

Student Profile, Learning Modalities and Academic Performance of Tertiary Learners in the New Normal

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Abstract

This study employs a descriptive correlational design to examine the socio-demographic characteristics, learning modalities, and academic performance of students. The sample comprises of 336 students enrolled in Bachelor of Secondary Education (BSED) and Bachelor of Elementary Education (BEED) programs. Findings showed that learning modalities reflect a hybrid approach, combining traditional printed modules with modern platforms such as Google Meet and electronic modules. Despite socio-economic and technological limitations, the majority of respondents demonstrate strong academic performance, with GPA scores clustering around 90%. Statistical analysis indicates no significant relationship between academic achievement and variables such as gender, civil status, family income, geographical location, internet access, device type, academic program, and the education and occupation of household heads ($p > 0.05$). Findings suggest that these contextual factors do not substantially affect academic outcomes, highlighting student resilience and adaptability in navigating educational challenges. These insights can inform institutional support systems and educational policy, particularly in resource-constrained settings.

Keywords— academic performance; socio-demographics; learning modalities; digital access; educational resilience

Introduction

The COVID-19 pandemic has profoundly disrupted higher education systems worldwide, prompting a rapid shift from traditional face-to-face instruction to flexible learning modalities. In the Philippines, the Commission on Higher Education (CHED) responded by issuing Memorandum Order No. 4, series of 2020, which provided guidelines for implementing flexible learning in tertiary institutions. This transition, while necessary, introduced new challenges for both educators and learners, particularly in terms of access, engagement, and academic performance. As institutions continue to adapt to the post-pandemic educational landscape,

understanding how students navigate these changes is critical to ensuring equitable and effective learning outcomes.

Academic performance remains a key indicator of student success and institutional quality. However, the shift to flexible learning has raised questions about the extent to which students can maintain academic achievement amid varying levels of access to technology, internet connectivity, and instructional support. Recent studies have shown mixed outcomes: while some learners benefit from the flexibility of online platforms, others struggle with isolation, increased stress, and limited interaction with instructors (Akpen et al., 2024; Glowacki et al., 2025). These findings underscore the need to examine how different learning modalities—such as online, blended, and modular formats—affect student performance in diverse contexts.

Equally important is the role of student demographic profiles in shaping academic outcomes during the new normal. Factors such as age, gender, family income, geographic location, internet access, and availability of digital devices have been found to significantly influence learners' ability to engage with flexible learning environments (Foronda & Salviejo, 2024; Cabuquin et al., 2023). In Southeast Asia, disparities in socioeconomic status and digital infrastructure have contributed to uneven learning experiences, particularly among students from rural and low-income backgrounds (Darmawan & Dharmapatni, 2024). These variables must be considered when evaluating academic performance in the context of flexible learning.

While previous research has explored the impact of learning modalities and student characteristics on academic achievement, many studies were conducted prior to or during the early stages of the pandemic. There remains a gap in understanding how these factors interact in the post-pandemic era, especially within the Philippine higher education system. Moreover, few studies have simultaneously examined both student profiles and the types of learning modalities used, alongside academic performance metrics such as Grade Point Average (GPA). Addressing this gap is essential for developing targeted interventions and policies that support student success in the evolving educational landscape.

This study aims to investigate the relationship between student demographic profiles, learning modalities, and academic performance among tertiary learners in the Philippines during the new normal. By identifying the types of modalities used and analyzing how student characteristics influence academic outcomes, the research seeks to provide evidence-based insights for educators, administrators, and policymakers. Ultimately, the findings will contribute to the ongoing discourse on educational equity, digital inclusion, and instructional effectiveness in higher education.

Review of Related Literature

Tertiary education had implemented sudden changes in the educational system due to Covid 19. The academe considered new design in terms of the teaching style and the delivery mode of teaching to the learners. One of these was the use of flexible learning. This abrupt shift of the educational system from the traditional way of teaching to flexible learning using different learning modalities may result in their academic performance whether the students perform better in the face to face or flexible learning.

