Synchronous or Asynchronous Learning: That’s the Question of BACOM Learners!

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<th><strong>ARTICLE INFO</strong></th>
<th><strong>ABSTRACT</strong></th>
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<td><strong>Keywords:</strong></td>
<td>Due to the COVID-19 pandemic, the delivery of education through distance learning has become a necessity. Students have to learn from their instructors in an online platform in two methods: synchronous and asynchronous learning. With all these pieces of information in mind, this study was conducted to examine the preferences of 143 Bachelor of Arts in Communication (BACOM) learners in one state university in Cordillera Administrative Region, Philippines regarding synchronous and asynchronous learning through a valid and reliable questionnaire distributed via Google Form. In a nutshell, more BACOM learners preferred synchronous learning because it allows for collective learning and interactions in real time which can alleviate the sense of isolation that asynchronous learning brings, and they found it easier and more manageable to navigate synchronous learning than asynchronous learning. Notably, second year BACOM learners recorded the highest average preference on synchronous learning, while the first year BACOM learners recorded the highest average preference on asynchronous learning. While there is no significant difference in moderate preference according to year levels, it still varies from year level to year level. This poses an area for future work where if Face-to-Face classes are still not attainable, hybrid learning, which is a combination of synchronous and asynchronous learning.</td>
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learning, can be tested to prioritize the learning progression of every learner.

1. INTRODUCTION
Distance learning has been practiced in the Philippines for some time now. In Dela Peña-Bandalaria’s 2009 study, she stated that the University of the Philippines Open University (UPOU) started distance learning operations in 1995 where learners received their printed course modules upon enrollment and were only required to attend face-to-face (FTF) classes once a month. These FTF sessions were meant to provide learners with an opportunity to ask questions about lessons that were unclear to them and interact with their professors and classmates. In the Cordillera Administrative Region (CAR), where this study was conducted, distance learning has been practiced. Galeon et al. (2019) stated that CAR had Open and Distance Learning (ODL) which began in 1997 to address the educational needs of individuals who were deprived of time and distance to attend regular room-based lectures such as employed or working individuals, parents, and the like.

Nevertheless, the delivery of education through distance learning has become mainstream because of the COVID-19 pandemic. Learning has migrated from face-to-face to distance learning. This could be done via an online platform which is categorized into two methods: synchronous and asynchronous learning, or simply generalized as online learning. According to Abernathy (2019), online learning, also referred to as e-learning, is the attainment of knowledge that takes place through electronic platforms and media. Dalhem and Saleh (2014) added that e-learning is a blend of content and instructional methods delivered electronically to facilitate the building of knowledge and skills. To specify, Scheiderer (2020) stated that asynchronous learning allows a learner, within a self-allotted time frame, to learn and complete activities in his or her own schedule. Synchronous learning, on the other hand, is an approach to distance learning where learners and instructors meet within a virtual classroom at a scheduled time. According to Kim (2020), very few schools and universities did absolutely nothing with online education pre-COVID-19, but understanding education will change how schools and universities plan and manage online education post-pandemic.

Researchers found that online learners have varied preferences, so there is no one-size-fits-all strategy to serve them as it depends on the types of technology in use at the time and also the curriculum content being taught (Clinefelter & Aslanian, 2015; Orlando & Attard, as cited in Gillett-Swan, 2017). Wewitzel (2020) posited that while both synchronous and asynchronous learning have their pros and cons, synchronous courses are much more conducive to student learning and course progression while asynchronous learning can be beneficial to students as they can choose when they work on tasks each day. Learners do not often get the opportunity to connect with their instructor in asynchronous courses which results in a feeling of isolation.

In Han’s 2013 study (as cited in Malik et al., 2017), he found that in courses that included teacher’s lecture videos, as compared to the courses that did not utilize videos,
learners could overcome the feeling of being at a distance from the instructor. In Gedera, Williams, and Wright’s study (2015) about motivations and engagement in online courses, they found that online learning could lead to loss of motivation and engagement, minimal participation, and/or even withdrawal. Aside from personal factors that affect learning, there are also downsides to technical factors that must be taken into account such as gadget shortage, connectivity, and computer literacy. According to Debatur (2020), connectivity and lag spikes on an online learning platform do not help learners be more motivated; rather, it may force them to abandon their tasks and focus on other things.

