Metacognitive Writing Strategies and Writing Apprehension as Predictors of Task-based Learning of Grade 12 Senior High School Students

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ABSTRACT

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| Learners often struggle with task-based learning due to unclear tasks and misalignment with their cognitive abilities. This study examines the significance of **metacognitive writing strategies** and **writing apprehension** as predictors of task-based learning. Utilizing a **descriptive-correlational design, the researcher gathered data from 115 respondents, who were** selected through **quota sampling.** Results from the **multiple linear regression analysis** revealed that both variables were significant predictors of task-based learning, collectively accounting for **31.20%** of the variance. These findings provided empirical support for the **Information Processing Theory.** The remaining **68.80%** of unexplained variance suggests the potential influence of other factors not included in the study. Future research may consider **qualitative approaches** to explore emerging themes and sub-themes. Additionally, educational institutions are encouraged to develop and implement task-based learning programs that align with the goals of **Sustainable Development Goal (SDG) 4.**  **Aims:** This study determined the significance of metacognitive writing strategies and writing apprehension as predictors of task-based learning. Guided by Information Processing Theory, the research sought to determine the levels of metacognitive writing strategies, writing apprehension, and task-based learning, determine the significance of the correlation between metacognitive writing strategies and writing apprehension, and task-based learning, and determine the significance of the degree of influence of metacognitive writing strategies and writing apprehension on task-based learning.  **Study design:** A quantitative descriptive-correlational design was employed.  **Place and Duration of Study:** The study was conducted in the municipality of Lupon, province of Davao Oriental, specifically in a private Diocesan Catholic school, from March to April of School Year 2024 – 2025.  **Methodology:** Included in the study were 115 respondents selected through quota sampling. A survey questionnaire, adapted and modified, validated by language experts, was utilized to gather quantitative data. Overall, the questionnaire contained 45 survey items, in which each variable, namely, metacognitive writing strategies, writing apprehension, and task-based learning, contains 15 items. The resulting Cronbach’s Alpha coefficient of 0.931 indicated excellent reliability. The magnitude of the correlation between metacognitive writing strategies and task-based learning and writing apprehension and task-based learning will be given further emphasis with the utilization of Pearson Product Moment Correlation Coefficient. Further, it was made possible to identify which among the indicators of the independent variables (metacognitive writing strategies and writing apprehension) significantly predict task-based learning by means of Multiple Linear Regression.  **Results:** Descriptive analysis results show that the variable **metacognitive writing strategies** obtained an overall mean of **4.25**, described as very high, which indicated that the respondents demonstrated excellent use of metacognitive writing strategies The variable, **writing apprehension** obtained an overall mean of **4.11**, described as high*.* This suggested that the respondents experienced a significant level of writing apprehension. The final variable, **task-based learning** yielded an overall mean of **4.29,** described as very high*.* This denoted that the respondents exhibited excellent engagement in task-based learning activities. The correlation analysis results illustrated the relationship between **metacognitive writing strategies** and **task-based learning**. The obtained p-value of **.000** was less than the 0.05 level of significance; therefore, the null hypothesis was rejected. This indicated that the correlation between the two variables was statistically significant. Furthermore, the r-value of **.546** revealed a moderately highstrength of correlation. The variable **metacognitive writing strategies** obtained an unstandardized beta coefficient of **.316,** indicating that it had a **31.6%** degree of influence on **task-based learning.** With a p-value of .000, which was less than the 0.05 level of significance, the null hypothesis was rejected. This confirmed that a significant relationship existed between metacognitive writing strategies and task-based learning.  **Conclusion:** Metacognitive writing strategies and writing apprehension are significant predictors of task-based learning among Grade 12 Senior High School students, with a 31.20% combined degree of influence of the predictors on the criterion variable. This conclusion affirms the Information Processing Theory. |

*Keywords: Metacognitive Writing Strategies, Writing Apprehension, Predictors of Task-based Learning, Grade 12 Senior High School Students*

