

# Asynchronous Learning Approach Challenges Among College Students

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## **Abstract**

This descriptive study aimed to determine the level of challenges encountered by College students in the delivery of the asynchronous learning approach. The survey was conducted in 2021 involving 142 of the 206 enrolled in 1<sup>st</sup> semester of AY 2021 – 2022 enrolled in the Local College in the Philippines. The study was administered using google forms using the researcher-made questionnaire. Frequency count, mean, standard deviation, t-test, and one-way ANOVA were the involved statistical tools. The data showed that the level of challenges encountered by College students is "High." Students experienced the same challenges even when grouped according to age, sex, year level, and academic standing. The challenges include limited internet connectivity, lack of gadgets, low motivation, confidence and comprehension, anxiety, and disconnection. The College, teachers, students, and other sectors have to do their part to address the challenges related to delivering the asynchronous learning approach during the COVID-19 pandemic.

**Keywords:** Asynchronous learning, Challenges of College Students, COVID-19 pandemic

## **INTRODUCTION**

The COVID-19 epidemic has crossed national borders and has spread exponentially. It has impacted people of all nationalities, educational levels, income levels, and genders. It has negatively affected the most vulnerable the hardest. Education is no different. Traditional schooling has been interrupted, with extensive closure of schools. While academic institutions have worked hard to ensure learning continuity, children, and students, on the other hand, have had to rely more on their resources to continue studying remotely via the internet, television, or radio. Also, teachers had to adjust to new pedagogical concepts and techniques of delivery even without enough training. Unfortunately, learners from the most marginalized groups who lack access to digital learning tools are the most vulnerable to falling behind.

According to Daniel (2020), the essential adjustment is to take advantage of asynchronous learning. For most aspects of learning and teaching, the participants do not need to communicate simultaneously. Asynchronous working gives teachers flexibility in preparing learning materials and enables students to manage the demands of home and study. Asynchronous learning is primarily in digital formats. Teachers do not need to deliver learning material at a permanent time: it can be posted online access, and students can engage with it using online platforms to suit their schedules. Teachers can periodically check student participation and make online appointments for students with particular needs or questions. The synchronous digital classroom gives teachers and students more room to breathe. According to Hrastinski (2008), the asynchronous mode of learning has been the most common form of online teaching because

of its flexibility. Asynchronous environments provide students with readily available audio/video lectures, handouts, articles, and PowerPoint presentations (Watson, Gemin, Ryan & Wicks; 2009). Asynchronous e-learning requires educators to carefully utilize a set of strategies that can keep students engaged and interested in this learning environment to facilitate motivation, confidence, participation, problem-solving, analytical, and higher-order thinking skills (Huang & Hsiao, 2012). It is a student-centered teaching method that employs online learning resources to facilitate information sharing beyond the limitations of place and time among a network of people.

The constructivist theory supports asynchronous learning in the Outcomes-based platform. The idea believes that learners are active participants in their learning process; knowledge is built based on experiences. As events occur, each person reflects on their experience and integrates the new ideas with their previous knowledge (Kurt, 2021). This approach combines self-paced study with asynchronous interactions to promote learning, and it facilitates distance education, traditional on-campus education, and continuing education (K12academics, 2021). According to Murphy, Rodríguez-Manzanares & Barbour (2011), the opportunity of delayed response allows learners to use their higher-order learning skills as they can keep thinking about a problem for an extended time and may develop divergent thinking. A constructed response changes the spontaneity of expression. Therefore, asynchronous space takes the lead to self-paced, independent, student-centered learning. Hence, Lin, Hong & Lawrenz (2012) stated that asynchronous e-learning could scaffold students' previous knowledge with new concepts. Huang & Hsiao (2012) said that less reliance on memory, notes, and more opportunity for discussions with peer groups improve critical thinking and deep learning.

One of the challenges of asynchronous learning includes communication loss of basic guides and practices in face-to-face discussion – tone of voice, facial expression, body language, and the ability to interject spontaneously or ask for immediate clarification. These constraints can lead to misunderstandings and frustration. A real-time conversation may be more appropriate for discussions that benefit from a swift response (Meyer, 2020).

The Online Collaborative Learning (OCL) theory proposed by Linda Harasim supports synchronous learning. It focuses on the availability of the Internet to provide learning environments that foster cooperation and build knowledge. Harasim explains OCL as a new theory of learning that concentrates on collaborative learning, knowledge building, and internet use to restructure formal, non-formal, and informal education for the Knowledge Age.

