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Facilitating Online Learning Experience Among First Year College Students

Mary Rosevie P. Alamiya

Vice-President for Academic Affairs, Mindanao Autonomous College Foundation, Inc.

Abstract

The study determined the extent of educational experience of First Year College Students enrolled in Mindanao Autonomous College Foundation Incorporated in online learning using Facebook. It also explored the challenges and prospects experienced by the learners using the platform. Using a mixed-method design, empirical data for quantitative and qualitative analyses were sourced through checklist questionnaire and semi-structured interviews respectively. 164 respondents were surveyed while 14 respondents were interviewed. The quantitative data were treated using statistical tools such as frequency, percentages, mean, ranking, z-test, and one-way analysis of variance (anova) while the qualitative data were analysed through thematic analysis. Interestingly, the result revealed that Facebook was able to facilitate learning among students using the community of inquiry framework that determined online learning experience. Integral to this framework were the social presence, cognitive presence, and teaching presence wherein students agreed to have it experienced using Facebook. However, students also revealed varying concerns that challenges their online learning experience such as poor internet connections, regular power outage, among others. On the other hand, students revealed some prospects of Facebook such as its easiness to use, facilitate in sharing works, making communication and connections, and express ideas and opinions relevant to their educational experiences.

Keywords: Facebook, community of inquiry, social presence, cognitive presence, teaching presence

CHAPTER I
The Problem and Its Scope
Rationale

The current state of education in the country has shifted the delivery of learning from traditional face-to-face to blended learning modality. This movement has been caused by the so called Corona virus disease pandemic of 2019 (covid-19) that has affected the lives of the Filipinos. While the pandemic has severely impacted the national economy, this also has threatened the continuity of education which led to postponement of school openings for several months, however, through the insistence of educational agencies- Department of Education, Commission on Higher Education, and Technical Education and Skills Development Authority, top policy and decision-makers moved to continue the education services by shifting its modality, apt to say that the best way to survive is ones' ability to adopt or adjust to the current situations.

In Lamitan City, the move to open schools aligned with national policies has been a cause for concerns. Several private and public basic and higher education institutions have adopted the required modular

approach and yet there are worries regarding its effectiveness. While there would be no face-to-face instructions, facilitating learning among learners would be a huge challenge and stakeholders' participation is extremely necessary. To ease the burden among parents, blended learning modality has been adopted, this means that modular approach will be coupled by reinforcement activities using online and offline applications.

The use of blended learning modality such as online learning has shown remarkable results in previous studies. For example in study conducted by Utami (2017), he determined the effect of blended learning to senior high school students showing that the experimental group performed better than the control group in terms of academic achievement. Another study conducted by Ginaya et.al, (2018) showed that the students participating in the treatment were significantly improved in terms of English speaking ability, and the improvement was also supported by their increased learning motivation and interest. Hesse (2017) also observed in her study among senior high school students that their engagement, achievement, and positive perceptions of learning increased when blended learning was used. Students also developed additional skills through the use of blended learning, such as the ability to self-pace and self-direct. These are some of the recent studies showing how capable blended learning is in advancing students' learning.

The Mindanao Autonomous College Foundation Incorporated as one of the Higher Education Institutions in Lamitan City had implemented a blended learning modality wherein a required modular approach is coupled with offline and online learning approach. While students stay at the comfort of their homes, they are being monitored regularly by their teachers through the use of online modality using Facebook with necessary reinforcements. This seemed to be the most practical learning delivery among students to make sure that learning still happens amidst the severity of the pandemic. For instance, most of the students frequently use social media networks and Facebook is one of the most used social media application. Most of them reached their teachers and classmates using this application for clarifications, questions, and for keeping them updated. It is also being used to upload teachers' recorded videos discussing concepts as well as for discussion purposes and recitations through video calls or conferencing. Thus, it is within this context that the researcher prompted to investigate the online learning modality using of Facebook exploring the extent of educational experiences of the students in terms of social presence, cognitive presence, and teaching presence as well as the challenges and prospects on the learning experiences of the first year college students enrolled in MACFI for the Academic Year 2020-2021.

Theoretical Framework

The study was anchored with the theory on **Community of Inquiry (CoI)** a framework used for the optimal design of online learning environments to support critical thinking, critical inquiry, and discourse among students and teachers (Garrison, Anderson, & Archer, 2010). Since this study dealt with blended learning modality which incorporates online approach, the theory suited best.

The concept of Community of Inquiry was first used by early pragmatists such as C.S Peirce, John Dewey, and Jane Adams (Shields, 1999). Garrison, Anderson, and Archer, who were colleagues in the University of Alberta developed this into a framework from 1996 to 2001. They proposed this theory for educational developers to assist in the organisation of online and blended educational experiences. (Garrison, Anderson, & Archer, 2010). The framework described how learning occurs for a group of individual learners through educational experience that occurs at the intersection of social, cognitive,

and teaching presence and through skilful marshalling of these forms of presence that online academic staff and students, working collaboratively, develop a productive online learning environment through which knowledge is constructed (Garrison, Anderson, & Archer, 2010).

The framework is composed of three elements, namely:

Social Presence refers to the ability of participants to identify with the community, communicate purposefully in a trusting environment, and develop interpersonal relationships by way of projecting their individual personalities (Garrison, Anderson & Archer, 1999).

Cognitive Presence refers to the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical Community of Inquiry (Garrison, Anderson & Archer 1999).

Teaching Presence refers to the design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes (Garrison, Anderson & Archer, 1999).

These factors are particularly relevant in the current educational setting of MACFI. In terms of social presence, with the use of Facebook as a tool to deliver learning, students were able to connect with their classmates and friends and share ideas through video-calls and chatting. Some of them created group chats in cases they need to work collaboratively or in groups. They can view their classmates profile and even make friends with one another. Amidst pandemic, students established their social presence with the use of the technology.

In terms of cognitive presence, students were able to share their ideas and opinions in video calls initiated by the course instructors as well as their opinions and comments about the concepts being discussed through the comment sections or messaging in group chats. This allowed students to open discussion and supporting discourse through exchange of ideas, helped establish their cognitive presence. Finally, in terms of teaching presence, the teacher can upload teaching materials and other educational materials that can help facilitate learning.

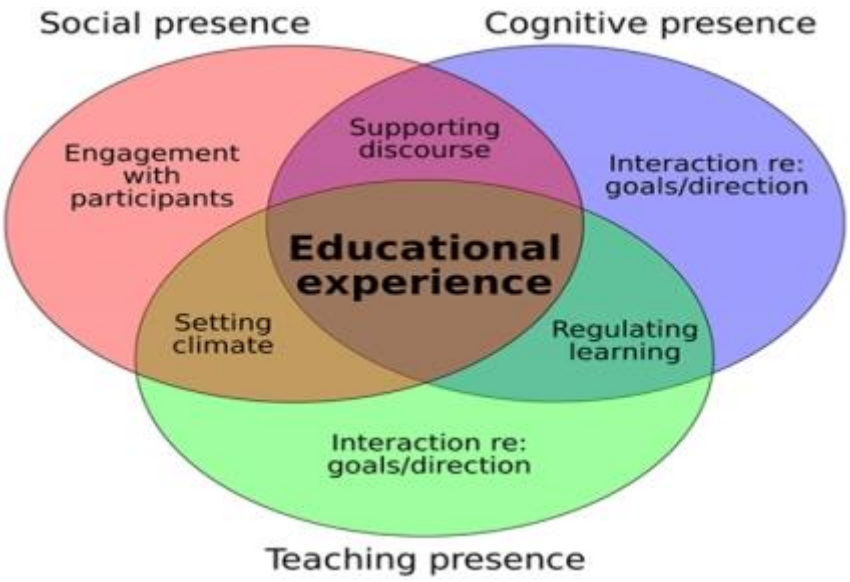


Figure 1. Elements of an educational experience (Garrison, Anderson & Archer, 2010

Conceptual Framework

The framework shows the variables included in the study. The independent variables in this study included the demographic profile of the participants, and the factors affecting online learning experiences. On the other hand, the dependent variable refers to the online learning experiences of the First Year College students of MACFI for academic year 2020-2021 and the challenges and prospects experienced by the learners in the online learning. The output refers to the implications of these learning experiences including the challenges and prospects to the overall learning experience in using Facebook. This also includes policy recommendations to address some challenges identified by the learners in online learning.

