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STUDENTS' PERFORMANCE, SATISFACTION, ACCEPTANCE AND USE OF TECHNOLOGY, AND BEHAVIORAL INTENTION DURING THEIR BLENDED LEARNING EXPERIENCE: A CASE IN A STATE UNIVERSITY IN CAGAYAN VALLEY, PHILIPPINES

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Abstract. Blended Learning (BL) is characterized with onsite and online modes of instruction employing benefits from both modalities widely used during the COVID-19 Pandemic. The researchers looked into how the students' performance during their BL is affected by their level of satisfaction and their perceived acceptance and use of technology in their BL during the pandemic employing a descriptive correlational approach and using a questionnaire to collect data from a sample of 320 students from all the four colleges. Data were analyzed using Pearson-r, t-test, and ANOVA and multiple linear regression to identify predictors of students' BL performance. Results showed that students' overall Satisfaction with their BL is high with high levels of Satisfaction with their teachers, technology, course management, and engagement in BL, and moderate satisfaction with instruction; that all seven constructs of Unified Theory of Acceptance and Use of Technology (UTAT2) are correlated positively significant with students' Behavioral Intention (BI) to use BL; that the students' Academic Performance and their BI to use technology as well as their Satisfaction with BL have significant positive relationships and that both BI and Satisfaction with BL contribute to significant improvements to students' Academic Performance. Therefore, the combination of BI and Satisfaction with BL are valuable factors in understanding and in influencing students' Academic Performance in BL classrooms implying that there are learners who may perform better or worse in a BL setting due to their BI and levels of Satisfaction thus recognizing and addressing these factors can have a significant effect on educational outcomes.

Keywords: acceptance on the use of technology, behavioral intention, blended learning, satisfaction with blended learning, student performance

1. INTRODUCTION

The Covid-19 pandemic caused challenges in all aspects of life across the globe in many unexpected and inconceivable ways. Numerous organizations were forced to modify their systems and strategies and to adopt new technologies (Toquero, 2020). But according to Carroll & Conboy (2020), there are many who did not have adequate knowledge and skills nor time to prepare in the use of new way of learning and technologies, old or new, into their usual activities.

In education, the pandemic changed the way schools delivered their instructions where online learning became a widely used delivery method for distance education in either synchronous and asynchronous sessions. In the Philippines, teachers and learners in all levels stayed home following government's quarantine measures. According to reports from UNESCO (2020), there are 3.5 million college students in 2,400 institutions who had to be pro-active in implementing policies for the continuance of education despite the COVID-19.

The complete and abrupt shift of learning, mostly online, had significant negative effects on students, teachers, and educational institutions according to Mailizar et al. (2020). Though students and teachers have already been using technology before the pandemic, not all have the same level of digital skills and confidence in using it. The success of online learning can also depend on how technology is used. Having access to it is not enough. Familiarity with various online applications by the students is also an important requirement (Basar et.al., 2021) while the ability to use technology and to use it as a teaching strategy to achieve their learning goals among teachers contribute in making the online procedure efficient and successful (Ali et.al., 2023). It is significant, according to Ashrati et al. (2020), that schools allocate budget to acquire technological materials for instruction and to provide training for teachers and even for students.

Blended learning (BL) emerged as one of the most popular pedagogical concepts at the beginning of 2000 (Graham, 2006; 2018) which combines elements of onsite and online (Cobo-Rendón et al., 2022) in delivering instruction and in the end help learners demonstrate desired competencies (Fisher, Perényi, & Birdthistle, 2021).

The question on whether to implement BL or not in tertiary schools or in all academic institutions was not a question due to the pandemic. The world and the Filipinos were forced an urgent virtualization of academic activities thus the adoption of BL mode of instruction.