Learning Modality

There are different methods to assess the learning styles of the learners at the tertiary level. This study used a method in preference to flexible learning. The circulation of Memorandum Order No. 4, series of 2020 of the Commission on Higher Education defined Flexible learning as a pedagogical strategy that allows students to learn at their own pace and in different locations, but it's not limited to those who utilize technology. Although it frequently employs remote education delivery techniques and educational technology, this might vary based on technological levels, device availability, internet access, digital literacy, and approaches. Learners' specific requirements in terms of venue, speed, method, and outcomes of learning are addressed in the design and implementation of programs, courses, and learning interventions. These also entails the use of both digital and non-digital technologies and encompasses both face-to-face or in-person learning and using technologies in teaching, as well as a mix of both. In these aspects, this would ensure to keep at of inclusive and accessible education when standard teaching methods are unavailable, such as in the event of national emergencies (www.ched.gov.ph).

In the new normal era, digitalization enforces ways of working and learning. With this current situation, flexible learning played a significant role for educators and learners. Flexible learning is a comprehensive notion that might be difficult to explain due to its many aspects (Garrick & Jakupec, 2000; Soffer et al, 2019). According to a pedagogically student-centered perspective, the students should be allowed flexibility in terms of time, space, learning at their speed, altering learning methodologies, and choosing learning resources and evaluation activities (Flannery & McGarr, 2014; Nikolov et al, 2018). In terms of both learning design quality and more learning options for students, flexibility is an increasing trend in e-learning (Veletsianos & Houlden, 2019). Flexible learning environments promote behavioral engagement, student-centered pedagogies, and interaction in the classroom (Kariippanon et al., 2019).

In addition, flexibility is a multifaceted concept that encompasses both technological and pedagogical aspects of learning and teaching. More research is needed to better understand flexible learning considering the nature and levels of flexibility in learning and teaching, as a one-size-fits-all approach to flexible learning does not result in useful for all learners especially those who are living in remote areas (Naidu, 2017). The most encountered dimensions of flexibility in e-learning are learner-related location such as time, place, learning materials, interaction, and learning pace (Li & Wong, 2018; Soffer et alF, 2019). Furthermore, e-learning tools have played an important role during this pandemic, assisting schools and universities all over the world in facilitating student learning during university and school closures (Subedi et al., 2020). While adjusting to the new changes, staff and student readiness must be assessed and supported as needed. Learners with a fixed mindset struggle to adapt and adjust, whereas learners with a positive mindset adjust quickly to a new learning environment. There are numerous subjects with varying requirements. Doucet et al. (2020) posited that there are various approaches to online learning that can be applied to different subjects and age groups. Online learning also provides physically challenged students with more freedom to participate in virtual learning environments that require limited movement (Basilaia & Kvavadze, 2020; Sumitra & Roshan, 2021).

The new normal still has its challenges, and schools at all levels must address them and carefully examine plans and procedures for implementing the new normal in education. The educational system must adapt to the fundamental shift and be flexible to keep providing high-

quality education. Most higher education institutions have adapted and recommended the use of virtual classrooms such as Google Classrooms, Messenger, Zoom, Edmodo, Facebook, YouTube, and blended learning platforms (Abenes, F. M. & Caballes, D., 2020).

Academic Performance

Students' academic performance is widely regarded as the result of socioeconomic, psychological, and environmental factors. As a result, the factors influencing academic performance are likely to differ from one country to another (Al-Mutairi, 2011). According to Magaji (2014), characterization of performance is the evident demonstration of a person's understanding, concepts, skills, ideas, and knowledge, and grades depict a student's performance. Ni, A. Y. (2014) posited that a student's academic performance is a multidimensional concept that includes successful completion of a course, gaining knowledge, developing skills, and grades. Among these factors, a student's grade, which is typically expressed as a cumulative GPA score, is frequently used to assess individual success in academic programs, particularly in comparison to other students in the same program. GPA is a well-known measure of a student's performance that is widely used in universities, colleges, and high schools around the world.