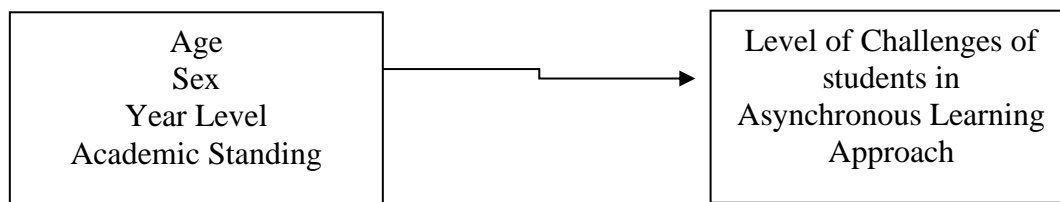
Since the pandemic started, the Higher Education Institutions (HEI), where Local or Community Colleges belong, have followed government policies and directives, particularly the Commission on Higher Education (CHED) mandates. The Commission requires higher education institutions to implement flexible learning as indicated in CMO 4 s. 2021. This mode of knowledge can be online or offline and synchronous or asynchronous.

In the Philippines, Community Colleges or Universities support the youths who are part of the vulnerable community. Most students are financially challenged and incapable of accessing technology and acquiring the ideal connectivity for this alternative teaching model. In addition, most of the students returned to their

homes in the provinces, and a large percentage of them do not have access to the Internet. Furthermore, internet speed and internet connectivity in some areas are weak, poor, and irregular. As an institution's response to reassuring students' education, the College uses asynchronous learning, which works best in digital formats, to expand its capacity to teach remotely.

With this, there is a need for Community Colleges & Universities to have data on the challenges encountered by students in conducting an asynchronous learning approach during this pandemic. This baseline data will help administrators and teachers develop a more holistic, student-centered teaching and learning approach to this new teaching delivery mode. These challenges may refer to problems and struggles of students before, during, and after asynchronous learning. Whence, this study was proposed.

Figure 1. The paradigm of the study



This study sought to answer the following:

1. What are the top 5 encountered challenges by Community College students before, during, and after the delivery of the asynchronous learning approach?
2. What level of encountered challenges by Community College students in the delivery of the asynchronous learning approach when taken as a whole and classified according to age, sex, year level, and academic standing?
3. Is there any significant difference in the encountered challenges by Community College students in delivering the asynchronous learning approach when taken as a whole and classified according to age, sex, year level, and academic standing?

Based on the preceding problems, the researchers formulated the following hypothesis to guide the study:

There is no significant difference in the encountered challenges by Community College students when taken as a whole and classified according to age, sex, year level, and academic standing.

## MATERIALS AND METHODS

This descriptive study conducted in June 2021 involved 142 of the 206 Community College students from the First year up to the Fourth 1<sup>st</sup> Semester A.Y. 2021 – 2022 with a 4.60 confidence interval and 95% confidence level. Table 1 provides the respondents' profiles. The study was administered using google forms using the researcher-made questionnaire. Part 1 involves the personal profile of respondents. Part 2 was a 30-item rating questionnaire with three (3) categories: before, during, and after asynchronous learning where each type had 10-item questions that the respondents had to rate the level challenges. The questionnaire was validated, and pilot tested with a Cronbach alpha value of 0.92. Frequency count, mean, standard deviation, t-test, and one-way ANOVA were the involved statistical tools.

Table 1: Profile of Respondents

Category	Frequency	Percent
<b>A. Entire Group</b>	142	100.00%
<b>B. Age</b>		
20 years and below	53	37.30%
21 – 30 years old	84	59.20%
31 years old and above	5	3.50%
<b>C. Sex</b>		
Male	56	39.40 %
Female	86	60.60 %
<b>D. Year Level</b>		
1 <sup>st</sup> Year	45	31.70 %
2 <sup>nd</sup> Year	47	33.10 %
3 <sup>rd</sup> Year	36	25.40 %
4 <sup>th</sup> Year	14	9.90 %
<b>E. Academic Standing</b>		
1.50 – 1.00	41	28.90%
2.00 – 1.49	82	57.70%
2.01 and below	19	13.40%

## RESULTS, ANALYSIS, AND INTERPRETATION

Table 2 shows the top 5 challenges encountered by Community College students before the delivery of the asynchronous learning approach. The students were struggling before attending their asynchronous classes due to limited internet connectivity, lack of gadgets, and motivation.

Out of 10 items, item number 3, "My experience with poor signal and limited internet data delays the opening of the learning guide" (M=4.11, SD=1.04), ranked first. Internet connectivity is a significant factor for asynchronous learning to take place. There are numerous ways that a lack of internet access may affect a student's academic performance. Students without the internet cannot connect with teachers or classmates, do independent research, or get online homework help. Not having internet access can mean losing information on a direct line of communication with schools and teachers (Lynch, 2017).

