela State University, specifically in Cabagan, Cauayan, Echague, and Ilagan Campuses, with a total of 570. The calculated sample size, apportioned from different strata or sections, consisted of 230 students, ensuring a thorough and representative subset for the study.

3.4 Research Instrument

This research study used a survey questionnaire as a tool for gathering the needed data, specifically adopted from the study of Teng and Zhang (2016), wherein it also obtained a high-reliability evaluation (Cronbach's $\alpha = 0.85$).

The first part of the questionnaire centered on the demographic profile of the ESL pre-service teachers, specifically dealing with their sex and year level. Furthermore, the second part of the questionnaire covered the ESL pre-service teachers' self-regulatory writing strategies with 40 items. Distinctively, the 40 items are divided into eight (8) domains, namely, text processing (TP) with 6 items; course memory (CM) with 3 items; idea planning with (IP) 3 items; goal-oriented monitoring and evaluation (GME) with 6 items; peer learning (PL) with 3 items; feedback handling (FH) with 4 items; interest enhancement (IE) with 4 items; motivational self-talk (MST) with 8 items; and emotional control (EC) with 3 items. Additionally, the researcher constructed 5 items specifically for the artificial intelligence integration (AII) domain, which focused on the use of AI tools and technologies in the writing processes of ESL pre-service teachers. Overall, the questionnaire encompassed 45-item indicators.

The respondents rated the 45 indicators using a 4-point Likert scale with their respective rankings: 1 = Never, 2 = Rarely, 3 = Sometimes, and 4 = Always. The application of the four-point Likert scale was intended for the assessment of respondents' level of frequency towards a variety of statements. This utilized the following interpretation scales:

Description	Range
Never	1.00 – 1.74
Rarely	1.75 – 2.49
Sometimes	2.50 – 3.24
Always	3.25 – 4.00

The aforementioned questionnaires underwent validity and reliability testing using Cronbach's alpha to ensure internal consistency. Thus, the researcher conducted the pilot testing at Isabela State University, Jones campus, specifically ESL pre-service teachers, majoring in English, as they were similar to the target respondents. After the pilot testing, the questionnaire yielded a Cronbach's alpha result of .94, which is described as "excellent." Therefore, the items were retained because of their high reliability, and the final version of the instrument was drafted.

Moreover, to enhance the credibility of the questionnaires, the research study employed triangulation by incorporating interviews and document analysis as additional data collection methods. Alongside the questionnaires, semi-structured interviews, which are composed of open-ended questions, were also carried out with selected ESL in-service teachers and pre-service teachers to obtain more profound perspectives and validate the information gathered from the questionnaires, which lasted for thirty (30) minutes. In addition, document analysis was also utilized, such as their research manuscripts, lesson plans, and sample writings. Thus, through this analysis, the researcher properly provided further evidence and context for the findings.

3.5 Data Gathering Procedure

In gathering the needed data for this study, the researcher asked permission first by sending a request letter to the administration of the Isabela State University (ISU). The letter further explained the vital information regarding the conduct of the study. After the approval, a letter was also sent to the Deans of the College of Education (CED) to ask permission to gather data from the identified respondents. After the approval, the researcher coordinated with the Program chairpersons for the administration of the questionnaires. The researcher also provided an informed consent form, which was signed by the respondents, and informed them of the anonymity, protection, and confidentiality of the data that the respondents would provide. Thus, the respondents who were not able to fill out the document were not forced to participate in the study.

Prior to conducting the formal distribution of questionnaires, a pilot test was executed to validate and confirm the validity and reliability of the survey questionnaire. The pilot test involved a limited group of ESL pre-service teachers, specifically at Isabela State University, Jones campus, due to their similarity with the target respondents. The results of this preliminary assessment were scrutinized to determine any issues regarding the clarity, relevance, or difficulty of the questionnaire items. Adjustments deemed necessary were implemented on the surveys based on the feedback and results of the pilot test.

Once the consent papers were secured, the researcher then administered the research questionnaire. Thereafter, the responses to the questionnaire were collected by the researcher right after the allotted time had finished. Hence, the gathered data were tallied, interpreted, analyzed, and presented in tables to present the results and findings of the study.

In the study's second phase, to strengthen the questionnaire's credibility, triangulation was utilized through the integration of structured interviews and document analysis as supplementary approaches to data collection. Mainly, the semi-structured interview was conducted with the selected ESL in-service teachers and pre-service teachers to garner deeper insights and corroborate the data obtained from the questionnaires. Particularly, their availability of time for the interview was the utmost concern for their convenience and comfort. The one-on-one interview with the research respondents was carried out face-to-face and online.

Accordingly, the researcher asked permission from both the selected teachers and students to document the outputs of the ESL pre-service with their provided written corrective feedback. This document analysis was employed to provide additional evidence and context for the findings of the study.

3.6 Statistical Treatment of the Study

The study used descriptive statistics to describe the basic features of the data. Frequency counts and percentages were utilized to describe the profile of the respondents, such as sex and year level. Moreover, the weighted mean was employed in analyzing the ESL pre-service teachers' self-regulatory writing strategies. Then, the Analysis of Variance (ANOVA) was used to determine the significant difference between the ESL pre-service teachers' year level and their self-regulatory writing strategies. While a T-test was employed to determine the significant difference between their sex and self-regulatory writing strategies.

4. Results and Findings

In this section, the results obtained through careful and thorough gathering of data were presented, discussed, and interpreted to see the answer to each question from the statement of the problem of this research study.

Table 2. Demographic Profile of the Respondents

Variables	Frequency (n=230)	Percent
Sex		
Male	69	30.00
Female	161	70.00
Year Level		
First Year	82	35.65
Second Year	56	24.35
Third Year	48	20.87
Fourth Year	44	19.13

The demographic profile of the respondents reveals that the majority of the respondents are female, accounting for 161 respondents (70.00%) of the sample, while males comprise the remaining 69 respondents (30.00%) from the selected respondents.

In terms of year level, the largest group of respondents is first-year students, who make up 82 respondents (35.65%) of the sample. This is followed by the second-year students, encompassing 56 respondents (24.35%). The next are those who are third-year students, covering 48 respondents (20.87%) and the last are those who are fourth-year students composing 44 respondents (19.13%) of the totality of the sample size.

Table 3. Self-Regulatory Writing Strategies of ESL Pre-Service Teachers

Items	Mean	Qualitative Description
Text Processing (TP)		
1. When writing, I use some literary devices to make the	3.44	Always
composition more interesting.		
2. When writing, I check grammar mistakes.	3.70	Always
3. When writing, I check spelling and punctuation.	3.70	Always
4. When writing, I check the structure for logical coherence.	3.45	Always
5. When writing, I check the cohesiveness or connection among sentences.	3.54	Always
6. When writing, I check whether the topic and the content have been clearly expressed.	3.66	Always
Weighted Mean	3.58	Always
Course Memory (CM)		• •
7. I write useful words and expressions taught in writing courses to help me remember them.	3.41	Always
8. I speak out useful words and expressions taught in writing courses to help me remember them.	3.38	Always
9. I read my class notes and the course material over and over again to help me remember them.	3.32	Always
Weighted Mean	3.37	Always
Idea Planning (IP)		
10. Before writing, I read related articles to help me plan.	3.27	Always
11. Before writing, I use the internet to search for related information to help me plan.	3.53	Always
12. Before writing, I think about the core elements of a good composition I have learned to help me plan.	3.40	Always
Weighted Mean	3.40	Always

Goal-Oriented Monitoring and Evaluating (GME	3		
13. When learning to write, I set up goals for myse	16:	2.22	Always
direct my learning activities.	iii iii oraci to	3.32	7 iiways
14. When learning to write, I check my progress to achieve my goal.	make sure I	3.39	Always
15. I evaluate my mastery of the knowledge and sk writing courses.	ills learned in	3.29	Always
16. I monitor my learning process in writing course	S	3.24	Sometimes
17. When writing, I tell myself to follow my plan.		3.28	Always
18. When learning to write, I set up a learning go.		3.40	Always
	ighted Mean	3.32	Always
Peer Learning (PL)		2.22	· · ·
19. I brainstorm with my peers to help me write.		3.22	Sometimes
20. I discuss with my peers to have more ideas to v		3.30	Always
21. I work with my peers to complete a writing task		3.09	Sometimes
	ighted Mean	3.20	Sometimes
Feedback Handling (FH)		2.50	A.I
22. I am open to peer feedback on my writing.		3.56	Always
23. I am open to teacher feedback on my writing.		3.71	Always
24. I try to improve my English writing based on pe		3.53	Always
25. I try to improve my English writing based feedback.	on teacher	3.73	Always
We	ighted Mean	3.63	Always
Interest Enhancement (IE)			
26. I look for ways to bring more fun to the learnin	g of writing.	3.41	Always
27. I choose interesting topics to practice writing.		3.43	Always
28. I connect the writing task with my real life to in	trigue me.	3.45	Always
29. I try to connect the writing task with my persor	_	3.52	Always
,		3.45	Always
Motivational Self-Talk (MST)	•		,
30. I remind myself about how important it is to get in writing courses.	good grades	3.52	Always
31. I tell myself that it is important to practic outperform my peers.	e writing to	2.67	Sometimes
32. I compete with other students and challenge better than them in writing courses.	myself to do	2.36	Rarely
33. I tell myself to practice writing to get good grad	des	3.34	Always
34. I tell myself that I need to keep studying to		3.50	Always
writing competence.			
35. I persuade myself to work hard in writing course my writing skills and knowledge.	es to improve	3.47	Always
36. I persuade myself to keep on learning in writing find out how much I can learn.	ng courses to	3.43	Always
37. I tell myself that I should keep on learning in w to become good at writing.	riting courses	3.46	Always
	ighted Mean	3.22	Sometimes
Emotional Control (EC)	giited Meail	J.LL	Joinetimes
38. I tell myself not to worry when taking a w answering questions in writing courses.	riting test or	3.13	Sometimes
39. I tell myself to keep on writing when I want to	rive it un	3.19	Sometimes
40. I find ways to regulate my mood when I wan		3.24	Sometimes
writing. We	ighted Mean	3.19	Sometimes

Artificial Intelligence Integration (AII)		
41. I utilize generative AI (GAI) tools (i.e., ChatGPT-3, ChatGPT-4,	2.80	Sometimes
Bard Gemini, Co-pilot) to brainstorm and generate ideas for my		
topics.		
42. I use generative AI to guide me in organizing my initial	3.20	Sometimes
thoughts logically using generated prompts.		
43. I employ Al-driven applications like Grammarly and Quillbot	3.21	Sometimes
for comprehensive editing to enhance the quality of my written		
works.		
44. I use generative AI to assist in revising my writing pieces.	3.15	Sometimes
45. I utilize generative AI to evaluate the overall content and	3.12	Sometimes
readability scores of my written works.		
Weighted Mean	3.09	Sometimes
GRAND MEAN	3.35	Always

Table 3 shows the frequency of ESL pre-service teachers' utilization of ESL pre-service teachers with regard to their text processing, course memory, idea planning, goal-oriented monitoring and evaluating, peer learning, feedback handling, interest enhancement, motivational self-talk, emotional control, and artificial intelligence integration.

