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Impact of Synchronous Class Attendance on the Academic Performance of Undergraduate Students

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Abstract

Due to the pandemic, open and flexible learning has become the norm for schools and universities, where students get lessons through online classes or study modules. Acknowledging the difficulties of remote learning, many institutions allowed more flexibility by providing learners with increased choice and accessibility to suit their learning conditions. One is making online class attendance less mandatory compared to the pre-pandemic when attendance was strictly implemented in most schools. To a certain extent, this allowed students to study at their own time and pace and even assume work and home responsibilities. Hence, this study aims to determine the impact of attendance on students' academic performance in online synchronous classes in one of the state universities in the Philippines. Using descriptive quantitative analysis, the 210 students' attendance in online classes were recorded, while their final grades served as an indicator of academic performance. The results showed that synchronous online attendance positively impacts students' academic performance. In general, students who regularly participate in online classes get a higher final grade. Furthermore, results showed a moderately positive relationship between these two factors using the Pearson correlation coefficient. Meanwhile, instructional support such as recorded lectures and supplementary materials prevented asynchronous students or those who could not participate in synchronous online classes from failing the course. This study recommends implementing more active learning strategies and in-class group work to avoid non-essential absenteeism and promote and encourage lecture attendance.

Keywords: Online Learning, Synchronous Learning, Class Attendance, Academic Performance, Recorded Lectures

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1. Introduction

The educational system took on a new dimension when the coronavirus pandemic affected the world, leading to extensive school closures. The global crisis compelled higher educational institutions to embrace distance learning. With the aid of digital technology and various e-learning platforms, this shift from in-person or face-to-face classes to online mode needs to be seamless and immediate to shun any educational disruptions. This also necessitates upgrading the digital skills of the stakeholders to deal with the emerging global trends in education (*Education & Technology*, 2021). The sudden shift posed an enormous challenge confronting educators, students, and school administrators. How the students are educated through distance learning vastly differs from how they were previously taught through traditional face-to-face learning.

Distance learning has become the standard for schools and universities, with students receiving instruction through either online classrooms or study modules (*Nikkei Asia*, 2021). As defined in Oxford Dictionary, distance learning is a way of studying that does not require students to go to a school or college, and lectures are broadcasted, or classes are held via correspondence or the internet. Instead of going to a university campus, students can study from remote locations using PCs, tablets, phones, and the internet. Other terms used in distance learning are e-learning, online and flexible learning. These are characterized by the physical separation of teachers and students and the use of various technologies to promote communication between students and teachers and between students. According to the Commission on Higher Education, "flexible learning" for higher education institutions combines digital and non-digital technology and is not always dependent on being online. With massive school closures, several institutions implemented an alternative approach by providing printed modules to digitally-challenged students. However, modular learning proved to be logistically and pedagogically challenging in many aspects (Barcenas & Bibon, 2021; Castroverde & Acala, 2021).

Allowing students to participate, interact, and attend classes synchronously can improve progress since academic achievement is linked to the number of times students engage with the online learning system (Nieuwoudt, 2020). Zhu et al. (2019) indicate that a stricter attendance policy significantly impacts student attendance, absences negatively impact course grades, and course delivery methods do not predict attendance or course grades. Similar findings were articulated by Hsu & Plunkett (2016) that attendance positively affected student

performance in numerous disciplines and suggested that educators encourage attendance as one pedagogical strategy. Several studies indicate that attending classes has a favorable and significant impact on academic achievement (Dey, 2018; Elbilgahy, 2021; Riaz et al., 2022).

With these findings, it could be inferred that while attendance during online and synchronous classes is essential, other factors significantly influence students' academic performance. Effective and inclusive instructional and academic support and student motivation also contribute to the learner's academic success (Steinmayr et al., 2019; McKenna et al., 2018; Altermatt, 2019). Teachers sometimes take significant initiatives to prevent students from falling behind and safeguard their academic experiences by providing support beyond synchronous interactions. Web-based course materials, self-paced learning modules, and recorded lectures are some of the instructional materials that supplement and revitalize live lectures.

