"Motivation and Academic Outcomes in Traditional and Online Learning: Evidence from Philippine Higher Education"

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ABSTRACT

The rapid shift from traditional face-to-face instruction to technology-mediated online learning has transformed educational delivery, raising important questions about its effects on student motivation and academic performance. Grounded in Self-Determination Theory and Expectancy-Value Theory, this study examined the levels of student motivation and academic performance in traditional and online learning environments and determined whether significant differences exist between the two modalities in the Philippine higher education context. A descriptive-correlational quantitative design was employed involving 65 first-year education students who had experienced both learning modalities. Data were collected using a validated survey questionnaire measuring motivation and academic performance and were analyzed using descriptive statistics, Pearson correlation, and inferential tests. Results revealed that students demonstrated higher motivation and stronger academic performance in traditional face-to-face learning compared to online learning. Indicators related to classroom interaction, discipline, and engagement obtained the highest mean scores, while online learning indicators were rated only moderately. A very strong positive correlation was found between frequency of engagement in learning modalities and academic performance ($r = 0.916$, $p < 0.001$). These findings indicate that direct interaction and structured learning environments significantly enhance students' motivation and academic outcomes. The study concludes that while online learning offers flexibility, traditional classroom instruction remains more effective in sustaining motivation and academic success, highlighting the need to improve digital learning designs to better support student engagement and self-regulation.

Keywords: online learning, face-to-face instruction, student motivation, academic performance, higher education

INTRODUCTION

The transition from traditional classroom instruction to technology-mediated online learning has redefined educational delivery, influencing students' motivation and performance across multiple contexts. In the 21st century, education has increasingly emphasized technology integration, digital literacy, and learner autonomy, reflecting the growing demand for flexible and adaptive learning environments. This transformation, accelerated by the COVID-19 pandemic, has compelled higher education institutions to adopt hybrid and online modalities that reshape teaching practices and learning engagement. The increasing integration of digital media in educational settings has generated considerable interest in exploring its effects on learners' engagement, motivation, and digital self-efficacy. The fast-paced development of technology has profoundly reshaped the realm of education, impacting diverse aspects of teaching and learning. According to Radianti et al. (2020), these technologies have facilitated interactive and immersive learning environments, enabling learners to master complex concepts more efficiently. The global adoption of these technologies underscores their ability to revolutionize education by providing more adaptable and tailored learning options to individual learners as discussed by Rahimi et al. (2021) and Zawacki-Richter et al. (2019). According to Perpetua et al. (2025) the

study shows that blended and online learning affect students' academic performance through motivation, study habits, and participation. Most students had adequate technology access, but engagement varied by learning environment, highlighting motivation's key role in Philippine higher education outcomes. Understanding how these learning modalities influence students' motivation is vital, as motivation serves as a key determinant of persistence and academic success. Grounded in Self-Determination Theory (Deci & Ryan, 1985), this study examines the differences in intrinsic and extrinsic motivation between students in differerent learning settings. According to this theory, learners are motivated by the psychological needs for autonomy, competence, and relatedness—needs that may vary depending on the nature of instructional delivery and social interaction. In the present study aims to determine the levels of student motivation and academic performance in traditional and online learning and to examine whether a significant difference exists between the two modalities in the Philippine university setting on the Expectancy-Value Theory developed by Eccles and Wigfield (1983, 2002), this study posits that students' motivation and academic outcomes in traditional and online learning environments are influenced by their expectations for success and the subjective value they place on learning tasks. In the context of Philippine higher education, students who believe in their ability to succeed (expectancy) and who perceive their academic tasks as important, enjoyable, or useful for future goals (task value) are more likely to demonstrate higher engagement and better performance. Conversely, when students perceive high costs—such as time demands, connectivity issues, or lack of support—their motivation and achievement may decline.

While numerous studies have explored online or traditional learning independently, limited research has directly compared their effects on students' motivation and academic performance, particularly within the context of Filipino university students. There remains a paucity of direct empirical comparisons analysing how these different modalities affect student motivation (intrinsic and extrinsic) and academic performance concurrently. For instance, a 2023 study grounded in Self-Determination Theory found that intrinsic and extrinsic motivation in distance education varied significantly depending on instructional design, and older learners in online contexts showed stronger self-motivation than younger peers (Zhou & Zhang, 2023). Another comparative study of online vs. in-campus learning reported differences in intrinsic motivation scores and student engagement, yet did not extend the comparison into performance metrics such as grades or retention (Suriagiri, Norlaila & Akrim, 2024). Meanwhile, a mixed-method investigation of online business and healthcare students revealed strong motivational profiles but stopped short of contrasting with face-to-face counterparts (Kotera, Gorchakova, Maybury and Edwards, 2022). These findings highlight two major gaps: first, few studies simultaneously address motivation (disaggregated into intrinsic/extrinsic) and academic performance in a modality comparison; second, there is very limited research in the Philippine higher education context examining how traditional versus online modalities influence both motivational constructs and measurable academic outcomes.

