

Different Learning Modality Towards Academic Performance Among Working College Students

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DOI: <https://doi.org/10.47772/IJRISS.2026.100300462>

Received: 23 March 2026; Accepted: 28 March 2026; Published: 13 April 2026

ABSTRACT

Academic performance refers to a student's ability to achieve learning objectives, typically measured through grades, test scores, and overall educational outcomes. The study aimed to examine the different learning modality on the academic performance of working college students. Data were gathered from the 98 working college students. This study used stratified random sampling technique. This study utilized quantitative non-experimental research through a descriptive correlational design. The instruments utilized in this study were modified and thoroughly examined for relevance and accuracy.

The statistical tools used in this study were mean and pearson r. Results revealed that different learning modality towards academic performance among working college students got a descriptive level of high which was oftentimes observed. Working college students' academic performance is positively impacted by a high level of involvement with various learning modalities because it offers them more flexibility, better time management, and easier access to learning materials. According to the relationship between different learning modality and academic performance, students' academic results can be improved by taking into account a variety of learning styles and timetables, especially for those who are juggling work and study obligations.

Keywords: Learning Modality, Academic Performance, Correlational Research Design, Philippine.

INTRODUCTION

Academic performance refers to a student's ability to achieve learning objectives, typically measured through grades, test scores, and overall educational outcomes. It reflects the extent to which a student meets academic standards and expectations (Tadesse, & Gillies, 2021). However, Students in online and modular learning settings often struggle with a lack of direct teacher interaction, leading to lower engagement and understanding compared to those in traditional face-to-face classes (Bernardo et al., 2021). The shift to alternative learning modalities, especially during the COVID-19 pandemic, has further highlighted these challenges, as many students have reported difficulties in self-regulated learning and maintaining motivation (Cahapay, 2020). These issues emphasize the need to examine how different learning modalities impact students' academic performance and to develop effective strategies to address the barriers that hinder learning success (Dorn et al., 2020).

In Brazil, the mismatch between students' preferred learning modalities and traditional classroom settings negatively impacts academic performance, particularly for those balancing work and studies (Muilenburg & Berge, 2020). Students who prefer online learning often struggle with reduced engagement, lower participation, and limited teacher interaction, leading to poor academic outcomes (Adams & Clarke, 2020). Similarly, in the UK, studies highlight that misaligned learning modalities contribute to decreased comprehension and lower grades (Jones, 2022). These findings emphasize that academic performance declines when students cannot access learning methods suited to their needs (Walker et al., 2024).

In the Philippines, working students often experience declining academic performance due to difficulties in balancing work and study obligations, even with the flexibility of face-to-face and online learning (Hernandez & Santos, 2021). Students struggle with low grades because their preferred flexible learning arrangements do not always provide adequate academic support, making it difficult to complete coursework on time (Lee, 2023). Poor internet connectivity further contributes to low academic achievement, as unstable connections disrupt online classes and prevent students from accessing essential learning materials (Lee, 2023). The lack of institutional support systems negatively affects students' ability to seek academic assistance, leading to lower comprehension and poor test performance (Garcia, 2023). Limited access to technological devices makes it difficult for students to participate in online learning effectively, causing delays in submission of academic requirements and a decline in overall academic success (Garcia, 2023).

In Davao City, 72% of working college students report a decline in academic performance due to the misalignment of learning styles with available educational modalities. Research indicates that students struggle with low grades because Learning Management Systems (LMS) primarily use visual and textual content, which does not support their preferred learning methods, leading to reduced comprehension and engagement (Reyes et al., 2022). Furthermore, students who rely on online learning face difficulties in understanding course materials due to the lack of diverse instructional formats, resulting in challenges in completing assignments and performing well in assessments (Rosello et al., 2023). These statistics highlight the urgent need to improve learning modalities to support diverse learning styles and enhance academic success among working college students.

Despite the fact that many have examined the effects of learning modalities on general student populations (Garcia et al., 2023). The particular difficulties experienced by working students in semi-urban and rural areas, where access to educational resources and technology was restricted, were frequently overlooked in previous research (Hernandez, 2022). Few studies have specifically examined how the preferences of working college students affect their academic performance, especially in the local context.

This study aims to fill this gap by examining the relationship between learning modality preferences and the academic performance of working college students, with a focus on providing actionable recommendations for educators and policymakers. Working students often juggle employment and academic responsibilities, making it challenging to engage with learning materials that do not align with their preferred modalities. This misalignment can lead to decreased motivation and academic performance. A study highlighted that students' learning styles significantly impact their academic performance, suggesting that when instructional methods do not cater to these preferences, students may struggle to engage effectively with the material (Dayon et al. 2019).

