

THE STUDY HABITS AND METACOGNITION
LEVEL OF BEED STUDENTS

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ABSTRACT

Study habits are a contributing factor in shaping metacognitive awareness among BEED students. This quantitative correlational study, determined the significant relationship between the levels of study habits and metacognitive awareness among BEED students. This made used of purposive sampling of 72 BEED students in UM Tagum College. A survey questionnaire on study habits and metacognitive awareness adapted from Branford University published in the book of Maria Rita D. Lucas and Brenda B. Corpuz were used. The results revealed that there is a significant positive relationship between study habits and metacognitive awareness among BEED students. The results further revealed that as students' study habits improve, their metacognitive awareness also increases. Henceforth, this study recommends to consider revising the curriculum to emphasize the development of metacognitive awareness alongside study habits which is believe to further promote the academic success of students across the country.

Keywords: BEED students, Philippines, Study habits, Metacognition.
SDG Indicator: #4 Quality Education

INTRODUCTION

The quality of education is demonstrated by students' academic achievement, which is influenced by their study habits and attitudes toward learning. Absenteeism and time spent on completing homework affects educational outcomes. Students' motivation to learn is affected by the extent how parents pay attention to their children educational needs. In addition, less-equipped school and less qualified teachers of their fields demotivate the students to learn. (Priya & Dkhar, 2015; Goodlowe-Scott, 2017; Ajileye, 2021). Moreover, Shank (2024) reported that time and the value of a degree were also influential to students' success.

Study habits serve as a mediator in the relationship between self-esteem, self-control, and academic achievement. Self-esteem when integrated to teamwork training is hinting enriching interactions at university to offer students lifelong competencies for future success (Hua, 2022; De Prada, Mareque & Pino-Juste, 2024). Additionally, self-control is one of the most essential and beneficial life skills significant contributing to individuals' academic success (Pala, & Başbüyük, 2023).

Metacognitive awareness positively predicted the study habits in university students (Mussarat & Rashid, 2018). Metacognition is the driving force behind self-regulated learning (Winne, 2022). The author continued that the object level, learners actively seek information and select learning tactics and strategies they predict will enhance their knowledge. Simultaneously, at the meta level, learners collect and analyze data about their learning experiences to draw conclusions. However, without training and tools on which the self-regulating learners rely, school curriculum and its program are naïve and scruffy.

This study is urgent as it explores how study habits and metacognitive awareness affect academic achievement. With issues like absenteeism, inadequate homework, and lack of support undermining educational outcomes (Priya & Dkhar, 2015; Goodlowe-Schott, 2017; Ajileye, 2021), and poorly equipped school and unqualified teachers further demotivating students (Shank, 2024), understanding these factors can help improve student guidance and support, enhancing academic performance in diverse learning settings.

The significance of this study lies in its potential to enhance educational practices by providing insights into effective study habits and metacognitive strategies, thereby benefiting students, teachers, school heads, and DepEd official in their efforts to improve academic outcomes and learning environment.

For *students*, the study helps them identify effective study habits and metacognitive strategies, leading to improve academic performance and personal growth.

For *teachers*, the insights from the study enable teachers to refine their teaching methods and support strategies, enhancing their effectiveness in the classroom.

For *School Heads*, to use the findings to inform decisions on resource allocation and curriculum development, creating a better learning environment.

For *DepEd Officials*, the research provides evidence-based recommendations for enhancing educational practices and policies, contributing to improved quality of education.

This research explores the study habits and metacognitive awareness of the BEED students. Thus, the following research questions are answered after the data were analyzed and interpreted:

1. To determine the level of the study habits among BEED students in terms of:
 - 1.1 motivation;
 - 1.2 working with others; utilizing resources and feedback; and
 - 1.3 note-taking and reading?
2. To ascertain the level of metacognitive awareness among BEED students in terms of:
 - 2.1 organizing and planning their works'
 - 2.2 managing school work stress; and
 - 2.3 preparing and assignment/project?
3. To determine if there is a significant relationship between the level of the study habits and the level of metacognitive awareness among BEED students?