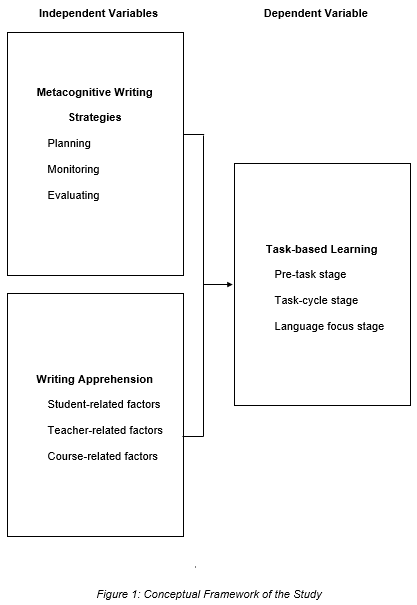
1. INTRODUCTION

Despite the promise of 21st-century learning, task-based learning (TBL) poses challenges due to ambiguous task structures and misalignment with learners’ cognitive abilities, reducing engagement and effectiveness, especially amid increasing demands for communicative proficiency and implementation issues (Abdallah & Mansour, 2015). Additionally, Iveson (2015) discusses challenges in online and blended learning contexts, emphasizing the need for a comprehensive reassessment of TBL frameworks to address technology-related challenges. Similarly, Butarbutar (2021) highlights difficulties in technology-mediated TBL, including challenges in understanding task instructions, lack of direct feedback, and issues related to digital literacy and assessment.

With an academic traverse in the global context, a 2016 study by Nguyen in Hanoi, Vietnam, highlighted persistent concerns in task-based learning, including task difficulty, cognitive suitability, vocabulary demands, and limited focus on form, which hindered learners’ linguistic development and reduced opportunities for immediate corrective feedback during tasks. Also, a study by Helaludin et al. (2024) in Banten, Indonesia, examined task-based teaching as an independent variable affecting writing ability and metacognitive awareness.

In the Philippines, a 2023 study by Eslit in Iligan City emphasized concerns in task-based learning, including insufficient teacher training, lack of authentic materials, misalignment with curricular goals, and challenges in standardizing tasks and integrating technology to achieve transformative instructional outcomes. Additionally, a 2022 study by Berame in Davao City highlighted challenges in task-based learning, including unstable internet access, limited learning resources, environmental constraints, and reduced hands-on engagement due to insufficient technology, revealing notable gaps needing exploration to advance related research.

Poor task-based learning significantly impeded the development of essential learning skills among students. When tasks failed to challenge learners appropriately or lacked meaningful context, students struggled to develop critical thinking, creativity, and independent problem-solving abilities (Vyatkina, 2020). Hopp (2021) further emphasized that poorly designed tasks limited opportunities for collaboration and communication, which were crucial for cultivating interpersonal and teamwork skills. Similarly, Yen (2016) noted that such consequences led to students becoming overly reliant on teacher guidance, lacking the autonomy and self-regulation needed for lifelong learning. This ultimately diminished their ability to transfer knowledge across contexts and adapt effectively in both academic and real-world settings. Given these implications, it was necessary to examine the factors that influence task-based learning to address existing gaps and develop more effective, learner-centered instructional approaches.



2. methodology

**2.1 Research Design**

With the intent to collect and analyze numerical data to identify patterns and relationships, this study utilized a descriptive-correlational design. As the study endeavored to peek through on more than one independent variable as predictors of the dependent variable, the multiple linear regression analysis has been eyed appropriate since the value of the dependent variable, task-based learning, is predicted based on the predictors, metacognitive writing strategies and writing apprehension. As stated by Thompson (2024), non-experimental studies are purely observational, and the results are intended to be purely descriptive.