The considerable literature on the shift from face-to-face teaching setup to mixed, online, or twist classroom learning analyzes these changes with the presumption that teachers carefully plan the changes for the instructional style that will be applied to learners. The transition to online teaching is usually done voluntarily by the teaching staff, with assistance from support personnel. It is a process that necessitates both resources (human, intellectual, and technical) and time. A typical course is predicted to take six to nine months entirely adapt to eLearning (including planning, preparation, and development (Hodges et al., 2020). However, research on how to make these abrupt fast transitions, as well as the potential effects of institutional and instructor decisions about the use of different instructional methods or supporting technologies, means (or at least meant before COVID-19) venturing into uncharted territory caused educational systems to shift from face - to - face to virtual platforms.

Educational scholars have studied the differences in student accomplishment between face-to-face or traditional style, mixed, and web-based learning, as evaluated by student academic performance. The outcomes of these analyses vary and appear to be highly dependent on the type of analysis and the study's sample. Because of a variety of possible confounding variables, the findings of a single course study, for example, may give fascinating result but anecdotal evidence of these differences — for example, Urtel (2008) discovered that students do better in face-to-face training or the conventional approach. However, as the number of courses studied grows, the results appear to confirm that students obtain higher grades in online learning than in face-to-face instruction, even if the difference is negligible – see, for example, Ladyshevsky's (2004) analysis of 9 course units or Cavanaugh and Jacquemin's (2015) study of 5000 courses. According to Means et al, (2013) discovered that students performed marginally better in online learning conditions when both 'purely online' and blended learning were considered, but the differences were only sustained when comparing blended and face-to-face learning – in other words, there were no significant differences between 'purely online' and face-to-face learning.

Furthermore, Soesmanto and Bonner (2019), for example, evaluated a dual-mode design in which students in year one of a business school at Griffith University in Australia had the option

of taking the same statistics course face-to-face or online. There were no significant changes in learning satisfaction or academic achievement between the two groups in the dual-mode system, according to the comparative study. Lorenzo-Alvarez et al. (2019) discovered that an online radiology course taught at an Australian university produced academic results comparable to face-to-face learning for a different type of course. Cavanaugh and Jacquemin (2015) compared grade-based learning outcomes between online and face-to-face courses taught at Ohio University using a large dataset of 5,000 courses taught by over 100 faculty members over ten academic terms at a large, public, four-year university. Accorded to the study's huge sample size, the findings demonstrate no difference in grade-based student performance for courses when both teaching modalities are applicable (Cavanaugh, J. & Jacquemin, S., 2015).

At Chapman University in California, Nyer (2019) studied successful strategies for presenting an online discussion in a course that is particular delivered via traditional face-to-face discussions. The study compared student learning outcomes (as measured by test scores) across three modes of lecture delivery: (1) traditional face-to-face lectures, (2) online instruction using a video recording of the classroom lecture, and (3) online instruction using a static document created from an edited transcript of the classroom lecture embedded with charts, graphs, and so on. Students exposed to the online lecture delivered using the static document, as well as students who attended the face-to-face lecture, reported having higher quality notes than students exposed to the video recording.

Methodology

Research Design

The study utilized descriptive correlational method in gathering data pertinent to the study. A researcher-made questionnaire was designed to gather data online using Google forms. Data gathered were recorded, analyzed, and interpreted using appropriate statistical tools.

Participants & Sampling Technique

The respondents of this study were the students at the College of Teacher Education. Random Sampling was used in the gathering of data. Informed consent was asked from the respondents to voluntarily join the study as well as access to their GPA in the registrar's database.