Hypothesis

The null hypothesis of the study was tested at 0.05 level of significance with its statement *there is no significant relationship between study habits and metacognitive awareness of BEED students.*

METHOD

This study investigates the level of study habits and metacognitive awareness among BEED students. The methodology encompasses participants, materials and instruments, and design and procedures.

Participants

The respondents were Bachelor of Elementary Education (BEED) students from the University of Mindanao Tagum City (UMTC). A simple random sampling techniques was employed to select a minimum of 100 respondents, as mandated by the Research and Publication Center of UM Tagum.

Table 1

Distribution of the Respondents

Year Level	Number of Respondents
2 nd	27
3 rd	37
4 th	8
Total	72

However, since this study was conducted during summer of 2024, the 72 respondents were considered. Eligibility criteria included being currently enrolled at UM Tagum College and being a BEED student. This approach represents a complete enumeration of the target group.

Material/Instruments

The study utilized materials adapted from Bradford University, specifically from the book *Facilitating Learning: A Metacognitive Process* by Maria Rita D. Lucas and Brenda B. Corpus. The structured questionnaire explored BEED students' study habits and metacognitive awareness. It assessed study habits in terms of motivation, collaboration, use of resources and feedback, and note-taking and reading skills. On the other hand, metacognitive awareness was evaluated based on organizing and planning work, managing school work stress, and preparing assignments/projects.

To interpret *motivation levels*, a parameter limit was applied.

Range of Mean	Descriptive Value	Interpretation
55-80	High	This means that the respondent does not appear to have many problems in getting down to work and keeping to it.

35-50	Moderate	This means that the respondent sometimes gets down to work but can be distracted; might not always be certain why he/she has work. He/She probably could benefit from learning some techniques that help him/her to get down to work more consistently and keep at it.
30-Below	Low	This signifies that the respondent really does have problem in getting down to work. Unless he/she develops skills in this area, he/she is likely to have many unsatisfactory experiences as a student throughout his/her life. He/She needs to take action.

To interpret the level of *working with others; utilizing resources and feedback*.

Range of Mean	Descriptive Value	Interpretation
55-85	High	This means that the respondent makes full use of resources available, listen well and take an active part in seminars.
35-50	Moderate	This means that the respondent probably collects resources, but he/she needs to ask himself/herself how he/she is going to use them more effectively.
35-Below	Low	This means that there are important resources around him/her that he/she is ignoring. He/She may not be hearing much of what is being said. He/She needs to know what resources are available, and he/she needs to find out where they are and what they have to offer. He/She needs to take action.

To interpret the level of *note-taking and reading*.

Range of Mean	Descriptive Value	Interpretation
75-110	High	This means that the respondent prepares well and read efficiently, learning as he/she goes. He/She wastes little time reading irrelevant material.
45-70	Moderate	This means that the respondent's reading and note-taking skills are adequate, but could be improved.

40-Below	Low	This means that the respondent's notes are likely to be of little use to him/her, if they exist at all. He/she spends a lot of time reading or sitting in but comes home with very little. He/She needs to become more selective in what he/she reads or writes down. He/She needs to take action.
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To interpret the level of *organizing and planning* the respondent's work.

Range of Mean	Descriptive Value	Interpretation
70-100	High	This means that the respondent is well-organized and plans ahead for his/her work.
40-65	Moderate	This means that the respondent is not as well-organized as he/she could be. His/Her time management might benefit from a closer analysis.
35-Below	Low	This means that the respondent has little organization, probably deal with things as they happen, constantly doing things at the last minute, often not getting work completed. He/She needs to take action.

To interpret the level of *managing school work stress*.

Range of Mean	Descriptive Value	Interpretation
65-80	High	This means that although the respondent sometimes gets stressed and worried; he/she has the skills of knowing how to minimize problems and look after himself/herself.
40-65	Moderate	This means that the respondent handles his/her anxieties and concerns moderately well but could develop skills to manage them more effectively.
35-Below	Low	This means that the respondent is likely to get over-whelmed with his/her problems which will make him/her much less effective as a student. He/She needs to acquire the skills of managing stress more effectively.