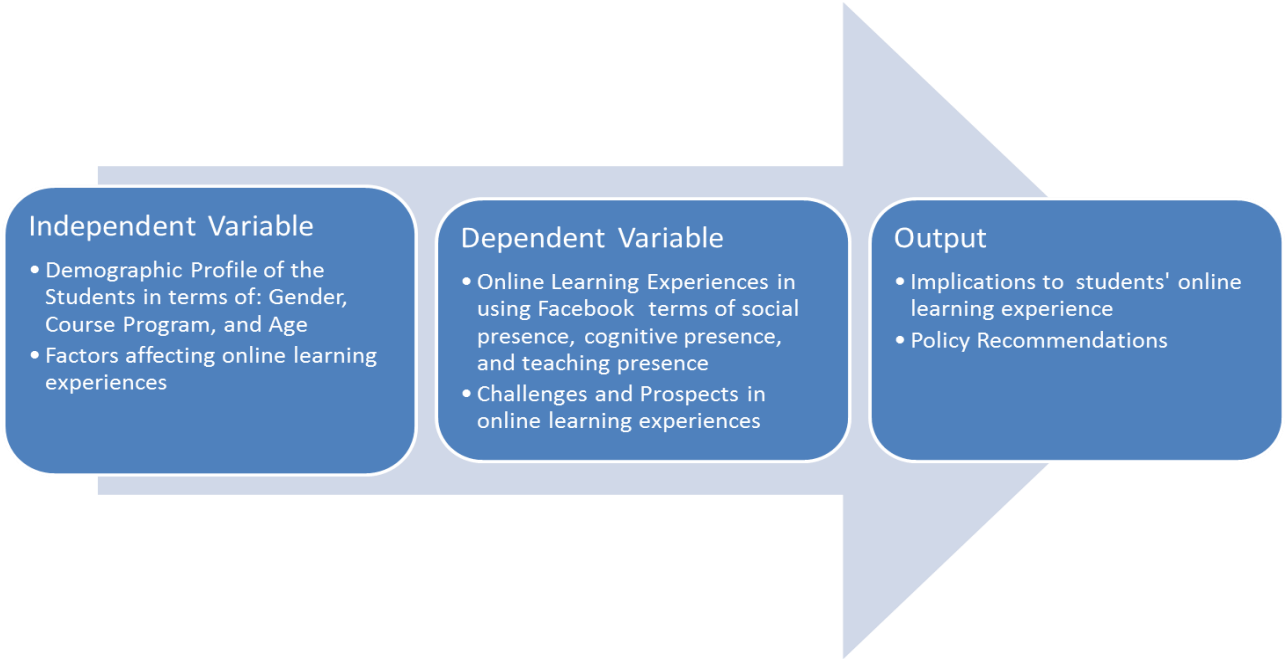


Figure 2. Schematic Diagram of the Conceptual Framework of the study showing the interplay of variables.

Statement of the Problem

This study aimed to determine the effectiveness of Facebook in facilitating learning among students of Mindanao Autonomous College Foundation Incorporated. The pursuance of this objective was anchored on a framework called community of inquiry which explored the online learning experiences of the respondents. Specifically, it answered the following questions:

1. What were the demographic profiles of the respondents in terms of:
a. Age
b. Gender
c. Course Program
2. What were the extent of educational experience of the respondents in online learning using Facebook in terms of:
a. Social presence
b. Cognitive presence
c. Teaching presence
3. Was there any significant difference in terms of social presence, cognitive presence, and teaching pr-

esence in online learning using Facebook when data are categorized according to student's demographic profile?
4. What were the challenges experienced by the students in online learning using Facebook?
5. What were the prospects of online learning using Facebook as reported by students?

Hypothesis

H_0. There was no significant difference on the extent of social presence, cognitive presence, and teaching presence on the online learning experience using Facebook when data are grouped according to students' demographic profile.

Significance of the Study

The covid pandemic situation called for innovation to education especially in the delivery of learning given that face-to-face instructions were temporarily suspended and classes have opted to distance learning modality. This innovations, as spearheaded by the education department shifted classes to either online or offline approaches. In this respect, some schools opted to employ both modalities called as blended learning. In the case of MACFI, this modality has contributed a lot specifically the online portion of this approach which is the use of Facebook just to deliver learning despite limited resources and time for preparation.

This study benefitted the following:

School Administration. The study came up with list of recommendations to improve learning delivery especially with use of Facebook. With the experiences of the students in terms of challenges during the present situation, there are varied concerns which needed interventions. These interventions are planned before the school opening for academic year 2021-2022 to better prepare the teachers.

Teachers. They were informed of the results of the study and the challenges experienced by the learners. Sets of recommendations were formulated which will be adopted by the office of the VPAA for the upcoming Academic Year 2021-2022, which the researcher is currently serving in as an OIC in capacity.

Students. Incoming students for the Academic Year 2021-2022 will benefit from the study since recommendations and suggestions of this study promoting their welfare will be adopted through preparing teachers on how to better respond to challenges experienced by the students.

Future Researchers. Results of this study may be used for cross-referencing for similar studies exploring online learning as well as blended learning.

Scope and Delimitation of the Study

The study focused on how Facebook, a social media application, was able to facilitate learning among 1st year college students enrolled in Mindanao Autonomous College Foundation Incorporated for the Academic Year 2020-2021 using the Community of Inquiry framework. The course involved were Bachelors of Elementary Education (BEEd), Bachelors of Science in Criminology (BSCrim), Bachelors of Science in Nursing (BSN), Bachelors of Science in Social Work (BSW), and Bachelors of Science in Computer Science (BSCS).

This study also explored the challenges and prospects in the use of Facebook as tool for facilitating online learning. Furthermore, the results of this study cannot be generalised as same with other year levels using Facebook as tool for online learning in MACFI of in any other schools in Lamitan City.

Definition of Terms

The following terms are used in this study and are operationally defined below:

Age refers to the age the respondents that falls within bracket 18 to 23 years.

Blended Learning Modality refers to the use of Facebook with other offfline learning delivery approach.

Challenges refer to the obstacles or difficulties encountered by the respondents in using blended learning modality.

Social Presence refers to the ability of participants to identify with the community, communicate purposefully in a trusting environment, and develop interpersonal relationships by way of projecting their individual personalities (Garrison, Anderson & Archer, 1999).

Cognitive Presence refers to the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical Community of Inquiry (Garrison, Anderson & Archer 1999).

Teaching Presence refers to the design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes (Garrison, Anderson & Archer, 1999).

Mindanao Autonomous College Foundation Incorporated refers to the school where the study will be conducted located in Lamitan City. It is also abbreviated as MACFI.

Prospects refer to advantages or opportunities the learners experienced using blended learning modality.

Year level refers to the respondents' level of educational attainment as first year, second year, third year, and fourth year level.

Course Program refers to courses offered in MACFI.

CHAPTER II

Review of Related Literature

This chapter presented the related literature and studies both local and foreign settings that were relevant in the development of the study. The observations and conclusions on the studies conducted similar to the author's study is significant as it provided better context and deeper understanding for its success.

This review of related literature proceeded in the following:

1. Discussions on Blended Learning Modality
2. Discussions on Online Learning
3. Discussions on Facebook as an Online Learning Tool
4. Discussions on Community of Inquiry focusing on Social Presence, Cognitive Presence, and teaching Presence

The researcher examined scholarly works or articles published focusing on blended learning, online learning, Facebook as online learning tool, and the Community of Inquiry Framework obtained from different educational websites and journal publishing sites such as Educational Research Information Center, Sage Journals, Science Direct, and other open access journals.

Blended Learning Modality

Blended learning is an increasingly popular approach in education. For clarity, according to Cambridge Dictionary, blended learning is defined as a way of learning that combines traditional classroom lessons with the use of computer technology and may be given over the internet. However, in the context of the

present study, face-to-face learning will not be included and will be replaced by modular approach combined with other approaches as mandated by government agencies responsible for the regulation of education in the country- Department of Education, Commission on Higher Education, and the Technical Education for Skills and Development Authority.