Research Instrument

A researcher-made questionnaire was developed. This was pilot-tested in the College of Criminal Justice Education for reliability. Results of the pilot test was subjected to the Cronbach Alpha test of reliability with a result of 7.6.

Data Gathering Procedure & Ethical Consideration

Ethical protocols were strictly observed throughout the study: informed consent was secured, participants' anonymity was preserved, and their right to withdraw was respected. The instruments were administered primarily through Google Forms, while printed copies were distributed in areas with limited internet connectivity. Moreover, the research protocol had been reviewed and granted ethical clearance by the Institutional Ethics Committee, ensuring compliance with academic and professional standards.

Data Analysis Procedure

To aid the researchers in the analysis of the data, frequency, percentage, weighted mean, Pearson Product Moment Correlation and Chi-square test of association were used to analyze data.

Results and Discussion

Socio-demographic Profile of the Respondents

Table 1a. Age of the Respondents

Age	Counts	% of Total
18	5	1.5 %
19	62	18.5 %
20	50	14.8 %
21	89	26.5 %
22	77	22.9 %
23	23	6.8 %
24	9	2.7 %
25	5	1.5 %
Above 25	16	4.8 %
Total	336	100%

Table 1.a shows the ages of the respondents. The age distribution of the respondents shows a concentration in younger age groups, with the majority of respondents being between the ages of 18 and 22. The largest age group is 21 (26.5%), followed by 22 (22.9%) and 19 (18.5%). This implies that the bulk of the sample consists of individuals who are most likely falling within the college-age student range.

Table 1b. Gender of the Respondents

Gender	Counts	% of Total
Male	45	13.4 %
Female	282	83.9 %
LGBTQ	9	2.7 %
Total	336	100%

Table 1b shows the gender of the respondents. There are 282 female respondents comprising 83.9% and 45 males or 13.4%. The gender distribution shown in women make up the majority of the sample. LGBTQ respondents make up only 2.7% of the total respondents.

Table 1c. Civil Status of the Respondents

Gender	Counts	% of Total
Gender	Counts	% of Total
Single	328	97.6 %
Married	8	2.4 %
Total	336	100%

Table 1c shows the civil status of the respondents. 97.6% of respondents are single, while only 2.4% are married. This distribution of civil status suggests that the sample is primarily composed of individuals who are most likely still in the early stages of their college life, as marriage is more prevalent among the elderly.

Table 1d. Monthly Family Income of the Respondents

Estimated Household Monthly Income	Counts	% of Total
Below Php 3,000	118	35.1 %
Php 3,001 - 5,000	120	35.7 %
Php 7,001 - 9,000	32	9.5 %
Php 9,001 - 11,000	18	5.3 %
Php 11,001 - 15,000	21	6.3 %
Above Php 15,000	17	5.1 %
Did not indicate	10	3.0 %
Total	336	100%

Table 1d. reveals the estimated household monthly income of the respondents. A sizable percentage of the sample originates from lower-income households. More than 70% of respondents come from lower-income households, with 35.7% reporting a family income between Php 3,001 and Php 5,000 and 35.1% earning less than Php 3,000. This finding is crucial for comprehending the sample's economic background because people from lower-income families might have particular difficulties getting access to opportunities, resources, and education. Higher-income households are underrepresented in the sample, as evidenced by the fact that only 5.1% of respondents are from households making more than Php 15,000. A tiny percentage of respondents (3.0%) did not reveal their family income.

Table 1e. Geographical Location of the Respondents

Geographical location	Counts	% of Total
Rural barangay	207	61.6%
Urban barangay	129	38.4%
Total	336	100%

Geographically, the majority of responders (61.6%) live in rural barangays, while the remaining 38.4% do so in urban barangays. This implies that the sample is biased in favor of rural residents, who might experience distinct difficulties than those in cities, such as restricted access to economic, healthcare, educational, and infrastructure opportunities. When examining regional differences in social mobility, attitudes toward education, or access to resources, the greater proportion of respondents from rural areas may be a significant consideration. Even though they are less represented, urban areas typically offer greater access to resources and opportunities, which may be a reflection of respondents' varying experiences depending on where they reside.