To interpret the level of *preparing an assignment/project*.

Range of Mean	Descriptive Value	Interpretation
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70-100	High	This means that although the respondent's essay is well thought out, researched and clearly written.
40-65	Moderate	This means that the respondent has room for improvement although he/she demonstrates some skills
35-Below	Low	This means that the respondent probably wonders why his/her essay always get such low marks. Resources and support are available to help him/her improve his/her essay writing skills. The respondents need to take action now.

Design and Procedures

This study employed a quantitative, non-experimental research design using the correlational technique. This method is appropriate when the objective is to describe the status of a situation as it exists at the time of the study and to explore possible relationships between variable. In correlational research, data is collected to determine whether a relationship exists between two or more quantifiable variables (Gay, 2019).

A correlational research design is employed to explore the relationship between two or more variables, aiming to determine whether a relationship exists and to what extent the variables are related. In this method, the researcher collect data from a sample and analyze it using statistical tools such as correlational coefficients to measure the strength and direction of the relationship between variables (Hassan, 2024). This design does not imply causality but identifies association between study habits and metacognitive awareness of the BEED students.

In a correlational study on study habits and metacognitive awareness, Pearson's correlation identifies the relationship between these variables (Hassan, 2024). Mean measures the levels of study habits and metacognitive awareness, while Pearson's correlation coefficient (r) determines the strength and significance of their connections.

Moreover, the research followed these steps: First, permission was sought from the Program Head to conduct the study. A request letter was then submitted to the Dean of UM Tagum College to obtain approval for conducting the research and distributing instruments to the selected respondents. After the approval has received, the research distributed survey questionnaire based from random sampling method and then gathered the data.

RESULTS AND DISCUSSION

This section presents the analyzed data and findings of the study. The results are organized under the following subheadings: the level of the study habits among BEED students, the level of metacognitive awareness among BEED students, and the significant relationship between study habits and metacognitive awareness. The data is summarized in tables for clarity and ease of interpretation.

Level of Study Habits

Table 2, Level of Study Habits of BEED Students, presents the indicators along with their corresponding *Mean*, *Standard Deviation* and *Descriptive Value*. *Motivation* has a mean score of 52.86 (SD=12.47) or moderate. *Working with others*, and *Note-taking and reading* with its mean scores 54.21 (SD=14.77) or moderate and 79.45 (SD=16.95) or high, respectively.

Table 2

Level of Study Habits Among BEED Students

Indicators	Mean	SD	Descriptive Equivalent
Motivation	52.86	12.47	Moderate
Working with others; Utilizing resources and feedback	54.21	12.77	Moderate
Note-taking and reading	79.45	16.95	High
Total	186.52	11.27	High

Among the three indicators under study habits, *note-taking and reading* has the highest mean of 79.45 (SD=16.95) or high. This means that the respondents prepare well and read efficiently, learning as they go. This also means that they waste little time reading irrelevant materials. Chen, Zhang, and Qian (2023) confirm that attentive readers are more effective and efficient in task completion, employing questions-oriented and navigation-assistant strategies, while inattentive readers often rely on guessing or prior knowledge. Moreover, they highlight the importance of understanding these differences to improve reading strategies and meet reader needs.

Working with others; Utilizing resources and feedback has a mean score of 54.21 (SD=12.77) or moderate. This means that the respondents probably collect resources but they need to ask themselves how they are going to use them more effectively. However, the mean score of 54.21 is slightly below the high threshold. This suggests that the respondents are likely proficient in collaborating and utilizing resources but might benefit from small improvements in their approach to maximize effectiveness.

The result reflected above relates to the study of Liao et al. (2024) who construed that average efficiency in educational resource utilization suggesting a potential for improvement. They further confirm that to assess how efficiently educational resources are used vary among regions. Regional differences are noted, with Southern Europe leading in efficiency and technology, while other regions show varying levels of effectiveness in utilizing educational resources.