Researchers have suggested varying definitions of blended learning modality. For Sharma (2010), she defined it based on the combination of approaches, technologies, and methodologies. The original use of the phrase "blended learning" was often associated with simply combining traditional classroom training with e-learning activities.

Singh (2004) on the other hand characterized blended learning into five dimensions namely; experience that combines offline and online forms of learning; blending a self-paced and live, collaborative learning; combination of structured and unstructured; blending custom content with off-the-shelf content and blending learning, practice, and performance support.

One of the integral parts of blended learning modality that is adopted in the educational system of the country during this pandemic is the use of modular approach. Its effectiveness is seen in different researches. In a study conducted by Russian researchers, Ibyatova, Oparina and Racova (2018) entitled "Effectiveness of a modular approach in teaching and learning to assess students' performance, achievement and motivation", students of modular syllabuses find it useful and motivating and encourages them to do better on the next modules. The key point of the modular approach to teaching is that extent of their own learning. Educators are involved only in organizing, advising and monitoring students' progress on educational material. Moreover, this approach is to be considered as an alternative to traditional teaching methods for active participation and better learning of students. However, in the context of this study, the focus will be on the use of online platforms in the delivery of learning among the learners.

Online Learning as part of Blended Learning Modality

The use of online learning has been a major part of the blended learning modality especially during this pandemic wherein it offers an increased flexibility for students while maintaining the personal connection with teachers and classmates in the classroom.

Higher Education Institutions (HEIs) in the country are using different modalities to encourage better performance from students in accomplishing course requirements. A study entitled "Investigating Students' Engagement in a Hybrid Learning Environment" by Eliveria et, al., revealed that students prefer online activities but acknowledged that in class activities help students learn and understand course work. Several HEIs in the Philippines have started to implement web-based learning environment, capable of delivering online education in a blended learning setting.

In terms of its comparison with traditional approach, Nguyen (2015) in his meta-analyses of literature involving comparison of online and traditional approach revealed that there is robust evidence to suggest online learning is generally at least as effective as the traditional format or face-to-face. However, in another meta-analysis of researches involving comparison of online learning and face-to-face learning revealed that students who took all or part of their course online performed better, on average, than those taking the same course through traditional face-to-face instruction (Means et.al, 2010). Similar study citing that online learning is better that face to face was that of Schar M., & Neumann, Y. (2010) in "Twenty Years of Research on the Academic Performance Differences Between Traditional and Distance Learning: Summative Meta-Analysis and Trend Examination, results revealed that distance

learning using online modality outperformed face-to-face instructions and suggested that it will continue to increase its strength.

In this study, the researcher explored the use of Facebook as an online learning platform used by the teachers and students to deliver learning. To understand better what this platform is, a discussion is successively presented.

Facebook as an Online Learning Tool

Facebook has been the most and widely used online platform around the world. According to Statista.com, an online company that provides statistics and survey, Facebook has 2.8 billion monthly active users for the 4th quarter of 2020. In the Philippines, the latest data suggest that around 74 million Filipinos are actively using this online platform. Therefore, the reach of this social media network and its influence are very vast.

In the face of CoViD-19 pandemic, this online tool has been an important getaway and stress reliever for most people connecting with one another specially the love ones, family, and friends which distance separates and because of the social distancing and limiting travel activities as measures to combat the present pandemic.

The shift to blended learning by educational institutions paved the way in the use of online learning platform. Facebook, as one of the most used online platforms can be used as well for the delivery of online learning with its features. In a study conducted by Kalelioglu (2016), he found out that Facebook can be used as Learning Management System because of its many similar features wherein it helps in facilitating instructors and students online discussion and engagements. This is also supported by the study conducted by Jumaat & Tasir (2016) suggesting that Facebook has the potential to become a tool for academic-related discussion. Hassan (2015) also found out that this online platform has an excellent potential in serving lifelong learning channels for lectures among students.

With the goal of this study, the researcher wanted to explore the extent of educational experience of First Year Students enrolled in MACFI for the academic year of 2020-2021. To reach this goal, the researcher employed the community of inquiry framework or theory to determine students' educational experience in the use of Facebook. This is discussed in the successive topic.

Community of Inquiry

The Community of Inquiry (CoI) is a theoretical framework for the optimal design of online learning environments to support critical thinking, critical inquiry and discourse among students and teachers (Garrison, Anderson & Archer 1999). Educational models help educators to apply the findings of education research to the practical task of curriculum design, development and sequencing of educational experiences to optimize learning (Cooper & Scriven, 2017).

Numerous studies have used the Community of Inquiry survey tool revealing the instrument's validity and reliability. In a study conducted by Arbaugh, J.B., Cleveland-Innes, M., Diaz, S.R., Garrison, D.R., Ice, P., Richardson, & Swan, K.P. (2008) in "Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample", the results of the study suggest that the instrument is a valid, reliable, and efficient measure of the dimensions of social presence and cognitive presence, thereby providing additional support for the validity of the CoI as a framework for constructing effective online learning environments.

In another study conducted by Velázquez, B. B., Gil-Jaurena, I., Encina, J. M. (2019). Validation of the Spanish version of the 'Community of Inquiry' survey. The validation of the survey in the context of Spanish distance learning shows satisfactory results from the point of view of construct validity and reliability as internal consistency, confirming the usefulness and interest of this instrument in investigations that seek to analyze and improve the development of educational processes through communities of inquiry.

This framework is consisted of three presences, namely social presence, cognitive presence, and teaching presence.

Social Presence

According to Garrison & Anderson (2003), social presence is the ability of participants in a community of inquiry to project themselves socially and emotionally, as real people through the medium of communication being used. Velasquez et al., (2019) also offers the same definition as the ability of participants to identify with the community, communicate and develop interpersonal relationships. Another study conducted by Kreijins et al., (2014) defines social presence as the ability to project one's personal identity in the online community so that she or he is perceived as a 'real' person and/or as progressing through the phases (1) acquiring a social identity, (2) having purposeful communication, and (3) building relationships.

Social presence as an element of Community of Inquiry (CoI) has three categories of behaviour, namely, (a) Affective Expression; (b) Open Communication; and (c) Group Cohesion. Affective Expression refers to reflecting the socio-emotional components of the communication for the purpose of forming interpersonal relationships (Kreijins et al.,2014). Open Communication on the other hand, refers to reflecting the interactive and purposeful nature of the communication (Kreijins et al.,2014) and lastly, Group Cohesion refers to reflecting the shared social identity of the community and its collaborative behavioural intention. (Kreijins et al.,2014)

Cognitive Presence

Cognitive presence, a sense of "being there" cognitively, has been mainly researched by constructivists who stated that cognitive presence reflects higher-order knowledge acquisition and application in online learning (Garrison, 2004). Cognitive presence is also an important factor in facilitating learners' engagement and in affecting a learner's level of achievement and satisfaction (Wang & Kang, 2005; Kang, 2005). Cognitive presence is the extent to which learners are able to construct meaning through sustained communication. Moreover, cognitive presence is the key element in critical thinking, a necessary element for higher levels of thinking and learning. (Hanuka & Garisson, (2004). The cognitive presence, referred to the degree to which the participants are capable of constructing meaning and knowledge through continuous communication, reflection and discussion (Velázquez, B. B., Gil-Jaurena, I., Encina, J. M. (2019)

This element is composed of five categories, namely: (a) Triggering Event; (b) Exploration; (c) Integration; and (d) Resolution.

Triggering event refers to Activity or question designed to engage, capture student interest, and generate curiosity. May be a dilemma or authentic problems students can relate to.

Exploration refers to Students begin to understand the nature of the problem; begin to search for relevant information and possible explanations.

Integration refers to more focused and structured phase of meaning making. Reflective phase marked by critical discourse that shapes understanding. Students and instructor may probe for deeper understanding, correct misconceptions.

Resolution refers to the problem or dilemma. Testing and/or application of the solution in a real world context. Can lead to additional triggering events.