Several studies provided different views as to the impacts of attendance in classes on students' academic performance. This study explores whether attendance in online classes helped students improve their academic performance in one state university in the Philippines. The study results will provide valuable insights for teachers and educational institutions towards strengthening instructional support to students, particularly for those who are digitally disadvantaged and financially challenged in online and flexible learning.

The study aims to determine the impact of online synchronous class attendance on student academic performance. Specifically, it aims to identify the reasons for students' absenteeism in online synchronous classes, analyze if attendance in online synchronous classes has contributed to improving the student's academic performance and determine the impact of recorded lectures as instructional support in asynchronous learning.

2. Literature Review

2.1. Challenges in online and flexible learning

Onyema et al. (2020) noted several detrimental effects of the pandemic on education, such as disruptions in instruction, less access to educational and research facilities, job losses, and higher student debt. In the Philippines, some challenges faced by students include work and family responsibilities, inadequate internet connection, lack of computers and devices to contend with remote learning, and other technological setbacks. Key elements that contributed to students' learning issues included a lack of access to technology and the internet, a lack of learning materials, little prior experience with online learning, and access to broadband and

technology are part of a digital divide that "remains a persistent barrier" (Carrasco, 2021). Students from low-income families were more likely to have limited access to technology and the internet than their peers. This is consistent with the findings of Rotas and Cahapay (2020), who cited several difficulties in remote learning. These include intermittent internet connectivity, a lack of learning resources, power outages, unclear lesson content, too many activities in a lesson, poor peer communication, a lack of teacher scaffolds, conflict with home obligations, a poor learning environment, financial difficulties, and issues with physical and mental health. Furthermore, some parents lost their jobs due to the closure of several businesses, forcing students to work while studying to contribute financially to the family for food and education expenses.

2.2 Absenteeism in Online Synchronous Classes

The COVID-19 pandemic has changed traditional education at all levels, forcing a move from in-person classes to online learning environments. Online activities and discussions now take the place of once-face-to-face classes. As a preventive precaution against the pandemic, school officials waived the obligation for students to physically attend classes to mitigate the virus' spread (Goulas & Megalokonomou, 2020). Acknowledging the challenges of online and distance learning, many schools granted more flexibility to cater to various student learning circumstances. Implementing asynchronous activities, extended deadlines, decreased coursework, and non-mandatory attendance were a few of the leniencies extended to the students to cope with the challenges of remote learning. In synchronous learning, activities are performed in real-time, necessitating virtual meetings between participants, teachers, and facilitators at the same time and location. However, work and family responsibilities, alongside technological setbacks, prevented students from regularly participating in synchronous online classes and consequently preferred the asynchronous modality, which does not require real-time participation in lectures.

In face-to-face classes, attendance refers to the students' actual physical presence in the classroom. In an online setting, this refers to the student's participation taking place according to the timeline set by the course lecturer (*IGI Global*, 2022). Attendance to online classes had become less mandatory in most institutions compared to the pre-pandemic when strict policies on class attendance were strictly implemented. To a certain extent, this allowed students to participate asynchronously and study at their own pace, and even assume work and home responsibilities. Similarly, this allowed digitally-disadvantaged students to cope with

academic-related activities and responsibilities, such as participating in real-time online lectures where they must have dependable gadgets or devices and reliable and secure internet connectivity to participate online.

Mokhtari et al. (2021) cited numerous reasons why absenteeism is prevalent in online learning, most notably the change in generation and preferences of students where the new generation is more inclined to use educational technologies. Concomitantly, Qutishat and Qawasmeh (2022) observed little student interaction during class meetings. To ensure the successful attainment of learning goals, attendance monitoring is equally crucial to identifying students who have trouble attending and their reasons for absenteeism. A high rate of absences from class is a sign that there are issues that need systemic remedies (*Attendance Policy During the Covid-19 Pandemic*, 2021). Unless these obstacles to online learning are appropriately dealt with, poor class attendance will persist. Mokhtari et al. (2021) suggested that making presentations more exciting and engaging lectures with interactive and innovative lecturing techniques may influence students' attitudes and create an environment that can lower absenteeism. While attendance is not a guarantee of learning, a student who misses class obviously cannot take advantage of the learning opportunity.