In April 2022, teachers and students of Cagayan State University (CSU) Piat Campus, an HEI in Cagayan Valley, Philippines, went back to the classrooms and adopted BL. During their online mode, classes were conducted synchronously and asynchronously using the CSU Learning Environment Network System (LENS) along with Google Meet, Facebook page, Messenger group chat, and more. In all these online modes, CSU teachers were required to use technology and to innovate the classroom experiences. On the other hand, most students had to own and learn to use the available and affordable smart phones, just like the pre-service students in Ghana (Ogbonnaya, Awoniyi, & Matabane, 2020) to be able to join a virtual class, submit a requirement, and interact with their classmates and instructors.

The researchers believe that using BL will continue as a post-pandemic mode of learning in college as it is, nowadays, the virtual environment and the use of technologies have become requirements for professional performance and growth (Sia et al., 2023). Further, BL is believed to stay for it is a good development in higher education as is seen to combine the good practices of onsite and of online teaching and instruction modes (Bokolo, 2021) and that BL is believed to be appropriate and effective to achieve inclusivity in education (Batac, Baquiran, & Agaton, 2021). In this context, the researchers looked into the students' BI on technology acceptance of online instructions as a component of BL using the model UTAUT2 adapted from Venkatesh et al. (2012) to determine the technology acceptance among students and explore its relationship to students' satisfaction and success in BL with the hope of assisting students in better coping with the challenges of their exposure to BL mode of learning and in the end help them improve their performance in their classes.

2. RELATED LITERATURE

The researchers are led and guided in carrying out this investigation by several literature on Blended Learning.

2.1. Blended Learning

Blended learning (BL) became a popular, if not the most popular, pedagogical concept at the beginning of 2000 (Graham, 2006). The hybrid or blended mode of learning allows less students and teachers attending classes in the classrooms with the use of ICT materials (Chowdhury, F., 2020). Further, (Fillion et.al., 2007; Fillion, & Ekionea, 2011) mentioned another format of BL where the students come to class for lesson discussion for a certain set days during the week while in another set days stay home and use ICT materials such as laptop and smart phones and perform tasks using e-mail, Messenger chat, Google Meet, Web browser, and other Internet-based software.

In all the CSU campuses, the LENS has become an online platform during the COVID -19. When CSU went back to the classrooms the BL in provided a variety of services during and after the COVID 19 period where both including fora, tests, and learning and teaching resources. It is the face of the university's online learning where students download lecture and activity materials for their lessons, where they interact with other students and their instructors, and upload their completed outputs, and take their assessment and receive results.

2.2. Student Performance

Z. Xu, H. Yuan and Q. Liu (2020) measured the performance of student using their final exam given them onsite or during their face-to-face classes, and their results show that students performance can be predicted by the students' behavior during their online classes. Their findings further show that predicted results are stable and reliable.

In the study of Vo, Zhu, & Diep (2020), a meta-analysis was conducted on the effect of BL on student performance based on their final course grade considering as predictors the disciplines of the student and the method of end-of-course evaluation. They confirmed a categorical effect of BL on student performance in a higher education setting, specifically on the performance of students enrolled under STEM as discipline, but not on their end-of-course evaluation.

In the present study, the student performance is analyzed in relation between their behavioral intention to use technology during their BL as well as their satisfaction with their blended learning classes.

2.3. Acceptance and Use of Technology

One very important consideration of teachers and students in their online and onsite classes during and after the pandemic which brought the use of BL mode is on the use and availability of technology (Starkey, 2020) and the attitude of the teachers (Islahi, F., 2019), and the students (Alharthi 2020) in the use of said technology. Rasheed, Kamsin, and Abdullah (2020) pointed that despite the benefits that technology brings, students and teachers are faced with the demands in the online elements of BL. Like the Filipino teachers and students according to Tanujaya et al. (2021), the Indonesians are also having problems with their access to and ability to use technology. The numerous advantages of technology are undeniable but problems and challenges are faced by teachers and students when conducting BL. Findings from Rasheed, Kamsin, and Abdullah (2020) affirmed that students and teachers are challenged by their use of technology while the schools are burdened with its acquisition. Similarly, technological issues also occurred when BL was implemented during the pandemic in rural areas of Indonesia, especially related to access to technology and the ability to use technological tools for OL (Tanujaya et al., 2021).