Generally, the ESL pre-service teachers always employ self-regulatory writing strategies in producing high-quality and effective written outputs, as reflected by the grand mean value of 3.35. The students' consistent practice signifies a high level of disposition and active involvement in enhancing their writing competencies and academic excellence. Furthermore, their regular use of text processing, memory retention, idea organization, collaboration, feedback utilization, motivation, emotional regulation, and Alassisted integration emphasizes their active engagement in effective writing practices. Tarman (2022) and Seker & Karagul (2021) support this, noting that integrating self-regulatory strategies, such as planning, monitoring, and emotional control, can significantly enhance writing performance and motivation, suggesting that adapting writing instruction to include these strategies leads to better learning outcomes. Similarly, Nabhan (2019) found that pre-service teachers exhibit strong self-regulated learning behaviors within the context of EFL, wherein revising writing instruction to support these strategies can improve outcomes, though additional support may be needed to maximize impact.

Text Processing (TP)

In general, the result indicates that ESL pre-service teachers always utilize self-regulatory writing strategies, particularly in relation to text processing skills, as signified by a weighted mean of 3.58. This alludes to their strong attention to the systematic approach of monitoring and refining their writing, reflecting an awareness of the fundamental components necessary to producing clear, well-structured, and grammatically accurate texts. This echoes with Tian et al. (2022), in which students utilized cognitive strategies during the revision, particularly identifying grammar errors, improving sentence coherence, enhancing clarity, and applying varied English structures. For instance, they revised by splitting complex sentences and eliminating Chinglish expressions. Likewise, Tangan et al. (2023) observed that many pre-service teachers demonstrated strong skills in content, organization, and mechanics, positing effective text processing.

As evidenced by the highest mean value of 3.70, this shows that ESL pre-service teachers always check for grammar mistakes, spelling, and punctuation errors when writing, indicating their continuous and thorough review of their work. This posits their maintained attentiveness on linguistic accuracy, which contemplates their careful action to uphold quality and maintain coherence in their written compositions.

The following interview extracts exemplify how the respondents invest themselves in linguistic accuracy assessment through grammar, spelling, and punctuation:

"Well, it helps me to be more conscious of my grammar and spelling, and become more accurate with the words that I used as it will contribute greatly to the quality of my writing. When it comes to the content, it helped me to organize my claims and thoughts in writing, especially with the unity and coherence since it is not just crucial to create a well-crafted type of writing, but it should be informative and understandable, leaving no confusion to the readers." (Student Participant 7)

"Another is about suggestions/feedback on my grammatical skills. As an English major, I need to be mindful when writing and speaking using the English language. The most prominent feedback/suggestion I received from my teachers would be to keep the formal tone and professionalism in my writing and simplify complex and lengthy sentences. In vocabulary, suggestions are mostly about the use of appropriate terms depending on the context and type of paper. For instance, when

writing an academic paper, colloquial and informal words should be avoided, as well as jargon. Lastly, in spelling, teachers often remind us to proofread our writing and check for misspellings. ...Be mindful on what I am writing/words and make sure it is right and connected to the topic; and always check the spelling. (Student Participant 4)

Herein, grammatical conventions are very essential for formal English writing, especially in technical and academic writing. Teacher Participant 7 justifies through the following figure of its technical writing syllabus:

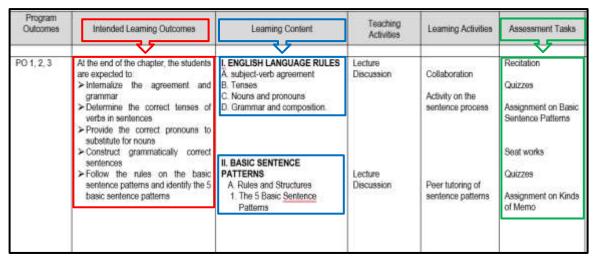


Figure 1: Technical Writing Syllabus

The syllabus emphasizes linguistic accuracy, requiring students to master verb tenses, pronouns, sentence structures, and grammar. These objectives align with students' diligence in adhering to academic writing standards. Lessons covering subject-verb agreement, grammar, and the five basic sentence patterns help students develop the skills needed to identify and correct writing errors. Assessment tasks such as quizzes, in-class exercises, and projects further enhance these competencies by encouraging the practical application of grammatical knowledge in structured writing tasks. However, Caber (2023) challenged this perspective by noting that orthographic and determiner-related errors were among the most frequent. Many students showed difficulty with spelling, appropriate determiner use, word choice, and punctuation, which affected the clarity and correctness of their written work.

Course Memory (CM)

In the totality of the course memory domain, the data exhibits that ESL pre-service teachers hold a favorable usage of the course memory strategies, due to its calculated weighted mean of 3.37, indicating they always use repetitive methods to internalize and apply writing conventions. The ESL pre-service teachers rely on composing and revising effective expressions, helping them build a repertoire of common phrases, syntax, and academic vocabulary. Chang (2015) explained that instructors often employed various mnemonic techniques to enhance students' writing skills, with rehearsal being the most common. This strategy involved repeated practice, such as revisiting facts or spelling words to improve memory retention. Mental imagery was also used, where students visualized concepts or scenes to make information more memorable. Additionally, elaboration helped students connect new information to prior knowledge by using meaningful context. For example, teachers supported spelling recall by incorporating complex words into creative and memorable sentences.

On that note, the ESL pre-service teachers always utilize writing useful words and expressions taught in writing courses to help them remember essential information, as illustrated by the highest mean value of 3.41. This stipulates that these students diligently revisit course guidelines and materials throughout their writing endeavors, such as grammatical rules and essay frameworks, to hone their writing capabilities and application in future tasks. Thus, this routine not only promotes improved retention of writing methodologies but also enables them to apply acquired concepts more efficiently in their compositions, especially when they are contextualized. This is evident by the following qualitative data from Student Participant 5:

"Uhm, this feedback helps me refine my sentence construction and improve my clarity, which makes my writing more polished. Uhm, the suggestions on my vocabulary helps me expand my language range. Uhm, naging curious na po ako lagi. Pag may time ako, nag-lilist ako ng mga unfamiliar words, then sine-search ko yung meaning. Then after that po, gagamitin ko yung words na yun sa writing ko para mas lalo akong ma-familiarize sa mga words na yun. [I became more curious. Whenever I have time, I list unfamiliar words and then look up their meanings. After that, I try to use those

words in my writing so I can become more familiar with them]. And then another thing, paying attention to unity and coherence has made me more intentional about the structure of my work, helping me stay on topic and develop my ideas more cohesively."

Proficient writing requires more than recalling memorized phrases; it involves actively using language, adapting learned expressions to different contexts, and expressing ideas clearly and coherently. While repetition is valuable, students should also engage in context-based learning that encourages application and personalization of knowledge. Strategies such as mnemonic devices, contextual learning, and project-based tasks provide richer experiences that enhance memory retention and improve students' ability to apply knowledge in English writing (Kurniarahman, 2023; Meza et al., 2021).

Hence, as part of the contextualization of important words and phrases to help the students remember them for a long time, this syllabus for the subject Language, Culture, and Society from Teacher Participant 3 serves as an example of such an approach:

CM, LL, CEL, IFK, SC	PO1- PO8	CILO 3 and 5	•	Describe the current language- political work being carried out by different countries; and	III. Language Variation: Focus on Users	Interactive Lecture Collaborative Learning/ Collaborative Activities	PPT/ Lecture Guide	Quiz Essay Oral Presentation	Rubrics for Oral and Written activities
			0.0	Explain the status of geographical variations in a language— dialects, as well as the social equivalent of such variation; and, gather data from their own speech and that of their families and peers, of how individual speakers switch among variaties		Group Presentation			

Figure 2. Language, Culture, and Society Syllabus

In their second year, ESL pre-service teachers take the course Language, Culture, and Society, which aims to deepen their understanding of sociolinguistic issues. One learning outcome focuses on describing global language-political efforts, encouraging awareness of real-world linguistic challenges. Another outcome emphasizes exploring dialects and language variation through data collection from personal and peer speech. These outcomes promote experiential and project-based learning, engaging students in active inquiry and enhancing long-term retention and meaningful application in their writing.

Idea Planning (IP)

The findings also demonstrate that in general, the idea planning domain is always integrated into the writing practices and strategies of ESL pre-service teachers, due to its yielded weighted mean of 3.40. They use pre-writing strategies such as brainstorming, researching, and organizing ideas to produce more coherent and meaningful compositions. This aligns with Sari and Widiastuty (2024), who found that structured planning activities like outlining and mind mapping improved EFL learners' content development, organization, grammar, and reduced writing anxiety. Similarly, Shafiee et al. (2015) highlighted the effectiveness of teaching pre-writing strategies through traditional, online, and hybrid methods, with the blended approach proving most effective due to its balance of accessibility, interactivity, and in-person support.

Remarkably, in this particular domain, the highest mean value of 3.53 indicates that ESL pre-service teachers consistently use the internet to search for relevant information during the pre-writing phase. This highlights the critical role of online research in their writing process, helping them gather information, expand their understanding, and refine their ideas before writing. This practice not only enhances their comprehension of topics but also enables them to incorporate diverse perspectives, resulting in more thorough and well-supported arguments. As evinced by the interview response of Student Participant 4:

"There are several processes and techniques I employ when writing. In planning, I try to write down the points I want to convey, search for articles as evidence and proof, and create an outline to make an effective sequence of my main points." It was then added that "When planning, I tend to find and read related articles about the topic I am writing like research, news, and journals. During planning, I tend to write down or note the highlights and important points from the articles I read and then organize them respectively to create an effective flow of arguments."