Table 1f. Internet Connectivity at Home

Internet connectivity	Counts	% of Total
No Connection	8	2.4%
Slow	32	9.5%
Unstable	265	78.9%
Fast	31	9.2%
Total	336	100%

The majority of respondents (78.9%) report having unstable internet, according to data on internet connectivity. This is an important finding because respondents' capacity to access online learning materials, engage in remote learning, or communicate effectively may be impacted by inadequate or inconsistent internet access. There may be some variation in internet quality across the sample, as 9.5% of respondents report having slow internet and 9.2% report having fast internet. 2.4% of respondents say they have no internet connection at all, which could indicate a digital divide in which some people have no way to interact online. Given the high proportion of erratic and sluggish internet connections, this data implies that many respondents might have trouble using digital platforms, which could have an impact on the findings on learning mode preferences.

Table 1g. Type of electronic gadgets used in online classes

Type of electronic gadgets used in online classes	Counts	% of Total
Desktop	6	1.8%
Laptop	35	10.4%
PisoNet	20	6.0%
Smart Phone	273	81.2%
Tablet	2	0.6%
Total	336	100

With 81.2% of respondents saying they use smartphones for online learning, smartphones are the most common electronic device used for online classes. This is an important finding because it shows that the majority of respondents use smartphones as their main device to access online courses. The fact that so few respondents use laptops (10.4%), Pisonet computers (6.0%), or desktops (1.8%) indicates that although these devices are common in more traditional or stable learning environments, the respondents in this sample have less access to them. Tablets are the least popular option for online learning, as evidenced by the even lower percentage of respondents who use them (0.6%).

Table 1h. Program and Year Level of the Respondents

Program and Major	Year	Counts	% of Total
BSED Social Studies	1	53	15.8%
	2	13	3.9%
	3	44	13.1%
	4	29	8.6%
BSED English	1	20	6.0%
	2	14	4.2%
	3	25	7.4%
	4	24	7.1%
BSED Math	1	1	0.3%
	2	7	2.1%
	3	1	0.3%
	4	11	3.3%
BEED General Curriculum	1	25	7.4%
	2	8	2.4%
	3	30	8.9%
	4	31	9.2%
Total		336	100.05

Table 1h shows the degree programs and year level distribution. The Social Studies majors in Year 1 (15.8%) and Year 3 (13.1%) of the Bachelor of Secondary Education (BSED) programs make up the largest percentage of responders. With 6.0% in Year 1 and 7.4% in Year 3, the English major is more evenly represented. However, there are fewer respondents overall for math majors, with the highest percentage (3.3%) occurring in Year 4 and very few in the first and third years (0.3%). The respondents for the Bachelor of Elementary Education (BEED) program are rather dispersed, with Year 4 (9.2%) showing the most concentration, followed by Year 3 (8.9%). Students from early to mid-year levels are significantly represented in this distribution.

Table 1i. Educational Attainment of the Head of the Family

Educational attainment of the head of the family	Counts	% of Total
Elementary level	94	28.0%
Elementary graduate	31	9.2%
High School level	49	14.6%
High School Graduate	50	14.9%
College level	66	19.6%
College Graduate	45	13.4%
Graduate	1	0.3%
Total	336	100%

Table 1i shows the educational attainment of the head of the family. The heads of a significant number of respondents' families have only a low to moderate level of education. 19.6% of family heads are college-educated but have not earned a degree, and 28.0% have only completed elementary school or have some elementary education. On the higher end, just 0.3% of family heads have earned a graduate degree, and only 13.4% have a college degree. This implies that a

large number of families have less education, which may have an effect on the resources and assistance offered for the respondents' academic pursuits. Family heads' comparatively low levels of formal education could also be a sign of issues with their households' access to higher education, financial security, or career mobility.