Farros et al. (2020) discovered that synchronous discussion has a habit of requiring more time and resources on the part of instructors. On the other hand, Zalaznick (2021) listed benefits of online learning on the perspectives of teachers where a teacher’s flexible teaching pathway can accommodate how each learner learns best, or how online learning expands the capacity of teachers by having time to devote to building relationships with learners, strategizing a more profound learning experience, and providing learners with individual coaching and feedback.

2. LITERATURE REVIEW
2.1. Transactional Distance Learning
In 1973, Michael G. Moore proposed Transactional Distance Theory to study learner-instructor interactions through time and place. Moore stated that the separation in distance learning is "a psychological and communicative area of possible misunderstanding between the instructor's inputs and those of the students," rather than merely physical. This psychological and communication gap might jeopardize the purpose of educating pupils during school closures. Social constructivism theory is an indirect method of determining transactional distance because the true unit of analysis is the students' perspective (Weidlich & Bastiaens, 2018; Goel, Zhang, & Templeton, 2012). Chen (2001) and Zhang (2003) created metrics to evaluate the learner's transactional distance from the interface or technology. Weidlich and Bastiaens (2018) anticipated that this is not only useful for the evaluation of transactional distance, but also crucial in understanding how transactional distance is connected to satisfaction with the learning process, based on their findings.

2.2. Individualized Instruction Theory
Individualized Instruction, according to Pappas (2017), is the foundation of "The Keller Plan" and "The Personalized System of Instruction," and it is based on the principle that learners must be allowed to study a topic on their own in order to completely comprehend the concepts involved. Each lesson, module, or activity should end with an evaluation that gauges their understanding and development. Individualized Instruction also involves social learning activities to extend a learner's comprehension, similar to how asynchronous classrooms are set up, where learners get lectures from their professors and are expected to study on their own. Individualized Education takes various forms, but they all aim to improve instruction in some way. Most proponents of customized
education, according to Ho et al (2002), see the computer as a way to improve the design and delivery of personalized training. When Computer-Assisted Instructions (CAI) became the pioneer in customized instruction in the 1980s and early 1990s, as home computers got more powerful and less expensive, the question of whether it was more or less successful than traditional education was less of a worry. Individualized instruction, according to Ho et al's 2002 study, can improve instruction by altering the pace of education, the educational technique, and the material. Although most techniques allow for self-pacing, process and content variation is uncommon, and when it does occur, it is generally quite restricted.

2.3. Social Constructivism
According to King (2018), social constructivism theory stresses the collaborative nature of learning, based on the idea that learning is built via the interaction with others. The emphasis in the social constructivism paradigm is on learners rather than teachers. They learn best when they collaborate with their classmates to actively construct their understanding. They are encouraged to come up with their own answers and test out their theories and assumptions. The instructor's job is to help them learn about a certain topic by facilitating their learning process. Instructors should create and organize learning tasks that allow learners to test their knowledge formation abilities. Both synchronous and asynchronous learning can benefit from social constructivism, which emphasizes the importance of communication and collaboration in learning. The notion of social constructivism, according to Wink and Putney (2002), improves learners' deep comprehension and inventiveness. Instructors can continuously incorporate a Social Constructivist Learning Environment (SCLE) into the learning process in an online context. Slow thinkers and individuals who are hesitant to engage in face-to-face dialogue might benefit from online communication. Participants have more time to consider and an equal right to offer their opinions because internet communication is asynchronous. Learners will successfully exchange information and cognitive growth through meaningful and active online conversation. Online technology may also provide users access to a wealth of knowledge and encourage productive interaction with it (Bonk & Cummingam, 1998; Weller, 2002).