This result mirrors the investigation of Kirpatrick and Klein (2016), who found that high-achieving learners create tailored task environments to meet their specific writing needs. These students effectively navigate the digital world, using advanced techniques like keyword searches and critical source selection to gather, assess, and integrate information into their writing. This approach improves both the quality and efficiency of their work. The course learning plan of Teacher Participant 5 for the Purposive Communication subject, particularly Chapter 8 on Communication for Academic Purposes, further supports this practice, emphasizing research-based tasks like journal and magazine articles.

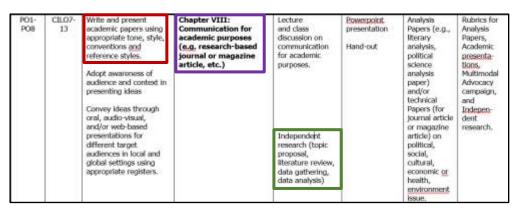


Figure 3: Purposive Communication Course Learning Plan

The syllabus's intended learning outcomes encourage students to engage with content thoughtfully and flexibly, promoting brainstorming, planning, and refining ideas, as observed in the study. Chapter 8 supports this by teaching students how to write for academic purposes, including selecting research topics, conducting literature reviews, and analyzing data. The independent research activity fosters skills like autonomy and critical thinking. Additionally, the ILOs emphasize the importance of accurate citation and referencing, which are key for integrating sources and maintaining academic integrity. This aligns with digital literacy principles and is reinforced through the use of proper citation formats, such as APA 7th edition, as demonstrated by Teacher Participant 6 and Student Participant 7.

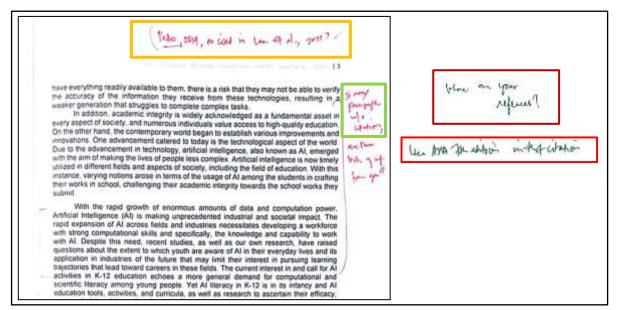


Figure 4. Feedback on Proper Citation and Referencing

The comment "Pedro, 2019, as cited in Lam et al., 2021" and the directive "Use APA 7th edition in-text citation" highlight the importance of precise citation methodologies, aligning with the syllabus's emphasis on academic conventions. This underscores the expectation that students organize information while adhering to citation standards, reinforcing digital literacy and ethical information use. Additionally, the comment "Sa may paragraph without citation" encourages including sources even when paraphrased, emphasizing the need for cohesive integration of information. The note "Where are your references?" stresses the importance of a properly formatted reference list, particularly in research, following the most recent APA 7th edition guidelines.

Goal-Oriented Monitoring and Evaluating (GME)

The results show that ESL pre-service teachers consistently use goal-oriented monitoring and evaluation strategies, with a weighted mean of 3.32. They actively set learning goals, assess their writing progress, and reflect on their skill development. This proactive approach to academic writing aligns with Graham's (2022) view that self-regulation, including self-monitoring and self-assessment, is essential for writing success. Teng et al. (2022) also confirmed that planning, goal-oriented monitoring, and metacognition are key predictors of writing success, as learners who effectively organize and structure their writing produce higher-quality work.

On top of that, the ESL pre-service teachers consistently set learning goals to improve their writing, as reflected by the highest mean value of 3.40. This highlights their strong self-monitoring skills and proactive approach to writing improvement through goal-setting and self-evaluation. Through their formulation of clear, organized goals, they demonstrate a commitment to self-directed learning, enabling them to track progress, assess improvements, and refine their writing abilities. This is validated by the interview excerpt from Student Participant 9, stating that:

"In establishing my objectives, I usually set a goal that is attainable. I always ensure that all of my goals are achieved by regularly going back to my checklist/outline to track my progress, making sure that every goal I have set is achieved. The strategies I always used was the SMART (specific, measurable, achievable, relevant, and time-bound)."

Accordingly, Student Participant 10 confirmed, "I set specific goals for each draft, like improving argument strength or minimizing grammatical errors. These help me focus on improving specific skills. By setting these goals, I can measure how close I am to my objectives and track improvement." It was then further supported that, "This lets me see my growth, even in small increments, which builds confidence in my abilities." Corroborating this evidence, Student Participant 5 validated,

"I set small achievable goals for each writing project, whether it's improving sentence clarity or working on my pacing. I also keep a journal where I reflect on feedback and track my progress. This helps me stay focused on what I want to improve and provides a clear path for my development."

Goal-setting, particularly through SMART goals (specific, measurable, achievable, relevant, and time-bound), is gaining attention in second language acquisition research. This approach provides clear guidance for learners, positively impacting motivation and performance in educational contexts (Locke & Latham, 2019; Barua, 2023).

Peer Learning (PL)

The peer learning strategy in writing is sometimes used by ESL pre-service teachers, with a weighted mean of 3.20. This indicates that while students recognize peer learning as a useful tool, its application varies. They engage in brainstorming, collaborative writing, and peer discussions to enhance their writing skills. Casinto's (2023) study highlighted the benefits of scaffolded peer feedback in improving writing proficiency, especially for low-proficiency ESL students. However, challenges remain, such as student distrust in peer review, with some perceiving their peers as less competent than themselves (Alsehibany, 2021; Saeli & Cheng, 2021).

Notably, the strategy of discussing ideas with peers to generate more writing ideas received the highest mean value of 3.30, indicating its frequent use in the writing process. This reflects the value ESL pre-service teachers place on collaboration, seeing it as essential for refining their written work. It emphasizes the social aspect of their learning, fostering a supportive environment for skill development and growth in academic writing. This is supported by the following interview extract:

"I'm working with peers, I exchange drafts for feedback and brainstorm ideas, which helps broaden my perspective. An example is with our president and adviser in Student Writers' Guild. I make them check my written articles every time to improve my writing." (Student Participant 3)

"There are a few activities I use to practice collaboration with my peers to enhance my writing skills. First, I ask for their opinions regarding the topic. Another was letting them read my work and ask them if my work has gaps or if there is something missing. I present to them my works and ask for their opinion." (Student Participant 8)

"I participate in peer review sessions and writing workshops where we exchange drafts and give each other constructive feedback. I also collaborate with classmates on group writing projects, which helps me see different approaches to writing and exposes me to new techniques and perspectives." (Student Participant 5)

Thereupon, a response to these mentioned practices of ESL pre-service teachers, their instructors initiated and devised activities that can stimulate the interaction of the students with their peers and classmates. As an example, Teacher Participant 2 and Teacher Participant included such techniques in their syllabus, like the following figures:

CILO 1,3	a. recomment the features that distinguish human and animal languages; b. identify the functions of language distinct to humans; c. identify contextual community and school learning activities in	II. Language and Humans 1. Features of Human Language by Hockett 2. Helliday's Language Functions 3. Non-Human Communication 4. Transmission 5. Animal Conscisuaries	Lacture discussion on the Language and Humans highlighting on its features, functions and the non-human communication.	Areah, M. (2016). Language (Choice in Multilingual Communities: The Case of Lartet, Ghana. Legon Journal of the	Verbal participation on the discussion on Concepts of Language and Humans Group processe	
	relation to language functions; d. discuss and present how animats communicate with barners and other animats with or without consciousness; and e. axisty benets of language teaching and learning through analyting the cases/veoper/animats on speak with human language.	Experiments on Languages and Antensis (VRI, Kanzi, Gua, Koko, etc.)	Mised Path-Discuss Activity or the Elbow Partners Activity to deeply discuss the ways on how animals convenuntante with humans and other animals with or without consciousness within an environment or community.	Hamsentles, 25- Retrieved from https://www.m searchashs.net/ publication/202- je/Choice in Hufflingual Co- monarities. The Case of Larbe h. Ghama	ensentenenting or servering community and its fanguage needs • Community and its Lunguage Needs Assessment Decumentation Report (focusing on Completeness 5 of	Rubrics for report/case analysts

Intended Learning Outcomes	Learning Content	Teaching Activities	Learning Activities	Assessment Tasks
At the end of the chapter, the students are expected to. Internalize the agreement and grammar Determine the correct tenses of verbs in sentences. Provide the correct pronouns to substitute for nouns. Construct grammatically correct sentences. Follow the rules on the basic sentence patterns and identity the 5 basic sentence patterns.	I. ENGLISH LANGUAGE RULES A subject-verb agreement B. Tenses C. Nouris and pronouns D. Grammar and composition. II. BASIC SENTENCE PATTERNS A Rules and Structures 1. The 5 Basic Sentence Patterns	Lecture Discussion	Collaboration Activity on the sentence process Peer tutoring of sentence patterns	Recitation Quizzes Assignment on Basic Sentence Patterns Seat works Quizzes Assignment on Kinds of Memo

Figure 5 & 6. Collaborative Teaching and Learning Activities

The teaching and learning activities in the figures demonstrate that students value peer discussions in their writing, prompting teachers to integrate these strategies into their pedagogy. Activities like the "Mixed-Pairs Activity" and "Elbow Partners Activity," along with "Collaboration" and "Peer tutoring of sentence patterns," emphasize cooperative learning. These strategies foster an interactive environment where learners exchange ideas, supporting the social aspects of language acquisition (Li & Zhang, 2021). Such activities enhance comprehension, critical thinking, peer evaluation, and self-confidence in writing (Chanderan & Hashim, 2022).

Feedback Handling (FH)

In general, the data further encapsulate that ESL pre-service teachers consistently exhibit a positive attitude toward feedback in their writing, with a weighted mean value of 3.63. This consistent agreement suggests they are open and responsible as writers, which is crucial for improving their written work. This openness not only benefits their grades and learning but also fosters a deeper care for their academic pursuits. Raymond et al. (2021) support this, noting that pre-service educators value authentic writing opportunities and constructive feedback, which promote a sense of belonging and make them more receptive to skill improvement, especially in facing the vulnerabilities of writing errors.