Item 3 might have led to the inclusion of item 4, "I have difficulty keeping updated with learning materials and activities posted on the internet" (M=3.71, SD=1.15) which was ranked second. Students' prompt response to activity is almost impossible due to poor connectivity. Students have to be resourceful to gain access to answer activity sheets and tasks in their learning guides.

Rank third is item 2 "I need gadgets like laptops, cellphones, and other devices to access lessons in asynchronous learning." (M=3.56, SD=1.14). The Community College caters to the underprivileged youth of the City; thus, there is limited access to technology and other devices because of their financial limitations. Students must have technological resources like gadgets and internet connectivity to learn under this new learning approach consistently.

Rank four<sup>th</sup> is item number 7. Item number 7, "I feel that I will learn the least under the asynchronous method." is ranked fourth (M=3.53, SD=0.91). Students may have felt not ready for distance learning. In effect, they feel not confident to learn on their own. Asynchronous learning is a self-paced and independent learning strategy that might demand students who prefer to learn with classmates and teachers.

Rank 5<sup>th</sup> is item 1, "I lack the motivation to attend asynchronous class activities" (M=3.43, SD=1.07). Students might have felt disconnected since they have insufficient resources and limited internet connection resulting in decreased motivation in participating and accomplishing learning tasks. According to Eberly Center (2021), if students perceive the environment as unsupportive or feel marginalized by the classroom climate or the course content, it may erode the students' motivation to engage with the material or even continue in the field. Although the instructors cannot control all the factors that contribute to classroom climate, they significantly influence how classroom dynamics develop, especially early in the course, and can use that opportunity to enhance and sustain motivation.

Table 2: Top Five Challenges Encountered by Community College Students Before the Delivery of Asynchronous Learning Approach

Rank	Item	Mean	SD
1 <sup>st</sup>	(3) My experience with poor signal and limited internet data delays the opening of the learning guide.	4.11	1.04
2 <sup>nd</sup>	(4) I have difficulty keeping updated with learning materials and activities posted on the internet	3.71	1.15
3 <sup>rd</sup>	(2) I need gadgets like laptops, cellphones, and other devices to access lessons in asynchronous learning.	3.56	1.14
4 <sup>th</sup>	(7) I feel that I will learn the least under the asynchronous method.	3.53	0.91
5 <sup>th</sup>	(1) I lack the motivation to attend asynchronous class activities.	3.42	1.07

Table 3 presents the top 5 challenges encountered by Community College students during the delivery of the asynchronous learning approach. Students have difficulty comprehending the lessons during the delivery of the asynchronous learning approach.

The first in the rank is item 5, "I need more time to discuss and understand the content of the guide" (M=3.61, SD=0.95). In asynchronous learning, students are on their own, which leads to less understanding of the topics. There are also limited discussions with the teachers and classmates. These are significant changes in the new learning delivery compared to traditional face-to-face which is enough reason to be on the top of the challenges list.

Second is item number 6, "It is hard to focus on understanding the topic" (M=3.58, SD=0.99). According to Sadeghi (2019), online learners may easily get distracted, lose focus, or miss deadlines. E-learning relies on the internet and computers, which students may not access, and disruptions or other system errors may appear during courses. Also, environmental disruptors such as the noise made by family members or neighbors and the lack of good learning space influence the number of times students can concentrate while learning online.

Third is item 3, "I experienced a lack of interaction with my classmate and teachers." (M=3.54, SD=1.00). The lack of interaction might be the result of poor internet connectivity and low data load. With this, students have limited opportunities to have immediate answers to questions and clarifications from the teacher.

According to Gulau (2021), if a learner accesses their materials and has a question at a time when their educator is not readily available, the learner may waste away valuable time waiting for their teacher to get back to them before they can continue. Limited interaction might lead to burnout, procrastination, confusion, and loss of motivation to learn.

Item number 1, "I find the learning materials not sufficient for us to grasp the concept presented" (M=3.51, SD=1.04), is ranked fourth. Since students experience a lack of understanding, limited discussion and interaction, and low motivation, the learning materials might be deemed insufficient. Students appreciate elaborating the concepts through examples and illustrations and various engaging activities in the typical setting, which is the opposite of asynchronous learning being independent.

Item 2, "My interest decreases as I go through with activities" (M= 3.48, SD=0.99), is ranked fifth. The lack of understanding and support system drives students to lose their eagerness to comprehend the subject's lesson because they do not know if they are doing the task correctly. Some students perceived the medium as "faceless," and there could be misunderstandings. These problems were particularly off-putting to the new students to online learning (Kear, 2010).

