

CHALLENGES ON DISTANCE LEARNING INTERACTION AMONG ACCOUNTING STUDENTS AT STATE-RUN COLLEGE IN AN ISLAND PROVINCE IN THE PHILIPPINES

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ABSTRACT

Distance learning became more evident during the COVID-19 pandemic. It became mandatory in different parts of the world just to continue the educational system despite the insufficiency of resources. This paper aimed to determine the challenges encountered by accounting students towards distance learning and their distance-learning interaction. The researchers used descriptive-correlational research. The data was gathered from 100 accounting students in a state-run college in an island province using a structured survey questionnaire and a simple random sampling technique. The study found that accounting students encountered a large extent of challenges in infrastructural limitations and state of mind while learner-learner interaction scored the highest among the types of distance learning interactions. The study also found that challenges encountered were in terms of disturbance in execution, the gap between people, and technological inhibitions have a significant and positive correlation with learner-content interaction. A negative correlation between challenges encountered in terms of the state of mind and learning-instructor interaction was also observed. The findings of the study can be used in enhancing the learning experience of the students and improvement of the learning management of the institution when implementing distance learning education.

Keywords: *flexible learning; accounting education; distance learning challenges; mental health*



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INTRODUCTION

Distance learning in the Philippines is not a new thing in colleges and universities (Publico, 2020). Since COVID-19, the approach was seen to be more evident. Similarly, with other sectors, the education system is affected worldwide which leads to near-total closures of schools, universities, and colleges (Maslen, 2020). For the students to be able to attend classes even at home, the Commission of Higher Education and the Department of Education promoted flexible and blended learning. However, it has been criticized because most students in the country do not have enough resources to support their studies (Magsambol, 2020).

According to Navarosa and Fernando (2020), distance learning today is the ‘new normal’ in the education system not only for colleges and universities but also for elementary and high schools as well. This brought significant challenges for the students since they must now engage in online distance learning which is totally different from their daily routines. They now experience limited physical or in-person affiliation with peers although research suggests that students typically enjoy taking online courses (Seiver & Troja, 2014).

Distance learning is the use of Information and Communication Technology (ICT) to improve and promote learning as well as the creation of knowledge based on the learner's own experience, practice, and knowledge. Educational institutions have benefited greatly from developments in communication and computing technologies, and there is a constant demand in developing countries to enhance their teaching and learning processes by integrating growing levels of technology into the design and delivery of their curriculum. These new technologies allow for more flexibility in learning and a wider reach for education in many countries worldwide (Salawudeen, 2006).

In addition, education as a structure is not limited to the physical contexts of a typical college campus (Frick, 2020). According to Sinclair College (2020), distance learning is a course delivered via synchronous means at scheduled times on specific days. Using the institution's learning management system to promote tasks, quizzes/exams, and other course materials, an instructor can effectively offer their programme on the same

schedule as if it were conducted in a traditional face-to-face or blended format. As stated by White (2010) the delivery of synchronous real-time interaction to many students through remote instruction is not new while in the literature, there are few studies on the effects of a rapid transition to distance learning.

It must also be acknowledged that students varies in their ability to thrive and flourish rather than struggle because of online learning (Malik *et al.*, 2017). Identifying and understanding their learning preferences can make a big difference in how open an individual is to learn about a new topic. People learn in diverse ways, and each has a learning style or preference that aids in the acquisition of new skills and knowledge, as well as the retention of information (Loveless, 2021). Every student has their own preference of learning style for them to understand lectures and answer activities and assessments. Some learn best through pictures and watching videos and not on reading text and instructions while some prefer to read and understand instructions rather than relying on visuals.

There are extant literatures that studied the challenges brought by pandemic and the proliferation of distance learning to education sector. Likewise, there are existing studies on distance learning interaction. However, there are limited studies on how the challenges brought by pandemic affected the learning interaction of the students. This study attempts at providing an analysis on how these challenges affect learning interaction of the students during distance learning to fill in the gap. Also, the result of the study is expected to provide insights to school administrators and teachers on how the students fare during distance learning and how to improve their learning experience.