Moreover, the ESL pre-service teachers' strategy of trying to improve their English writing based on teacher feedback was always utilized, since it attained the highest mean score of 3.73. It is argued that the ESL pre-service teachers are engaged in the process of enhancing their writing capabilities by precisely analyzing and applying the feedback offered by their instructors. Instead of merely perusing and disregarding the remarks, they exhibit a proactive stance by deliberately undertaking revisions, edits, and improvements to their English written works in accordance with the suggestions provided. They regard teacher feedback as a crucial instrument for the advancement of their writing proficiency. The figures below display examples of documents from ESL pre-service teachers:

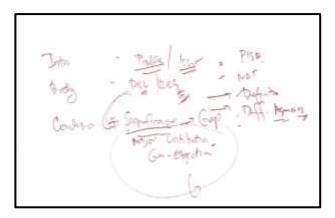


Figure 7: Instructor's Written Comment on Essay

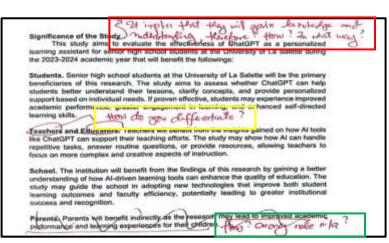


Figure 8: Instructor's Comment on Research Proposal

The written outline in figure 7 focused on organizing an academic essay about the Philippines' recent PISA exam results, demonstrates a systematic approach to crafting coherent, purposeful compositions. The instructor's comments on the Significance of the Study section (figure 8) of a research proposal, such as "How? In what way?" and "How do you differentiate?", provide prompts that encourage deep reflection and revision, pushing the writer to clarify and expand on their ideas.

In modern education, significant attention has been given to various feedback forms, including peer and computer-generated evaluations (Lv et al., 2021). However, teacher's written feedback (TWF) remains highly valued by ESL/EFL learners of all ages and plays a crucial role in language acquisition and writing proficiency (Yu & Yang, 2021). Consistent with Pinzón et al. (2022), learners tend to show a positive response to TWF and teacher-centric feedback, including written corrective feedback (Han, 2017; Xu, 2021). This is evident in the following interview responses from the students and teacher participants:

"As a future educator, these constructive feedback/suggestions from my teachers greatly improved my linguistic accuracy and overall writing. They serve as a constant reminder of what I should and shouldn't do whenever I am writing. These improvements helped me craft and deliver complex ideas effectively and present my paper with accuracy. It tells the dos and don'ts in writing your works." (Student Participant 4)

"...they focus a lot on coherence and unity which is important for me since I tend to jump between ideas a lot and they usually suggest to reorganizing the flow of mywriting or paragraph to make sure the flow is smooth and each point connects well to the next. In terms of grammar and vocabulary, they'll point out any misused words or awkward sentences and structures and recommend alternatives since ano ako ma'am [I'm] more on creative writing." (Student Participant 5)

"Oh, the written comments of course, will help learners recall their grammar learning and work independently to, to realize areas they need to improve. Hence, following the given feedback or comments, they will be linguistically competent in the use of the language." (Teacher Participant 2)

"Simply, I, I specifically give comments about their errors, lalo na sa grammar [especially in their grammar]. Kasi it's very important na makita nila [Because it's very important for them to see] in their early stages of their learning the mistakes they have committed, lalo [especially] it is writing. We know that writing skills are essential, particularly sa [in] professional settings later on. And being an English major, it is always expected that we know the conventions." (Teacher Participant 5)

"Additionally, for more detailed, personalized input, I often include sidenotes directly on their outputs. These sidenotes allow me to address individual mistakes, such as specific grammar errors, awkward phrasing, or structural issues within the text, thus, when I am placing the feedback exactly where the issue occurs, I make it easier for students to understand what needs to be corrected and why, which is particularly helpful in supporting their learning and language development. ... These approaches support and guide my students in recognizing their errors, understanding the standards they need to meet, and ultimately enhancing both their linguistic skills and their overall writing quality." (Teacher Participant 3)

Interest Enhancement (IE)

The data illustrates that in the interest enhancement domain, ESL pre-service teachers scored a weighted mean of 3.45, indicating high engagement and personal investment in their writing. This suggests that students actively select enjoyable topics, connect tasks to real life, and make writing personally relevant, reflecting their self-motivation and efforts to make writing meaningful.

Maung et al. (2022) noted that writing proficiency contributes to academic success, including higher grades, exam performance, and opportunities for scholarships. Vo et al. (2025) also found that Task-based Language Teaching (TBLT), which connects writing tasks to real-world experiences, significantly improved students' writing performance.

Likewise, the outcome further demonstrates that ESL pre-service teachers consistently connect writing tasks to personal interests, with a mean score of 3.52. This reflects strong intrinsic motivation and commitment, as students link writing to their passions and experiences, making the process more engaging and meaningful. The following excerpt of the syllabus demonstrates this outcome, specifically from Teacher Participant 5:

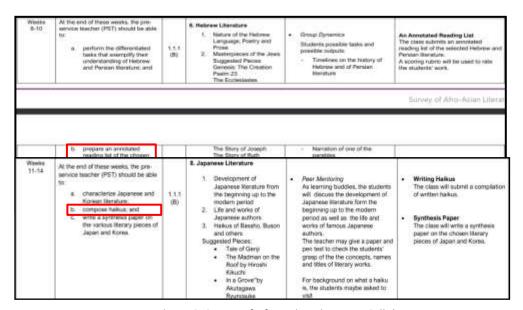


Figure 9: Survey of Afro-Asian Literature Syllabus

The intended learning outcomes for ESL pre-service teachers (PSTs) require them to compile an annotated reading list of literary works, allowing them to select texts aligned with their personal preferences and cultural values. This autonomy fosters a deeper connection to the material and enhances critical thinking and literary appreciation. Activities such as interpreting parables and recounting narratives transform writing from an academic task into a meaningful pursuit. Alzubi and Nazim (2024) found that giving students the autonomy to choose their writing topics boosts intrinsic motivation, improving attitudes and writing skills in EFL learners.

Motivational Self-Talk (MST)

In general, the data reflects that the motivational self-talk strategy was sometimes employed by the ESL pre-service teachers, as evinced by the calculated weighted mean score of 3.22. This supports the role of self-talk in enhancing self-confidence and overcoming challenges in the writing process. Yang et al. (2022) found that self-talk improved students' writing performance by promoting self-monitoring, goal setting, and perseverance. Motivational self-talk thus plays a key role in motivation and self-regulation, crucial for producing high-quality writing (Dimala et al., 2023).

Additionally, students always remind themselves of the importance of earning good grades in writing courses, with a mean score of 3.52. This reflects their academic goal orientation, viewing writing proficiency as essential to overall academic success. Philippakos et al. (2023) highlighted the significance of writing motivation and self-efficacy in academic achievement, showing that students with high writing self-efficacy tend to achieve better writing outcomes. This is corroborated by the following qualitative data from Student Participant 2:

"One of my motivations is to get high grades sa [in] writing. Because for me, mas lalo kapag mga prof [especially professor], given the professor I have, matataas po iyong mga standards nila [they have high standards]. Uhm, gusto is maganda palagi ang mga work na sinasubmit [In submission, they always want the best works]. Of course, to achieve or to have a high grade from them means that work I have passed is of quality and with may mga qualities na hinahanap nila [it has the qualities they look into] ..."

In response to this, Student Participant 1 is in opposition of this external motivation, as it was validated that,

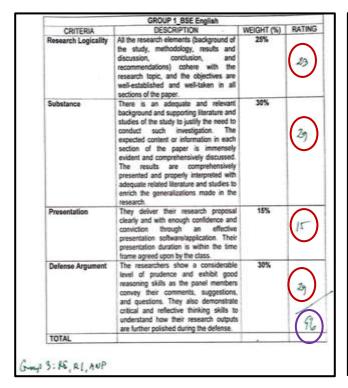
"No! Getting high grades is not one of my objectives in writing. Basta ano lang, maganda iyong ipapasa mo [It's just that, the work should be still good]. That's it. Uhm, you will no longer tell yourself na dapat mataas iyong grades [that your

grades must be high]. Kasi [because] once the quality of your paper is good, susunod naman na iyong grades [the grades will follow]."

Although performance goals can incentivize students to secure high grades and maintain competitiveness, they may occasionally induce anxiety and superficial learning, wherein the emphasis transitions from authentic skill acquisition to merely projecting competence. As this confirms with the interview extract from Teacher Participant 9, responding

"Before writing descriptive feedback for their overall writing quality, I put together with their score or grade. Kasi [because], the rubrics are already given naman na sa kanila [to them already], so, once the scores or grades are given to them, they can assess what they have excelled with and saan naman ang kanilang pwede pang i-improve [what part they need to improve].

This can be illustrated through the following figures, showing different written compositions, such as a research proposal and a lesson plan of the ESL pre-service teachers, particularly taken from Student Participant 1 and Student Participant 8, with the grade, alongside the descriptive feedback of their instructors that corresponds to their respective rubrics:



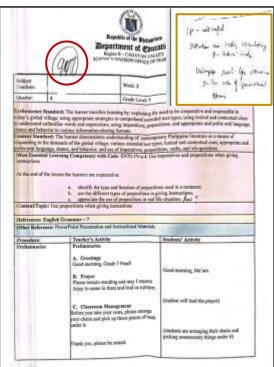


Figure 10. Research Proposal Defense Grading Sheet

Figure 11. Lesson Plan with Remarks

Emotional Control (EC)

Moreover, the data also illustrates that generally, ESL pre-service teachers sometimes apply emotional control strategies, which calculated a weighted mean score of 3.19. It reinforces that the students display a strong ability to manage their emotions during writing activities. They handle stress, remain motivated, and stabilize their mood during challenges, making emotional self-regulation crucial for writing success. This aligns with Hiluf and Alemu (2023), who highlighted emotional regulation's role in navigating negative emotions and fostering a positive disposition towards writing. Huang et al. (2024) noted that the effectiveness of emotional regulation depends on factors like the learning environment, group dynamics, and individual personality traits.