Statement of the Problem

The study aimed to examine the different learning modality on the academic performance of working college students.

Specifically, it sought to answer the following questions:

What is the level of the different learning modality among working college students:

1. traditional learning(face-to-face);
2. online learning; and
3. blended learning?

What is the level of academic performance in terms of grade in meal management among BTVTED working students?

Is there a significant relationship between the different learning modalities and academic performance of the BTVTED working students?

Hypothesis

The null hypothesis was tested using a 0.05 level of significance, that there was no significant relationship between learning modality preference and academic performance.

THEORETICAL FRAMEWORK

This study was anchored to Experiential Learning Theory (2020) explains how individuals learn through direct experience and reflection, which significantly influences academic performance. This theory outlines a four-stage learning cycle—concrete experience, reflective observation, abstract conceptualization, and active experimentation—where learning is most effective when students engage in all four stages (Kolb & Kolb, 2020). Traditional face-to-face learning provides opportunities for hands-on experiences, immediate feedback, and peer interaction, allowing students to progress through this learning cycle effectively and thereby enhancing academic performance (Yardley et al., 2019). Working students, who benefit from practical learning experiences that integrate academic knowledge with real-world applications, may find their academic performance hindered when learning modalities lack opportunities for experiential learning (McLeod, 2017).

However, Zarei and Vijayan (2023) that although there are some learning modalities being used still these cannot give a meaningful effect on student’s academic performance such factors like self-discipline, learning methodologies and support system.

CONCEPTUAL FRAMEWORK

The conceptual representation of the study about the relationship between the independent variable and the dependent variable was shown in Figure 1.

The independent variable was learning modality preference, which includes traditional learning (face-to-face), online, and blended learning (Keskin, 2019).

The dependent variable was academic performance, measured through grade in Meal Management. Academic performance remains a key determinant of students' success and reflects their ability to achieve learning outcomes in both traditional and nontraditional educational contexts (Tadesse & Gillies, 2021).

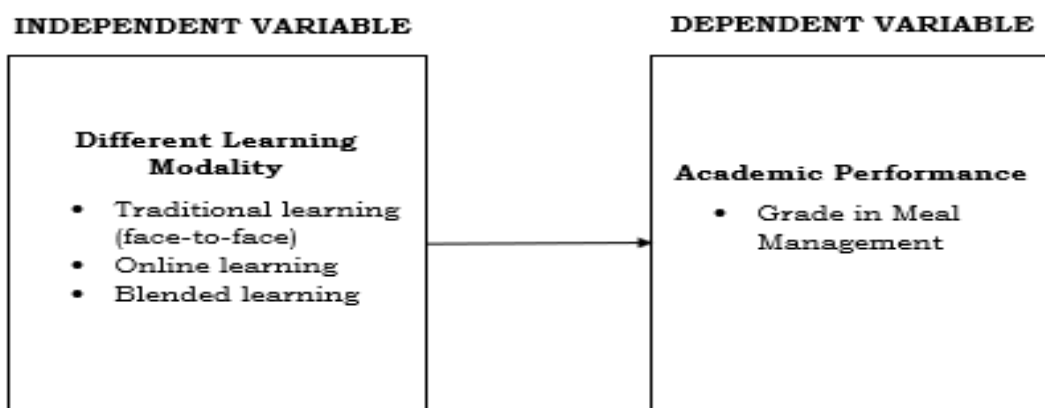


Figure 1. Conceptual Paradigm of the Study

METHODOLOGY

Research Design

This study utilized a quantitative, descriptive, non-experimental correlational methodology to examine the relationship between different learning modalities and academic performance among working college students.

Quantitative research, according to Bhandari (2020) that the process of gathering and evaluating numerical data was known as quantitative research. It can be applied to evaluate causal linkages, make predictions, identify trends and averages, and extrapolate findings to larger populations. A descriptive research design aims to systematically describe a phenomenon by collecting quantifiable data without manipulating variables (Creswell & Creswell, 2020). A non-experimental approach is used when the researcher does not control or manipulate the variables but instead observes and analyzes their existing relationships (Belli, 2019). A correlational methodology specifically measures the degree and direction of association between two or more variables to determine whether a statistically significant relationship exists (Saunders et al., 2021). The descriptive non-experimental correlational methodology was appropriate for this study as it aimed to analyze the impact of different learning modalities on academic performance without altering any educational settings or student behaviors. Since this research sought to determine whether a relationship exists between different learning modality and academic success among working college students, a correlational approach was necessary to quantify this association. The non-experimental design was suitable because the study focused on naturally occurring conditions, ensuring that findings reflected real-world educational experiences. The descriptive nature of the study allowed for a comprehensive analysis of how various learning modalities influence academic performance, providing insights that may contribute to improving educational strategies for working students.