**2.2 Sample and Sampling Technique**

As the sole source of generated data needed for the research study, the sample comprised 115 Grade 12 Senior High School Students officially enrolled for the School Year 2024-2025. With the acquired sample, Taherdoost (2016) mentions that formulating inferences about the population and making generalizations in relation to the existing theory can be exercised. The aforementioned sample was generated by means of the Raosoft Sample Size Calculator to ensure gaining a sufficient number of research respondents for the study. The mentioned sample size positively conforms to the statement of Hair et al. (2018) that in general research situations, a sample size of 100 is acceptable. Further, Bullen (2022) strengthens the statement by reiterating that the minimum sample size to get any kind of meaningful result is 100.

In terms of respondent selection, quota sampling was identified as a preferable sampling technique. Sitting in almost similar seats with stratified sampling, with which both select a sample from a population that has been divided into subgroups, it distinctively uses a convenience method within each subgroup (Iliyasu & Etikan, 2021). In this study, three subgroups were identified according to the academic strands namely Accountancy, Business, and Management (ABM), Humanities and Social Sciences (HUMSS), and Science, Technology, Engineering, and Mathematics (STEM), which have 22, 49, and 91 students respectively. The conduct of quota sampling began by identifying the total population, summing the number of students in all subgroups based on academic strand, yielding 162 students. Following this, the proportion of each subgroup relative to the total population is calculated: 13.6% for ABM, 30.2% for HUMSS, and 56.2% for STEM. These proportions were then applied to the calculated sample size of 115 to determine the quota for each group, resulting in 16 students from ABM, 35 from HUMSS, and 64 from STEM. Finally, within each subgroup, respondents were selected non-randomly, particularly convenience method, until the assigned quota was met, ensuring that the final sample maintained the subgroup proportion present in the overall population.

**2.3 Research Instrument**

A survey questionnaire, adapted and modified, validated by language experts, was primarily utilized to gather quantitative data on the metacognitive writing strategies, writing apprehension, and task-based learning of Grade 12 Senior High School students.

**2.3.1 Metacognitive Writing Strategies**

The first part of the adapted and modified questionnaire laid choices to gather responses with regard to the first variable, which consists of three indicators namely planning, monitoring, and evaluating (Diaz, 2013). This was been adapted and modified based on the tool of Farahian (2018) entitled, *“Metacognitive awareness of skilled and less-skilled EFL writers.”* This part has a total of 15 items laying five for each mentioned indicator. Consequently, a five-point Likert scale response option was used in rating the statements arranged under each indicator in this portion.

|  |  |  |
| --- | --- | --- |
| **Range of Mean** | **Description** | **Interpretation** |
| 4.20 – 5.00 | Very High | The metacognitive writing strategies was excellent. |
| 3.40 – 4.19 | High | The metacognitive writing strategies was very good. |
| 2.60 – 3.39 | Moderate | The metacognitive writing strategies was good. |
| 1.80 – 2.59 | Low level | The metacognitive writing strategies was poor. |
| 1.00– 1.79 | Very Low level | The metacognitive writing strategies was very poor. |

**2.3.2 Writing Apprehension**

The second part of the adapted and modified questionnaire laid choices to gather responses with regard to the second variable which consists of three indicators, namely student-related factors, teacher-related factors, and course-related factors. This was adapted and modified based on the tool from the study, *“Factors causing writing apprehension among English-majored students”* by Nguyen et al. (2023). This part of the questionnaire was made up of 15 items with which five were allotted to each indicator. Accordingly, a five-point Likert scale response option was used in rating the statements arranged under each indicator in this portion.

|  |  |  |
| --- | --- | --- |
| **Range of Mean** | **Description** | **Interpretation** |
| 4.20 – 5.00 | Very High | The writing apprehension was extremely strong. |
| 3.40 – 4.19 | High | The writing apprehension was very strong. |
| 2.60 – 3.39 | Moderate | The writing apprehension was strong. |
| 1.80 – 2.59 | Low level | The writing apprehension was weak. |
| 1.00 – 1.79 | Very Low level | The writing apprehension was very weak. |