Motivation, which has the lowest mean among indicators, gained a mean score of 52.86 (SD=12.47) or moderate. This means that sometimes the respondents get down to work but they can be distracted. They might not always be certain why they have to work. Though motivation has the lowest mean score of 52.86, it falls just below the high descriptive equivalent. This also means that they are motivated and committed to their tasks but may occasionally experience distraction or a lack of clarity about their goals. They are close to being consistently self-motivated but might benefit from refining their work habits or motivation techniques to reach a higher level of consistency.

Beño and Gaganova (2024) posit that flexible working practices reveal that working without stringent limits around working areas, agendas, and agreement is possible. Flexibility is defined as having flexible work schedules for better managing works and personal lives. However, the individual's choice as to when, where and how they engage in the working process matters. Motivated individuals are destructured too. To avoid destruction, individuals need to decide and manage their school work schedules and family responsibilities.

Nonetheless, *the level of study habits among BEED students* has a total mean score of 186.52 (SD=11.27) or high. This means that the total score of 186.52 is likely a cumulative score across the three indicators: *motivation, working with others; utilizing resources and feedback*, and *note-taking and reading*. The summation suggests that the individuals' study habits are likely a mix of high and moderate performance across these areas. This further indicates that while there may be strengths in certain areas, there could still be room for improvement in others, but generally, the respondents demonstrate good study habits. In connection with the results of its strength and weaknesses, Sharma and Kumar (2023) hinted that there exists a moderate positive relationship between study habits and the school environment.

Level of Metacognitive Awareness

Table 3, Level of Metacognitive Awareness Among BEED Students, presents the indicators along with their corresponding *Mean, Standard Deviation and Descriptive Value*. *Organizing and Planning* has a mean score of 74.93 (SD=15.43) or high. Managing School

Work Stress with a mean score of 40.86 (SD=20.00) or moderate; and Preparing an Assignment/Project with a mean score of 75.37 (SD=16.38) or high.

Preparing an assignment/project has the highest mean score of 75.37 (SD=16.38) or moderate. This means that the essays of the respondents are well thought out, researched and clearly written. Kitilà and Bekele (2023) explained that writing enhances learning by allowing students to apply syntax and vocabulary, in improving language mastery. Research shows that integrated skills instruction is more effective than isolated skill teaching for writing. Studies by Widdowson, Skehan, and Storch demonstrate that using integrated skills boosts student outcomes and makes writing instruction more engaging.

Among the three indicators, Organizing and planning with a mean score of 74.93 (SD=15.43) or high has the second highest mean score. This means that the respondents plan ahead for their works. This means further that the respondents are self-regulated learners. Liu, Liu, and Yang (2024) explained that self-regulated learning involves psychological processes that help learners actively manage cognitive, behavioral, and emotional functions to achieve academic goals. It includes proactive behaviors like goal-setting, motivation, and strategy use for overcoming obstacles.

Table 3
Level of Metacognitive Awareness Among BEED Students

Indicators	Mean	SD	Descriptive Value
Organizing and Planning	74.93	15.43	High
Managing School Work Stress	40.86	20.00	Moderate
Preparing an Assignment/Project	75.37	16.38	High
Total	191.16	12.45	High

Managing school work stress with a mean score of 40.86 (SD=20) or moderate is the last indicator to discuss under metacognitive awareness. The moderate descriptive equivalent means that the respondents handle their anxieties and concerns moderately well but could develop skills to manage them more effectively. Freeman (2020) cited Jessica Lina at David Lawrence Center in Collier that for those individuals having hard time adjusting to school after being away for so long (like the experience of COVID-19 pandemic) early identification and intervention is important.

The author above continued that according to Frances Duverge, emotional and behavioral signs include increased irritability, inability to focus on activities and changes in eating habits. However, linking them with brief therapeutic services can help to establish

coping skills and should be an option at the first signs of a concern. In addition, allowing them the opportunity to express their emotions and guiding them through it will ease the transition. Much more, they need to set aside some time to disconnect from technology together; build up the duration each day and give the individuals or each other reinforcement for success.