Research Subject

The respondents of this research were the students currently enrolled in the local college of Santo Tomas, Province of Davao del Norte with relevant experiences or insight into the subject being researched. This study had 353 students who were selected from a total population of 4,325 with the use of Raosoft Sample Size Calculator. The respondents of this study were chosen through a stratified random sampling technique. In stratified sampling, the population was divided into distinct subgroups or strata, and random samples are then selected from each group (Bisht, 2024).

Research Instrument

The researchers used one (1) adapted survey questionnaire for independent variable. For the dependent variable, the final grade was used questionnaires were validated and an external validator to test its validity.

Different Learning Modality. This survey questionnaire was from the research study titled “Impact of Different Learning Modalities on the Paramedical Students of Dr. Carl Carlos S. Lanting College” by Ignacio et al., (2023). The questionnaire consists 27 items covering the following aspects: traditional learning (9items), online learning (9 items), blended learning (9 items). Respondents rate each item using a 5-point Likert scale, ranging from 5 for “Strongly Agree”, 4 for “Agree”, 3 for “Neutral”, 2 for Disagree”, to 1 for “Strongly Disagree”. The parameter and scaling used for interpretation of the different learning modality of the BTVTED working college students studying in a local higher education institution in Santo Tomas, Davao del Norte were the following:

Range of Mean	Descriptive Level	Interpretation
4.20 – 5.00	Very High	Learning Modality was always manifested
3.40 – 4.19	High	Learning Modality was oftentimes manifested
2.60 – 3.39	Moderate	Learning Modality was sometimes manifested
1.80 – 2.59	Low	Learning Modality was less manifested
1.00 – 1.79	Very Low	Learning Modality was least manifested

Academic Performance. This grading table evaluates student academic performance based on the final grade and percentage rating. The grading scale runs from 1.00 to 5.00, with descriptive equivalents for each range. A final grade between 1.00 and 1.50, equivalent to 93-100%, is considered "Outstanding". Grades from 1.75 to 2.00, equivalent to 87-92% were evaluated as "Very Satisfactory," while grades from 2.25 to 2.50, equivalent to 81-86% are assessed as "Satisfactory".

Students achieving grades between 2.75 and 3.00, equivalent to 75-80% were classified as "Fairly Satisfactory". A final grade of 5.00, equivalent to 0-74%, implies that the student "did not meet expectations". This grading method was widely utilized in Philippine higher education institutions to assess student performance.

Final Grade	Rating (%)	Descriptive Level	Interpretation
1.00-1.50	93-100	Very High	Outstanding
1.75-2.00	87-92	High	Very Satisfactory
2.25-2.50	81-86	Moderate	Satisfactory
2.75-3.00	75-80	Low	Fairly Satisfactory
5.00	0-74	Very Low	Did Not Meet Expectations

Statistical Treatment of Data

Mean. This was used to determine fundamental statistical measure that represents the average value of a dataset, providing insight into trends and central tendencies (Li et al., 2020). This was used to determine the level of different learning modalities and the academic performance of working college students.

Pearson R. This was used to measures the strength and direction of the linear relationship between two variables. It ranges from -1 to +1, where -1 indicates a strong negative relationship, +1 indicates a strong positive relationship, and values close to 0 suggest a weak or no correlation (Weisburd et al., 2020). This was used to determine the relationship between learning modality preference and academic performance among working college students.

RESULTS AND DISCUSSIONS

Level of Different Learning Modality in terms of Traditional Learning (Face-To-Face)

The results for traditional learning (face-to-face) across different learning modalities was presented, examined, and interpreted in Table 1. The mean scores ranged from 3.82 to 4.47, with an overall mean of 4.22 and a standard deviation of 0.79. This was categorized as very high, indicating that the practices are always manifested.