3. METHODS
In this study, the researchers used a quantitative- descriptive approach. Bhandari (2020) defined this approach as the process of collecting and analyzing numerical data which was fit in this particular study.

The respondents were 143 (freshmen to seniors) Bachelor of Arts in Communication learners in one state university in Cordillera Administrative Region, Philippines. The researchers used simple random sampling to select their respondents. McCombes (2019) defined simple random sampling as a type of probability sampling in which the researcher randomly selects a subset of participants from a population where each member of the population has an equal chance of being selected. The number of
BACOM learners per class section were as follows: 1A-32 learners, 1B-24 learners, 2A-24 learners, 2B-21 learners, 3A-22 learners, and 4A-20 learners, for a total of 143 learners.

The researchers made use of a survey questionnaire as the main tool in gathering the needed data. The survey questionnaire was created by the researchers themselves, comprising of three main parts. In this regard, the content was validated by an instructor with a doctorate degree who uses both synchronous and asynchronous learning. To ensure the instrument’s reliability, a total of 15 respondents were asked to answer the questionnaire, and the results indicated that the latent variables can generate reliable scores.

Means were used to treat the preference of BACOM learners between synchronous and asynchronous learning and the level of agreement of BACOM learners in managing difficulties in synchronous and asynchronous learning, while one-way analysis of variance was used to answer the difference in the preferences of BACOM learners according to year levels.

To collect the data, the researchers asked the Bachelor of Arts in Communication (BACOM)-Program Adviser for the contact information of the class representatives and sent them personal messages through Facebook Messenger for the distribution of the survey questionnaire. When the representatives agreed, the survey questionnaire was sent immediately to the respondents via a Google Form which included specific instructions on how they could address the items. After collecting all the data, the researchers then tabulated them which served as a guide for the interpretation of the results.

4. FINDINGS AND DISCUSSION

4.1. Findings

Table 1 presents the mean and the descriptive equivalence with regard to the preference of BACOM learners between synchronous learning and asynchronous learning.

<table>
<thead>
<tr>
<th>Methods of Learning</th>
<th>Mean</th>
<th>Descriptive Equivalence</th>
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<tbody>
<tr>
<td>Synchronous</td>
<td>2.93</td>
<td>Moderately preferred</td>
</tr>
<tr>
<td>Asynchronous</td>
<td>2.94</td>
<td>Moderately preferred</td>
</tr>
</tbody>
</table>

The table shows that BACOM learners moderately preferred both synchronous (2.93) and asynchronous learning (2.94). To add, the percentage of learners who preferred
synchronous and asynchronous learning is found in figure 1.

Descriptively, 60% of the respondents moderately preferred synchronous learning due to the communication that occurs between the learners and their instructors. In contrast, only 40% of the respondents moderately preferred asynchronous learning due to the efficiency of working at one’s own time and pace.

Figure 2 shows the preference of BACOM learners between synchronous and asynchronous learning.

Descriptively, 49% of the respondents moderately preferred synchronous learning in understanding module concepts. In contrast, only 41% of the respondents moderately preferred asynchronous learning in the same context.
Table 2 shows the differences in the preferences of BACOM learners according to year levels using one-way analysis of variance.

<table>
<thead>
<tr>
<th>Year Level</th>
<th>Mean</th>
<th>Descriptive Equivalence</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>2.82</td>
<td>Moderately preferred</td>
<td>.818</td>
<td>.486</td>
</tr>
<tr>
<td>Second Year</td>
<td>3.04</td>
<td>Moderately preferred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Year</td>
<td>2.92</td>
<td>Moderately preferred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Year</td>
<td>2.93</td>
<td>Moderately preferred</td>
<td></td>
<td></td>
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</tbody>
</table>

Accordingly, the data manifested that BACOM learners from all year levels moderately preferred synchronous learning. Descriptively, the second year BACOM learners recorded the highest average preference on synchronous learning with a mean of 3.04, followed by the fourth year BACOM learners with a mean of 2.93, and the third year BACOM learners with a mean of 2.92. The first year BACOM learners, on the other hand, recorded the lowest preference on synchronous learning with a mean of 2.82.