However, the degree of technological adoption and behavioral goals of an individual demonstrate their preparedness to modify their daily activities and adopt the new changes (Succi & Walter, 1999; Baudier, Ammi, & Deboeuf-Rouchon, 2020) thus the researchers looked into the acceptance, satisfaction and BI of their respondents in the use of technology during their BL.

This study utilized the modified Unified Theory of Acceptance and Use of Technology (UTAUT2) model by Venkatesh et.al. (2012) composed of seven constructs namely: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Value, and Habit.

2.4. Student Satisfaction

To effectively promote educational processes for institutions, teachers, and students, it is crucial to measure student satisfaction with BL. Although the sole option during the pandemic is online mode of instruction, student satisfaction is essential for good and efficient learning process. Findings of Fisher, Perényi, & Birdthistle (2021) support the investigation of using BL or flipped classroom not only to improve student performance but also to ensure their satisfaction. Their findings further show that the satisfying engagement of students during their BL is independent of their perceptions of their performance.

Results of Moussa's study (2017) showed that most of their student respondents preferred their face-to-face (F2F) learning experience and that they enjoyed said F2F experience. Further, their findings show that there are students with changing feelings from negative to positive for accordingly, the BL experience was their first giving them difficulty but eventually went well as they further with their BL sessions.

During BL, teachers and students are provided with a course management and facilities giving them interaction opportunities during the class, thus increasing their satisfaction according to Zeqiri, Kareva, & Alija (2021). More specifically, said satisfaction arose from the easier publication of resources and the independent work among students thus the conclusion that BL improves satisfaction among students.

3. METHODOLOGY

The descriptive-correlational design, like in Pikirang, Liando & Wuntu (2021), was employed in this investigation. The determination of the students' profile, academic performance during online classes, students' satisfaction with their BL made up the descriptive component of this study while the relationship of their profile to their grades and satisfaction with their BL composed the correlational component.

The research was carried out at Cagayan State University at Piat Campus during the academic year 2022-2023 when the university partially went back to the physical classrooms. Data were gathered from students of the Campus' four colleges: the College of Agriculture, the College of Criminal Justice Education, the College of Teacher Education, and the College of Information and Computing Sciences.

A total of 320 participants, composed of 80 students from every college, was used in the study. The sample size was obtained by using the Cochran's formula at 95% confidence level and 5% margin of error (Hasan & Kumar, 2024) while samples from each college and year level were determined using simple stratified sampling.

Table 1: Distribution of Students according to College and Year Level

College/Year Level	1st Year	2nd Year	3rd Year	4th Year	Total
CA	132	152	189	72	**545**
CCJE	97	114	88	69	**368**
CICS	149	121	123	169	**562**
CTED	76	100	91	100	**376**
Total	**454**	**487**	**491**	**410**	**1842**

The primary instrument for obtaining the information required to carry out the study is a questionnaire with three sections: Section 1 asks for the related information about the participants' profile; Section 2 is the UTAUT2 survey questionnaire adapted from Venkatesh et al. (2012) describing the students' behavioral intensions of technology acceptance in their BL in terms of the identified seven constructs; and Section 3 asks about students' satisfaction with BL composed of 35 items using an arbitrary scale. The respondents' Grade Point Average (GPA), issued and described with an arbitrary scale by the Campus Registrar, was used to reflect the students' academic performance for SY 2021–2022.

Frequency count, percentage count, mean, and weighted mean were used to analyze students' profile, their academic performance for SY 2021 – 2022, and their satisfaction with their online learning while inferential statistics such as comparative, correlational as well as regression analysis were employed. To examine the variations in students' BI and Satisfaction with BL, One-way ANOVA and t-test were used while to ascertain the association between the three research variables, Pearson – r and simple regression were used.

4. RESULTS AND DISCUSSION

Table 2 presents that majority of the students (284 or 83.5%) come from families with a monthly income below 10,000 while the least (8 or 2.5%) have family income of 30, 000 - 39, 999; that majority (285 or 90.2%) use mobile data to be able to attend to their synchronous or asynchronous classes; that majority (290 or 91.8%) use smart cellphone as gadget or tool for their online learning; and that most of them (157 or 49.7%) have experienced 1 – 2 semesters of online learning.