The highest mean of 4.47 are item number 2 and 3, "Believe face to face instructions were a better way for me to learn the content/course materials" and "A classroom environment makes it easier to me to communicate with my classmates," was described as Very High. The lowest mean of 3.82 is for item 8, "Do not experience any communication barriers as my instructor/s discusses during face-to-face class," was describe as high.

This strong statistical outcome demonstrates a clear and considerable preference for direct instruction, implying that traditional learning is still the most effective and dependable way. Its regular use demonstrates instructors' belief in its potential to encourage meaningful engagement, improve instructional delivery, and promote better student learning outcomes.

Table 1
Level of Different Learning Modality in terms of Traditional Learning (Face-To-Face)

Items	Mean	SD	Descriptive Equivalent
1. am actively participating in my face-to-face class.	4.26	0.78	Very high
2. believe face to face instructions are a better way for me to learn the content/course materials.	4.47	0.75	Very high
3. a classroom environment makes it easier to me to communicate with my classmates.	4.47	0.75	Very high
4. improve/s my ability in class with face-to-face communication.	4.46	0.64	Very high
5. believe face to face learning environment contributes to my overall satisfaction with the course I am taking.	4.39	0.70	Very high
6. am able to partake in hands on activities and understand them very well.	4.31	0.71	Very high
7. believe traditional learning helps me to avoid any unnecessary to lessen my concentration on the discussion.	3.90	0.89	High
8. Do not experience any communication barriers as my instructor/s discusses during face-to-face class.	3.82	0.85	High
9. do not experience having a hard time between the schedule of my school and other activities (such as work, household chores, etc.).	3.92	1.00	High
Average	4.22	0.79	Very high

These findings align with the conclusions of Santos and Rivera (2021), who emphasized that face-to-face environments foster better communication and student satisfaction. Moreover, the ability to participate in hands-on activities and minimize distractions during discussions also contributes to the overall preference for traditional learning.

However, consistent with the study by Torres and Lim (2023), while traditional learning enhances engagement and satisfaction, external factors like balancing school with personal responsibilities can still present challenges, as reflected in the slightly lower mean scores of some items. Overall, the high average mean of 4.22 suggests that students strongly favor face-to-face learning modalities, recognizing their impact on effective communication, comprehension, and overall academic satisfaction.

Level of Different Learning Modality in terms of Online Learning

The results for online learning across different learning modalities was presented, examined, and interpreted in Table 2. The mean scores ranged from 3.79 to 4.20, with an overall mean of 4.05 and a standard deviation of 0.87. This was categorized as high, indicating that the practices are oftentimes manifested.

The highest mean of 4.20 was item number 9, “Am able to do my other activities (such as work, household chores, etc.) and my online classes because of my flexible schedule,” was described as Very High. The lowest mean of 3.79 is for item 6, “Can understand my instructor/s during class as he/she explains or demonstrate the activities online,” was describe as high. This suggests that students are becoming more accustomed to virtual education, which could support flexible learning environments and the growth of self-directed learning abilities.

Table 2
Level of Different Learning Modality in terms of Online Learning

Items	Mean	SD	Descriptive Equivalent
1. am comfortable communicating virtually in class.	4.13	0.96	High
2. can easily access the internet as needed for my studies.	4.13	0.87	High
3. believe academic learning platforms used are appropriate for this online class.	4.17	0.84	High
4. do not get easily distracted as I study in the online class set-up.	3.94	0.97	High
5. have enough gadget/s to use for my online class.	4.00	0.94	High
6. can understand my instructor/s during class as he/she explains or demonstrate the activities online.	3.79	0.88	High
7. can save money because fewer expenses on transportation and food because of the online class.	4.08	0.77	High
8. believe classroom environment increased my interest in learning our course materials.	4.04	0.79	High
9. am able to do my other activities (such as work, household chores, etc.) and my online classes because of my flexible schedule.	4.20	0.79	Very high
Average	4.05	0.87	High

The findings showed that students have a positive overall experience with online learning, particularly the flexibility it provides for balancing education with other duties such as job or housework. Although comprehending instructors online had the lowest grade, it was still rated as high, indicating that students can still follow lectures well. Overall, this indicates that students are adjusting well to online learning, which encourages flexible and independent study habits.

These results was consistent with Gonzales and Mejia's (2022) study, which highlighted how online learning fosters students' independence, time management, and flexibility. A growing level of digital competency was also demonstrated by the ease with which learning resources can be accessed and virtual communication was possible. Cruz et al. (2021) pointed out that online environments can impede instant feedback and participation, but communication and instructional clarity issues still exist.