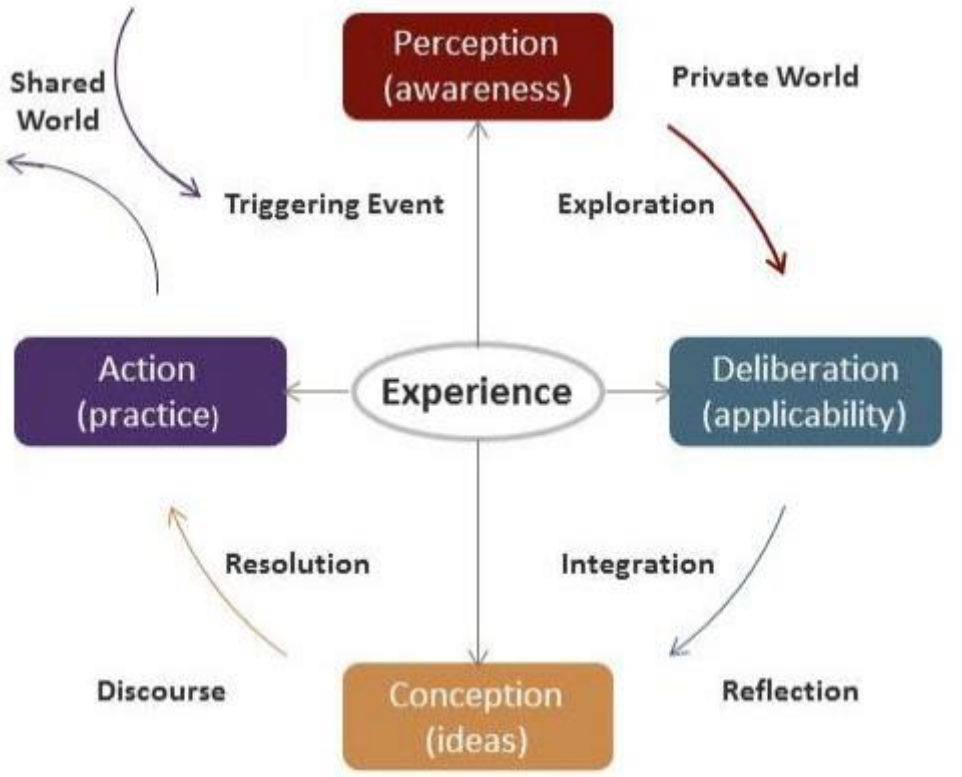


Figure 3. Schematic interplay of factors in the Community of Inquiry Framework (Source:https://canvas.ucdavis.edu/courses/34528/pages/types-of-presence-cognitive-and-social-presence)

Teaching Presence

Teaching presence is one of the dimensions of Community of Inquiry framework that refers to the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educational worthwhile learning outcomes (Anderson, Rourke, Garrison, and Archer, 2001). On a similar note, Velazquez et al., (2019) refers teaching presence to the design, guidance and direction, on the part of the faculty, of cognitive and social processes with the purpose of achieving significant learning results in the students.

In a study conducted by Anderson et al., (2001) in assessing teaching presence in computer conferencing context, the teachers' roles in an online environment were defined. In their reviews of the literature regarding teaching presence, they were able to categorise this dimension of online learning into three: (a) Instruction Design and Organisation; (b) Facilitating Discourse; and (c) Direct Instructions. Other researchers such as Paulsen (1995) and Mason (1991) also divided the role of teachers into three which are the organisation, social and intellectual while Berge (1995) on the other hand categorises this dimension into four: (a) Managerial; (b) Social; (c) Pedagogical; and (d) Technical.

Table 1 Models of teaching roles in computer conferencing

Anderson et a (2001)	Berge (1995)	Paulsen (1995)	Mason (1991)
Instructional design and organization	Managerial	Organizational	Organizational
Facilitating Discourse	Social	Social	Social
Direct Instruction	Pedagogical	Intellectual	Intellectual
	Technical		

Anderson et al., (2001) considered the category of "social" as one of the elements of the Community of Inquiry, thus "social presence" and thereby removing it in the categories under teaching presence. The technical aspect as suggested by Berge was not included in the categories since they asserted that the importance of this feature will certainly decrease as the students will be able to learn more and experience the use of technology, they will no longer need the technical support of the teacher.

Using Anderson et al., (2001) "teaching presence", three categories were established, namely, design and organisation, facilitating discourse, and direct instruction. Design and organisation refers to building the course in a digital format that forces teachers to think through the process, structure, evaluation and interaction components of the course. Facilitating discourse, on the other hand, refers to how the teacher facilitates online learning using the online platform. Lastly, direct instruction refers to the final teaching presence category wherein teacher provides intellectual and scholarly leadership and shares their subject matter knowledge with students.

Community of Inquiry framework provided the researcher an idea to validate the online learning experience of learners using Facebook. To further understand this research, the study explored on how the demographic profile of the respondents would affects the learners' educational experience. Successive discussions have dealt with demographics such as course programs, gender, and age of the respondents.

CHAPTER III

Research Methodology

This chapter discussed the research design, research setting, respondents and sampling technique, research instruments and its validity and reliability, data gathering procedure, statistical tools used, and data analysis.

Research Design

The study employed mixed-method research. This method is appropriate given the nature of research questions which can be answered through quantitative and qualitative data. The quantitative data responded research question 1, 2 and 3. On the other hand, qualitative research answered research questions 4 and 5.

Research Locale

The study was conducted at Mindanao Autonomous College Foundation Incorporated, an academic institution founded in 2003 initially offering tertiary education in Lamitan. Currently, it offers complete academic programs from basic, higher, and technical education. The curricular offerings are divided into departments. One of pioneering programs of the institution was the Teacher Education under the

education department, now College of Education and Liberal Arts (CELA). The administration office is located in Quezon Avenue, Lamitan City while the school campus is in Flores Street, Lamitan City. The institution currently caters around 4000 learners for its entire school program.

The respondents of this study were the first year college students enrolled for the Academic Year 2020-2021. The courses included Bachelor in Elementary Education (BEED), Bachelor of Science in Criminology (BSCrim), Bachelor of Science in Nursing (BSN), Bachelor of Science in Social Work (BSW), and Bachelor of Science in Computer Science (BSCS).

Respondents of the Study

This study used two sampling techniques for the selection of participants. For data gathering in quantitative part, respondents were selected through complete population sampling wherein all first students enrolled in the MACFI for Academic Year 2020-2021 were part of the study. For the qualitative part, 14 respondents were selected for the semi-structured interviews which were chosen through lottery method.

Table 2 Distributions of Respondents Among Programs

Programs	Total Number of Enrolled 1st Year Students	No. of Respondents
Bachelor of in Elementary Education	45	42
Bachelor of Science in Nursing	41	38
Bachelor of Science in Criminology	63	54
Bachelor of Science in Computer Science (BSCS)	16	14
Bachelor of Science in Social Work (BSW)	15	16
Total	**180**	**164**

Table 1 showed the distribution of respondents based on programs enrolled. While this study allowed all first year students would be the respondents, however, not all participated or had returned the survey questionnaire. From 180 pre-identified participants, only 164 actually answered and returned the survey questionnaire; thus, this showed that other 16 who missed or did not return the survey questionnaire is not interested to take part of this study. Further, this study was voluntary and did not compel everyone to take part.

Research Instrument

The research instrument used in this study was adopted from the standard tool developed by a group of researchers including Ben Arbaugh, Marti Cleveland-Innes, Sebastian Diaz, D. Randy Garrison, Phil Ice, Jennifer Richardson, Peter Shea and Karen Swan.

The survey questionnaire was modified by the researcher to suit to the research questions; however, most of its features were retained. The survey questionnaire was composed of the following: (1) The first part was the informed consent asking the respondents for their voluntary participation; (2) the second part collected the demographic profile of the participants; (3) the third part gathered data on the extent of educational experiences in terms of social, cognitive, and teaching presence in online learning using Facebook. Under teaching presence, categories are as follows: (a) Design and Organization with 4

items; (b) Facilitation with 6 items; and (c) Direct Instruction with 3 items. For Social presence, the categories are (a) Affective Expression with 3 items; (b) Open Communication with 3 items; and (c) Group Cohesion with 3 items. And for the Cognitive presence, the categories included are: (a) Triggering Event with 3 items; (b) Exploration with 3 items; (c) Integration with 3 items; and (d) Resolution with 3 items.