Meanwhile, table 3 shows the preference of BACOM learners on asynchronous learning according to year levels.

<table>
<thead>
<tr>
<th>Year Level</th>
<th>Mean</th>
<th>Descriptive Equivalence</th>
<th>F-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>3.06</td>
<td>Moderately preferred</td>
<td>.877</td>
<td>.455</td>
</tr>
<tr>
<td>Second Year</td>
<td>2.90</td>
<td>Moderately preferred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Year</td>
<td>2.81</td>
<td>Moderately preferred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Year</td>
<td>2.93</td>
<td>Moderately preferred</td>
<td></td>
<td></td>
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Based on the results, there were no significant differences in the means of the preferences of BACOM learners according to year levels. Accordingly, the data manifested that BACOM learners from all year levels moderately preferred asynchronous learning. Descriptively, the first year BACOM learners recorded the highest average preference on asynchronous learning with a mean of 3.06, followed by the fourth year BACOM learners with a mean of 2.93, and the second year BACOM learners with a mean of 2.90. The third year BACOM learners, on the other hand, recorded the lowest average preference on asynchronous learning with a mean of 2.81.

Finally, table 4 presents the level of agreement of BACOM learners in managing difficulties in synchronous and asynchronous learning
Table 4. Agreement of BACOM Learners in Managing Difficulties in Synchronous and Asynchronous Learning

<table>
<thead>
<tr>
<th>Method of Learning</th>
<th>Mean</th>
<th>Descriptive Equivalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synchronous</td>
<td>2.77</td>
<td>Agree</td>
</tr>
<tr>
<td>Asynchronous</td>
<td>2.59</td>
<td>Agree</td>
</tr>
</tbody>
</table>

The table shows that the level of agreement of BACOM learners in managing the difficulties is higher with synchronous learning which had a mean of 2.77 than asynchronous learning having only a mean of 2.59. Specifically, the respondents agreed more that they can manage with the difficulties of synchronous learning than those of asynchronous learning.

Figure 3 shows the level of agreement based on how BACOM learners managed difficulties in terms of synchronous and asynchronous learning.

![Figure 3. Level of Agreement Based on How BACOM Learners Manage Difficulties in Terms of Synchronous and Asynchronous Learning](image)

Descriptively, 46% of the respondents agreed that synchronous learning is easier due to the virtual collaboration that occurs as well as how activities were distributed. In contrast, only 38% of the respondents agreed that asynchronous learning is easier due to self-learning as well as how activities were distributed.

4.2. Discussion
4.2.1. Preference of BACOM Learners between Synchronous and Asynchronous learning

Based on the results gathered from the survey questionnaire, more than half or 60% of the respondents of BACOM learners moderately preferred synchronous learning because it is easier for them to communicate with their classmates and instructors. On the other
hand, BACOM learners perceived asynchronous learning to be more manageable as 40% of the respondents moderately preferred asynchronous learning due to its flexibility with time. This means that more students preferred synchronous learning because it allows for collective learning and interactions in real time which can alleviate the sense of isolation that asynchronous learning brings. This proves Wewitzel’s (2020) claim that learners can feel very isolated or being at distance from their instructor because they do not often get the opportunity to connect with their instructor in asynchronous courses. When asked which mode of learning the learners preferred more in understanding module concepts better, the researchers found that 49% of the respondents moderately preferred synchronous learning and 41% moderately preferred asynchronous learning. This supports Wewitzel’s (2020) claim that synchronous courses are much more conducive to student learning and course progression.

Skylar, in the findings of her 2009 study, found that both types of lectures, synchronous and asynchronous, are effective in delivering online instruction but almost three-fourths (30 of the 41 respondents in her study) of the learners indicated that they would rather take an online course that uses synchronous web conferencing lectures than an online asynchronous text-based lecture course. The researchers also found that more students leaned to moderately prefer asynchronous learning because it allowed the respondents to save time, allowing them to work and study at their own pace and improve their ability to learn. In contrast, fewer students moderately preferred synchronous learning because of the online interactions that occur with other students and with their instructors.