Additionally, the students conveyed that they sometimes use emotional regulation strategies when feeling discouraged during writing, as reflected by the highest mean score of 3.24. This suggests that emotional regulation is a key part of their self-regulatory writing approach, helping them overcome cognitive and emotional challenges in writing tasks. They actively use it to maintain productivity and motivation, especially during difficult moments with low writing momentum. This can be confirmed by the following interview extracts from the student participants:

"Rest is really important. Taking a break is really important. Uhm, gaya nga ng sinasabi nila na [like what they always say], if you're not feeling good, just write. Pero hindi ganun lagi yung case [But that's not always the case]. Especially if you are bombarded with many academic responsibilities. So, you always need to take a break. Because sometimes, taking

rest is the best way for you to, uhm write a better idea, write a better output containing better ideas... because as writing without motivation can be unproductive, of course." (Student Participant 1)

"I sustain my focus and productivity in writing by taking breaks, listen to music po, and clear my mind when stressed to keep my focus. Since handling my emotions well allows me to stay productive" (Student Participant 3)

"...I usually procrastinate, so I address my procrastination by applying the Pomodoro technique where push myself to work for a short period (30 minutes) and take a small break (10 minutes). ...I always recognize my emotional challenges, and my rule to my physical and mental health is that if I am not literally okay, [I] will not do my assignment or activities because I think it will affect the outcome of my works. I listen to my body, if it says break, I rest and continue tomorrow." (Student Participant 10)

"...What I always do before I write is to rest first, freshen my brain, and I also a find a motivation to at least become productive in writing." (Student Participant 6)

This is consistent with the findings of Zhang and Dong (2022), who discovered that strategies for motivational regulation exert a significantly positive influence on college students' writing emotions. Specifically, students who proactively managed their motivation through goal-setting, self-rewarding, and reinforcing the intrinsic value of writing, wherein the heightened levels of enjoyment and satisfaction while engaging in writing tasks were reported.

Artificial Intelligence Integration (AII)

Generally, the data unveils that ESL pre-service teachers sometimes integrate artificial intelligence in the process of their writing, as shown by the gathered weighted mean value of 3.09. This finding ensues the growing role of advanced technologies in various stages of writing, from idea generation to editing. Jin et al. (2025) found that self-regulated students effectively use generative Al tools, enhancing their critical thinking, motivation, and writing quality. This emphasizes the role of self-regulation in optimizing Al's benefits, from idea generation to revision. Wang (2024) also highlighted that while Al tools like ChatGPT and Google Translate improve writing, self-regulation is crucial for achieving the best results. Moreover, instructors and peer collaboration remain essential. However, Mouchel (2023) noted challenges in integrating Al tools for revision, stressing the need for well-designed and efficiently implemented writing assistance systems.

Notably, the indicator of employing Al-driven applications like Grammarly and Quillbot for comprehensive editing was sometimes employed to enhance the quality of their written works, as illustrated by the highest mean score of 3.21. It infers a remarkable dependence of ESL pre-service teachers on artificial intelligence and technology-mediated writing assistance, especially in dimensions such as grammatical rectification, vocabulary augmentation, syntactical reorganization, and whole compositional clarity. This is validated by the following qualitative data from Student Participant 2, disclosing

"I usually seek assistance on AI grammar checkers mas lalo na kapag nagmamadali na [especially if I only have limited time] or nag-rurush ng mga [rushing] outputs... I use Grammarly or minsan [sometimes] Quillbot because they both have the feature to check your grammar. They polishes the overall quality of the work by refining my terminologies and it makes it more precise, improving the structure of my sentence, and it makes the ideas clearer. Uhm, in a short span of time, mas mabilis [it's faster], mabilis iyon na mag-check or mag-improve ng overall quality ng aking work na mas lesser or lesser time compared kung ginagawa ko ng mano-mano. Mas efficient po because we tend to overlook some sometimes."

Student Participant 4 further added, "The AI I always use in enhancing my writing is Grammarly. This AI tool helps me spot errors like misuse of punctuation, misspellings, and grammar, especially when I am in the revising stage. Another is ChatGPT, it helps me generate more ideas I could incorporate in writing lists and suggestions about the topic I prompted. Additionally, I use Quillbot, because usually I always paraphrase the text I searched on internet, nothing more nothing less."

Similarly, Student Participant 5 conveyed, "I use writing tools like Grammarly for grammar checks and Hemingway Editor for readability. Kasi itong [because with] AI, ma'am, madalas kasi ma'am, sila ang takbuhan ko [I often turn to them] to brainstorm ideas and structure outlines when I'm feeling stuck. Sometimes, I'll even use chatbot tools for inspiration or to help me refine my phrasing. Pero ano, ma'am, wala kasi akong tiwala minsan sa mga ganiyan po [However, ma'am, honestly, I don't always trust those kinds of tools]. Kaya una ko pong ginagawa is talagang ako una, ako muna bago ako gumamit ng AI [That's why I always start by doing things on my own first before I use AI]. Pero kapag wala Talaga akong idea sa AI po talaga muna ako lumalapit [But when I really don't have any ideas, that's when I turn to AI]."

In essence, Al-powered tools facilitate a more efficient revision process by providing immediate feedback, allowing students to make real-time improvements and strengthen their self-regulatory writing skills. These tools play a key role in the planning, monitoring, and revising stages, helping learners assess their work from multiple perspectives. According to Lira et al. (2025), students who used Al-assisted writing tools demonstrated notable improvements in their writing performance. The personalized feedback and high-quality writing models offered by these tools help refine students' writing strategies and overall proficiency.

Table 4. Difference in the Self-regulatory Writing Strategies of the ESL Pre-Service Teachers when they are grouped according to their Sex

ltower	Group Means		4 1 -	p-
ltems -	Male .	Female	t-value	valu
Text Processing (TP)				
1. When writing, I use some literary devices to make the composition	3.46	3.43	0.47 ^{ns}	0.64
more interesting.				
2. When writing, I check grammar mistakes.	3.75	3.68	1.16 ^{ns}	0.25
3. When writing, I check spelling and punctuation.	3.70	3.71	-0.18 ^{ns}	0.85
4. When writing, I check the structure for logical coherence.	3.49	3.43	0.74 ^{ns}	0.46
5. When writing, I check the cohesiveness or connection among	3.57	3.53	0.42 ^{ns}	0.67
sentences.				
6. When writing, I check whether the topic and the content have been	3.72	3.63	1.42 ^{ns}	0.16
clearly expressed.				
Course Memory (CM)				
7. I write useful words and expressions taught in writing courses to	3.51	3.37	1.70 ^{ns}	0.09
help me remember them.	3.3 1	3.37	0	0.00
8. I speak out useful words and expressions taught in writing courses to	3.48	3.34	1.89 ^{ns}	0.06
help me remember them.	5.40	3.54	1.03	0.00
9. I read my class notes and the course material over and over again to	3.33	3.31	0.28 ^{ns}	0.78
help me remember them.	3.33	5.51	0.20	0.70
Idea Planning (IP)				
	2.20	2.25	0.70 ^{ns}	0.40
10. Before writing, I read related articles to help me plan.	3.30	3.25		0.4
11. Before writing, I use the internet to search for related information to	3.58	3.50	1.03 ^{ns}	0.3
help me plan.	2.45	2.20	0.0255	0.4
12. Before writing, I think about the core elements of a good	3.45	3.39	0.82 ^{ns}	0.4
composition I have learned to help me plan.				
Goal-Oriented Monitoring and Evaluating (GME)				
13. When learning to write, I set up goals for myself in order to direct	3.39	3.29	1.37 ^{ns}	0.17
my learning activities.				
14. When learning to write, I check my progress to make sure I achieve	3.49	3.34	1.90 ^{ns}	0.06
my goal.				
15. I evaluate my mastery of the knowledge and skills learned in writing	3.32	3.27	0.57 ^{ns}	0.57
courses.				
16. I monitor my learning process in writing courses.	3.22	3.25	-0.45 ^{ns}	0.6
17. When writing, I tell myself to follow my plan.	3.38	3.24	1.74 ^{ns}	0.08
18. When learning to write, I set up a learning goal to improve my	3.48	3.37	1.32 ^{ns}	0.19
writing.				
Peer Learning (PL)				
19. I brainstorm with my peers to help me write.	3.30	3.19	1.18 ^{ns}	0.24
20. I discuss with my peers to have more ideas to write with.	3.41	3.26	1.59 ^{ns}	0.1
21. I work with my peers to complete a writing task.	3.25	3.02	2.42*	0.0
Feedback Handling (FH)				
22. I am open to peer feedback on my writing.	3.67	3.52	1.99*	0.0
23. I am open to teacher feedback on my writing.	3.74	3.70	0.57 ^{ns}	0.5
24. I try to improve my English writing based on peer feedback.	3.62	3.49	1.76 ^{ns}	0.0
25. I try to improve my English writing based on feet reedback.	3.71	3.74	-0.45 ^{ns}	0.6
Interest Enhancement (IE)	J./ I	5.14	0.45	0.0.
	2 F 4	3.36	7 1 //*	0.0
26. I look for ways to bring more fun to the learning of writing.	3.54		2.14*	0.0
27. I choose interesting topics to practice writing.	3.58	3.37	2.71*	0.0

28. I connect the writing task with my real life to intrigue me.	3.55	3.40	1.82 ^{ns}	0.07
29. I try to connect the writing task with my personal interest.	3.61	3.48	1.65 ^{ns}	0.10
Motivational Self-Talk (MST)				
30. I remind myself about how important it is to get good grades in	3.58	3.49	1.22 ^{ns}	0.23
writing courses.				
31. I tell myself that it is important to practice writing to outperform my	2.99	2.54	3.19*	0.01
peers.				
32. I compete with other students and challenge myself to do better	2.54	2.28	2.09*	0.04
than them in writing courses.				
33. I tell myself to practice writing to get good grades.	3.46	3.29	2.09*	0.04
34. I tell myself that I need to keep studying to improve my writing	3.55	3.48	0.93 ^{ns}	0.35
competence.				
35. I persuade myself to work hard in writing courses to improve my	3.49	3.45	0.54 ^{ns}	0.59
writing skills and knowledge.				
36. I persuade myself to keep on learning in writing courses to find out	3.49	3.40	1.21 ^{ns}	0.23
how much I can learn.				
37. I tell myself that I should keep on learning in writing courses to	3.54	3.42	1.49 ^{ns}	0.14
become good at writing.				
Emotional Control (EC)				
38. I tell myself not to worry when taking a writing test or answering	3.25	3.09	1.73 ^{ns}	0.09
questions in writing courses.				
39. I tell myself to keep on writing when I want to give it up.	3.22	3.18	0.42 ^{ns}	0.68
40. I find ways to regulate my mood when I want to give up writing.	3.28	3.22	0.63 ^{ns}	0.53
Artificial Intelligence Integration (AII)				
41. I utilize generative AI (GAI) tools (i.e., ChatGPT-3, ChatGPT-4, Bard	2.71	2.83	-1.36 ^{ns}	0.17
Gemini, Co-pilot) to brainstorm and generate ideas for my topics.		2.40	4.0===	
42. I use generative AI to guide me in organizing my initial thoughts	3.26	3.18	1.07 ^{ns}	0.29
logically using generated prompts.	2.22	2.22	0.4700	0.07
43. I employ Al-driven applications like Grammarly and Quillbot for	3.22	3.20	0.17 ^{ns}	0.87
comprehensive editing to enhance the quality of my written works.	2.20	2.12	1.00ns	0.00
44. I use generative AI to assist in revising my writing pieces.	3.20	3.12	1.08 ^{ns}	0.28
45. I utilize generative AI to evaluate the overall content and readability	3.25	3.06	2.63*	0.01
scores of my written works.				