2.3 Gauging Academic Performance

Numerous studies show that student engagement improves academic performance (Lei & Zhou, 2018; Farrel & Brunto, 2020). When colleges and universities became more remote, asynchronous structures and other changes to the academic experience came at the expense of student participation and engagement. According to Bryan et al. (2018), students participate more actively in online classrooms when they often interact with others via technology. This accentuates the importance of attending online classes as a venue where students can participate in discussions, interact with other students, and seek clarification from their teacher. In contrast with in-person classes, Wester et al. (2021) noted that students participated less frequently in class discussions in the remote learning environment.

One of the most critical challenges for students in higher education is enhancing their academic performance. Attendance, regular study, diligence, commitment, self-assurance, and family support significantly impact undergraduate students' academic achievement (Islam, 2021). Attending classes and actively participating in lessons are requirements for learning; hence, attendance is seen as a crucial component of a student's academic success (Mokhtari et

al., 2021). It is crucial to evaluate students to determine their level of proficiency for both the growth of learners and to safeguard the quality of school systems.

York et al. (2015) proposed a theoretically supported definition of academic success that includes six elements: academic success, satisfaction, skill and competency development, perseverance, attainment of learning goals, and career success. However, the authors concur that grades and GPA are the most often utilized indicators of academic accomplishment. Nearly all indicators of academic success are measured by grades- either assignment or course and grade-point average (GPA). This is understandable because grades and GPA calculations are institutions' most easily accessible evaluations.

2.4 Recorded Lectures as Instructional Support

In the past, face-to-face (F2F) interactions between students and instructors have taken place in a classroom at a regularly scheduled time, frequently on multiple days per week. In these classes, lectures predominate when students listen to the instructor give information (Davies et al., 2016). In response to the pandemic, students and teachers quickly transitioned from physical settings that offered them much-needed social contact to spending hours per day in front of a screen. Today, the use of technology in higher education has become more common, and universities attempt to meet the needs of the younger generation who have grown up in the information technology age. Technology has played a crucial part in providing students with education outside of the classroom, where all countries could implement remote learning technologies employing a combination of radio, television, online, and mobile platforms (*Education and Technology*, 2021). Digital technology in education has allowed educators to develop innovative approaches to how, where, and when students learn.

One of these innovative approaches is utilizing various learning management systems and online learning platforms. An online learning platform is a website or educational materials and content portal that provides students with all the required information in one location, including lectures, resources, chances to interact with other students, and more. Additionally, it is a great tool for the teacher and the student to track their progress (*What Are Online Learning Platforms*, 2021). Aside from providing access to educational materials and venues for online interaction, one of the affordances accorded by technology is the various ways to record online lectures. The National Privacy Commission (NPC) confirmed that the processing of personal data occurred during the upload and storage of an online class recording. As a result, any online class activity must follow Republic Act No. 10173 or the Data Privacy Act

of 2012 (Lokin, 2022). Universities have adopted this practice for numerous practical reasons. Teachers record lectures and class sessions so that students can watch and revisit them at any time, and students with poor internet connectivity at home and those working found this option helpful. There are many different screen recording programs available online and as desktop programs. Other video conferencing programs and learning management systems such as Zoom, Google Meet, and MS Teams have built-in recording apps that may be used to record actual lectures.