Therefore, this study aims to determine the levels of student motivation and academic performance in both traditional and online learning environments and to examine whether a significant difference exists between the two modalities. By doing so, it contributes to a more nuanced understanding of how 21st-century educational delivery approaches shape students' motivational dynamics and academic achievement in the Philippine higher education context.

METHODS AND PROCEDURES

This chapter presents the methods and procedures employed in the study titled "Motivation and Academic Outcomes in Traditional and Online Learning: Evidence from Philippine Higher Education." The study adopted a descriptive correlational research design with a quantitative approach utilizing a structured survey questionnaire. This design was chosen to compare and describe the same group of respondents in terms of their motivation and academic performance across two learning modalities: traditional and online learning. The quantitative approach facilitated the collection of numerical data, which were statistically analyzed to determine significant relationships and differences between the two learning modes.

The population of the study consisted of 65 first-year education students from various majors, including BEED, BTLED, BSED English, BSED Mathematics, BSED Filipino, and BSED Science. A stratified convenience

sampling technique was employed to ensure fair representation from each major while considering the accessibility and availability of participants who met the criterion of having experienced both traditional and online learning environments.

The study utilized a survey questionnaire consisting of 20 items divided into two sections: ten items measuring the level of student motivation in traditional and online learning and ten items assessing academic performance in both modalities. The instrument employed a four-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (4).

The validity and reliability of the instrument were carefully established. Content validity was ensured through expert review, while internal consistency reliability was examined using Cronbach's alpha coefficient. These processes confirmed that the instrument was both valid and reliable for measuring the intended outcomes.

The data gathering procedure will involve a systematic and organized process to ensure the accuracy, validity, and reliability of the information to be collected. The process will begin with participant recruitment, wherein the researcher will identify and inform eligible students about the objectives, significance, and procedures of the study. During this stage, the purpose of the research will be clearly explained to the participants to promote understanding and voluntary involvement. In adherence to ethical research standards, consent forms will be distributed to secure the participants' informed consent and to guarantee that their participation is entirely voluntary and confidential.

After obtaining consent, the researcher will proceed to the validation of the research instrument. The survey questionnaire will be carefully designed based on the study's objectives and then submitted to the research adviser and field experts for evaluation, revision, and approval to ensure its content validity and reliability.

Once the instrument is finalized, the actual data collection will commence. The researcher will administer the questionnaire personally, ensuring that all respondents understand the instructions and that their responses are honest and unbiased. Adequate time will be allotted for participants to complete the questionnaire.

After all responses have been collected, the researcher will carefully organize and review the gathered data to check for completeness and accuracy. Any inconsistencies or missing responses will be addressed appropriately. The validated data will then be encoded, tabulated, and prepared for statistical analysis using appropriate tools and methods. This systematic procedure will ensure that the data collected are accurate, reliable, and reflective of the true perspectives of the respondents, thereby strengthening the credibility of the study's findings.

The data will be subjected to both descriptive and inferential statistical analyses. Descriptive statistics, including the mean, standard deviation, median, and range, will be computed to provide a comprehensive summary of the respondents' levels of motivation and academic performance in both traditional and online learning settings.

Prior to conducting inferential analyses, reliability testing will be performed to assess the internal consistency of the scales used in the study. Specifically, Cronbach's alpha will be computed for both the "Student Motivation" and "Academic Performance" scales, with values indicating excellent reliability.

Descriptive statistics, including means and standard deviations, will be used to summarize the responses for each indicator within the motivation and academic performance scales. To examine the relationship between motivation and academic performance, Pearson's correlation coefficient (r) will be calculated. The significance of this correlation will be tested using a t-test to determine whether the observed relationship is statistically significant.

This statistical approach ensures the accuracy, validity, and reliability of the analysis of respondents' motivation levels and academic performance across different learning environments.

RESULT

Frequency of Use

Table 1. Summary of Mean, Standard Deviation, Interpretation and Rank.

Indicator	Mean	Standard Deviation	Interpretation	Rank
I feel more encouraged to study when I am inside a classroom.	3.600	0.596	Often	3
I feel more disciplined when attending traditional classes.	3.710	0.587	Often	2
I like interacting with my classmates during face-to-face classes.	3.800	0.449	Often	1
I am more comfortable asking questions in person.	3.460	0.730	Often	5
I am more active and engaged during face-to-face discussions.	3.480	0.704	Often	4
I find online lessons interesting and flexible.	2.880	0.817	Sometimes	8
I feel comfortable expressing myself during virtual classes.	2.970	0.722	Sometimes	6
I can balance my study time better during online learning.	2.890	0.771	Sometimes	7
I am motivated to study even when I am at home.	2.660	0.777	Sometimes	10
I enjoy learning through digital platforms.	2.820	0.825	Sometimes	9

Table 1 shows that students often prefer face-to-face learning, as seen in the highest mean scores for indicators like enjoying interaction with classmates (3.800), feeling disciplined in traditional classes (3.710), and being encouraged to study inside a classroom (3.600). These results indicate that students feel more motivated, comfortable, and engaged in physical classroom environments. In contrast, indicators related to online learning such as enjoying digital platforms (2.820) or managing study time at home (2.660) received lower scores and were interpreted only as "Sometimes," suggesting that online learning is less favored and less effective for most students.