Findings on the significant number of students that come from families with a monthly income below 10,000 explain the prevalent use of mobile data and smartphones for their online learning given the affordability of said tools and internet connectivity for economically disadvantaged students. This finding is supported by the survey result of Banerjee (2022) indicating a substantial 45% and 50% usage of smartphones to access course materials and complete assignments of the respondents both the larger sample (n = 535) and the focused group (n = 61) respectively. Accordingly, these results show that such use of smartphones in their classes is likely due to the lack of adequate Technological Access which includes desktops/laptops and available and affordable Internet connectivity.

Table 2: Frequency and Percentage Distribution of Students according to Their Profile

Profile Variable	Frequency (N= 316)	Percentage
Family Monthly Income		
Below 10,000	264	83.5
10,000 - 19, 999	31	9.8
20,000 - 29, 999	13	4.1
30, 000 - 39, 999	8	2.5
Internet Connectivity:		
Mobile Data	285	90.2
Wifi	31	9.8
Gadgets used for Online Learning:		
Smart Phone	290	91.8
Laptop/desktop	26	8.2
Experience in Online Learning:		
1 – 2 semesters	157	49.7
3 – 4 semesters	137	43.4
5 – 6 semesters	22	7.0

Table 3 presents the academic performance of students during their BL experience describing their performance to be Good with a mean grade of 87.22. Their grades range from Satisfactory or 79-81 (3.5%) to Outstanding or 91-93 (8.2%); and most have grades of 88-90 (34.8%) and 85-87 (34.5%) described to be Very Good and Good respectively.

Data suggest a positive academic performance outcome for students during the BL mode. But while most students performed well, there was a little variation in their academic performance with a few achieving higher or lower grades.

Table 3: Academic Performance of the Students during Their Blended Learning Experience

Grade	Frequency	Percentage	Descriptive Value
91 – 93	26	8.2	Outstanding
88 – 90	110	34.8	Very Good
85 – 87	109	34.5	Good
82 – 84	60	19.0	Very Satisfactory
79 – 81	11	3.5	Satisfactory
Total	**316**	**100.0**	
Mean Grade = 87.22 (Good) **Std. Dev. = 2.854**			

Table 4 provides the overall satisfaction of students and shows that they have High Satisfaction (3.50) for their blended learning classes.

Results show that students have the highest satisfaction with their course management (3.79) like what is found by Almusharraf & Khahro (2020). More specifically, the students believe that discipline is highly observed when the lecturer is on the other side of the blended leaning or is not present among the students, and that the lecturer/supervisor always takes attendance. Additionally, students express satisfaction with how the course is managed in the BL environment, believing in effective discipline, consistent attendance tracking, and commitment comparable to traditional face-to-face classes during video conferencing sessions and they also manifest high

satisfaction with interaction because they feel engaged and satisfied with their participation, holding positive perceptions of interactions with instructors and peers in their blended courses as also found by Wahyuningsih & Afandi (2023) in EFL classes during the pandemic.

On the contrary, data shows instruction with the lowest satisfaction (3.35) described with moderate satisfaction. Accordingly, the respondents perceived that they are willing to take another course using the blended learning delivery mode; that they are dissatisfied with their performance in their course; and that if they had known this was going to be a blended learning class, they would have not taken it.

Table 4: Overall Students' Satisfaction with Their Blended Learning

Component	Weighted Mean	Descriptive Value
Instructor	3.53	High Satisfaction
Technology	3.40	High Satisfaction
Course Management	3.79	High Satisfaction
Interaction	3.42	High Satisfaction
Instruction	3.35	Moderate Satisfaction
Overall Weighted Mean	**3.50**	**High Satisfaction**

Table 5 presents the students' acceptance in using technology in their BL specifically in terms of the seven constructs of UTAUT2 including their BI where they hold a Neutral perception in all dimensions except in Facilitating Condition where they perceive to Agree in accepting and in using technology in their blended learning activities.