PROBLEM STATEMENT

Distance learning physically separates the learners from the educators, but the emergence of modern technology particularly the online media bridged the gap between them (Faridah *et al.*, 2021). Despite the emergence of technology like Google Meet, Zoom, Microsoft Teams, Facebook and different types of Learning Management System (LMS) applications which helps the management of learning more doable, there are plenty of challenges

the students encountered during its implementation period. These challenges were aggravated by the fact that students in remote areas where they are geographically isolated and access to internet is a major challenge.

The researchers recognised these challenges brought by the wholesale shift to distance learning as some of these have been documented in other recent works (Besser *et al.*, 2020). Hence, this study aimed to explore the challenges encountered by the accounting students in distance learning and its correlation to learning interaction. Specifically, the study sought to answer:

1. What is the extent of challenges encountered by accounting students in distance learning?
2. What is the extent of distance learning interaction in terms of learner-learner, learner-content, and learner-instructor?
3. Is there a significant correlation between the challenges encountered during the pandemic and distance learning interaction?

REVIEW OF LITERATURES

This study is guided by Moore's Model of Interaction. Moore (1989) came up with the model of interaction to explain how effective teaching and learning at a distance depends upon the nature of interaction and how interaction is facilitated through a technological medium. As indicated in Moore's model there are three types of interactions necessary for effective online education: learner-content, learner-learner, and learner-teacher. Interaction is a crucial element for effective online education that enhances the student learning experience and increases student satisfaction with the course.

The importance of the three types of distance learning interaction namely learner-learner, learner-content, and learner-instructor was quantitatively verified through meta-analysis conducted by Bernard *et al.* (2009). They suggested that the next generation of distance learning interaction should be designed to be more facilitative of purposeful interaction. Casarotti *et al.* (2002) found that interaction during the lesson is a basic factor for the success of distance learning and it stimulates a greater degree of interest, satisfaction, and perceived efficacy.

Learner–learner interaction is communication between students, in pairs or groups, with or without an instructor present (Beltramo, 2017). Shackelford *et al.* (2012) attributed learner-learner interaction to sense of community (SoC). SoC is defined in the literature as ‘a feeling of belongingness that members have, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to being together’. Through conversations with other students, online students build community, create understanding, and query and explain contents among themselves. In a constructivist approach, the instructor participates in these conversations but serves as a facilitator, rather than an authoritarian, who directs the conversation (Wu *et al.*, 2017). Small group interactions reduce student isolation, improve collaboration and advocate for learner-centered practices in online learning. Chen *et al.* (2020) added that students who participate in group discussions can work together to achieve learning goals and to assist and encourage one another as they progress from passive to active learners.

Moreover, Koehler *et al.* (2020) suggests that when students share resources with one another, they become more responsible and accountable for their own learning, their engagement improves, and relationships among members of the learning community are improved. He concluded that enhancing learner-learner interaction helps to focus the student in an active and cognitively complex learning process. Enhancing learner-learner interaction appears to have the greatest impact in terms of improving the overall learning experience in the distance education environment among the forms of interaction.

On the other hand, differences in styles of learning have become important considerations at all levels of education over the last several years (Chen *et al.*, 2020). Examining accounting students’ preferred styles of learning is useful for course design and effective instructional methods. Online class as a learning method in accounting courses faces many challenges. The existence of these barriers, however, does not alter the accounting profession's collective conclusion that perseverance and dedication to learning are a prerequisite for a good accounting career and that accounting educators should assist students in developing these learning objectives. According to Narh (2017), the learner-instructor interaction has been regarded as an important learning factor.

Tami and Kang's (2013) study showed results that factors related to instructional interaction predicted perceived learning achievement and satisfaction better than factors related to social interaction. However, it was revealed that social interaction such as social intimacy could negatively affect perceived learning achievement and satisfaction. It reflects that instruction-based tasks and activities tend to provide more predictability of achieving positive results and that how the factors highly affect every activity of the students. There is a study that found learner–instructor interaction factors that predict perceived learning achievement and satisfaction with empirical evidence (Kang & Im, 2013).