Table 1j. Occupation of the Head of the Family

Occupation of the household head	Counts	% of Total
Farmer	113	33.6%
Fisherman	10	3.0%
Government employee	22	6.6%
Private Employee	49	14.6%
Self-employed	29	8.6%
Skilled worker	68	20.2%
Unemployed	45	13.4%
Total	336	100%

The respondents' households' economic structure can be inferred from the head of the household's occupation as revealed in Table 1j. With 20.2% being skilled workers and 33.6% being farmers, a sizable percentage of family heads work in manual labor or agriculture. In addition, 13.4% of family heads are unemployed and 14.6% work for private companies. Just 6.6% are employed by the government, 3.0% are fishermen, and 8.6% are independent contractors. A significant percentage of the population appears to be employed in low-paying or blue-collar jobs, as indicated by the high representation of farmers and skilled workers. This could have an impact on household income, financial stability, and access to educational opportunities. The noteworthy 13.4% unemployment rate among family heads may be a sign of the financial instability that some households are experiencing.

Learning Modalities of Respondents

Table 2. Learning Modalities Encountered by the Respondents

Learning Modalities	Counts	Rank
Offline		
Audiotapes	6	5
Course packs	31	4
Learning Packets	39	2.5
Printed Modules	231	1
Videotapes	39	2.5
Blended		
Audio Tapes	6	5
Online class via Google Meet	281	1
Printed or electronic modules	137	2
Podcasts	7	4
Radio	1	7
Television	3	6
Video	58	3
Online		
Audio	29	3
Electronic modules	232	1
LMS	19	4
OER	9	6
Podcast	7	7
Video	123	2
Webcast	17	5

Table 2 presents the learning modalities that the respondents have encountered, categorizing them into offline, blended, and online modes with multiple responses. For offline learning modalities, the most common is the use of printed modules, with 68.75% of respondents engaging with them, followed by learning packets and videotapes, each accounting for 11.61% of the sample. This indicates that printed resources remain the most prevalent form of offline learning, which could be due to their tangible nature and easy distribution, especially in contexts with limited access to digital resources. Meanwhile, audiotapes and course packs are used by fewer respondents (1.79% and 9.23%, respectively), highlighting a preference for more interactive or comprehensive materials (like modules) over these more traditional forms of offline learning.

As to blended learning modalities, online classes via Google Meet are the dominant modality, with 83.63% of respondents engaging with them. This suggests that despite the prevalence of offline learning materials, online platforms are essential and widely used for real-time, interactive learning. The use of printed or electronic modules (40.77%) also stands out, making it the second most common modality in this category. Other methods like podcasts (2.08%) and radio (0.30%) are used much less frequently, indicating that these may not be as effective or accessible for the respondents, or they are less integrated into the learning system.

In the online learning modalities, the most utilized online modality is electronic modules (69.05%), showing a significant reliance on digital resources for learning. This is followed by video (36.61%), indicating that visual learning formats are highly preferred. Audio (8.63%) and LMS (Learning Management Systems) (5.65%) are less popular but still used by a significant portion of the respondents. Webcasts (5.06%) and OER (Open Educational Resources) (2.68%) are among the least used online modalities.

This breakdown highlights that, while offline materials like printed modules are widely used, there is a significant shift toward digital learning through online platforms, particularly Google Meet for live sessions and electronic modules for self-paced learning. It also shows that the accessibility and popularity of these online platforms are critical in shaping the learning experience for respondents.