Findings imply that the students neither find BL easy nor difficult in relation to the technology – especially the gadgets and the internet connectivity they use – and there is no strong perception of influential individuals favoring or disfavoring them to use BL. However, the students Agree, in terms of Facilitating Conditions, that their BL environment aligns with their current technologies and that they feel confident in seeking help from others when encountering challenges. Finally, students have a Neutral perceived acceptance in terms of their BIs on their use of BL, indicating a moderate attitude and not expressing strong aspirations for significant adoption or otherwise.

Sanusi (2022) reassessed the acceptance and use of technology in a BL approach among post graduate students and found that the assistance offered to students by their teachers in addressing Information Technology (IT) issues to be significant in influencing their students' willingness in using technology in order to perform well in their BL classes.

Table 5: Students' Perceived Acceptance and Use of Technology in Their Blended Learning

Dimension	Weighted Mean	Descriptive Value
Performance Expectancy	3.34	Neutral
Effort Expectancy	3.31	Neutral
Social Influence	3.17	Neutral
Facilitating Condition	3.40	Agree
Hedonic Motivation	3.36	Neutral
Price Value	3.23	Neutral
Habit	2.97	Neutral
Behavioral Intention	3.21	Neutral

Table 6 presents the analysis of the difference in students' BI of technology acceptance and use when grouped by their profile variables.

Result revealed that that there is a significant difference in BI among students when grouped according to their experience with online learning as suggested by the probability value of less than 0.05 which is 0.001. Hence, the null hypothesis is implying that those students with longer experience in online learning, such as up to 6 semesters in the case of the respondents of this study, have better BI of technology acceptance and use as compared to those whose experience in online learning is 1 to 4 semesters only.

However, the p-values of the variables family monthly income, internet connectivity and gadgets used for online learning are greater than 0.05, thus the null hypothesis is accepted. This means that when students are grouped by these variables, their BI to accept and use technology for online learning do not differ significantly.

Table 6: Analysis of the Difference in the Students' Behavioral Intention of Technology Acceptance and Use When Grouped according to Their Profile Variables

Variable	Mean	Computed Value	p - value	Decision @ 5% level of Significance
Family Monthly Income Below 10,000	3.2223	F = 0.281	0.839	Accept Ho

10,000 - 19, 999 20,000 - 29, 999 30, 000 - 39, 999	3.2077 3.0100 3.1438			
Internet Connectivity Mobile Data Wifi	 3.2215 3.1058	t = 0.730	0.466	Accept Ho
Gadgets Used for OL Smart Phone Laptop/desktop	 3.1857 3.4835	t = -1.743	0.082	Accept Ho
Experience in OL 1 - 2 semester 3 - 4 semesters 5 - 6 semesters	 3.1536 3.1711 3.8568	F = 7.355	0.001	Reject Ho

Table 7 compares the students' satisfaction with their BL based on their profile factors showing the p-values for internet connectivity and experience in online learning to be both less than 0.05, at 0.039 and 0.009, respectively thus the hypothesis is rejected. Specifically, this means that students who utilize mobile data for internet access, as this is their mostly used gadget for their online classes, are more satisfied with BL than those who use Wifi connections. But generally according to Ahmad et.al. (2022), the ownership and exposure to computer technology will highly help the students to be prepared and content with their online teaching and learning.
Furthermore, students with longer experience with online learning have the possibility of having higher level of satisfaction than those with shorter period of online experience.

Table 7: Analysis of the Difference in the Students' Satisfaction with Blended Learning When Grouped according to Their Online Profile Variables

Variable	Mean	Computed Value	p - value	Decision @ 5% level of Significance
Family Monthly Income Below 10,000 10,000 - 19, 999 20,000 - 29, 999 30, 000 - 39, 999	 3.5094 3.5158 3.1485 3.5900	F = 1.333	0.264	Accept Ho
Internet Connectivity Mobile Data Wifi	 3.5222 3.2671	t = 2.076	0.039	Reject Ho
Gadgets Used for BL Smart Phone Laptop/desktop	 3.4769 3.7235	t = -1.851	0.065	Accept Ho
Experience in BL 1 - 2 semester 3 - 4 semesters 5 - 6 semesters	 3.4579 3.4762 3.9082	F = 4.826	0.009	Reject Ho