In determining the validity of the checklist questionnaire, content validation was utilised with the help of panellists who are experts in the field of education or those who have knowledge on the particular constructs being measured. The panel was composed of six experts who earned doctorate degrees in the field of education. The tool underwent necessary modification wherein the options were labelled as "essential" and "not essential" and was forwarded to experts for necessary evaluation.

In computing the data, Content Validity Ration formula was used. Given the number of panellists, the minimum value set for the CVR was 0.99. The result for the CVR was at 0.99, thus, the descriptive in the survey tool are valid.

For the reliability of the survey questionnaire, 30 copies were reproduced and administered to college students who were not part of this study. The responses of the students were statistically analysed using Cronbach alpha. The reliability estimates of the survey questionnaires were as follows: 0.923 for social presence, 0.893 for cognitive presence, and 0.911 for teaching presence. The reliability estimate values implied that all survey questionnaires were ready for gathering data.

Data Gathering Procedure

The researcher, being the OIC Vice-President for the Academic Affairs, had sought permission to college deans to conduct this study wherein it was eventually granted. In gathering quantitative data, the researcher sought for the help of the class advisers in distributing the survey questionnaire. The class advisers are usually tasked to distribute and retrieved printed modules as one of the distance learning delivery modalities used by the institution apart from the online learning mode. This is done on a weekly basis. The survey questionnaires were distributed to the respondents along with their printed modules and were retrieved after a week.

A part of the instrument was the informed consent asking for the voluntary participation of the respondents. Likewise for the interview, selected respondents were asked of their informed consent before the interview process started.

In gathering the qualitative data, semi-structured interviews were conducted. Considering the health risk that the covid-19 posed, the researcher and the respondents observed the minimum health protocol. The prepared venue for interview was sanitised wherein physical distancing and very limited persons were allowed inside the venue. The present were the researcher as interviewer, 1 respondent in the agreed time, a process observer, and a documenter.

Scoring the Item of the Questionnaire

The items were scored using a 4-point scale as indicated below. The score questionnaire were tallied and tabulated systematically, identifying the students' scores for the three constructs or variables "social presence", "teaching presence", and "cognitive presence". Every response was given with corresponding weight to provide basis for the interpretation of the results.

The four-point scale is showed below:

Table 3. Four-point Scale

Rating scale	Equivalent Weighted Point	Verbal Interpretation
4	3.26 - 4.00	Very High
3	2.51 - 3.25	High
2	1.76 - 2.50	Low
1	1.00 - 1.75	Very Low

Data Treatment and Analysis

In the analysis of data, the following statistics using data analysis Toolpak in Excel were utilised:

Research Question 1: Percentage, Rank, and Frequency were used to answer the first research question.

Percentage. This was used as a descriptive statistics for numerical analysis and for comparing magnitudes such as sample and population frames.

Ranking. To reinforce the descriptions of the percentage, ranking was used to denote the positional importance of the item discussed.

Frequency. To determine the number of participants who responded to the survey questionnaire.

Research Question 2: In answering the second question, Mean and Standard Deviation were used.

Mean. The arithmetic mean was used as a criterion measure in determining the overall weighted average of the tracks.

Standard Deviation. This is useful for measuring variance within a data set and, in application, confidence in statistical results.

Research Question 3: In answer the second question, Z-test and ANOVA were employed.

z-test. To determine the significant difference on the levels of proficiency between male and female. This is appropriate since the sample size is more than 30. Considering the population variance was computed, this statistical tool was appropriate.

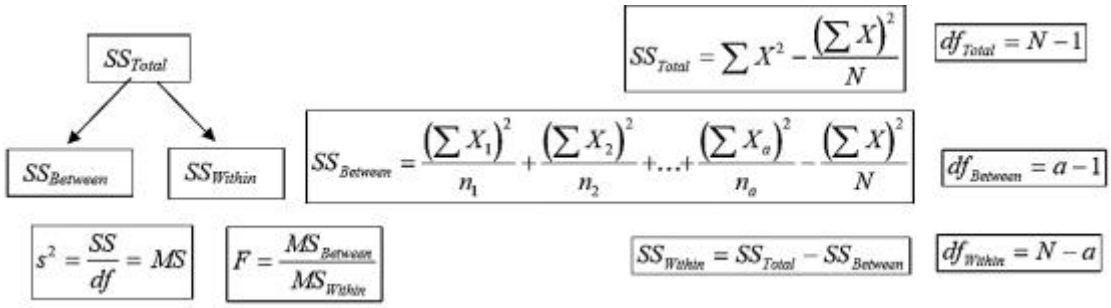
Z-TEST

- Formula to find the value of Z (z-test) Is:

$$Z = \frac{\bar{x} - \mu_0}{\sigma / \sqrt{n}}$$

- $\bar{x}$ = mean of sample
- μ_o = mean of population
- σ = standard deviation of population
- n = no. of observations

Analysis of Variance: One Way Classification. In comparing the quantitative averages of in the different core subjects with different respondents grouped according to tracks, analysis of variance was utilised, applying the formula:



Research Questions 4 and 5: In answering the fourth and fifth questions, thematic analysis was employed.

Braun and Clarke (2006) provided a six-step guide in conducting thematic analysis. These steps are the following:

Step 1: Become familiar with the data. The researcher had read the transcripts several times to make herself familiar with the data.

Step 2: Generate initial codes. The researcher had structured ideas from transcript into initial codes.

Step 3: Search for themes. The researcher looked for some patterns from the generated codes. These were called themes.

Step 4: Review themes. The researcher reviewed the themes generated from the codes and compared to the research question.

Step 5: Define themes. The researcher provided descriptions to the finalised theme.

Step 6: Write up. The researcher answered the research question with the themes emerged from the transcript. Selected interview transcripts were used to support the findings.

CHAPTER IV

Presentation, Analysis, and Interpretation of Data

This study attempted to identify the online learning experience using Facebook of first Year College students enrolled in Mindanao Autonomous College Foundation Incorporated (MACFI) for the Academic Year 2020-2021 amidst the corona virus disease pandemic. It is part of this study to include a comparison of results or responses according to certain personal characteristics such as age, sex, as well as course program enrolled.

The study included one hundred sixty four (164) first year college students enrolled in MACFI for academic year 2020-2021 out of 180 invited respondents. Statistical treatment of data for the foregoing problems included percentage, ranking, weighted mean, z-test for two independent samples, and one-way analysis of variance.

Problem Statement 1: What are the demographic profiles of the participants?

This portion provided answer to the first problem raised in this study. The researcher discussed the demographic data of the respondents such as their enrolled course program, age, and gender and presented in tabular forms which included the frequency, percentage, and ranking.

Table 4. Frequency, Percentage, and Ranking Distribution of Respondents According to Course Program

COURSE PROGRAM	FREQUENCY	PERCENT	RANK
BEED	42	25.61	2nd
BSCRIM	55	33.54	1st
BSN	38	23.17	3rd
BSW	15	9.15	4th
BSCS	14	8.54	5th
Total	164	100	

The following courses are provided in the table above with the corresponding number of students enrolled and percentage distribution. The course programs were also ranked based on the result of percentage distribution. Among the course programs, the Bachelor of Science in Criminology (BSCrim) has the highest number of respondents with 55 or 33.54% followed by Bachelor in Elementary Education (BEEd) with 42 or 25.61%. The least number of participants came from the Bachelor of Science in Computer Science (BSCS) with only 14 respondents. On the other hand, the total number of respondents from all course programs who actually participated in the study is 164. However, some first year students failed to return the survey questionnaire, thus, were not counted in this study. The inclusion of course program allowed the researcher to compare their responses and see if there are slight differences in their experience in online learning using Facebook anchored through the Community of Inquiry. This had been a particular interest for the researcher since there is no enough literature or study focusing on this aspect.