Students can access recorded lectures anytime and anywhere. According to research, students choose courses that have online recordings to make up for missed lectures, prepare for exams, and enhance their recollection of lecture materials (Gorissen, 2012). Furthermore, recorded lectures give students more control over their schedules and learning and allow them to review lectures at their own pace and at a time and place. Recorded lectures can be given and reviewed at any time and are usually shorter due to the removal of interrupting activities during a live lecture (Horn, 2020). Re-watching lectures increase comprehension of the presented content and result in higher exam scores. While recorded lectures may be less engaging and interactive, Elliot and Neal (2016) found that students value lecture recordings and use them more frequently than previously noted in the literature. They concluded that lecture recordings significantly assist students' independent study. Moreover, providing more options gives more flexibility to students who cannot attend class due to illness, those whose schedules conflict with lectures, those who struggle with the time of the lectures, or those who might find it challenging to follow a live lecture. According to Horn (2020), one drawback of recorded lectures is that they may lead to a decrease in class attendance, a restriction in the teaching style, and a reduction in one-on-one engagement. Hence, recorded lectures should be viewed as supplementary materials, and attendance in online lectures must still be encouraged.

3. Methodology

This study used a descriptive correlational method of research. The study was conducted at one state university in the Philippines, which shifted from face-to-face to online and flexible learning. The study used a purposive sampling method, a non-probability sampling technique where researchers select participants from the population for their surveys in accordance with their evaluation. The participants in this study were second-year BS Industrial Technology students enrolled in IT 211 (Intellectual Property Rights) in the 1st Semester of AY 2021-2022. This group was chosen to participate in the study because they have become

accustomed to flexible learning modes of college life. Moreover, only one faculty handled the subject; thus, all students had the exact course requirements and followed the same grading system.

The table summarizes the distribution of participants (n=210) according to sex, field of specialization, age, and employment status with their corresponding attendance rate in online classes.

Table 1Demographic Characteristics

Characteristics	Frequency	Percentage
Sex		
Female	65	30.95%
Male	145	69.05%
Field of Specialization		
Architectural Drafting	54	25.71%
Automotive Technology	35	16.67%
Electrical Technology	39	18.57%
Electronics Technology	36	17.14%
FBPSM	46	21.90%
Age Range		
19-21	171	81.43%
22-24	26	12.38%
Above 24	2	0.95%
Not indicated	11	5.24%
Employment Status		
Not working	134	63.81%
Works/employed full-time	15	7.14%
Works/employed part-time	50	23.81%
Not indicated	11	5.24%
Total	210	100.00%

As indicated in Table 1, most participants were male (69.05%), and the rest were female (30.95%). In terms of specialization, the majority are Architectural drafting majors comprising 25.71%, followed by FBPSM majors with 21.90%. Historically, most BSIT students enrolled in these two fields of specialization. Automotive, Electrical, and Electronics majors registered below 20% of the student population. About 81.43% belonged to the 19-21 age group, followed by the 22-24 age range with 12.38%, and less than 1 percent was above 24 years of age. More than half of the respondents are not working (63.81 %). This group is more likely to attend online classes regularly since they do not have work responsibilities. About a quarter of the participants (23.81%) are employed part-time, while 7.14% work full-time.

The data were collected using an online survey of close-ended questions using Google Form administered on February 15-21, 2022. The link to the online questionnaire was posted on Google Classroom, where all students were invited to participate. Likewise, the attendance tracker app recorded the student's attendance in online classes via the Google meeting. Meanwhile, the final grade in the course was used as an indicator of academic performance. A scatter plot was also used to visualize the relationship between the two variables- attendance and academic performance. The values for two different numerical variables are represented by dots in a scatter plot, also known as a scatter chart or scatter graph. The position of each dot on the horizontal and vertical axes shows the values for each data point. The correlation coefficient was also computed using the Pearson R formula in Microsoft Excel to establish the strength of the relationship. The descriptive method was used to describe the respondents' profile, the frequency of use of recorded lectures in asynchronous learning, and the reasons for not attending synchronous online classes. The data was visualized using graphs and tables.

4. Results and Discussion

Guided by its objectives, this paper describes the participants' demographic profile, identifies why some students failed to attend online classes regularly, and explains the purpose and frequency of watching recorded lectures. Ultimately, this study determines the correlation between attendance in online synchronous classes and academic performance and establishes the strength of the linear relationship between these two variables.