Academic Performance

Table 2. Summary of Mean, Standard Deviation, Interpretation and Rank.

Indicator	Mean	Standard Deviation	Interpretation	Rank
I learn more through direct discussions than through online modules.	3.740	0.573	Often	1
I perform better in written tests and quizzes during classroom sessions.	3.580	0.697	Often	2

I can easily understand the lessons taught by my teacher.	3.540	0.612	Often	3
I get higher grades in face-to-face classes.	3.220	0.749	Sometimes	4
I participate more in recitations during face-to-face learning.	3.200	0.741	Sometimes	5
I perform well during online quizzes or assessments.	3.170	0.735	Sometimes	6
I can handle my time well while studying at home.	2.770	0.866	Sometimes	9
I learn effectively even without face-to-.face interaction.	2.740	0.783	Sometimes	10
I can understand the lessons given through modules or online classes	2.800	0.738	Sometimes	8
I get good grades in online learning.	2.830	0.768	Sometimes	7

Table 2 reveals that students perform better academically during face-to-face classes, with high means and "Often" interpretations for learning through discussions (3.740), performing better in tests (3.580), and easily understanding lessons with teachers present (3.540). Meanwhile, tasks related to online learning such as handling time well at home (2.770) and learning effectively without face-to-face interaction (2.740) were rated "Sometimes," showing lower confidence and effectiveness in remote learning. This suggests that students understand lessons more clearly and perform better when there is direct interaction with teachers and classmates.

Table 3. Summary of Correlation of Frequency of Use and Academic Performance

Variable	t-value	P-value	Pearson-r Value (r)	Interpretation
Frequency of Use vs. Academic Performance	18.12	$p < 0.001$	0.916	Very Strong Positive Correlation

Table 3 shows a very strong positive correlation ($r = 0.916$, $p < 0.001$) between frequency of use of learning modalities and academic performance. This means that students who are more consistently engaged in their preferred learning set ups especially face-to-face environments tend to achieve higher academic results. The significant t-value (18.12) further confirms that this relationship is not due to chance, highlighting the importance of active and regular participation in learning activities.

DISCUSSION

The findings of this study directly address the research objectives by establishing a highly significant and strong positive correlation ($r = 0.916$, $p < 0.001$) between the frequency of student engagement in learning modalities and overall academic performance. This result confirms that active participation remains a robust predictor of academic success across instructional contexts. However, this relationship should be interpreted within the broader educational conditions that shaped students' learning experiences, particularly during the pandemic-driven shift to online and blended modalities.

In examining motivational profiles, traditional face-to-face learning yielded the highest mean scores for indicators associated with social interaction (Mean = 3.800) and classroom discipline (Mean = 3.710). These results align with Self-Determination Theory (SDT), suggesting that the structured and interactive nature of physical classrooms more readily supports students' needs for Relatedness and Competence. Within the Philippine higher education context, where collectivist values, peer interaction, and teacher presence are

culturally emphasized, such findings are unsurprising. Rather than indicating the inherent superiority of traditional instruction, these outcomes reflect students' greater familiarity with and access to well-established face-to-face learning environments prior to and during the pandemic.

Conversely, lower engagement and performance were observed in online learning tasks requiring high levels of autonomy and self-regulation, such as managing time at home and completing online assessments. These challenges are consistent with Expectancy-Value Theory, wherein students' reduced expectancy for success in digital settings may have diminished their motivation to engage. Importantly, these difficulties should be viewed in light of contextual constraints, including unequal access to stable internet connectivity, limited digital infrastructure, and insufficient prior exposure to online learning platforms—issues widely documented in the Philippine educational landscape during the pandemic.

The results therefore underscore the importance of strengthening digital pedagogy rather than dismissing online learning modalities. Research on technology-enhanced instruction emphasizes the need for intentional instructional design, scaffolding of self-regulated learning skills, and the development of digital self-efficacy to improve motivation and persistence in online environments. Personalized learning strategies, timely feedback, and explicit guidance in time management and independent learning may mitigate the motivational challenges identified in this study.

Finally, while the findings offer valuable insights, they should be interpreted with caution. Limitations include the use of self-reported data, which may be subject to response bias, and a sampling scope that may limit the generalizability of the results to other institutional or regional contexts. Future research may benefit from larger, more diverse samples and mixed-method approaches to capture deeper insights into students' motivational experiences across learning modalities.

CONCLUSION

The findings of this study strongly affirm that traditional face-to-face learning provides a far more effective environment for motivating students, sustaining their engagement, and enhancing their overall academic performance. Students clearly thrive when they receive direct interaction, immediate feedback, and structured guidance from teachers and peers conditions that are less consistently met in online learning. The clear connection between regular participation and stronger academic outcomes highlights the essential role of active involvement in any learning setup. In contrast, the challenges students face in digital learning environments point to significant gaps in self-regulation, confidence, and motivation. Overall, this study underscores the need for schools to strengthen interactive, supportive classroom experiences while also improving the design of online learning to better meet students' needs.

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