Legend: *significant

nsnot significant

Table 6 exhibits the underlying difference between the self-regulatory writing strategies of ESL pre-service teachers when they are grouped in terms of their sex.

Peer Learning

In accordance with the peer learning domain, the data reveals that the indicator of ESL pre-service teachers working with their peers to complete a writing task compelled a p-value of 0.02, elucidating a statistically significant difference in the sex of ESL preservice teachers. Since this is lower than the 0.05 level of significance, the null hypothesis is rejected. It posits that male ESL preservice teachers have a higher regulation to peer engagement, actively involving themselves in collaborative discussions, distributing responsibilities equitably, and working synergistically to attain collective writing goals compared to their female counterparts.

The findings presented by Noroozi et al. (2023) are contradictory, as their investigation examined the influence of gender on performance in argumentative essay writing, participation in peer review activities, and the integration of peer feedback among students in higher education. Their results assimilated that female students exhibited greater proficiency in articulating coherent positions within their essays when compared to their male peers. Moreover, during peer review tasks, female participants offered more well-founded rationales for the issues identified, delivered more constructive feedback, and generated superior quality reviews relative to their male counterparts.

Feedback Handling

Additionally, the data unveils that in the domain of feedback handling, specifically the strategy of being open to peer feedback on their writing, gained a p-value of 0.05, indicating a significant difference in the sex of the ESL pre-service teachers. Due to it is equal to the 0.05 level of significance, then the null hypothesis is rejected. This means that male ESL pre-service teachers are more amenable to contemplating and integrating comments and feedback, particularly from their fellow learners, into their writing outputs than female ESL pre-service teachers.

Conversely, Ocampo et al. (2024) posited that their observation of the role of gender in the dynamics of peer feedback among undergraduate students, with a particular emphasis on the characteristics of peer feedback provided by male and female participants, yielded distinct outcomes. They discerned that female students, particularly within collaborative educational environments, contributed a greater volume of peer feedback in comparison to their male counterparts. In addition, these female participants were observed to extend more affirmative validations and constructive improvement suggestions when evaluating writing samples, specifically those categorized as average or subpar.

Interest Enhancement

Furthermore, the result unveils that in the domain of interest enhancement, particularly concerning the indicator of ESL pre-service teachers looking for ways to bring more fun to the learning of writing, obtained a p-value of 0.03, explicating a significant difference in the sex of ESL pre-service teachers. The p-value is clearly lower than the 0.05 level of significance, which is why the null hypothesis is rejected. Thus, this reveals that male ESL pre-service teachers have a stronger disposition to search for ventures to amplify the interactivity, engagement, and enjoyment of learning, especially in writing compared to their female counterparts.

Anggraini (2023) corroborated that male students frequently gravitate towards thrilling and adventurous themes in their writing endeavors, such as the exploration of caves or hunting, whereas female students generally concentrate on more personal and domestic subjects, including daily routines and shopping. This observation explicates a prevalent inclination for male students to pursue more entertaining or amusement-driven content in their writing, in comparison to female students who approach writing with a more serious and introspective perspective.

Moreover, the data analysis further displays that in this specific domain, the indicator of choosing interesting topics to practice writing received a p-value of 0.01, referring to a statistically significant difference based on the ESL pre-service teachers' sex. Hence, it is clearly below the 0.05 level of significance, therefore, the null hypothesis is rejected. This implies that male ESL pre-service teachers tend to be more inclined to select engaging ideas to master their writing skills, unlike female ESL pre-service teachers. On that account, it divulges that male ESL pre-service teachers are more motivated to select topics that genuinely spark their interest, which can further improve their engagement and practice with writing tasks.

In contrast, Almashour and Davies (2023) discovered that female students exhibited a greater propensity to utilize affective strategies during writing tasks than their male counterparts. These strategies, encompassing emotional management, anxiety reduction, and self-motivation encouragement, imply that female students may engage more profoundly with writing tasks, showcasing a preference for topics that facilitate emotional or personal connections. Similarly, Zhao et al. (2024) affirmed that female students were found to surpass male students in critical thinking capabilities and in the application of strategies such as discourse synthesis, evaluation, and planning when selecting and engaging with writing topics.

Motivational Self-Talk

The data further shows that in the domain of motivational self-talk, the indicator that ESL pre-service teachers telling themselves that it is important to practice writing to outperform their peers obtained a p-value of 0.01, implying a statistically significant difference in the sex of the ESL pre-service teachers. Thus, this is less than the 0.05 level of significance, which is why the null hypothesis is rejected. It infers that male ESL pre-service teachers are more likely to orchestrate for themselves that practicing writing is crucial to surpassing their classmates and are more influenced by competitive motivation, while female ESL pre-service teachers exhibit less emphasis on such competitive self-talk. This outcome enunciates that male ESL pre-service teachers are more motivated by competition, utilizing it as a key to propel their effort in writing exercises to surpass their fellow students, as a catalyst to improve their effort and interaction.

Al-Saadi (2020) discerned that female students exhibited superior performance compared to their male counterparts in terms of both writing fluency and the quality of their texts in the English language. This enhanced performance was ascribed to their elevated level of English proficiency, which facilitated improved writing fluency, resulting in a higher text quality.

Besides, the outcome also uncovers that, still in the same domain, the indicator of ESL pre-service teachers competing with other students and challenging themselves to do better than them in writing courses possessed a p-value of 0.04, indicating that there

is a significant difference in the sex of the ESL pre-service teachers. Hence, it is below the 0.05 level of significance, leading to the rejection of the null hypothesis. This signifies that male ESL pre-service teachers display higher alignment on not merely competing with their classmates and peers, however, they also utilize this as an avenue to challenge themselves to do better in their writing subjects and courses, unlike the female ESL pre-service teachers.

Bugler et al. (2015) asserted that male students tend to correlate their academic motivation more significantly with external influences, such as classroom dynamics and competitive settings, rather than with intrinsic motivations. It was observed that males are predominantly performance-oriented, often spurred by the aspiration to excel beyond their peers, thereby reinforcing the hypothesis that male students are inclined to engage in rivalry and self-challenge.

This outcome contrasts with the findings of Raheem et al. (2024), as although female students generally displayed enhanced levels of self-motivation in comparison to male students, this did not culminate in a significant disparity in academic performance between the two demographics. This implies that even if male students exhibit comparatively diminished self-motivation overall, those who actively pursue self-motivation, such as through self-directed practices like writing can still attain academic results that are analogous to those of their female peers. In relation to this, it emphasizes that male students' endeavors to self-motivate, particularly through self-directed practices such as frequent writing, are vital and potentially effective strategies.

Artificial Intelligence Integration

Ultimately, the data analysis presents that in the domain of artificial intelligence, the indicator of utilizing generative AI to evaluate the overall content and readability scores of the students' written works conceded a p-value of 0.01, entailing that there is a significant difference in the sex of ESL pre-service teachers. Hence, this is lower than the 0.05 level of significance, the null hypothesis is rejected. It reveals that male ESL pre-service teachers illustrate a high level of regulating generative AI or AI tools within education to assess the overall quality and readability of their written content, relative to female ESL pre-service teachers.

Similar results were reported by Chen et al. (2025) that male students reported a more frequent utilization of generative AI tools, such as chatbots, across a broader spectrum of academic applications in comparison to female students. Male students displayed a particular inclination towards employing AI for tasks extending beyond mere text generation, likely encompassing the evaluation of quality, coherence, and readability of their own written work. Møgelvang et al. (2024) contested this assertion, indicating that they found no significant gender disparities in the application of generative AI among students in higher education.

Table 5. Difference in the Self-Regulatory Writing Strategies of the ESL Pre-Service Teachers when they are grouped according to their Year Level

Items		Group Means			F- value	p- value
	(a) 1 st Year	(b) 2 nd Year	(c) 3 rd	(d) 4 th Year	_	
			Year			
Text Processing (TP)						
1. When writing, I use some literary devices to	3.40 ^{cd}	3.24 ^{cd}	3.59 ^{ab}	3.58 ^{ab}	5.88*	0.01
make the composition more interesting.						
2. When writing, I check grammar mistakes.	3.65	3.67	3.73	3.77	0.80 ^{ns}	0.50
3. When writing, I check spelling and punctuation.	3.65	3.71	3.78	3.71	0.68 ^{ns}	0.56
4. When writing, I check the structure for logical	3.44	3.27 ^{cd}	3.51 ^b	3.63 ^b	4.02*	0.01
coherence.						
5. When writing, I check the cohesiveness or	3.51	3.45	3.53	3.71	2.40 ^{ns}	0.07
connection among sentences.						
6. When writing, I check whether the topic and the	3.64	3.56	3.65	3.79	2.04 ^{ns}	0.11
content have been clearly expressed.						
Course Memory (CM)						
7. I write useful words and expressions taught in	3.47	3.33	3.45	3.38	0.91 ^{ns}	0.44
writing courses to help me remember them.						
8. I speak out useful words and expressions	3.42	3.27	3.45	3.35	1.25 ^{ns}	0.29
taught in writing courses to help me remember	5	5.2.	55	0.00	0	0.25
them.						
9. I read my class notes and the course material	3.38	3.22	3.37	3.27	1.16 ^{ns}	0.33
over and over again to help me remember them.	5.50	5.22	5.51	5.21	1.10	0.55