Level of Different Learning Modality in terms of Blended Learning

The results for blended learning across different learning modalities was presented, examined, and interpreted in Table 3. The mean scores ranged from 3.60 to 4.29, with an overall mean of 3.95 and a standard deviation of 0.83. This was categorized as high, indicating that the practices were oftentimes manifested.

The highest mean of 4.29 is item number 1, “Am able to do things including work responsibilities and attend class because of our flexibility in class time.,” was described as Very High. The lowest mean of 3.60 is for item 8, “Do not feel distracted taking an online class at home rather than attending a face-to-face (and vice versa),” was describe as high.

Table 3
Level of Different Learning Modality in terms of Blended Learning

Items	Mean	SD	Descriptive Equivalent
1. am able to do things including work responsibilities and attend class beca flexibility in class time.	4.29	0.67	Very high
2. believe become productive because schedule.	4.15	0.82	High
3. blended learning reduces travel exp daily allowance cost.	4.27	0.83	Very high
4. ca easily catch up with the lessons because I can open then any time sinc posted by my professor in our academ learning sites (google class, LMS, etc.)	4.16	0.86	High
5. do not feel any difficulties with both methods (online and face-to-face teach	3.83	0.89	High
6. feel interested on our studies becau accessibility of materials whether talki or face-to-face classes.	3.83	0.80	High
7. observe there is no communication between these two (2) learning modalit and TL).	3.81	0.81	High
8. do not feel distracted taking an onli at home rather than attending a face-t (and vice versa).	3.60	0.91	High
9. am not having a hard time balancing my studies and my other businesses.	3.63	0.90	High
Average	3.95	0.83	High

The results indicate that students had a generally positive experience with blended learning. They find the flexible class schedule very useful in balancing their education and work duties. Although some students are still distracted when transitioning between online and face-to-face classes, the overall response remains positive. This shows that blended learning meets students' needs for flexibility while still keeping them engaged with their education.

These findings was in line with research by De Guzman and Santos (2021), which highlighted how blended learning helps students combine their personal and academic obligations while promoting flexibility, cost effectiveness, and productivity. The positive evaluation of flexible class schedules demonstrates how students gain from better time management for both work and study. Positive reactions to lower commuting costs and the opportunity to attend missed classes via online platforms also show a growing appreciation for blended learning. As evidenced by the lowest-rated item, which represents small distractions when switching learning environments, some students still struggle to shift between online and in-person settings (Navarro & Lim's 2020).

Summary on the Level of Academic Performance

The results for summary on the level of academic performance was presented, examined, and interpreted in Table 5. The mean scores were viewed and analyze with an overall mean of 90.37 and a standard deviation of 3.76. This was categorized as high, indicating that the practices were very satisfactory.

The overall findings on academic performance indicate that students' learning activities was effective, resulting in high achievement and very satisfied academic outcomes.

Table 5
Summary on the Level of Academic Performance

Indicators	Mean	SD	Descriptive Equivalent
1. Grade in Meal Management among BTVTED Working college students	90.37	3.76	High
Overall	90.37	3.76	High

This showed that students met the required learning outcomes effectively. According to Bernardo et al. (2021), great academic success was frequently associated with students' ability to adapt to new learning methodologies and strong academic assistance. Similarly, Cruz and Santos (2020) stated that students who receive frequent feedback and participate in active learning are more likely to perform well in academic activities. These data suggest that the students was able to adopt effective learning strategies, which led to their excellent academic performance.

Correlation between different learning modality towards academic performance

Table 6 showed the findings on the significance of the association between different learning modalities towards academic performance. The results reveal an estimated r-value of -0.048 and a p-value of 0.641, which above the 0.05 level of significance. This indicates that there was no significant relationship between the two variables. Thus, the null hypothesis was accepted. This suggests that the type of learning mode used—whether traditional learning, online learning, or blended learning—had no significant or meaningful impact on the students' academic achievement.

Table 6
Significance of the Relationship Between Different Learning Modality and Academic Performance

Variables Correlated	R	p-value	Decision on H ₀	Decision on Relationship
Different Learning Modality and Academic Performance	-0.048	0.641	Accepted	Not Significant

These findings was corroborated by Reyes and Delos Santos (2021), who discovered that learning modality alone does not necessarily predict students' academic performance, particularly when students adjust their study habits regardless of different learning modality. Similarly, Lim and Garcia (2020) found that personal motivation, learning environment, and availability to resources were often more important than the modality itself.