Nonetheless, the preference of BACOM learners between synchronous and asynchronous learning can vary differently from learner to learner as well as the context of the situation the learners are in. This finding agrees with Orlando and Attard’s (2015) statement that “teaching with technology is not a one size fits all approach as it depends on the types of technology in use at the time and also the curriculum content being taught.”

4.2.2. Difference in the Preferences of BACOM Learners according to Year Levels
Based on the results, the researchers accepted the null hypothesis that there is no significant difference in the preferences of BACOM learners according to year levels. When comparing the results, more first year BACOM learners preferred asynchronous learning (with a mean of 3.06) and recorded the highest moderate preference according to year level. In contrast, the first year BACOM learners only moderately preferred synchronous learning (with a mean of 2.82) and recorded the lowest moderate preference according to year level. This indicates that more first year BACOM learners prefer asynchronous learning than synchronous learning. This implies that freshman learners can better adjust to their new learning environment from their transition in senior high school in an asynchronous learning method. This result is opposite in Avila et al. (2021) who perceived that freshman students are moderately overwhelmed in this type of learning environment because it is new to them so online learning is indeed helpful in improving students’ competencies as they start their baccalaureate degrees and
moderately enjoy the learning activities. This is because synchronous learning, in terms of interaction, acts like face-to-face learning, but conducted online.

For second year BACOM learners, more of them moderately preferred synchronous learning (with a mean of 3.04) and recorded the highest average preference according to year level. In contrast, the moderate preference of second year BACOM learners to asynchronous learning was only at a mean of 2.90. Since sophomore learners have been in the said department and school for more than a year, they have already adjusted to their learning platform since the start of the pandemic. As a result, they prefer synchronous learning. BACOM second year learners preferring synchronous learning maybe based on their experiences in their previous year where they were also enrolled in online classes. With that, they still prefer synchronous learning because they still need interaction with their instructors even if they have already adjusted to the new learning platform. Lee, Srinivasan, Trail, Lewis and Lopez (2011) found that students find more value and benefit when they have interactions with their instructors and peers.

With regard to the third year BACOM learners, they moderately preferred synchronous learning with a mean of 2.92, and they recorded the lowest average preference to asynchronous learning according to year level. This implies that more third year BACOM learners prefer synchronous learning than asynchronous learning. This can be because they can be more productive with the help of their instructors by providing insights through synchronous online learning. Smidt et al. (2013) found that interaction is key to course success not only with their instructor but also with their peers.

Lastly, the fourth year BACOM learners moderately preferred both synchronous and asynchronous learning having a mean of 2.93 for both. This implies that there is no difference in the preferences of the fourth year BACOM learners at all. As seniors, they can now manage and balance with both methods of online learning. As a result, there is no problem with whichever mode of learning their instructors will use as they have already built prior experiences to both methods. As Farmer (2020) says, as students demonstrate mastery, they become more capable of completing tasks independently. Nonetheless, Bennet (2020) explains that utilizing both methods to create a complete course gives the learners the highest chance to succeed.

Based on the results, the researchers found that the respondents, the BACOM learners from first year to fourth year, moderately preferred either synchronous or asynchronous learning. The results of the study implies that while there is no significant differences in the preferences of all year levels in general, it still varies from year level to year level. For example, first year BACOM learners may prefer a purely asynchronous setup for all their classes, while the second year BACOM learners may prefer a purely synchronous setup for all their classes. This claim is supported by Clinefelter and Aslanian’s (2015) findings that online learners have varied preferences so there is no one-
size-fits-all strategy to serve them.

Shahabadi and Uplane (2015) noted that every individual is a unique learner and learners have varied preferences or learning styles. According to Barbosa and Garcia (2005), online assessment is an important step inside the e-learning process because it gives convenient feedback to all participants in the process, helping to improve the learning and teaching experience. Xie et al. also suggests in their 2018 study that since synchronous and asynchronous e-learning environments and communication tools have their own advantages and disadvantages, a blend of synchronous and asynchronous models should be suitable.