Table 3: Top Five Challenges Encountered By Community College Students During The Delivery of Asynchronous Learning Approach

Rank	Item	Mean	SD
1 <sup>st</sup>	(5) I need more time to discuss and understand the content of the guide	3.61	0.95
2 <sup>nd</sup>	(6) It is hard to focus on understanding the topic	3.58	0.99
3 <sup>rd</sup>	(3) I experienced a lack of interaction with my classmate and teachers.	3.54	1.00
4 <sup>th</sup>	(1) I find the learning materials not sufficient for us to grasp the concept presented	3.51	1.04
5 <sup>th</sup>	(2) My interest decreases as I go through with activities	3.48	0.99

Table 4 illustrates the top 5 challenges encountered by Community College students after delivering the asynchronous learning approach. Students have experienced mixed-negative emotions, a lack of confidence, and disconnection.

The first rank is item number 3, "I feel anxious/worried about my answers to the activities" (M=3.87, SD=1.01). The difficulties encountered by students while undertaking activities may have resulted in anxiety after performing the tasks. Anxiety is a basic human feeling exemplified by fear and uncertainty. It typically arises when a person realizes that an event poses a threat to their self-esteem.

The second is item number 4, " I cannot pass my activity on time because of electricity interruption, no internet connectivity, work, and the likes." (M=3.73, SD=1.07). The limitation of technology and other responsibilities serves as a challenge for students to accomplish learning tasks on time.

According to Coman et al. (2020), students' technical problems remain on poor internet connections, signal loss, and lack of adequate digital devices, especially for students living in rural areas or students from low-income families.

Item number 5 "I feel that I did not meet the expectation of my teachers (M=3.72, SD=1.03) ranked third. After answering activities in asynchronous learning, students feel insufficient about how their professor expects them to perform. Usually, teachers set standards for student performances that may lead to frustrations and depression if not met. This concern should be given attention accordingly and immediately before it hampers the learning efficiency of students. According to IBCCES ( 2021), the student's learning is also affected because anxiety and depression can affect the working memory, making it difficult to retain new information and recall previously learned information.

Item number 6, "I experience difficulty in communicating with my classmates and teachers after a particular learning guide." (M= 3.70, SD=1.02), is ranked fourth. Communication after asynchronous learning is difficult for students. Typically, students quickly get over their past lessons even if there are misconceptions. Interest in discussing issues and inconsistencies is seldom resolved and communicated after the class.

Item 7 is ranked fifth, "I have misunderstood the lessons because of no real-time discussion" (M=3.67, SD=1.04). Students have experienced disorientation, disconnection, and insufficient learning due to distance from the school. According to Yusuf and Al-Banawi (2013), students feel isolated because of a lack of engagement, particularly with the professors. Also, students spend more time inside, and in front of the internet, which leads to being socially removed from others.

Table 4. Top Five Challenges Encountered By Community College Students After the Delivery of Asynchronous Learning Approach

Rank	Item	Mean	SD
1 <sup>st</sup>	(3) I feel anxious/worried about my answers to the activities	3.87	1.01
2 <sup>nd</sup>	(4) I cannot pass my activity on time because of electricity interruption, no internet connectivity, work, and the like.	3.73	1.07
3 <sup>rd</sup>	(5) I feel that I did not meet the expectation of my teachers.	3.72	1.03
4 <sup>th</sup>	(6) I experience difficulty in communicating with my classmates and teachers after a particular learning guide.	3.70	1.02
5 <sup>th</sup>	(7) I misunderstood the lessons because of no real-time discussion	3.67	1.04

Table 5 illustrates the level of challenges encountered by students in the conduct of asynchronous learning when taken as a whole and classified according to age, sex, year level, and academic standing.

The results indicate that students experienced a "High" level of challenges in delivering the asynchronous learning approach when taken as a whole (M=3.49, SD = 0.75). Asynchronous learning did pose difficulties to students. One primary reason is that students are still adjusting to the new learning delivery approach that was drastically implemented during the COVID-19 pandemic. Technical, cognitive, and psychosocial challenges were encountered by students as indicated in previous tables. However, students need to adapt and perform well on the task, activities, and assessments delivered through asynchronous learning. It is necessary to overcome these challenges by exposing them to e-learning and developing creative ways to deal with the challenges and limitations of the asynchronous learning approach.