For distance learners, interaction with the course content (learner-content interaction) is especially important because it can contribute to successful learning outcomes and course completion. Learner-content interactivity in distance learning is a two-way communication process between a learner and learning materials in various formats through multimedia technology. As claimed by Racheva (2018) E-learning can have a high degree of learner-content interactivity that can inspire learners to participate in their learning with good instructional design strategies and sufficient technical tools. Hasan and Bao (2020) stated that learners who participate in e-learning are actively involved in the development, problem-solving, reasoning, and assessment processes. Indeed, the method of learning chosen by students has a significant effect on the progress of information acquisition.

As mentioned by Chew *et al.* (2008), blended learning became popular and has been widely accepted in many universities because it enhanced the teaching delivery that requires both face-to-face learning and online learning during the pandemic. With the use of technology, face-to-face learning and online learning were supported by blended learning tools such as Web 2.0 applications like YouTube, Facebook, Google Meet, and Google Classroom. Holtzblatt and Tschakert (2011) stated that blended learning web tools enabled educators to upload videos and other learning materials that were not available or deliberated in the textbooks. It benefits both educators and students because online learning materials can be accessed at any time and from any place. Consequently, learning will take place outside of the classroom as well. As believed by Turner (2013) the use of blended learning web resources has benefited educators and students, previous research has

shown that students would only use it if they believed it is simple to use and useful. Although blended learning web tools are beneficial, it has been discovered that students will only use them if access is simple and online learning materials are thought to be useful. Researchers tried to find more ways for all to adapt and become the new normal over time. Since some students do not always have access to the internet, thus some school systems advocate for blended learning.

RESEARCH METHODS

The study is based on the descriptive-correlational method. The researchers randomly selected 100 out of 541 accounting students enrolled in two campuses of Occidental Mindoro State College. The state-run college offers a Bachelor of Science in Accountancy, a Bachelor of Science in Management Accounting, and a Bachelor of Science in Accounting Information Technology.

The instrument used in the study is a researcher-made questionnaire that was validated by experts. The questionnaire contains five parameters of the challenges of distance learning and three parameters of learning interaction which have five indicators per parameter. The students' responses were measured by a 5-point Likert scale.

Table 1: Convergent Validity and Reliability Results

Construct	AVE	Cronbach Alpha
Learner-learner interaction	0.763	0.731
Learner-content interaction	0.859	0.712
Learner-instructor interaction	0.886	0.710
Disturbance in execution	0.837	0.794
Gap between people	0.914	0.732
Infrastructure limitation	0.772	0.754
Technological inhibition	0.710	0.825
State of mind	0.668	0.798

A reliability analysis was done on the eight factors using Cronbach's Alpha which ranged from 0.710 to 0.825 and exhibited an acceptable level above 0.7 of all the items in the construct (Brown, 2002).

In gathering the needed data, the researchers asked for the permission of the respondents and explained the purpose of the study. The data gathered was categorised, analysed, and interpreted by the researchers using the Statistical Package for the Social Science (SPSS) software. Weighted mean and standard deviation were used to describe the extent of challenges encountered and distance learning interaction while Pearson Product-Moment Correlation Analysis was used in measuring the relationship between the challenges encountered and the distance learning interaction of accounting students.

RESULTS AND DISCUSSIONS

Table 2: Extent of Challenges Encountered in Distance Learning

Challenges	Mean	Interpretation
Disturbance in execution	3.49	To a moderate extent
Gap between people	3.16	To a moderate extent
Infrastructure limitations	3.82	To a large extent
Technological inhibitions	3.07	To a moderate extent
State of mind	3.61	To a large extent

The results indicate that the students encountered to a moderate extent challenges in terms of disturbance in execution (mean= 3.49). This result indicates that most students during distance learning encountered a moderate extent of delays in lectures and disturbance in voice or presentation due to poor internet connectivity and lack of access to resources (e.g., books, PDF or PPT files, video presentation).

The students also encountered to a moderate extent challenges concerning the gap between people as reflected by the 3.16 mean score. This indicates that the majority of respondents somewhat encountered insufficient feedback from instructors and classmates during their distance learning. Mullikin (2020) suggests that when feedback is used as a motivator to encourage students ahead in their learning, the interactions with them shift from retrospective assessments to proactive preparations for future steps. A systematic method should result in immediate, authentic, and consistent feedback during the learning process.