**2.3.3 Task-based Learning**

The third and final part of the adapted and modified questionnaire laid choices to gather responses with regard to the third variable, which consists of three indicators, namely the pre-task stage, task-cycle stage, and language focus stage (Willis & Willis, 1996)*.* Adapted and modified from the tool of Zahra (2024) entitled, *“Implementing Task-based Approach in ESP Education: Business Schools as a Case Study,”* statements with regard to the indicators were placed under which and were responded in similar ways to the preceded part.

|  |  |  |
| --- | --- | --- |
| **Range of Mean** | **Description** | **Interpretation** |
| 4.20 – 5.00 | Very High | The task-based learning was excellent. |
| 3.40 – 4.19 | High | The task-based learning was very good. |
| 2.60 – 3.39 | Moderate | The task-based learning was good. |
| 1.80 – 2.59 | Low Level | The task-based learning was poor. |
| 1.00 – 1.79 | Very Low Level | The task-based learning was very poor. |

**2.4 Data Gathering Procedure**

The researcher was guided accordingly by this process throughout the conduct of the study. Following the successful defense of the research proposal, the adapted and modified questionnaire was validated by three language experts. After validation, a pilot test was conducted with 30 respondents to assess the reliability of the instrument. The resulting Cronbach’s Alpha coefficient of 0.931 indicated excellent reliability.

Subsequently, the researcher secured informed consent from the respondents and obtained a Certificate of Compliance from the Society for Moral Integrity and Legal Ethics (SMILE) of the Holy Cross of Davao College Graduate School. With the endorsement letter from the Dean of the Graduate School, the request was forwarded to the School Directress/Principal of the institution where the respondents were based.

Prior to the distribution of the survey questionnaires, the researcher obtained permission from the respondents through an Informed Consent Form and from their parents or guardians through an Assent Form. The data collection process commenced with a brief but comprehensive orientation to ensure clear and transparent communication with the respondents. Ample time was provided for them to complete the questionnaires.

Upon the conclusion of data gathering, the responses were securely stored. The collected data were then tabulated, statistically treated, interpreted, and appropriately analyzed.

**2.5 Data Analysis**

In carrying out the analysis of the gathered data, the researcher resorted to the utilization of the following statistical tools:

**2.5.1 Mean**

As identified by Dudovskiy (2018), this tool is the sum of a given set of data divided by the number of data which can clearly serve as an effective tool when the researchers intend to compare varying sets of information. This shall be used to answer the first three research problems. Delving into the specifics, the utilization of this statistical tool will pave the way for the description of the level of metacognitive writing strategies, writing apprehension, and task-based learning of Grade 12 Senior High School students.

**2.5.2 Pearson Product Moment Correlation Coefficient**

This statistical tool measures the strength of a linear association between two variables denoted by *r*(Chee, 2015). Thus, the magnitude of the correlation between metacognitive writing strategies and task-based learning and writing apprehension and task-based learning will be given further emphasis with its utilization. For a more vivid understanding, Bartz (1999) provided a scheme for interpreting the correlation coefficient. The categorical descriptions for the interpretation follow as stated:

|  |  |
| --- | --- |
| **Computed r** | **Descriptive Interpretation** |
| +/- 1.00 | Perfect Correlation |
| Between +/-0.75 - +/-0.99 | High Correlation |
| Between +/-0.51 - +/-0.74 | Moderately High Correlation |
| Between +/-0.31 - +/-0.50 | Moderately Low Correlation |
| Between +/-0.01 - +/-0.30 | Low Correlation |
| 0.00 | No Correlation |

**2.5.3 Multiple Linear Regression**

According to Hayes (2021), this particular statistical tool makes use of several explanatory variables for the purpose of predicting the outcome of a given response variable. With this, it shall be made possible to identify which among the indicators of the independent variables (metacognitive writing strategies and writing apprehension) significantly predict task-based learning.

3. results and discussion

**3.1 Descriptive Analysis**

Table 1 is the descriptive table.It contained the variables of the study, namely metacognitive writing strategies, writing apprehension, and task-based learning. Further enclosed in the table are the indicators, mean, standard deviation, and the corresponding description.