4.1. Attendance in Synchronous Online Classes

Attendance in online classes has become less mandatory in most institutions compared to the pre-pandemic, where policies on class attendance were strictly implemented. To a certain extent, this allowed students to study at their own time pace and without sacrificing their work and home responsibilities. Table 2 demonstrates the frequency of attendance in online classes.

 Table 2

 Attendance in online classes

Attendance	Frequency	Percentage
0-20%	27	12.86%
21-40%	20	9.52%
41-60%	21	10%
61-80%	52	24.86%
81-100%	90	42.86%
Total	210	100.00%

In terms of attendance in online classes, almost half (42.86%) were able to attend classes regularly, with 81-100% attendance. About a quarter of the class (24.86%) attended about 61-80% of the online classes. It is important to note that 12.86% of the participants were able to attend only once or twice, while some could not attend any classes. The poor attendance of about one-third of the class could be explained by the fact that some students have to work full-time or part-time while others do house chores. At the same time, others struggled with poor internet connections and a lack of reliable devices. This is exemplified in the study conducted by Dhingra et al. (2021) that although most students were motivated to participate in the online sessions, their motivation was affected by outside factors like internet connectivity and the home environment.

 Table 3

 Reasons for not attending online classes

Reasons for not attending online classes	Percent
Works full-time and part-time	37.80%
Poor internet connection in our area	35.37%
Due to other responsibilities, such as house chores	20.12%
Sick or other health reasons	4.27%
No gadgets to be used for online classes	2.44%

Students face some challenges, which include work and family responsibilities, inadequate internet connection, lack of computers and devices to contend with remote learning, and other technological setbacks. In one way or another, this hinders students from attending synchronous classes. The various reasons for absenteeism are shown in table 3.

As observed, work and poor internet connection are the primary reasons that hinder students from attending synchronous online classes. The majority (37.80%) of the participants work part-time or full-time. This is closely followed by poor internet connection (35.37%) as a reason for absenteeism. This is consistent with the findings of Bahian et al. (2020) that one of the challenges to online learning is dealing with personal circumstances like working for additional income alongside technical and institutional barriers. Internet connectivity problems were likewise observed among information technology education (ITE) students at various state universities in the Philippines, where only a few students have access to a fast internet connection (Balahadia, 2021). Similarly, Khanlarian and Singh (2015) found that, as evidenced by the poor scores of students in an online group, technology, and frustration are significant

factors that have an impact on performance. Other responsibilities, such as house chores (20.12%), placed third. At the same time, few indicated health (4.27%) and lack of gadgets (2.44%) as reasons for being unable to attend online classes. Most students, especially those who live in remote locations, do not attend virtual classes often since they cannot attend due to work, not having a cell phone, an internet connection, or a heavy workload (Matildo and Dagonon, 2020). Moreover, dependable gadgets or devices are likewise indispensable for students to participate in classes online, aside from reliable and secure internet connectivity. Mental health was also one of the prevalent concerns amidst the pandemic and remote learning. Several studies found that mental health issues significantly affected students' learning outcomes. Students were subjected to prolonged lockdowns and experienced social isolation and disruption of daily life. Students' anxiety levels rose due to the uncertainty of their lessons during the lockdown, which had a detrimental effect on their academic behavior and poor academic performance (Kulal & Rahiman, 2023).

4.2. Purpose and Frequency of Use of Recorded Lectures

With the advancement of ICT, universities have increasingly used recorded lectures and made them available online for students. Access to the recorded lecture may improve learning because students can review the material more than once to comprehend the lesson. Recorded lectures also allow students to tailor learning around their other commitments (*Benefits of Lecture Recordings, 2021*). According to Niewoudt (2020), university instructors record synchronous virtual classes and make the recordings available to students. Students can access recorded lectures anytime and anywhere. According to research, students favor classes with online recordings to replace missed lectures and exam preparation and improve the retention of lecture materials (Gorissen, 2012). Furthermore, recorded lectures give students more control over their schedules and learning and allow them to review lectures at their own pace and at any time and place.