Furthermore, the respondents encountered to a large extent challenges in infrastructure limitation (mean=3.82). This finding implies that the issues in internet access or connectivity, power failures, and inability to engage in an online class due to a lack of infrastructure and increase in workload due to school activities while facing house chores were encountered to a large extent by the respondents. According to Souter (2017) the ability to connect to the internet is critical to realising this vision for the future. It has the potential to increase educational quality in a variety of ways. It provides access to a multitude of information, knowledge, and educational resources, expanding learning opportunities both in and outside of the curriculum.

Moreover, the extent of challenges encountered by the respondents in distance learning in terms of technological inhibitions was to a moderate extent (mean=3.07). This could mean that most of the respondents have a proper understanding of operating different platforms using their mobile phones and laptops during the implementation of online classes. Since technological advancements and infrastructure are improving and supporting distance learning, most students are now skilled and experienced in using different platforms for distance learning. The effectiveness of online learning might be impacted by many factors such as technological aspects, user-friendly online platforms, class activities, and assessments (Wijekumar *et al.*, 2006; Shuey, 2002).

Lastly, the challenges encountered in terms of the state of mind of the respondents were noted to a large extent (mean=3.61). It only shows that most of the respondents are having a large extent of challenges in engaging in distance learning because of procrastination, mental stress due to the pandemic, lack of motivation, and being interrupted in online classes (by family, noise, etc.) which brings less confidence to the student. The shift to online classes, suspension of physical classes, excessive use of gadgets, home confinement, and decrease in social support increases the burden on the mental well-being of children (Lee, 2020; Loades *et al.*, 2020).

Table 3: Extent of Distance Learning Interaction

Learning Interaction	Mean	Interpretation
Learner-learner	4.19	To a large extent
Learner-content	3.56	To a large extent
Learner-instructor	3.92	To a large extent

Based on Table 3, the extent of learner-learner interaction has a mean score of 4.19. Learner-learner interaction is two-way communication between and among learners to exchange ideas or information related to course content or completing a group task. Interactions with peers allow the students to deepen their understanding of theoretical knowledge and of how to better apply theoretical knowledge in practice (McDuff, 2012).

Furthermore, Table 3 reveals that the extent of learner-content interaction has a mean score of 3.56. This could mean that the students engaged in distance learning typically spent a large extent curating, selecting, processing, and evaluating online learning content themselves. Distance learning that has a high degree of learner-content interactivity can inspire learners to participate in their learning (Racheva, 2018). Also, Kara *et al.* (2021) found that learner-content interaction was a significant predictor of perceived learning in an online class.

Lastly, learner-instructor interaction scored a mean value of 3.92 which is interpreted as a large extent. In a distance learning context, learner-instructor interaction provides a direct relationship between student and teacher that solves the conflict in understanding person, process, and other matters regarding distance learning (Terzi & Çelic, 2005). It can be noted that the role of the instructor is crucial to the success of distance learning. Students give importance that instructors were asking about their concerns, giving consideration, and providing detailed lessons, and constructive and timely feedback about their work. For the students, it increases their eagerness to learn because of the guidance they received from the instructor for them to fully understand the lessons.

Table 4: Correlations for Challenges Encountered in Distance Learning and Learner-Learner Interaction

Challenges in Distance Learning	Learner-Learner Interaction	
	<i>r</i>	<i>p</i> -value
Disturbance in execution	-0.082	0.415
Gap between people	-0.031	0.760
Infrastructure limitations	-0.086	0.392
Technological inhibitions	-0.064	0.525
State of mind	-0.026	0.796

As shown in Table 4, the results of the correlations analysis revealed that all parameters of challenges encountered in distance learning are not significantly correlated to the learner-learner interaction. This could mean that the extent of challenges encountered by the students in all factors does not affect the extent of their interactions with other students. So (2008) mentioned that although students with a high level of collaborative learning are more satisfied with their distance courses than those who perceived low levels of collaborative learning, its relationship is not statistically significant.