**Table 1. Descriptive Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Mean** | **SD** | **Description** |
| **Metacognitive Writing Strategies** | **4.25** | **0.352** | **Very High** |
| Planning | 4.16 | 0.469 | High |
| Monitoring | 4.26 | 0.483 | Very High |
| Evaluating | 4.24 | 0.408 | Very High |
| **Writing Apprehension** | **4.11** | **0.386** | **High** |
| Student-Related Factors | 4.19 | 0.519 | High |
| Teacher-Related Factors | 4.08 | 0.508 | High |
| Course-Related Factors | 4.06 | 0.521 | High |
| **Task-Based Learning** | **4.29** | **0.299** | **Very High** |
| Pre-task Stage | 4.29 | 0.377 | Very High |
| Task Cycle Stage | 4.33 | 0.393 | Very High |
| Language Focus Stage | 4.26 | 0.423 | Very High |

Specifically, the table showed that the variable **metacognitive writing strategies** obtained an overall mean of **4.25,** which was described as very high*.* This indicated that the respondents demonstrated excellent use of metacognitive writing strategies. Among its three indicators, two were classified as very high*,* while one was classified as high*.*

With regard to the next variable, **writing apprehension** obtained an overall mean of **4.11,** described as high*.* This suggested that the respondents experienced a significant level of writing apprehension. All three indicators of this variable were consistently rated ashigh*.*

As for the final variable, **task-based learning** yielded an overall mean of **4.29,** which was likewise described as very high*.* This denoted that the respondents exhibited excellent engagement in task-based learning activities. Furthermore, all three indicators under this variable were consistently rated at a very highlevel.

Overall, the findings revealed that the respondents demonstrated excellent levels of metacognitive writing strategies and task-based learning. However, writing apprehension remained a concern, as it was notably strong among the participants.

**3.1.1 Metacognitive Writing Strategies**

The findings of this study indicate that Grade 12 Senior High School students demonstrate a very high level of metacognitive writing strategies, reflecting a strong capacity for self-regulated learning. This aligns with the findings of Henry and Austin (2021), who argue that modern learners are increasingly active in managing their own educational experiences—adopting and applying strategies that enhance learning outcomes across diverse contexts. Similarly, Mamon et al. (2020) report that the use of metacognitive strategies among pre-college students has grown in response to the rising academic demand for research-oriented tasks, especially in the stages of planning and evaluation. Villaruz and Palma (2024) further support these conclusions, emphasizing that metacognitive writing strategies, when integrated with oral proficiency and structured instruction, substantially contribute to students’ academic writing performance.

Nevertheless, the current findings stand in contrast to those of several earlier studies. Masyithoh and Suhartoyo (2021), for instance, report low levels of metacognitive strategy use among students, suggesting insufficient awareness and regulation in writing processes. In a similar vein, Gioia et al. (2023) highlight that despite the accessibility of digital resources, learners often struggle with cognitive and metacognitive skills, which undermines their ability to apply these strategies effectively in authentic writing tasks. Additionally, Hacermida and Aboy (2021) reveal that even when metacognitive strategies are employed, writing competence may remain limited due to gaps in deeper comprehension or instructional support. These contrasting perspectives highlight the variability in students’ metacognitive engagement and suggest that contextual factors such as instructional quality, access to resources, and student motivation may influence the effectiveness of strategy use.

**3.1.2 Writing Apprehension**

The findings of this study reveal a notably high level of writing apprehension among Grade 12 Senior High School students, suggesting that many learners experience significant anxiety when engaging in writing tasks. This supports Alfaifi’s (2022) assertion that students often feel apprehensive during the writing process, particularly when required to comprehend complex information, set clear goals, and adjust strategies—all essential elements of effective writing. Similarly, Combong and Napil (2022) report that fear of evaluation and self-assessment frequently contributes to students' discomfort and hesitation in written expression. Siddiqui et al. (2022) further emphasize that difficulties in emotional regulation and self-perception are critical barriers that exacerbate writing apprehension among learners.