A variety of screen recording software is available online and in a desktop application. In this study, two recording apps were used in the course – the built-in recording in Google Meet and the OBS Studio. Actual online lectures were recorded and uploaded on Google Classroom, accessible to all students. This allowed students to listen to and watch the lectures and discussions made during the online class. This succeeding section demonstrates the purpose and frequency of the use of recorded lectures among students.

 Table 4

 Purpose and Frequency of Use of Recorded Lectures among students

Purpose and Frequency of Use of Recorded Lectures	
I watched SOME recorded lectures to compensate for the missed online classes.	
I watched recorded lectures even if I have attended online classes regularly.	
I read the lesson's presentation (PPT), SLM, and other resources for the weekly topics.	
I DID NOT watch recorded lectures because the lectures presented during the online class were	
sufficient to understand the topic.	
I WAS NOT able to watch the recorded lectures due to various reasons (no gadget; no	
stable/poor internet connection; busy with house chores and other things)	3.50%

As shown in table 4, more than half of the students (64%) watched recorded lectures to make up for the missed synchronous online class. Full-time students who devote considerable time to attending classes still watch recorded lectures to review the lessons (22%). Meanwhile, only few relied on materials such as PowerPoint and SLM for the weekly topics (6%). Several studies suggest that re-watching lectures increases comprehension of the presented content and results in higher exam scores (Horn, 2020). Many students used recorded lectures as a substitute for in-person lectures (Bos et al., 2016). Students prefer online lecture recordings to replace missed lectures because it gives them access to lectures at any time and from any location (Gorissen, 2012). However, several teachers noticed that recorded lectures resulted in lower class attendance, a more constrained teaching environment, and lower one-on-one interaction (Horn, 2020). Results also show that poor internet connection and other responsibilities, such as household chores, are hindrances for some students who cannot access recorded lectures regularly.

4.3. Class attendance and academic performance

The following section demonstrates the impact of attendance in online classes on the student's academic performance. The student's attendance in online classes via Google Meeting was recorded, and their final grade was considered the primary indicator of academic performance. As discussed in the previous section, work is one of the primary reasons why students cannot attend synchronous online classes. The academic performance measured in terms of final grades among working and non-working students. As illustrated in Table 5, those not working tend to get a higher grade than their peers working full-time or part-time. Participants who were not working and able to attend synchronous online classes regularly

obtained the highest average percentage rating of 85.10%. This is followed by those who work part-time with a 79.45% average rating. The lowest average rating (71.98%) belonged to working full-time. Nonis and Hudson (2006) argued that although work had no direct impact on academic performance, motivation and study time were non-ability elements that had a significant impact on academic performance. Working students spend less time studying due to other responsibilities and are made worse by not having time to attend and participate in class discussions.

Table 5Average final grade average by work status

Work Status	Average final grade in %	
Not working	85.10%	
Works/employed FULLTIME	71.98%	
Works/employed PART-TIME	79.45%	

Numerous studies show that student engagement improves academic performance (Lei & Zhou, 2018; Farrel & Brunton, 2020). Students participate more actively in online classrooms when they often interact with others via technology. This accentuates the importance of attending online classes as a venue where students can participate in discussions, interact with other students, and seek clarification from their teacher. Several studies show that attendance in online classes has moderately contributed to improving academic performance (Zhu et al., 2019; Hsu & Plunkett, 2016).

The subsequent discussion aimed to establish the relationship between lecture attendance and the student's academic performance.

As illustrated in Figure 1, students whose attendance is at most 80% obtain a relatively higher final rating, as indicated by the dotted box. Similarly, those who attended 60-80% of the total class time also passed the course fairly. This is similar to the findings of Hsu & Plunkett (2016), that show attendance positively affects student performance in various disciplines. According to them, there is a significant relationship between attendance in online classes and academic performance. The trendline displays the general pattern or overall direction of the data. Statistically, a moderate positive relationship exists with a 0.65 correlation coefficient. A positive correlation means that as one variable rises, the other variable also tends to rise (Frost, 2022).