Table 3. Academic Performance of the Respondents

General Point Average (GPA)	Counts	% of Total
81	1	0.3 %
84	1	0.3 %
86	4	1.2 %
87	5	1.5 %
88	26	7.8 %
89	70	21.0 %
90	121	36.2 %
91	67	20.1 %
92	28	8.4 %
93	11	3.3 %
Did not indicate	2	0.6%
Total	336	100%

Table 3 shows the academic performance of the respondents as reflected by their general point average (GPA) grade. The highest response is in the GPA range of 90, with 36.2% of respondents. The next highest group is those with a GPA of 89 (21.0%), followed by those with a GPA of 91 (20.1%). A smaller proportion of students have a GPA of 88 (7.8%), while even fewer have GPAs of 92 (8.4%) or above, showing that only a limited number of respondents are achieving higher academic performance.

Very few respondents have GPAs lower than 88, with only 2 respondents not indicating their GPA (0.6%), and only a small percentage scoring below 85 (e.g., 1.5% with a GPA of 87). This could suggest a relatively high level of academic achievement across the sample, with most students maintaining GPAs that would be considered above average.

Overall, the distribution of GPAs shows that the majority of respondents are achieving solid academic results, with a concentration in the mid-range of GPAs, which might reflect a group that is generally performing well but with some room for improvement.

Table 4a. Correlation result Between Age and Academic Performance

		Age	GPA
Age	Pearson's r	—	
	p-value	—	
GPA	Pearson's r	0.093	—
	p-value	0.091	—

Table 4a shows the correlation between age and academic performance (GPA). The Pearson correlation coefficient (r) for age and GPA is 0.093, indicating a weak positive correlation. This suggests that there is a very slight relationship between age and GPA, but the correlation is not strong enough to suggest that age significantly impacts academic performance.

The p-value of 0.091 is slightly above the typical threshold for statistical significance ($p < .05$). This means that the observed correlation between age and GPA is not statistically significant, implying that any small relationship observed might be due to random chance rather than a true underlying connection.

Table 4b Chi-square Test result Between Gender and Academic Performance

	Value	df	p
χ^2	21.9	18	0.236
N	334		

The chi-square value of 21.9 (with 18 degrees of freedom) results in a p-value of 0.236, which is greater than the 0.05 significance level. This indicates no significant relationship between gender and academic performance in this dataset.

Table 4c. Chi-square Test result Between Civil Status and Academic Performance

	Value	df	p
χ^2	5.88	9	0.752
N	334		

The chi-square value of 5.88 (with 9 degrees of freedom) results in a p-value of 0.752, which suggests no significant relationship between civil status and academic performance.

Table 4d Chi-square Test result Between Monthly Family Income and Academic Performance

	Value	df	p
χ^2	33.7	54	0.986
N	334		

The chi-square value of 33.7 (with 54 degrees of freedom) results in a p-value of 0.986, indicating no significant relationship between monthly family income and academic performance.

Table 4e. Chi-square Test result Between Geographical Location and Academic Performance

	Value	df	p
χ^2	4.76	9	0.855
N	334		

The chi-square value of 4.76 (with 9 degrees of freedom) results in a p-value of 0.855, indicating no significant relationship between geographical location and academic performance.

Table 4f. Chi-square Test result Between Internet Connectivity at Home and Academic Performance

	Value	df	p
χ^2	12.7	27	0.991
N	334		

The chi-square value of 12.7 (with 27 degrees of freedom) results in a p-value of 0.991, indicating no significant relationship between internet connectivity at home and academic performance.

Table 4g. Chi-square Test result Between the Type of electronic gadgets used in online classes and Academic Performance

	Value	df	p
χ^2	13.2	36	1.000
N	334		

The chi-square value of 13.2 (with 36 degrees of freedom) results in a p-value of 1.000, indicating no significant relationship between the type of electronic gadgets used in online classes and academic performance.

Table 4h. Chi-square Test result Between the Program and Year Level of the Respondents and Academic Performance

	Value	df	p
χ^2	140	135	0.378
N	334		

The chi-square value of 140 (with 135 degrees of freedom) results in a p-value of 0.378, suggesting no significant relationship between the program/year level and academic performance.