However, recent studies present contrasting perspectives that suggest a decline in writing apprehension under certain instructional and technological conditions. For instance, Amarillo and Bagamano (2024) observe generally lower levels of writing apprehension among students, which they attribute to the growing influence of digital communication tools and interactive, student-centered approaches that promote confidence and minimize fear of criticism. This divergence is echoed in the findings of Liu (2023), who notes that senior high school students exhibit reduced apprehension when educational technologies and formative feedback are integrated into writing instruction, creating a learning environment that prioritizes growth over judgment. Additionally, Pambayun (2022) points out that while students may experience cognitive anxiety—particularly in areas such as grammar and vocabulary—this does not necessarily lead to a high overall level of writing apprehension.

These contrasting findings suggest that while writing apprehension remains a significant issue, its intensity and impact may be influenced by instructional design, access to supportive technologies, and the pedagogical climate in which writing is taught and practiced. As such, further investigation is warranted to explore how different educational contexts and interventions can effectively mitigate students’ writing-related anxieties.

**3.1.3 Task-based Learning**

The findings of this study indicate a very high level of task-based learning among Grade 12 Senior High School students, suggesting strong learner engagement and academic performance. This supports Dumbadze’s (2021) view that task-based academic activities are particularly effective in stimulating student interest and enhancing classroom productivity. Similarly, Pietri (2015) emphasizes that learners become more proactive when instruction is tailored to their individual needs through meaningful, task-based approaches. These results are further supported by Nita et al. (2020), who found that students participating in task-based learning activities demonstrated notable improvements in speaking test scores and the practical use of language skills, highlighting the approach’s effectiveness in promoting real-world application and academic success.

However, despite these positive outcomes, contrasting evidence from previous studies suggests that the effectiveness of task-based learning may vary depending on contextual factors. For example, Parcon (2022) reports that while students are aware of task-based instruction, difficulties such as language barriers and a lack of familiarity with assigned tasks often lead to weak performance. This concern is echoed by Parmawan et al. (2022), who observe that online implementation of task-based learning is frequently hindered by large class sizes and limited instructional time, reducing both student engagement and the overall impact of the method. Similarly, Tallungan (2023) argues that without adequate strategies to address challenges like time constraints, overcrowded classrooms, and insufficient resources, task-based learning may result in less effective academic outcomes.

These differing perspectives suggest that while task-based learning can yield highly positive results, its success is not universal and may depend on factors such as instructional support, classroom conditions, and the availability of resources. Therefore, future studies should further explore how these variables influence the implementation and outcomes of task-based approaches in diverse educational settings.

**3.2 Correlation Analysis**

Table 2 is the correlation table. Reflected in the table were the independent variables, the *r*-value, *P*-value, null hypothesis testing at a 0.05 level of significance, and the corresponding interpretation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 2. Correlation Table** | | | | |
|  | **Task-Based Learning** | | | |
| **Independent Variables** | **R** | **p-value** | **Decision on H01 at 0.05 level of significance** | **Interpretation** |
| **Metacognitive Writing Strategies** | .546 | .000 | Reject H01 | Significant |
| **Writing Apprehension** | .420 | .000 | Reject H01 | Significant |

The correlation analysis results presented in Table 2 illustrate the relationship between **metacognitive writing strategies** and **task-based learning.** The obtained P-value of **.000** was less than the 0.05 level of significance; therefore, the null hypothesis was rejected. This indicated that the correlation between the two variables was statistically significant. Furthermore, the r-value of **.546** revealed a moderately high strength of correlation.

Similarly, the table also detailed the correlation between **writing apprehension** and **task-based learning.** The analysis showed a P-value of **.000,** which likewise fell below the 0.05 threshold, leading to the rejection of the null hypothesis. This confirmed a significant correlation between the variables. Additionally, the obtained r-valueof **.420** indicated a moderately high strength of association.