In conclusion, while many learning modalities were used, they had no meaningful effect on students' academic performance in this study. Other factors, such as self-discipline, learning methodologies, and support systems, may have had a greater impact on the pupils' academic success (Zarei and Vijayan, 2023).

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Findings

The major findings of the study were the following:

1. The level of different learning modalities towards academic performance had an overall mean of 4.07 with a standard deviation of 0.83 with a descriptive equivalent of high. The highest indicator was Traditional Learning with a mean of 4.22 while the lowest indicator was Blended Learning with a mean of 3.95.
2. The level of academic performance had an overall mean of 90.37 and a standard deviation of 3.76 with a descriptive equivalent of high.
3. The relationship of different learning modalities towards academic performance showed a negative, weak, correlation with an r -value of 0.048 and a p -value of 0.641. These results lead to the null hypothesis being accepted.

CONCLUSIONS

1. The result of different learning modalities revealed a high level, which was oftentimes manifested. The overall findings that students frequently experienced and applied the different learning modalities, showing a generally high level of engagement across traditional, online, and blended learning approaches.
2. The level of academic performance was high, considered as oftentimes manifested. The overall findings on academic performance indicate that students' learning activities were effective, resulting in high achievement and very satisfied academic outcomes.
3. The results show the significance of the association between different learning modalities and academic performance, indicating a negative, weak, and not significant correlation. This suggests that the type of learning mode used—whether traditional learning, online learning, or blended learning—had no significant or meaningful impact on the students' academic achievement.

RECOMMENDATIONS

Based on the findings, analysis, and conclusion drawn in this study, the following recommendations are summarized:

1. The Commission on Higher Education (CHED) may consider the percentage distribution of students' preferences in planning future curriculum delivery. The findings show that 41.6% of students strongly prefer traditional learning, while 39.1% prefer online learning, and 36.4% favor blended learning. CHED may implement a more flexible national learning policy, encouraging institutions to offer at least 70% traditional instruction alongside 30% online learning. This approach recognizes the ongoing significance of in-person learning for boosting student understanding and involvement, while also incorporating the adaptability of online platforms. With a balanced structure in place, higher education institutions would be able to cater to various learning needs—especially those of working students—while maintaining academic quality and access.
2. The school administrators may enhance the design and delivery of blended learning, particularly for working college students, because the study found that this strategy was less effective. Schools may experiment with more flexible and student-friendly ways that combine the benefits of online and in-person learning. This may include recorded lectures that students can watch at any time, easily accessible digital materials, and

scheduled in-person sessions for additional help. Clear communication, compelling information, and timely feedback are also essential for keeping students engaged, especially with hectic schedules. Schools can assist provide a more supportive and effective learning experience for working students by tailoring blended learning to their specific requirements.

3. Institutions may provide individualized programs to help working college students realize how different learning approaches may affect their academic success. Students can learn how to adapt to several modes of learning—traditional, online, or blended—through workshops, seminars, and hands-on sessions, and find what works best for their busy schedules. Schools may create a more flexible and supportive environment that can help students manage the challenge of balancing job and education. Offering one-on-one assistance on how to make the most of each learning style may help reduce stress and increase academic performance, ensuring that students may excel in their studies without feeling overwhelmed.
4. Students may be guided to become more aware of their own learning preferences and how these affect their academic performance. Schools can provide orientations, seminars, or workshops on learning strategies that assist students in reflecting on and adjusting their learning habits. Students can manage their time, access learning materials, and balance responsibilities more effectively when they have the right tools and knowledge to make informed choices.
5. Working students are encouraged to take advantage of flexible learning options, such as asynchronous lessons, recorded videos, and academic advising. Organizations can offer tailored academic assistance, such as mentoring or peer support initiatives. Acknowledging the distinctive stresses these students experience, schools ought to guarantee that they do not incur penalties for delays stemming from work-related clashes. Instead, they should be provided with sensible alternatives for making up lost ground.
6. Future researchers may look deeper into the relationship between multiple learning modalities and academic achievement, with a special emphasis on the unique problems that working college students experience. It may be beneficial to investigate how work hours, household obligations, and access to resources affect students' capacity to succeed in varied learning environments. Researchers may also investigate how blended learning, in particular, can be tailored to better serve these students. Future research that takes into account the unique needs and experiences of working students can provide more targeted recommendations for increasing academic performance across different learning modalities, resulting in more effective and inclusive educational methods.

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