Nevertheless, *the level of metacognitive awareness among BEED students* has a total mean score of 191.16 (SD=12.45) or high. Metacognitive scores tend to be cumulative across various factors. This suggests strong abilities in planning monitoring and evaluating learning processes. Seema and Padmanabha (2024) described individuals with high metacognitive awareness as demonstrating strong self-awareness in learning. They effectively manage learning strategies, actively adjust their approaches when necessary, and are likely skilled in planning goals, monitoring progress, and reflecting on outcomes to make improvements.

To recapitulate, *the level of study habits among BEED students* has a total mean score of 186.52 (SD=11.27) or high. At the same time, *the level of metacognitive awareness among BEED students* has a total mean score of 191.16 (SD=12.45) or high. The total mean score of 186.52 likely reflects a cumulative result across *motivation, working with others and; utilizing resources and feedback, and note-taking*. This suggests a mix and moderate performance, indicating strength in some areas with room for improvement in others, but overall good study habits. Ehsan and Sultana (2020) confirm that effective study habits positively influence academic performance.

On the other hand, the total mean score of 191.16 on *the level of metacognitive awareness* would be an asset in academic settings, as it suggests a proactive and adaptive approach challenges and new information. Davis et al. (2024) confirms that adaptability is constant, learned through active effort, shaped by organizational culture, and linked to wellbeing.

Mussarat and Rashid (2018) posit that metacognitive awareness positively influences study habits and it is also positively related to teaching styles. To determine if the results from other studies are applicable to BEED students, it is essential to test whether the patterns observed in those studies particularly study habits and metacognitive awareness are also evident within the context of BEED students. This approach helps assess the generalizability of these findings and their relevance to different educational settings and student population.

Relationship Between Study Habits and Metacognitive Awareness

Table 4, *Relationship Between Study Habits and Metacognitive Awareness* reflected the two variables: *Study Habits* and *Metacognitive Awareness* with its r-value 0.768*, r-squared 0.5898, and p-value 0.001. This means that the null hypothesis which states that there is no significant relationship between variables is rejected. Further, it means that there is a significant positive relationship between Study Habits and Metacognitive awareness among BEED Students.

Table 4
Relationship Between Study Habits and Metacognitive Awareness

Variables	r-value	r-squared	p-value	Description
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Study Habits	0.768*	0.5898	<0.001>	Reject Ho
Metacognitive Awareness				

p<0.05>

The p-value is less than 0.05, which means that the null hypothesis is rejected, confirming that there is a statistically significant relationship between study habits and metacognitive awareness. The findings show a robust positive correlation between study habits and metacognitive awareness among BEED students. With an *r*-value of 0.768, an *r*-square value of 0.5898, and a p-value of 0.001, the study establishes that metacognitive awareness significantly influences students' study habits. These results suggest the potential for targeted educational interventions that enhance metacognitive skills, ultimately fostering better academic performance.

The potential for targeted educational intervention relates to the study of Chen et al. (2024). The authors examine the impact of a professional development (PD) program for early childhood teachers focused on metacognition-driven, place-based science teaching. Conducted in rural Idaho, it involved preschool and kindergarten teachers and children. The results showed significant improvements in children's self-regulated learning and teachers' science teaching skills. The study also found that hands-on science activities support children's learning across various subjects and development areas.

The *Pearson correlation coefficient*, *r*-value (0.768) shows a strong positive relationship between study habits and metacognitive awareness. Learn Statistic Easily (2024) posted that +1 denotes a perfect positive linear correlation, where variables move precisely in tandem. For example, an *r* value close to +1 suggest that an increase in one variable will likely be accompanied by an increase in the other to a similar extent. This means that as students' study habits improve, their metacognitive awareness also increases. Specifically, BEED students who exhibit strong motivation, collaborate effectively with others, use resources and feedback efficiently, and take organized notes are more likely to demonstrate high metacognitive awareness, including better planning, stress management, and preparation for assignments.

At the same time, Learn Statistic Easily (2024) also posted that the coefficient of determination suggests that approximately 58.98 % of the variance in metacognitive awareness can be explained by study habits. This significance percentage indicates that study habits are a more contributing factors in shaping metacognitive awareness among students. The remaining variance could be due to other factors, such as personal characteristics, external influences, or cognitive abilities not captured in the study.