On the other hand, students who belong to 21 – 30 years old, 1<sup>st</sup> year, 4<sup>th</sup> year have encountered "Average" level of challenges in delivering an asynchronous learning approach. In comparison, the rest have a "High" level of challenges. These differences in the means are determined in Tables 6, 7, 8, and 9.

Table 5: Level of Challenges Encountered by Community College Students in the Delivery of Asynchronous Learning Approach

Category	Mean	SD	Description
<b>A. Entire Group</b>	3.49	0.75	High
<b>B. Age</b>			
20 years and below	3.65	0.65	High
21 – 30 years old	3.37	0.78	Average
31 years old and above	3.71	1.14	High
<b>C. Sex</b>			
Male	3.41	0.87	High
Female	3.54	0.67	High
<b>D. Year Level</b>			
1 <sup>st</sup> Year	3.39	0.81	Average
2 <sup>nd</sup> Year	3.66	0.72	High
3 <sup>rd</sup> Year	3.54	0.69	High
4 <sup>th</sup> Year	3.09	0.73	Average
<b>E. Academic Standing</b>			
1.50 – 1.00	3.41	0.83	High
2.00 – 1.49	3.47	0.68	High
2.01 and below	3.73	0.88	High

Origin: 4.20 – 5.00 (Very High); 3.40 – 4.19 (High); 2.60 – 3.39 (Average); 1.80 – 2.59 (Low); 1.00 – 1.79 (Very Low)

Table 6 shows that there is no significant difference in the mean of males (M= 3.41, SD= 0.87) and females (M= 3.54, SD= 0.67);  $t(140) = -0.99, p=0.10$ . The challenges encountered by College students in the delivery of asynchronous learning in the 1<sup>st</sup> Semester of AY 2020 – 2021 in both sex (male and female) was similarly High.



Table 6: T-Test Result for Significant Difference in The Mean Level of Encountered Challenges in the Delivering of Synchronous Learning Approach when Classified According To Sex

Category	Mean	df	t-value	p-value	Remarks
<b>Sex</b>					
Male	3.41	140	-0.99	0.10	Not Significant
Female	3.54				

Table 7 shows no significant difference in the mean level of challenges encountered by COLLEGE students when classified according to year level with  $F=2.48$  and  $p = 0.06$ . Students from different year levels experienced the same level of challenges under asynchronous learning.

Table 7: One-Way ANOVA Test Result for Significant Difference in The Mean Level of Encountered Challenges in the Delivering of Synchronous Learning Approach According To Year Level

Source	df	SS	MS	F	p	Remarks
Between Groups	3	4.10	1.37	2.48	0.06	Not Significant
Within Groups	138	76.07	0.55			
Total	141	80.17				

Table 8 shows no significant difference in the mean level of challenges encountered by students when classified according to age with  $F=2.54$  and  $p = 0.08$ . Students of different ages experienced the same level of challenges under asynchronous learning.

Table 8: One-Way ANOVA Test Result for Significant Difference in The Mean Level of Challenges Encountered by Community College Students According To Age

Source	df	SS	MS	F	p	Remarks
Between Groups	2	2.83	1.41	2.54	0.08	Not Significant
Within Groups	139	77.34	0.56			
Total	141	80.17				

Table 9 shows no significant difference in the mean level of challenges encountered by students when classified according to academic standing with  $F=1.253$  and  $p = 0.29$ . Students with different academic standing experienced the same level of challenges under asynchronous learning.

Table 9: One-Way ANOVA Test Result for Significant Difference in The Mean Level of Challenges Encountered by COLLEGE Students According To Academic Standing

Source	df	SS	MS	F	p	Remarks
<b>Between Groups</b>	2	1.42	0.71	1.25	0.29	Not Significant
<b>Within Groups</b>	139	78.74	0.57			
<b>Total</b>	141	80.17				

### CONCLUSION AND RECOMMENDATION

The level of challenges encountered by Community College students in the delivery of asynchronous learning is "High." Students experienced the same challenges even when grouped according to age, sex, year level, and academic standing. The challenges include limited internet connectivity, lack of gadgets and motivation, low comprehension and confidence, anxiety, and disconnection.

Teachers have to increase the engagement and participation of students in the educational process by using appropriate strategies. The College may implement programs to improve students' internet connectivity and address challenges encountered by students. At the same time, students have to be resourceful and adaptive to meet the demands of new learning delivery in this time of the COVID-19 pandemic, particularly the asynchronous learning approach.

### Acknowledgment

The author wishes to acknowledge the participants of the study and those who made him inspired in doing this endeavor.

### Authors' Biography

The author is a College Department Head of a local College in Iloilo City. He has been teaching for 20 years and is involved in school management and various professional organization in the region.

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