Idea Planning (IP)						
10. Before writing, I read related articles to help	3.27	3.18	3.35	3.27	0.77 ^{ns}	0.51
me plan.						
11. Before writing, I use the internet to search for	3.50	3.51	3.61	3.50	0.58 ^{ns}	0.63
related information to help me plan.						
12. Before writing, I think about the core elements	3.42	3.29	3.47	3.44	1.13 ^{ns}	0.34
of a good composition I have learned to help me						
plan.						
Goal-Oriented Monitoring and Evaluating						
(GME)						
13. When learning to write, I set up goals for	3.36	3.25	3.37	3.27	0.67 ^{ns}	0.57
myself in order to direct my learning activities.	3.50	3.23	3.51	5.27	0.07	0.57
14. When learning to write, I check my progress	3.45	3.29	3.51	3.27	2.42 ^{ns}	0.07
to make sure I achieve my goal.	3.43	3.29	3.31	3.21	2.42	0.07
, ,	2.25	2.10	2.41	2.10	2 27ns	0.00
15. I evaluate my mastery of the knowledge and	3.35	3.18	3.41	3.19	2.27 ^{ns}	0.08
skills learned in writing courses.	2.24	2.40	2.22	2.22	0 F F ps	0.65
16. I monitor my learning process in writing	3.24	3.18	3.33	3.23	0.55 ^{ns}	0.65
courses.						
17. When writing, I tell myself to follow my plan.	3.33	3.20	3.35	3.23	1.05 ^{ns}	0.37
18. When learning to write, I set up a learning goal	3.54 ^{bd}	3.24 ^{ac}	3.47 ^b	3.29ª	3.76*	0.01
to improve my writing.						
Peer Learning (PL)						
19. I brainstorm with my peers to help me write.	3.29	3.09	3.18	3.29	1.14 ^{ns}	0.33
20. I discuss with my peers to have more ideas to	3.28	3.24	3.41	3.31	0.68 ^{ns}	0.57
write with.						
21. I work with my peers to complete a writing	3.18 ^b	2.87 ^{acd}	3.14 ^b	3.13 ^b	2.66*	0.05
task.						
Feedback Handling (FH)						
22. I am open to peer feedback on my writing.	3.44 ^c	3.56	3.71a	3.60	2.98*	0.03
23. I am open to teacher feedback on my writing.	3.63	3.76	3.78	3.73	1.48 ^{ns}	0.22
24. I try to improve my English writing based on	3.46	3.51	3.65	3.54	1.38 ^{ns}	0.25
peer feedback.						
25. I try to improve my English writing based on	3.65	3.73	3.82	3.77	1.52 ^{ns}	0.21
teacher feedback.	5.55	55	5.52			0.2
Interest Enhancement (IE)						
26. I look for ways to bring more fun to the	3.51	3.27	3.41	3.42	1.90 ^{ns}	0.13
learning of writing.	3.51	3.21	3.41	J.7L	1.50	0.15
27. I choose interesting topics to practice writing.	3.41	3.44	3.45	3.46	0.09 ^{ns}	0.96
	3.40	3.35	3.43	3.40	1.96 ^{ns}	0.30
28. I connect the writing task with my real life to	3.40	3.33	3.31	3.30	1.90	0.12
intrigue me.	2.40	2.45	2.52	2.62	0 0 4ns	0.42
29. I try to connect the writing task with my	3.49	3.45	3.53	3.63	0.94 ^{ns}	0.42
personal interest.						
Motivational Self-Talk (MST)						
30. I remind myself about how important it is to	3.54	3.56	3.49	3.46	0.46 ^{ns}	0.71
get good grades in writing courses.						
31. I tell myself that it is important to practice	3.00 ^{bcd}	2.62ª	2.31ª	2.58ª	5.58*	0.01
writing to outperform my peers.						
32. I compete with other students and challenge	2.40	2.42	2.12	2.46	1.61 ^{ns}	0.19
myself to do better than them in writing courses.						
33. I tell myself to practice writing to get good	3.45	3.33	3.35	3.17	2.26 ^{ns}	0.08
grades.						
34. I tell myself that I need to keep studying to	3.53	3.40	3.61	3.46	1.48 ^{ns}	0.22
improve my writing competence.						
35. I persuade myself to work hard in writing	3.59 ^{bd}	3.29 ^{ac}	3.53 ^b	3.40a	4.48*	0.01
courses to improve my writing skills and						
knowledge.						
.						

36. I persuade myself to keep on learning in writing courses to find out how much I can learn.	3.44 ^b	3.22 ^{acd}	3.59 ^b	3.48 ^b	4.52*	0.01
37. I tell myself that I should keep on learning in writing courses to become good at writing.	3.51 ^b	3.31 ^{ac}	3.59 ^b	3.40	3.03*	0.03
Emotional Control (EC)						
38. I tell myself not to worry when taking a writing test or answering questions in writing courses.	3.19	2.98	3.27	3.08	2.05 ^{ns}	0.11
39. I tell myself to keep on writing when I want to give it up.	3.32 ^b	3.00 ^{ac}	3.29 ^b	3.10	3.72*	0.01
40. I find ways to regulate my mood when I want to give up writing.	3.31 ^b	3.04 ^{ac}	3.39 ^b	3.21	4.04*	0.01
Artificial Intelligence Integration (AII)						
41. I utilize generative AI (GAI) tools (i.e.,	2.79 ^d	2.67 ^d	2.71 ^d	3.02 ^{abc}	3.15*	0.03
ChatGPT-3, ChatGPT-4, Bard Gemini, Co-pilot) to						
brainstorm and generate ideas for my topics.						
42. I use generative AI to guide me in organizing	3.23	3.13	3.22	3.23	0.52 ^{ns}	0.67
my initial thoughts logically using generated						
prompts.	2.24	2.07	2.24	2.22	2.2705	0.07
43. I employ AI-driven applications like	3.21	3.07	3.24	3.33	2.37 ^{ns}	0.07
Grammarly and Quillbot for comprehensive						
editing to enhance the quality of my written works.						
44. I use generative AI to assist in revising my	3.14	3.09	3.16	3.21	0.47 ^{ns}	0.70
writing pieces.	5.14	3.09	3.10	3.21	0.47	0.70
45. I utilize generative AI to evaluate the overall	3.13	3.00	3.12	3.23	1.89 ^{ns}	0.13
content and readability scores of my written works.						
WUINS.						

Legend: Post Hoc a = first-year, b = second-year, c = third-year, d = fourth-year *significant *nsnot significant

The table exhibits the difference between the self-regulated writing strategies of ESL pre-service teachers when they are grouped according to their year levels, such as first-year, second-year, third-year, and fourth-year.

Text Processing

The data in the table above discloses that in terms of the text processing domain, the indicator of utilizing some literary devices to make the composition more interesting when the students are writing garnered a p-value of 0.01, delineating that there is a significant difference on when it comes to the year level of ESL pre-service teachers. Due to the lower accumulated p-value than the 0.05 level of significance, the null hypothesis is then rejected. This further implies that third-year ESL pre-service teachers tend to utilize more literary devices in crafting their written compositions so that they can be engaging, compared to first-year, second-year, and fourth-year ESL pre-service teachers. Dela Torre-Diaz et al. (2025) conducted an investigation into the literary genre preferences exhibited by fourth-year Bachelor of Secondary Education students specializing in English. Pre-service educators placed significant importance on the incorporation of literature within language pedagogy. They acknowledged that literature facilitates meaningful language acquisition, fosters critical analytical skills, and contributes to individual development.

In addition, the data further shows that the indicator about checking the structure for logical coherence when they are writing gained a p-value of 0.01, inferring that there is a significant difference in the year levels of ESL pre-service teachers. Due to that, this is lesser than the 0.05 level of significance, therefore the null hypothesis is rejected. It means that fourth-year ESL pre-service teachers are more likely to examine and scrutinize the structure and rational consistency of their writing compared to second-year and third-year ESL pre-service teachers' counterparts. Kwan and Yunus (2014) affirmed that even among terminal-year ESL pre-service educators, errors in cohesion, particularly regarding lexical cohesion and referential coherence, which persist as prevalent issues. Despite their advanced academic standing, these individuals continue to grapple with the clear articulation of ideas and the maintenance of coherence throughout their written work.

Nabhan (2019) further posited that behavioral strategies, such as establishing writing objectives, planning drafts, monitoring progress, and revising based on evaluative feedback, are significantly correlated with improved writing outcomes. As students

advance academically, there is a tendency for them to cultivate stronger self-regulation abilities, resulting in more intentional efforts to ensure that their writing is logically organized and coherent.

Goal-Oriented Monitoring and Evaluating

Furthermore, the data presented also reveals that in the specificities of goal-oriented monitoring and evaluating domain, the indicator of the ESL pre-service teachers setting up a learning goal to improve their writing in the course of their learning to write obtained a p-value of 0.01, postulating that there is found a statistically significant difference on the year levels of the ESL preservice teachers. This indicates that first-year ESL pre-service teachers have a heightened inclination toward regulation, such as establishing a goal to enhance their writing, especially in the development of their writing skills than those who are second-year, third-year, and fourth-year ESL pre-service teachers.

Mante-Estacio and Ugalingan (2018) corroborated the experiences of junior English education students engaged in the formulation of an action research proposal. Initially, students articulated feelings of apprehension and self-doubt, particularly during the formative stages of delineating their research focus and designing methodologies. As the process unfolded, sentiments of frustration emerged, particularly in response to the complexities of tasks and dynamics within group settings. This stands in contrast to the findings of Abadikhah et al. (2018), which suggest that self-regulatory behaviors may not diminish but rather strengthen as students progress through their academic trajectories. It underscores how advanced students, having experienced greater exposure to academic exigencies and educational experiences, evolve into more strategic and intentional regulators of their learning processes.

Peer Learning

The data further discloses that in the peer learning domain, the indicator of working with their peers to complete a writing task earned a p-value of 0.05, asserting a significant difference in the year levels of ESL pre-service teachers. Since it is equal to the 0.05 level of significance, the null hypothesis is rejected. It signifies that first-year ESL pre-service teachers are more inclined to collaborate with peers compared to those in higher year levels. As they are still adjusting to academic demands, they tend to rely more on peer support for writing tasks. Such collaboration fosters idea sharing, clarification of doubts, and constructive feedback, which cultivates a sense of community, enhances writing development, and builds confidence within a supportive learning environment.

Gonzales and Dinagsao (2021) conducted an investigation into the collaborative competencies exhibited by first-year pre-service educators across diverse disciplines, inclusive of English as a Second Language (ESL). Their research findings underscored that first-year students exhibited a pronounced propensity to cultivate vital collaborative skills, including sensitivity to the perspectives of others and the promotion of a constructive working atmosphere. Torres and Robles (2020) concentrated on the application of peer correction strategies by Filipino ESL educators within writing instruction. The research discovered that ESL educators in the Philippines maintained affirmative attitudes toward peer correction and regularly incorporated it into their pedagogical practices. Peer correction is esteemed and implemented within the context of ESL instruction in the Philippines.