This study anchored on the theory adopted in the study of Mussarat and Rashid (2018) as presented in the third paragraph in the *introduction* of this study. The authors confirms that metacognitive awareness positively influences study habits in university students. Winne (2022) added that at the object level, learners seek information and strategies to improve knowledge, while at the meta level, they analyze learning experience. However, without proper training and tools, school curricula remain ineffective.

To recount, John Flavell coined the term metacognition, describing it is *thinking about thinking or learning how to learn*. According to Flavell (1979,1987), metacognition consists of

both metacognitive knowledge and metacognitive regulation. Metacognitive knowledge includes awareness of one's cognitive processes and the ability to control them, which Flavell categorized into person variables, task variables, and strategy variables (Lucas & Corpuz, 2007).

The authors above continued that Flavell's framework highlights how students' awareness and control over their learning processes impact academic performance. When study habits align with metacognitive strategies, learners manage tasks better, select effective strategies, and adapt to challenges. For example, students aware of their strengths and weaknesses (person variables) can choose effective study methods (strategy variables) and adjust based on task difficulty (task variables). This emphasizes the importance of fostering metacognitive awareness to improve study habits and academic success.

CONCLUSION AND RECOMMENDATION

This study investigated the relationship between study habits and metacognitive awareness among BEED students. This section summarizes the key findings and provides recommendations for enhancing study habit practices and metacognitive awareness.

Conclusions

This study addressed the research questions or hypothesis posed at the beginning of the study, indicating whether they were supported or refuted.

1. The *level of the study habits among BEED students* has a total mean score of 186.52 (SD=11.27) or high. The result shows that while the respondents start their work, they often face distractions and need better focus techniques. Although they gather resources, there is room for improvement in using them effectively. However, they excel in preparation and reading efficiently, focusing on relevant material. Enhancing focus and strategic resource use could boost academic performance.
2. The *level of metacognitive awareness among BEED students* has a total mean score of 191.16 (SD=12.45) or high. The result indicates that the respondents demonstrate strong organizational skills and effective planning. Their essays are well-researched, clearly written, and thoughtfully developed. While they manage anxieties and concerns reasonably well, there is potential for further improvement in developing more effective strategies for managing these challenges.
3. The relationship between study habits and metacognitive awareness with its *r*-value 0.768*, *r*-squared 0.5898, and *p*-value 0.001 rejects the null hypothesis which states that *there is no significant relationship between study habits and metacognitive awareness*; that there is a significant positive relationship between study habits and metacognitive awareness among BEED students. As students' study habits improve, their metacognitive awareness also increases. Study habits are a more contributing factors in shaping metacognitive awareness among students.

The results and findings of the study supports the study of Mussarat and Rashid (2018) that metacognitive awareness positively predicted the study habits of 400 university students in Islamabad and Rawalpindi.

Recommendations:

Base on the findings of this study, several recommendations can be made to help students enhance their study habits and metacognitive awareness. These suggestions aim to foster improves academic performance and personal development.

1. To enhance focus and reduce distractions, students should be trained in time management and concentration techniques, such as the Pomodoro method or mindfulness exercises, to improve their ability to stay on task. Teachers can incorporate workshops or lessons on effective resources utilization, guiding students on how to gather, evaluate, and apply academic materials more strategically to improve their study habits.
2. To further enhance their metacognitive awareness, students should engage in reflective practices, such as writing journal or self-assessment, to better identify areas of improvement in managing anxieties and enhancing their planning and organizational skills. Teachers can offer guidance on advanced metacognitive strategies, such as self-monitoring techniques or stress management workshops, helping students to refine their planning and organization while managing their emotional well-being more effectively.
3. School heads and administrators should offer workshops or seminars focused on both effective study habits and metacognitive strategies. These programs will provide students with the tools to enhance their learning processes, fostering an environment that supports academic growth. DepEd Officials may consider revising the curriculum to emphasize the development of metacognitive awareness alongside study habit. Implementing these practices in educational polities can further promote the academic success of students across the country.

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