Table 5. Frequency, Percentage, and Ranking Distribution of Respondents According to Gender

GENDER	FREQUENCY	PERCENT	RANK
MALE	67	40.85	2nd
FEMALE	97	59.15	1st
	TOTAL 164	100%	

The table above shows the frequency of respondents when grouped according to gender. Female dominated male in terms of participation with 97 or 59.15% while the latter is totalled at 67 or 40.85%. The inclusion of this aspect as variable to measure is of particular interest specifically to explore if there are any differences between the responses of male and female with regards to their educational experience in online learning using Facebook anchored on Community of Inquiry framework.

Table 6. Frequency, Percentage, and Ranking Distribution of Respondents According to Age

AGE	FREQUENCY	PERCENT	RANK
18	30	18.29	3rd
19	46	28.05	1st
20	37	22.56	2nd
21	28	17.07	4th
22	23	14.02	5th

	TOTAL 164	100%	

Table above presents the respondents when grouped according to age. There are five age groups wherein most of the respondents are aged 19 with 46 of them or 28.05%. This is followed by respondents aged 20 with 37 or 22.56%. Group in age 22 is the least with 23 respondents or 14.02%.
The researcher included this variable to see if age affects students' response on the survey in terms of their education experience in online learning using Facebook anchored on the Community of Inquiry framework.

Problem Statement 2: To what extent is the educational experience in online learning modality in terms of: a. Social presence b.Cognitive presence and c. teaching presence?
This item answered the second problem included in this study. The researcher discussed the extent of students' educational experience in online learning using Facebook anchored on the community of inquiry theory which is consisted of 3 factors, namely, social presence, cognitive presence, and teaching presence. The data are presented in tabular form which consists of statements, its mean scores, standard deviations, and descriptions. The presentation started from the overall result on the extent of educational experience of the population using Facebook in terms of social presence, cognitive presence, and teaching presence.

Table 7. Extent of Educational Experience in Blended Modality Using Facebook in Terms of Teaching Presence

STATEMENT INDICATORS	WEIGHTED MEAN	SD	DESCRIPTION
DESIGN AND ORGANISATION			
1. The instructor clearly communicated important course topics.	3.374	0.627	Very High
2. The instructor clearly communicated important course goals.	3.184	0.619	High
3. The instructor provided clear instructions on how to participate in course learning activities.	3.268	0.564	Very High
4. The instructor clearly communicated important due dates/time frames for learning activities.	3.299	0.576	Very High
FACILITATION			
5. The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn	3.183	0.627	High
6. The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.	3.195	0.514	High
7. The instructor helped to keep course participants engaged and participating in productive dialogue.	3.007	0.537	High
8. The instructor helped keep the course participants on task in a way that helped me to learn.	3.201	0.543	High

9. The instructor encouraged course participants to explore new concepts in this course.	3.221	0.566	High
10. Instructor makes use of collaborative activities to provide opportunity to interact with others.	3.188	0.595	High
DIRECT INSTRUCTION			
11. The instructor helped to focus discussion on relevant issues in a way that helped me to learn.	3.255	0.569	Very High
12. The instructor provided feedback that helped me understand my strengths and weaknesses relative to the course's goals and objectives.	3.228	0.603	High
13. The instructor provided timely, accurate and constructive feedback to improve my learning performance.	3.250	0.588	High
TOTAL	3.220		High

3.26-4.00= very high 2.51-3.25= high 1.76-2.50=low 1.00-1.75= very low

Facebook seemed effective in guiding students through the course in the purpose of achieving significant learning outcomes amidst Covid-19 pandemic. Table shows the extent of educational experience in blended learning using Facebook in terms of teaching presence. This presence refers to the design, facilitation, and direction of cognitive and social processes for purpose of realizing personally meaningful and educational worthwhile learning outcomes (Anderson, Rourke, Garrison, and Archer, 2001). This portion of the survey is composed of three categories. The first category is design and organisation in which according to Anderson et al., (2001), refers to building the course in a digital format that forces teachers to think through the process, structure, evaluation, and interaction components of the course in which respondents of this study rated "very high" presence especially with the items 1, 3, and 4. Item 1 says that the instructors clearly communicated important course topics with a weighted mean of 3.374. Item 3 says that instructors provided clear instructions on how to participate in course learning activities with weighted mean of 3.268 and item 4 says that instructors clearly communicated important due dates for learning activities with weighted mean of 3.299.

On the other hand, the second category is facilitation which refers to how the teacher facilitates online learning using the online platform (Anderson et al., 2001) wherein respondents generally rated that the evidence is "high" with the listed items. The last category is direct instruction refers to the final teaching presence category wherein teacher provides intellectual and scholarly leadership and share their subject matter knowledge with students (Anderson et al., 2001) and the respondents of the study rated "very high" with the statement 11 that instructors helped to focus discussion on relevant issues in a way that helped the respondent to learn with a weighted mean of 3.255. On the similar note, respondents rated "high" to the rest of statements.

Giving feedback on assignments is a critical part of the direct instruction component of teaching presence. It provides a natural opportunity for one-to-one teaching presence while supporting student learning (UC Davies). Getzlaf, et al (2009) describe effective feedback as: a mutual process involving both student and instructor; providing constructive guidance that builds confidence; guiding through explicit expectations and on-going coaching; meeting mutually established timelines; and being applicable to future situations.

To have an active participation by the instructor, Cormier and Siemans (2010) also suggest several roles instructors can take to provide active teaching presence in an online course: Amplifying which means drawing attention to important ideas/concepts, both in the course materials and in student comments or other work. Curating which means selecting and arranging readings, videos, and other resources to scaffold concepts Aggregating which means finding and displaying patterns in discussions and other communications and Modelling which means demonstrate the skills you expect from your students - both in terms of interaction and analysis

Overall, the data suggest that the evidence is "high" with all the statements under teaching presence and students experience these when using Facebook with a weighted mean of 3.220.

Table 8. Extent of Educational Experience in Blended Modality Using Facebook in Terms of Social Presence

STATEMENT INDICATORS	WEIGHTED MEAN	SD	DESCRIPTION
AFFECTIVE EXPRESSION			
Getting to know or interact with my classmates and/or friends gave me a sense of belonging in the course.	3.220	0.585	High
I was able to form impressions of some. classmates and/or friends to establish harmonious relationship with them	3.110	0.574	High
Facebook provided avenue for productive collaboration with others	3.165	0.533	High
OPEN COMMUNICATION			
I felt comfortable conversing through Facebook	3.079	0.672	High
I felt comfortable participating in the class discussions using Facebook.	2.848	0.650	High
I felt comfortable interacting with my classmates and/or friends	2.945	0.665	High
GROUP COHESION			
I felt comfortable disagreeing with my classmates and/or friends while still maintaining a sense of trust.	3.012	0.644	High
I felt that my point of view was acknowledged by my classmates and/or friends.	3.012	0.552	High
Online discussions help me to develop a sense of cooperation	3.110	0.595	High
TOTAL	3.056		High

3.26-4.00= very high 2.51-3.25= high 1.76-2.50=low 1.00-1.75=very low

Facebook showed it is effective in projecting students' personal identity in this online community. The table shows the extent of educational experience of students in social presence. This presence refers to the ability of participants in a community of inquiry to project themselves socially and emotionally, as real people through the medium of communication being used (Garrison & Anderson, 2003). It has three

categories, affective expression which refers to reflecting socio-economic components of the communication for the purpose of forming interpersonal relationships (Kreijins et al., 2014). Students rated high presence of the indicators in this category wherein they believed that getting to know with their classmates and friends gave them a sense of belonging in the course using Facebook, likewise, they were able to form impressions of some classmates and or friends and establish harmonious relationship with them, and finally, Facebook provided avenue for productive collaboration with others.

On the other hand, the second category is open communication in which Kreijins et al., (2014) defined it as reflecting the interactive and purposeful nature of the communication. The results in this category showed that there is "high" presence of the indicators among students. Students shared that they felt comfortable conversing using Facebook as well as participating in the class discussions. They also shares that they felt comfortable in interacting with classmates and friends.