Table 5: Correlations for Challenges Encountered in Distance Learning and Learner-Content Interaction

Challenges in Distance Learning	Learner-Content Interaction	
	<i>r</i>	<i>p</i> -value
Disturbance in execution	0.344	0.001
Gap between people	0.214	0.032
Infrastructure limitations	0.121	0.231
Technological inhibitions	0.212	0.034
State of mind	-0.005	0.962

The results of the correlational analysis conducted are shown in Table 5. It shows that challenges encountered in terms of disturbance in execution, the gap between people, and technological inhibitions are significantly related to learner-content interaction. Learner-content interaction is about the learner's engagement and interaction with the subject matter in ways that suit individuals, their styles, and approaches to studying, and its time, place, and pace (Naidu, 2017). The result could mean the extent of learner-content interaction was significantly affected by the extent of the disturbance they encountered while studying and when they feel disconnected from their peers

and family. Also, the extent of learner-content interaction was significantly affected by the extent of challenges they encountered with regard to distance learning technology (Shuey, 2002). However, Zimmerman (2012) pointed out that very few empirical studies have attempted to examine the role that learner-content interaction plays in course success outcomes.

Table 6: Correlations for Challenges Encountered in Distance Learning and Learner-Instructor Interaction

Challenges in Distance Learning	Learner-Instructor Interaction	
	<i>r</i>	<i>p</i> -value
Disturbance in execution	0.009	0.925
Gap between people	0.032	0.749
Infrastructure limitations	-0.131	0.194
Technological inhibitions	0.097	0.339
State of mind	-0.279	0.005

Table 6 shows that the extent of the state of mind of the students has a significant and negative weak relationship with the extent of learner-instructor interaction (Schober *et al.*, 2018). It only proves that the student’s mental well-being is significantly affected by their interaction with the instructors. The extent of challenges that may affect the mental well-being of the students decreases as their interaction with the instructors increases.

Jurik, Groschener, and Seidel (2013) emphasize that verbal teacher-student interactions are meaningful for student learning and motivation. While, Duta *et al.* (2015) state that the teacher’s communication style might impact the students’ motivation and attitude when creating an engaging and educational atmosphere.

CONCLUSION

COVID-19 pandemic has brought significant changes in the education system in the country. Remote areas like island province encountered a great extent of challenges in the delivery of distance learning because of infrastructure limitation and technological inhibitions of both learners and teachers. Distance learning also brought great extent of challenges that could possibly affect the mental well-being of the students. The school

administrators should enjoin the faculty to increase the time allotted to consultation to promote the mental well-being of the students as it decreases the challenges relative to it.

During the implementation of distance learning, the tertiary students relied on themselves to learn. This was manifested in the student's assessment on the extent of learner-learner interaction which scored the highest among the three variables. School administrators and teachers may consider enhancing and updating the learning modules, lecture videos, and other instructional materials given to the students. Improvement of student access to library should be prioritised to enhance the learning experience of the students who preferred to study by themselves.

Student engagement with course content is also affected by the extent of student separation from teachers, peers, and family. This was manifested by the positive correlation between the challenges encountered by the students in the gap between people and learner-content interaction. Likewise, positive correlations between challenges encountered by the students in terms of disturbance in execution and technological inhibition, and learner-content were also noted. Other factors that positively affected learner-content interaction were disturbance in the execution of learning modalities like poor internet connection, doing household chores, and lack of focus brought by their learning environment and technological inhibition.

Lastly, a negative correlation between challenges encountered in terms of the state of mind and learning-instructor interaction was also observed. It implies that the higher the interaction of instructors to students, the lower the challenges encountered by the students in their mental well-being. It is suggested that the school may consider investing in appropriate educational technologies, promoting socialisation between students, faculty, and school support staff, and expanding the technology education programme as it significantly increased the learner-content interaction of the students.

Educational institutions may not or should not be able to stay away from distance learning as a mode of instruction delivery as they invested a lot of resources into it. Also, studies have shown the effectiveness of distance learning when applied appropriately in different courses. Hence, the utilisation of distance learning and face-to-face learning modalities at

the same time will be the new trend in the educational system in the post-pandemic era.

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