Overall, the correlation analysis demonstrated that both **metacognitive writing strategies** and **writing apprehension** had statistically significant relationships with **task-based learning.** The moderately high correlation coefficients suggested that these variables contributed meaningfully to learners’ performance in task-based writing contexts.

The findings of this study reveal a significant correlation between metacognitive writing strategies, writing apprehension, and task-based learning among Grade 12 Senior High School students. This supports the assertion of Zhang and Qin (2018), who emphasize that metacognitive awareness fosters students’ ability to become reflective and self-regulated when completing academic tasks. At the same time, they highlight that writing apprehension can hinder task-based learning by restricting students’ engagement and confidence during the writing process. Likewise, Teng and Huang (2019) argue that a balance between cognitive and affective factors—such as strategic thinking and emotional regulation—enhances students’ capacity to manage task demands effectively and mitigate apprehension, thereby promoting successful learning outcomes. Similarly, Teng (2020) continued to argue that all the parameters of metacognition are positively correlated with students’ performance, further stating that metacognitive regulation can play unique roles in predicting proficiency in terms of task-based learning.

However, recent research presents contrasting perspectives on the influence of metacognition and writing apprehension in task-based settings. Hashemian and Farhang-Ju (2022) report that the use of computer-mediated feedback, which offers immediate and often automated corrections, can reduce learners’ reliance on metacognitive strategies, fostering a form of dependence that diminishes internal regulation and self-reflection. Similarly, Geng and Razali (2022) argue that neither metacognitive awareness nor writing apprehension has a direct influence on learners’ performance in task-based environments; instead, it is the presence of external support tools—such as automated prompts—that more significantly shape outcomes. Despite these findings, Pourfeiz (2022) contends that when students are given opportunities to actively monitor their writing strategies and regulate their emotional responses, particularly anxiety, they are more likely to perform effectively in task-based learning activities.

Taken together, these findings suggest that while metacognitive strategies and the management of writing apprehension can play important roles in task-based learning, their impact may be moderated by instructional tools and learning environments. This underscores the need for a balanced approach that fosters student autonomy while providing appropriate scaffolding to optimize engagement and performance.

**3.3 Regression Analysis**

Table 3 is identified as the regression table. This precisely encompassed the predictive variables, namely metacognitive writing strategies and writing apprehension, and the criterion variable, task-based learning, along with the unstandardized coefficients, standardized coefficients, decisions regarding null hypotheses, and the corresponding interpretation.

**Table 3. Regression Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Model** | **Task-based Learning** | | | | |
| Unstandardized Coefficients | | Standardized Coefficients | *t* | Sig. |
| B | Standard  Error | Beta |
| (Constant) | 2.050 | .316 |  | 6.485 | .000 |
| **Metacognitive Writing Strategies** | .316 | .067 | .394 | 4.708 | .000 |
| **Writing Apprehension** | .219 | .065 | .283 | 3.383 | .001 |

R=.559, R Square=.312, F-ratio=25.448, p-value=.000

As shown in Table 3, the variable **metacognitive writing strategies** obtained an unstandardized beta coefficient of **.316,** indicating that it had a **31.6%** degree of influence on **task-based learning.** With a P-value of **.000,** which was less than the 0.05 level of significance, the null hypothesis was rejected. This confirmed that a significant relationship existed between metacognitive writing strategies and task-based learning. Specifically, this implied that for every one-unit increase in metacognitive writing strategies, there was a corresponding **.316 unit** increase in task-based learning.

Similarly, the results revealed that the variable **writing apprehension** yielded an unstandardized beta coefficient of **.219,** reflecting a **21.9%** degree of influence on task-based learning. With a P-value of **.001,** also less than the 0.05 significance level, the null hypothesis was likewise rejected. This validated a significant relationship between writing apprehension and task-based learning. This finding suggested that for every one-unit increase in writing apprehension, there was a corresponding **.219-unit** increase in task-based learning.