Table 4i. Chi-square Test result Between the Educational Attainment of the Head of the Family and Academic Performance

	Value	df	p
χ^2	57.9	54	0.334
N	334		

The chi-square value of 57.9 (with 54 degrees of freedom) results in a p-value of 0.334, indicating no significant relationship between the educational attainment of the head of the family and academic performance.

Table 4j: Chi-square Test result Between the Occupation of the Head of the Family and Academic Performance

	Value	df	p
χ^2	65.3	63	0.398
N	334		

The chi-square value of 65.3 (with 63 degrees of freedom) results in a p-value of 0.398, suggesting no significant relationship between the occupation of the head of the family and academic performance

Conclusion

This study presents a detailed socio-demographic and academic profile of students enrolled at NORSU Bais Campuses 1 and 2, revealing a predominantly young, female, and economically constrained population. The majority are within the traditional collegiate age bracket of 18 to 22, actively pursuing undergraduate education. A pronounced gender disparity was evident, with females forming the overwhelming majority, and a small portion identifying as LGBTQ+.

Nearly all respondents are single, aligning with their age and educational status. Financial data indicates that over 70% of students belong to households earning below Php 5,000 per month, underscoring widespread economic vulnerability. This is mirrored in the educational background and occupational status of household heads, most of whom are engaged in farming, skilled labor, or low-income work, and possess only elementary or secondary-level education.

Geographic data shows a concentration of students in rural barangays, which presents potential barriers to accessing academic resources and digital infrastructure. The majority reported unstable internet connectivity and rely heavily on smartphones for academic engagement—emphasizing the persistent digital divide.

Academically, students are primarily enrolled in the Bachelor of Secondary Education (BSED) and Bachelor of Elementary Education (BEED) programs, with majors in Social Studies and General Curriculum predominating. Respondents are fairly distributed across all academic year levels. The use of smartphones as primary learning devices further reflects limited access to advanced digital tools such as laptops or desktop computers.

Despite these structural and technological constraints, the respondents demonstrated commendable academic performance, with most achieving GPAs near 90. This suggests resilience and adaptability among the student population. Modes of learning incorporate both traditional materials (e.g., printed modules) and digital platforms (e.g., Google Meet, electronic modules), indicating an evolving hybrid instructional model.

Statistical analysis reveals that none of the socio-demographic or technological variables examined—namely gender, civil status, household income, geographic location, internet connectivity, device type, academic program, and the education and occupation of household heads—have a statistically significant relationship with academic performance ($p > 0.05$). This suggests that, within this dataset, students' scholastic achievement is not substantially influenced by these factors.

These findings offer important insights for educational policy and institutional support systems. They underscore the need to address digital infrastructure gaps, economic inequities, and learning resource distribution while recognizing the capability of students to maintain academic success despite adversity.

Recommendations

Based on the conclusions of the study, it is suggested that interventions aimed at improving academic performance should not necessarily focus on altering family income, location, or the educational background of the household. Rather, policies and programs might focus more on providing equal access to learning resources (like internet connectivity and gadgets) and creating an environment conducive to learning. This could mean focusing on improving learning resources, tutoring services, and improving study habits rather than trying to tackle socio-economic disparities directly.

Given that external factors like income or location didn't show a strong relationship, it could be inferred that academic performance may be more closely linked to internal academic factors. These could include the quality of teaching, the availability of academic support services, the students' own engagement with the material, or even their intrinsic motivation. Therefore, schools and universities may want to focus more on enhancing these factors to help improve student performance. Likewise, this could be an opportunity to explore and understand what strategies these students use, so that successful practices can be shared or expanded to others who might be facing challenges.

While this study did not find significant relationships, the results don't necessarily rule out the possibility that other unexamined factors could be more impactful. Future studies might explore different variables that weren't considered here (e.g., personal study habits, peer influence, access to learning resources, or mental health) which may have more influence on academic outcomes. Future studies could benefit from exploring a larger or more varied sample, as well as considering other variables not accounted for in this study.

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