And the last category is group cohesion referring to reflecting the shared social identity of the community and its collaborative behavioural intention (Keijins et. al.,2014). The students rated generally "high" in all statement indicators such they shared that they felt comfortable in disagreeing with classmates or friends while still maintaining a sense of trust. They also shared that their point of views were acknowledged by their classmates or friends. And lastly, they said that online discussions help them develop a sense of cooperation.

Moreover, as revealed in the results, all categories received fair responses of "high" from the respondents. Over all, the weighted mean for this presence is 3.056 which translated to "high"

While the results of the study revealed that generally, in the absence of face –to-face classes, the use of online learning tool such as Facebook helped in bridging learning among students especially in establishing the social presence of the students. However, face-to-face interaction is considered to be the gold-standard for social presence (Biocca et al., 2001) and a considerable amount of research compares face-to-face communication with computer mediated communication to determine how successful a given system is at establishing a social presence. Most of these studies found that communicators experience lower levels of social presence during computer mediated communication compared to face-to-face conversations.

For example, Cortese and Seo (2012) found that computer mediated communication participants felt less social presence than face-to-face participants while they were discussing issues mentioned in a news article for 20 min. More specifically, the researchers operationalized social presence to assess both how sociable their partner was and how "co-located" they felt with their partner, and found that face-to-face communicators experienced higher levels of social presence compared to their computer mediated communication counterparts. Similar results were found in online learning contexts (Zhan and Mei, 2013) and decision-making scenarios (Biocca et al., 2001; Alge et al., 2003).

Table 9. Extent of Educational Experience in Blended Modality Using Facebook in Terms of Cognitive Presence

STATEMENT INDICATORS	WEIGHTED MEAN	SD	DESCRIPTION
TRIGGERING EVENT			
1. Solving problems related to the course increase my interest to explore more about the course	3.268	0.542	Very High
2. The course activities provide opportunity for me to be	3.104	0.548	High

curious.			
3. I felt motivated to explore content related questions.	3.183	0.577	High
EXPLORATION			
4. I utilized a variety of information sources to find solutions to the problems posted about a certain issue related to the course.	3.122	0.466	High
5. Using brainstorming activities helped me resolve or generate solutions and/or options on the content related questions.	3.122	0.539	High
6. Online discussions were valuable in helping me appreciate different perspectives.	3.043	0.545	High
INTEGRATION			
7. Combining new information helped me answer questions raised in the learning activities.	3.262	0.504	Very High
8. Learning activities helped me construct explanations/solutions.	3.183	0.617	High
9. Reflection on course content helped me connect previous knowledge to the fundamental concepts discussed in class.	3.232	0.536	High
RESOLUTION			
10. I can describe ways to transfer the knowledge learned in the class to my everyday life	3.207	0.568	High
11. I can put into action the solutions that I developed from the posted problems related to the course.	3.195	0.528	High
12. I can apply the knowledge gained and learned from the course to other non-class related activities.	3.165	0.577	High
TOTAL	3.174		High

3.26-4.00= very high 2.51-3.25= high 1.76-2.50=low 1.00-1.75=very low

The table shows the extent of educational experience in online learning using Facebook in terms of cognitive presence. This presence is composed of 4 categories. The first category is triggering event refers activity or question designed to engage, capture student interest and generate curiosity (Anderson et al. 2001) in which respondent rated “very high” the item 1 indicating that there is strong evidence that solving problems related to the course increase the respondents interest to explore more about the course while the rest items received rating of “high” under the said category such as course activities provided opportunities for them to be curious and they have felt motivated ro explore the content related questions.

The second is exploration refers to students begin to understand the nature of the problem; begin to search for relevant information and possible explanations (Anderson et al 2001) wherein all items under this category received “high” evidence. Respondents shared that they have utilised a variety of information sources to find solutions to the problems posted about a certain issue related to the course as well as used brainstorming activities which helped them resolved content related questions. They also shared that discussions made online help them appreciate different perspectives.

The third category is integration that refers to more focused and structured phase of meaning making. Reflective phase marked by critical discourse that shapes understanding (Anderson et al., 2001) wherein respondents rated "very high" on item 7 saying that when new information were combined, it helped respondents answer questions raised in the learning activities. The rest items under the category received "high" rating indicating that they are evident among students such as learning activities helped them construct explanations as well as reflection made on the course content helped them connect with previous knowledge to fundamental concepts discussed in class.

The last category is resolution that refers to the problem or dilemma, testing and/or application of the solution in a real world context and can lead to additional triggering events in which all items received "high" from respondents. Respondents fairly said that the indicators are evident in their experience in using Facebook for online class such as they can describe ways to transfer the knowledge learned in class to everyday life, likewise, they can put into action the solutions developed from the posted problems related to the course, and the can apply the knowledge gained and learned from the course to non-class related activities. Overall, the respondents rated teaching presence with a mean score of 3.174 or "high".

PROBLEM STATEMENT 3: Is there a significant difference in terms of social presence, cognitive presence, and teaching presence using blended learning modality when data are categorized according to student's demographic profile?

To determine the relationship among the variables consisted in this study, Analysis of Variance and z-test were employed.

Figure 4. Result of Teaching Presence According to Course Program

SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
BEED	42	1733	41.2619	41.66144		
BSN	38	1649	43.39474	31.38051		
CIT	14	550	39.28571	2.373626		
BSW	16	670	41.875	13.31667		
BSCRIM	54	2267	41.98148	10.54682		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	198.0122	4	49.50304	2.151255	0.076958	2.428522
Within Groups	3658.787	159	23.01124			
Total	3856.799	163				

Data were gathered and statistically treated with the use of Analysis of Variance; the null hypothesis is accepted since result revealed that f-observed value (2.152) is lesser than f-critical value (2.428) at alpha

0.05 indicating that there is no significant difference in the extent of educational experiences of respondents for teaching presence in online learning using Facebook when data are grouped according to course program. Thus, it can be assumed that regardless of enrolled course programs, students will have almost the same response in terms of their experience in teaching presence of online learning using Facebook.

Figure 5. Result of Social Presence According to Course Program

SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
BEED	42	1159	27.59524	24.63705		
BSN	38	1026	27	10.10811		
CIT	14	378	27	1.230769		
BSW	16	447	27.9375	8.729167		
BSCRIM	54	1500	27.77778	6.666667		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	20.61012	4	5.15253	0.434757	0.783363	2.428522
Within Groups	1884.39	159	11.85151			
Total	1905	163				

Data were gathered and statistically treated with the use of Analysis of Variance, the null hypothesis is accepted since the result revealed that f-observed value (0.4348) is lesser than f-critical value (2.428) at alpha 0.05 indicating that there is no significant difference in the extent of educational experiences of respondents for social presence in online learning using Facebook when data are grouped according to course program.

In other words, the course program enrolled by the students do not affect their preference or experience in online learning in terms of social presence. Almost all students enrolled in different course have experienced or responded the same in the survey reflecting their personal experience in online learning.

Figure 6. Result of Cognitive Presence According to Course Program

SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
BEED	42	1583	37.69048	31.97503		
BSN	38	1463	38.5	14.58108		
CIT	14	502	35.85714	1.208791		
BSW	16	644	40.25	12.2		
BSCRIM	54	2054	38.03704	15.73445		

ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	157.6885	4	39.42212	2.174077	0.074293	2.428522
Within Groups	2883.116	159	18.13281			
Total	3040.805	163				

Data were gathered and statistically treated with the use of Analysis of Variance; the null hypothesis is accepted since the result revealed that f-observed value (2.174) is lesser than f-critical value (2.428) at alpha 0.05 indicating that there is no significant difference in the extent of educational experiences of respondents for cognitive presence in online learning using Facebook when data are grouped according to course program.

This means that whatever course program the students are currently taking, it did not matter or affect their online learning experience. Almost all students enrolled in the course programs identified in this study responded the same in this portion of the survey.

Figure 7. Result for Teaching Presence According to Gender

z-Test: Two Sample for Means		
	Female	*Male*
Mean	42.35051546	41.20895522
Known Variance	29.52662	14.04589
Observations	97	67
Hypothesized Mean Difference	0	
z	1.592212751	
P(Z<=z) one-tail	0.055668455	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.111336909	
z Critical two-tail	1.959963985	

The researcher used the two-tail value since the researcher is interested if there is difference between both means for male and female on their response in teaching presence. The z-critical two-tail (1.95996) is greater than the calculated test statistics or the z-score (1.5922), thus, the researcher accepts the null hypothesis which indicates there is no there significant difference on the extent of educational experience for teaching presence of online learning using Facebook when data are grouped according to students' gender.