The overall fit of the regression model was indicated by an **r-value of .559,** suggesting a **moderate correlation** between the predictor variables—metacognitive writing strategies and writing apprehension—and the criterion variable, task-based learning. Furthermore, the **R² value of .312** implied that the combination of the two predictor variables accounted for **31.2%** of the variance in task-based learning. Lastly, Table 3 presents the derived regression formula as follows: **TBL = .316(MWS) + .219(WA) + 2.050.**

The findings of this study indicate that metacognitive writing strategies and writing apprehension significantly influence task-based learning among Grade 12 Senior High School students. This aligns with the findings of Madeng (2019), who emphasizes that self-dialogue and reflective monitoring of learning tasks enhance students’ intrinsic motivation and encourage active engagement in meaningful academic activities. Likewise, Oliva and Ayala (2015) highlight a strong link between learners’ macro-skill proficiency and their consistent self-assessment throughout the different stages of a task, underscoring the value of metacognitive regulation. Additionally, East (2017) observes that educators are more likely to implement both pedagogical and real-world tasks when students demonstrate competence in applying metacognitive strategies across diverse academic contexts.

However, contrasting perspectives emerge from more recent studies. Lindner and Retelsdorf (2019) argue that self-efficacy—not metacognition—is the primary factor influencing students’ engagement and success in task-based learning environments. Their findings suggest that while metacognitive strategies are important, learners’ beliefs in their own capabilities may play a more decisive role in shaping academic behavior. Moreover, they note that among the various indicators of writing apprehension, only course-related factors—such as workload, time pressure, or instructional design—significantly predict task-based learning outcomes. This perspective is supported by Traga et al. (2017), who report that writing apprehension is heightened in learning environments that lack sufficient instructional materials and variety, leading to reduced motivation and performance.

These differing viewpoints highlight that while metacognitive strategies and writing apprehension are influential, their impact may be contingent upon other variables, such as students’ self-efficacy and the quality of instructional support. This suggests a need for more holistic approaches in task-based learning that address both cognitive and contextual factors to optimize student performance.

**3.4 Summary of Findings**

1. The metacognitive writing strategies and task-based learning were excellent, while the writing apprehension was very strong.
2. The metacognitive writing strategies and writing apprehension were significantly correlated with task-based learning.
3. The metacognitive writing strategies and writing apprehension significantly influenced task-based learning. Indeed, the model explained 31.2% of the variance in task-based learning.

4. Conclusion

Appertaining to the study’s findings, it is concluded that the metacognitive writing strategies and writing apprehension are significant predictors of task-based learning among Grade 12 Senior High School students, with a 31.20% combined degree of influence of the predictors on the criterion variable. This conclusion affirms the Information Processing Theory, an approach to the cognitive development of a human being, which deals with the study and analysis of the sequence of events that occur in a person’s mind while receiving some new piece of information. In short, it is the analysis of the way a human being learns something new. There is a fixed pattern of events that take place in such a situation, and by knowing this pattern, we can enable children and people with special abilities to learn new things faster.

**DISCLAIMER (ARTIFICIAL INTELLIGENCE)**

Author(s) hereby declare that generative AI technologies such as Grammarly and Gemini have been used during the writing or editing of manuscripts.

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Competing interests

Authors have declared that no competing interests exist.

Authors’ Contributions

Author**,** Femie C. Goles did the conceptualization and design of the study, providing valuable insights that helped shape the research framework and methodology. Meanwhile, Ariel E. San Jose, PhD provided thorough feedback during the drafting stages, contributing to the refinement and clarity of the final manuscript. All authors read and approved the final manuscript.

Consent

Written informed consent was obtained from all respondents prior to their participation in the study. Respondents were fully informed about the purpose, procedures, potential risks, and benefits of the research, and was assured of the confidentiality and anonymity of their responses. Participation was entirely voluntary, and respondents were given the right to withdraw from the study at any point without any consequences. The informed consent process was conducted in accordance with ethical research standards to ensure the protection of respondents’ rights and well-being.

Ethical approval

As per international standards or university standards written ethical approval has been collected and preserved by the author(s).

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