4.2.3. Level of Agreement of BACOM Learners in Managing Difficulties in Synchronous and Asynchronous Learning

In terms of difficulty, the respondents were asked which mode of learning makes it easier or is more manageable for BACOM learners to study. The researchers considered factors when asking the respondents on how they could easily manage the difficulties of distance learning.

The researchers considered Lesson Progression as a factor in BACOM learners managing the difficulties of distance learning. The Glossary of Education Reform defines Lesson Progression as the purposeful sequencing of teaching and learning expectations across multiple developmental stages. The second factor considered was Virtual Collaboration or an approach to collaboration that integrates online tools as mediators in the interaction among a group as defined by Vinagre (2016). The third factor to be considered is Online Interaction or the dialogue(s) and communication between and/or among physically-separated participants in online learning environments with the support of educational technology as defined by Yang (2009). As social constructivism places emphasis on the collaborative nature of learning where knowledge is constructed through the interaction with others, this implies that having communication or no communication with other learners or instructors can affect how a learners can perceive the difficulties of distance learning.

With these factors in mind, 46% of the respondents agreed that synchronous learning is more manageable or easier for them in learning. In contrast, only 38% of the respondents agreed that asynchronous learning is easier for them in learning. This implies that there is a difference on how BACOM learners perceived how they managed the difficulties of online learning, perceiving that synchronous learning is easier to manage than asynchronous learning. In Barrot et al.’s 2021 study, they found that online learning challenges and strategies were mediated by the resources available to learners such as their interaction with their teachers, peers, and the school’s existing policies and guidelines for online learning. In the context of the pandemic, the imposed lockdowns and learners’ socioeconomic condition aggravated the challenges that they experience which were the quality of learning experiences, mental health, communication and interactions, as well as mobility.
5. CONCLUSION
Several conclusions can be drawn from the results of this study. Firstly, BACOM learners have varied preferences between synchronous and asynchronous learning which means that the lesson progression of a learner will differ from another learner. As one learner may thrive in a synchronous environment, some may not thrive in an asynchronous environment and vice versa. Because BACOM learners have varied preferences from one another, a balance of the two learning methods or a hybrid method can be promoted to focus on the individual growth of every learner. Unavoidably, there will be teachers that will automatically set courses with an asynchronous setup. This means that teachers will only provide their materials to learners without teaching it. This may lead to some learners not acquiring any real and long-lasting knowledge due to online learning.

Due to the sudden switch to online learning brought by the pandemic, learners have been exposed to a new learning environment. This study found that more BACOM learners leaned to agree that the difficulties of synchronous learning are much easier or much more manageable than in asynchronous learning. The factors that affected their perceptions were learning progression, virtual collaboration, and online interaction. This study found that BACOM learners perceived synchronous classes to be easier due to the communication that occurs in an online classroom setting. Bhaumik and Priyadarshini (2020) found that the freedom and flexibility to study at one’s own pace can be encouraging to want to continue studying through online learning.

This poses an area for future work if face-to-face arrangements are still not attainable. The researchers suggest that hybrid learning, which is a combination of synchronous and asynchronous learning, to be tested so that there will be more effectiveness in the teaching and learning process as suggested by Kaup et. al (2020). Hybrid learning is where teachers can provide activities for learners and schedule an online class with them through Google Meet, Zoom, or MS Teams to check up on them for clarifications or misunderstandings.

Nonetheless, some limitations are needed to be acknowledged so that future researches may address them. First, this study focused heavily on the point of views of learners only. Future researchers may widen the scope of their study by including teachers to investigate their part. Second, researchers may incorporate other personal factors that affect online learning such as mental health, internet connectivity, or other challenges that learners may experience. Third, this study focused heavily on all classes of BACOM learners in general. Future studies may want to separate the focus on specialized courses and general education courses to get a more comprehensive view on learning. Lastly, researchers may want to extend a similar study to other BACOM learners in other schools to get a bigger picture on how these individuals experience online learning.
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