Table 8 presents that Hedonic Motivation, Price Value, and Habit strongly positively correlate with students' intention to use BL as a mode of instruction. A high correlation for Hedonic Motivation indicates that when students find BL enjoyable and emotionally rewarding, it strongly aligns with their intention to use it. Similarly, a strong positive correlation for Price Value suggests that when students perceive BL as offering good value for their money, it significantly influences their intention to use it. Additionally, a strong positive correlation with Habit implies that when students have repeatedly been exposed to BL mode of classes and students have considered it part of their everyday learning bringing about an automatic behavior among them on the activities they will perform in their BL, it significantly boosts their intention to continue using it. Such results have similarities with the findings of Nikolopoulou et al. (2021) who applied the UTAUT2 model with University students in Greece and found that Habit and Hedonic Motivation predicted students' intentions. However, together with these constructs to have influenced the intentions of their graduate school respondents is Performance Expectancy and their focus is on the use of mobile phone only as this was banned to be used in the classrooms in Greece.
Results further show that Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions have a moderate positive correlation with students' BI to use BL. These factors moderately and positively influence their intention to use BL and is believed to collectively contribute to a more favorable attitude and readiness to embrace it as an integral part of their educational experience.

Table 8: Analysis of the Relationship between the Seven Constructs of UTAUT2 and Students' Behavioral Intention to Use Blended Learning

Component	r - value	p - value	Decision @ 5% Level of Significance
Performance Expectancy	0.687	0.000	Reject Ho
Effort Expectancy	0.688	0.000	Reject Ho
Social Influence	0.684	0.000	Reject Ho
Facilitating Conditions	0.682	0.000	Reject Ho
Hedonic Motivation	0.718	0.000	Reject Ho
Price Value	0.700	0.000	Reject Ho
Habit	0.799	0.000	Reject Ho

Table 9 presents an analysis of the relationship between students' BI of technology acceptance and use and their satisfaction with BL.

With a p-value of 0.045, the null hypothesis is rejected suggesting that there is a significant correlation between students' BI to accept technology and their level of satisfaction with BL. The r-value of 0.113 suggests that students' satisfaction with BL tends to rise along with their intention to employ technology in their learning. This finding is similar with Rudhumbu, Du Plessis & Mudau (2021) discovery but the participants are the teachers.

Moreover, a positive correlation between students' satisfaction with BL and their intention to use technology suggests that when technology is included into the classroom, students are motivated and involved in the learning process. Strong technology intentions among students may also indicate a favorable attitude toward BL, which may impact their level of satisfaction in general. A more positive opinion of the learning environment may result from their readiness to adopt technological tools and resources.

Table 9: Analysis of the Relationship between Students' Behavioral Intention of Technology Acceptance and Their Satisfaction with Blended Learning

r - value	p - value	Decision @ 5% level of Significance
0.113	0.045	Reject Ho

Table 10 illustrates the analysis of the relationship between students' academic performance and their BI to use the technology as well as their satisfaction with BL.

The p-values of 0.001 and 0.004 mean that at 5% level of significance, there is a significant relationship between the students' academic performance and their BI to use technology as well as their satisfaction with BL. Moreover, the positive r-values of 0.184 and 0.161 suggest that as students' BI to use technology and their satisfaction with BL increase, their academic performance tends to also improve.

Table 10: Analysis of the Relationship between Students' Academic Performance and Their Behavioral Intention to Use the Technology as well as Their Satisfaction with Blended Learning

Variable	r - value	p - value	Decision @ 5% level of Significance
Behavioral Intention to use the Technology	0.184	0.001	Reject Ho
Satisfaction with Blended Learning	0.161	0.004	Reject Ho

Tables 11 - 13 present the regression analysis between students' academic performance and their satisfaction with blended learning.