Feedback Handling

Additionally, the table encapsulates an analysis indicating that in the domain of feedback handling, the indicator regarding ESL pre-service teachers' openness to peer feedback yielded a p-value of 0.03, signifying a statistically significant difference across year levels. Since this p-value is below the 0.05 threshold, the null hypothesis is rejected. This result suggests that third-year ESL pre-service teachers are more receptive to peer comments on their writing than first-year students. Their greater openness is likely due to accumulated experience with peer review, improved writing skills, and a stronger sense of professionalism. At this stage, they are generally more confident in both giving and receiving feedback, which fosters a higher tolerance for constructive criticism. In contrast, first-year students, still adjusting to academic expectations, may find accepting feedback more difficult.

On the other side, Weng et al. (2024) posited that while peer feedback facilitated students in both appreciating and evaluating feedback more proficiently, it exerted a limited influence on their capacity to employ such feedback to enhance their writing or to cope with the emotional responses associated with receiving it. The proficiency in effectively harnessing that feedback may still present challenges, even for students possessing greater academic experience.

Motivational Self-Talk

Moreover, the data also reveals that in the particulars of the motivational self-talk domain, the indicator of telling themselves that it is important to practice writing to outperform their peers gathered a p-value of 0.01, infusing a statistically significant difference on the year levels of the ESL pre-service teachers. In this regard, it is lower than the 0.05 level of significance, therefore, the null hypothesis is rejected. This implies that first-year ESL pre-service teachers are more inclined to motivate themselves through competitive self-talk compared to those in higher year levels. It reflects their stronger emphasis on outperforming peers, driven

by a desire to prove themselves and excel in a new academic environment. At this stage, students are likely influenced by self-efficacy pressures and the tendency to measure their abilities against others.

These findings align with Cabugsa (2022), who noted that first-year students generally display higher levels of autonomy in language learning compared to their senior counterparts. This autonomy reflects a greater readiness to engage in self-directed practices like writing, underpinned by intrinsic motivation and ownership of learning. Conversely, Dzormeku et al. (2024) argued that elevated self-efficacy may stem from the ambition to demonstrate competence early in academic life, particularly in disciplines emphasizing practical skills such as writing. As students gain confidence over time, they develop a deeper appreciation for the value of consistent writing practice, which informs their strategies for achieving writing proficiency.

Subsequently, the table further presents within the same domain, that persuading themselves to work hard in writing courses to improve their writing skills and knowledge attained a p-value of 0.01, which elaborates that there is a significant difference in the year levels of ESL pre-service teachers. Hence, it is less than the value of the 0.05 level of significance, thus, the null hypothesis is rejected. It suggests that first-year ESL pre-service teachers demonstrate a higher disposition to encourage themselves to thrive and put extra effort into writing courses to enhance their knowledge and skills when it comes to writing, than those who are in second-year, third-year, and fourth-year levels. The finding indicates that this higher self-persuasion in first-year students is likely due to their initial enthusiasm, active engagement, and a strong sense of purpose in their academic journey, viewing writing courses as essential for their future success in English language specialization.

Ahiskali et al. (2022) conducted an in-depth study on the challenges encountered by third-year pre-service teachers in Turkey's Turkish Language Teaching program, as well as the strategies they adopted to address these difficulties. The study found that the most significant writing challenges occurred at the process level, followed by difficulties at the control and resource levels. These findings imply that as students advance through their academic programs, the complexity of their writing-related challenges tends to increase, thereby requiring a broader and more adaptive set of coping strategies.

Likewise, in the same domain, the result reveals that the indicator of ESL pre-service teachers persuading themselves to keep on learning in writing courses to find out how much they can learn obtained a p-value of 0.01, inferring a statistically significant difference in the year levels of the students. Due to that, it is lower than the 0.05 level of significance, the null hypothesis is rejected. It posits that third-year ESL pre-service teachers are more likely to have a higher inclination to urge themselves to have continuous learning in writing subjects and courses to discover how much they can improve, compared to those of first-year, second-year, and fourth-year ESL pre-service teachers.

Rocha-Erkaya and Ergünay (2022) examined the perspectives of freshman and sophomore students within an English Language Teaching (ELT) Department and subsequently confirmed that the students' anticipated needs predominantly revolved around two main categories: instructional/practical development and attitudinal/behavioral development. They articulated a pronounced necessity for enhanced practical teaching experiences, including hands-on training and authentic classroom exposure, to augment their instructional competencies.

Finally, the data further illustrates that in the same domain, the indicator of telling themselves that they should keep on learning in writing courses to become good at writing calculated a p-value of 0.03. On this note, this is below the threshold of 0.05 level of significance, leading to the rejection of the null hypothesis. This connotes that there is a significant difference in the year levels of ESL pre-service teachers. Therefore, it alludes that third-year ESL pre-service teachers show a higher level of awareness of the need to continually improve their writing skills compared to their first- and second-year counterparts. This suggests a heightened sense of urgency and responsibility among third-year students as they near the completion of their academic training.

Güneş (2023) disclosed that third-year pre-service teachers exhibited more sophisticated self-regulated learning skills in comparison to their counterparts in other academic years. Moreover, it was determined that third-year students demonstrated greater motivation to engage in self-directed learning, which consequently contributed to their elevated levels of academic performance and a more proactive stance toward the enhancement of their writing skills. This motivation was primarily fueled by their increasing awareness of the significance of writing proficiency in their prospective teaching careers.

Emotional Control

Aside from the aforementioned results, it was also presented that in the specificities of the emotional control domain, the ESL preservice teachers telling themselves to keep on writing when they want to give it up gathered a p-value of 0.01. Hence, it is less than the 0.05 level of significance, then the null hypothesis is rejected. This implies that there is a statistically significant difference in the year levels of ESL pre-service teachers. Thus, it reflects that first-year ESL pre-service teachers display a stronger disposition to incessantly motivate themselves to keep on track in writing, specifically when they feel like giving up, compared to those who

are in their second-year and third years. This finding points out that first-year pre-service teachers are more likely to persist, driven by their initial enthusiasm, idealism, and determination during the early stages of their academic journey. In contrast, second- and third-year students showed lower levels of emotional control and endurance in writing tasks.

However, Damar (2018) challenged this interpretation, arguing that pre-service teachers are deeply influenced by their past learning experiences, which shape their current motivations—particularly in writing. His study also emphasized the concept of "social utility value," referring to how pre-service teachers view the societal significance of their future profession. Similarly, Ahmed and Anwar (2021) highlighted that both intrinsic and extrinsic motivations play crucial roles in sustaining ESL teachers' persistence and dedication to tasks such as writing.

In addition to this, the data also presents that in this particular domain, the indicator of finding ways to regulate their mood when they want to give up writing yielded a p-value of 0.01. Thus, it is lower than the 0.05 level of significance threshold, therefore, the null hypothesis is rejected. It implicates that there is a significant difference in the year levels of ESL pre-service teachers. Thereby, this suggests that third-year ESL pre-service teachers display a stronger inclination to search for essential strategies to manage their emotions when they feel like quitting on writing, as compared to first-year and second-year ESL pre-service teachers. The result poses that third-year students likely possess greater autonomy and confidence developed over time, which contributes to more effective emotional regulation in demanding academic tasks.

Heng et al. (2024) found that EFL students used both antecedent-focused and response-focused strategies to cope with negative emotions, with a preference for response-focused methods. Emotional regulation was influenced by individual factors, such as personality and past experiences, as well as contextual elements like support systems. Similarly, Funa et al. (2024) examined the self-regulated learning skills of Filipino pre-service teachers during the COVID-19 pandemic. While these students generally exhibited strong self-regulation, especially in environmental structuring and goal-setting, they were less proficient in task management and seeking help.

Artificial Intelligence Integration

Moreover, the given data further elucidates that in the domain of emotional control, the indicator that the students utilize generative AI (GAI) tools (i.e., ChatGPT-3, ChatGPT-4, Bard Gemini, Co-pilot) to brainstorm and generate ideas for their topics acquired a p-value of 0.03. Due to that, it is less than the 0.05 level of significance. Thus, the null hypothesis is rejected. Herein, this insinuates that there is a statistically significant difference across the year levels of ESL pre-service teachers. It then accentuates that the fourth-year ESL pre-service teachers are more likely to integrate generative AI (GAI) tools to conceptualize and develop ideas for their topics in their writing processes, compared to their first-year, second-year, and third-year counterparts. This outcome highlights that the increased exposure and experience of fourth-year students enable them to handle more complex writing tasks, fostering the use of innovative tools like GAI. This demonstrates their growing proficiency and readiness to navigate the evolving demands of modern education.

This empirical observation is substantiated by the findings of Nyaaba et al. (2024), which examined the utilization of generative Al tools by Ghanaian pre-service teachers in their roles as learning enhancers and pedagogical supports, indicating a notable correlation between academic advancement and the frequency of engagement with GAI tools. In particular, the investigation disclosed that students who are older and further along in their teacher education trajectories were more inclined to integrate generative AI tools into their academic endeavors in comparison to their counterparts who are in the initial stages of their training.

5. Conclusion

Despite employing methodological triangulation through surveys, interviews, and document analysis to further validate the respondents' responses, the study faced several limitations. The limited number of participants in the qualitative phase may have restricted the depth and diversity of insights, particularly in underexplored domains such as peer learning and Al integration. Additionally, reliance on self-reported data introduced the risk of social desirability bias, potentially overstating the reported frequency of use of self-regulatory strategies. The descriptive design also limited the ability to capture changes in writing practices over time or in response to specific instructional interventions. These limitations should be considered when interpreting the findings and improving ESL writing pedagogy.

Given these constraints, future research might include a larger and more diverse sample for qualitative data collection to explore underutilized strategies better, and might consider another locale. Longitudinal studies are recommended to examine how self-regulatory writing strategies develop over time. Researchers may also investigate additional contextual factors that can influence strategy use, like access to technology, academic support, and prior writing experience. In terms of practical application, teacher education programs should integrate targeted training on peer collaboration and responsible AI use in writing. Moreover,

exploring students' perceptions of and responses to feedback from peers and AI tools may offer further directions for enhancing writing instruction.

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