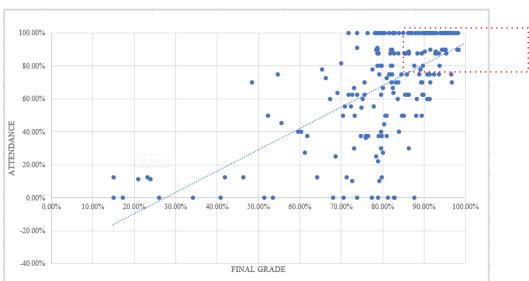


Figure 1Positive Relationship between lecture attendance and final grade using a scatter plot

However, it is worth noting that some students who cannot regularly attend online classes and merely rely on recorded lectures and other instructional materials available on Google Classroom also managed to perform well. As illustrated in the previous section, half of the students watched recorded lectures to make up for the missed synchronous online class. Recorded lectures allow students to study at their own time and pace and review the material more than once to comprehend the lesson fully. Bos et al. (2016) pointed out that many students used recorded lectures as a substitute for lecture attendance. Elliot and Neal (2016) mentioned that lecture recordings significantly assist students' independent study.

This study's results align with those of several studies, which indicate that attending classes has a favorable and significant impact on academic achievement (Dey, 2018; Elbilgahy, 2021; Riaz et al., 2022). However, results also demonstrate that student motivation and availability of instructional materials such as recorded lectures, lesson materials, and self-paced learning modules contribute to academic performance despite the student's inability to attend online lectures.

5. Conclusions and Recommendations

Open and flexible learning has become the norm for schools and universities due to the pandemic, where students get lessons through online classes or study modules. Acknowledging the difficulties in remote learning, many institutions allowed more flexibility by providing learners with increased choice and accessibility to suit their learning conditions. One is making

online class attendance less mandatory compared to the pre-pandemic when attendance was strictly implemented in most schools. To a certain extent, this allowed students to study at their own time and pace and even assume work and home responsibilities. The study showed that online class attendance positively impacts students' academic performance. This supports the views of several authors that attendance and academic performance are positively correlated. Students who regularly attend synchronous meetings tend to get a relatively higher final grade. The Pearson correlation coefficient also established a moderately positive relationship between these two factors. Meanwhile, those who could not attend online classes for various reasons, such as work and other responsibilities, poor internet connection, and lack of reliable gadgets, relied on recorded lectures and other materials on Google Classroom to compensate for the missed online classes. The asynchronous learners still managed to get a passing grade in the course with the aid of various instructional support, such as recorded lectures.

While lecture attendance positively impacted students' academic performance, absenteeism could not be avoided for several reasons, such as work, poor internet connection, lack of devices, and other responsibilities. Providing instructional support, such as recorded lectures and supplementary materials, prevented asynchronous students from failing the course. However, this study also recognizes that the availability of recorded lectures might encourage students to refrain from participating in synchronous lectures because attendance is not strictly enforced in online and flexible learning in some universities. It is recommended that more active learning strategies and in-class group work be implemented to avoid nonessential absenteeism and promote and encourage lecture attendance. As facilitators of learning, teachers should also find ways to energize their lectures and create opportunities for interaction and collaboration. Furthermore, with the gradual re-opening of schools for face-toface classes, the experiences, skills, and knowledge acquired from online and flexible learning may likewise be applied to improve pedagogical practices as we return to the conventional educational setting.

The results of this study offer immediate policy-making implications for administrators at colleges and universities to formulate a policy to provide continuous capacity-building webinars and training to their faculty and staff, particularly on developing instructional materials that promote interaction and collaboration among teachers and students. Furthermore, aside from the regular monitoring of the student's attendance, finding the causes of the student's absenteeism and their coping mechanisms should likewise be considered so

that appropriate student support services will be accorded to disadvantaged students and help them cope with online and learning amid their arduous circumstances.

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