As seen in table 11, the adjusted R square value is 0.056, which means that only 5.6% of the variance in academic performance is explained by the combination of students' BI to use technology and their satisfaction with BL. Table 12's ANOVA table indicates statistically significant findings with a p-value of 0.000.

Table 11: Model Summary for the Regression Analysis between Students' Academic Performance and Their Satisfaction with Blended Learning

Model Summary

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.236[a]	.056	.050	2.78189	.056	9.244	2	313	.000

a. Predictors: (Constant), BI, Satisfaction with blended learning

Table 12: ANOVA Table for the Regression Analysis between Students' Academic Performance and Their Behavioral Intention to Use the Technology as well as Their Satisfaction with Blended Learning

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	p-value
1	Regression	143.079	2	71.539	9.244	.000[b]
	Residual	2422.273	313	7.739		
	Total	2565.351	315			
a. Dependent Variable: Grade						
b. Predictor: (Constant) Satisfaction with Blended learning						

Table 13 further reveals that the p-value for BI is 0.002 and the p-value for satisfaction with BL is 0.007. Both predictor variables are statistically significant at the standard significance level of 0.05. Both BI and satisfaction with BL had t-values more than 2, indicating that they are statistically significant predictors of students' academic performance. Furthermore, the unstandardized coefficient for BI is 0.589, which suggests that for every unit rise in BI, students' academic performance improves by 0.589. Meanwhile, the unstandardized coefficient for satisfaction with BL is 0.806, implying that for every unit improvement in students' satisfaction with blended learning, their academic performance will increase by 0.806.

Finally, the regression analysis indicates that there is a statistically significant but weak positive relationship between students' academic performance and their BI to use technology as well as their Satisfaction with BL. These predictor variables explain a considerable amount of the variance in academic performance. This means that while the relationship is weak in terms of effect size (as mentioned earlier), the combination of BI and Satisfaction with BL still explains a notable portion of the variability in academic performance. In other words, these predictor variables, despite their individual weak effects, together account for a significant portion of the differences in academic performance among students and there is evidence to suggest that the predictor variables have a real impact on academic performance.

Table 13. Coefficients for the Regression Analysis between Students' Academic Performance and Their Satisfaction with Blended Learning

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	91.994	1.196		76.911	.000
	BI	0.589	.188	0.173	3.139	.002
	Satisfaction with blended learning	0.806	.299	0.149	2.701	.007

CONCLUSIONS

The advent of the coronavirus disease has made BL a strategy that leverages onsite and online learning modalities as the new norm. For several compelling reasons such as flexibility, accessibility, cost-efficiency, enhanced learning experience, and student empowerment, blended learning is predicted to continue after the pandemic and in cases of a possible similar situation. Recognizing that increasing behavioral intention to use technology and satisfaction with blended learning leads to improved academic performance, it is imperative for educational institutions to foster among students the acceptance of integrating technology in their learning and target the determinants of satisfaction in utilizing this mode of instruction.

Recommendations

Based on the findings presented and the conclusions drawn, the researcher recommends the following:

1. Cagayan State University may invest in technology integration training for both students and teachers. This training can help enhance students' willingness to use technology effectively and help educators incorporate technology into their teaching methods.
2. Faculty members may evaluate their current teaching practices, display a positive attitude in using technology as instructional delivery, and consider the determinants of blended learning satisfaction among students.

3. Students may start working on their personal prejudices against the use of blended learning so that they may eventually learn to embrace this growingly popular mode of instruction.
4. The Department of Education and Commission on Higher Education can support BL by improving the quality of online resources, delineating which courses or subjects may be taught face-to-face or offered online, ensuring user-friendly platforms, and offering technical support to both students and teachers. Government may provide financial or technological assistance to students, as well as teachers, to ensure that they have the necessary resources to engage in blended learning.
5. Software developers may establish feedback mechanisms within online learning platforms that allow students to express their concerns and provide insights on their experience with technology and blended learning to further increase their satisfaction with this modality.
6. Future Researchers may investigate on the factors that bring about the differences in the BI when using BL considering the programs and disciplines of students.

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