This can be validated further by comparing alpha value to p-value of two-tail wherein the p-value (0.11113) is greater than the alpha value (0.05), thus, still the results accepts the null hypothesis. In other words, male and female have almost the same attitude in answering this portion of the survey soliciting their experience in online learning using Facebook in terms of teaching presence.

Figure 8. Results for Social Presence According to Gender

z-Test: Two Sample for Means		
	Female	*Male*
Mean	27.70103093	27.20895522
Known Variance	16.10649	4.971263
Observations	97	67
Hypothesized Mean Difference	0	
z	1.003934611	
P(Z<=z) one-tail	0.157705066	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.315410133	
z Critical two-tail	1.959963985	

The researcher used the two-tail value since the researcher is interested if there is difference between both means for male and female on their response in social presence. The z-critical two-tail (1.95996) is greater than the calculated test statistics or the z-score (1.0039), thus, the researcher accepts the null hypothesis which indicates there is no there significant difference on the extent of educational experience for cognitive presence in online learning using Facebook when data are grouped according to students' gender.

This can also be validated by comparing alpha value to p-value of two-tail wherein the p-value (0.3154) is greater than the alpha value (0.05), thus, still the results accepts the null hypothesis. Thus, the researcher suggests that responses of male and female in terms of social presence do not vary and are almost the same.

Figure 9. Results for Cognitive Presence According to Gender

z-Test: Two Sample for Means		
	Female	*Male*
Mean	38.59793814	37.34328358
Known Variance	22.42598	11.98663
Observations	97	67
Hypothesized Mean Difference	0	
z	1.959200894	
P(Z<=z) one-tail	0.025044632	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.050089265	
z Critical two-tail	1.959963985	

The researcher used the two-tail value since the researcher is interested if there is difference between both means for male and female on their response in cognitive presence. The z-critical two-tail (1.95996) is greater than the calculated test statistics or the z-score (1.9592), thus, the researcher accepts the null hypothesis which indicates there is no there significant difference on the extent of educational

experience for teaching presence on blended learning modality when data are grouped according to students' gender.

This can be validated by comparing alpha value to p-value of two-tail wherein the p-value (0.050089) is greater than the alpha value (0.05), thus, still the results accepts the null hypothesis. In other words, the result provides that the responses of male against female are of no difference or almost just the same.

Figure 10. Results for Teaching Presence According to Age

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
AGE 18	30	1209	40.3	14.63103448
AGE 19	46	1895	41.19565217	22.64975845
AGE 20	37	1609	43.48648649	26.86786787
AGE 21	28	1169	41.75	21.23148148
AGE 22	23	987	42.91304348	29.81027668

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	216.9403199	4	54.23507996	2.369151935	0.054866	2.428522
Within Groups	3639.858461	159	22.89219158			
Total	3856.79878	163				

Data were gathered and statistically treated with the use of Analysis of Variance, the result revealed that f-observed value (2.36915) is lesser than f-critical value (2.42852) at alpha 0.05 indicating that there is no significant difference in the extent of educational experiences for teaching presence in online learning using Facebook when data are grouped according to age.

In other words, age groups have the same responses in terms of their educational experience in online learning using Facebook.

Figure 11. Results for Social Presence According to Age

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
AGE 18	30	814	27.13333333	4.11954023
AGE 19	46	1234	26.82608696	11.08019324
AGE 20	37	1040	28.10810811	16.76576577
AGE 21	28	765	27.32142857	12.59656085
AGE 22	23	657	28.56521739	12.62055336

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	65.59775334	4	16.39943834	1.417585903	0.230534	2.428522
Within Groups	1839.402247	159	11.56856759			
Total	1905	163				

Data were gathered and statistically treated with the use of Analysis of Variance, the result revealed that f-observed value (1.41758) is lesser than f-critical value (2.42852) at alpha 0.05 indicating that there is

no significant difference in the extent of educational experiences for social presence in online learning using Facebook when data are grouped according to age.
In other words, age groups do no vary in terms of educational experience in online learning using Facebook.

Figure 12. Results for Cognitive Presence According to Age

Anova: Single Factor						
SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
AGE 18	30	1115	37.16667	9.522989		
AGE 19	46	1718	37.34783	17.25411		
AGE 20	37	1452	39.24324	20.74474		
AGE 21	28	1061	37.89286	24.61772		
AGE 22	23	900	39.13043	20.48221		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	126.1054	4	31.52634	1.719796	0.148176	2.428522
Within Groups	2914.7	159	18.33144			
Total	3040.805	163				

Data were gathered and statistically treated with the use of Analysis of Variance, the result revealed that f-observed value (1.7197) is lesser than f-critical value (2.428) at alpha 0.05 indicating that there is no significant difference in the extent of educational experiences of respondents for cognitive presence in online learning using Facebook when data are grouped according to course program. Thus, age groups do not affect the responses of the students with regards to their educational experiences in online learning using Facebook.

Problem Statement 4: What are the challenges experienced by the students in the online learning using Facebook?

Selected respondents have shared different challenges experienced in the course of online learning using Facebook. The researcher used thematic analysis and identified the frequently occurring theme or answer when respondents were interviewed. Themes were supported by direct quotation of the respondents. The researcher found out the following as the common challenges in online learning:

1. Poor internet connections. Some respondents have shared the challenges they experienced in terms of poor internet connection which is vital in online learning. One cannot attend online classes or do learning activities if the internet connection is poor or no signal. Most of the students enrolled in MACFI are from adjacent municipalities which are reported to have poor internet connections.

There were five respondents who shared their problems with internet connection which is very challenging for them.

"*…nahihirapan po ako makaconnect minsan sa Facebook kasi maam mahina po ang signal sa amin…"* (…I encountered difficulty in connecting Facebook because sometimes the signal is poor in our area…) [Student 1]

"*…internet connection po maam ang challenge po talaga sa online learning lalo na pag mag video-call kung naga explain ang teacher…*" (internet connection is a real challenge in online learning especially when the teacher made video-calls explaining some of our lectures…) [Student 2]

"*…pagblackout mahina ang signal…*" (…if blackout, the signal is poor…) [Student 5]

"…sa may bundok kami nakatira maam kaya mahina ang signal sa amin..." (…we live far from the city and our signal is very weak or poor..) [Student 7]

"*…sa town po ako minsan pag nag set ng schedule ang teacher na mag video-call siya sa amin maam kasi pag sa bahay medyo mabagal ang internet kaya sobrang challenging po sa online class…*" (…I went to the town sometimes if the teacher sets schedules if she will call us through Facebook because in our area, the signal is very poor…) [Student 8]

2. Regular power interruptions. There are regular power interruptions in the City of Lamitan and in the adjacent municipalities. The problem in electricity had been a cause for concern for decades now. Currently, the city is experiencing an average of 3- 5 brownouts a day in other places outside in the city. The power usually resumes after one or two hours.

There were four respondents who have shared their problem in terms of power interruption that served as challenge in their online learning class.

"*…palagi pong on and off ang ilaw kaya nakakaapekto rin po siya maam…*" (…the electricity is on and off and it affects our online class…) [Student 2]

"*…yung aming lugar palagi pong bin brownout kaya problema pag walang kuryente hindi rin nakakainternet…*" (…our place is always suffering from brownouts so I cannot connect to the internet…) [Student 5]

"*…challenging ang kuryente sa amin kasi malayo kami sa town, palagi walang ilaw kaya hindi ako nakaka connect pag mag videocall minsan ang mga teachers para mag explain…*" (….electricity is challenging because we are far from the city. If brownout, I cannot connect when the teachers make calls in Facebook to explain some concepts…) [Student 6]

"…madali malobat ang cellphone ko tapos palagi naman blackout hindi naga cooperate ang baselco…" (My cellphone's battery easily gets drain and it is always brownout…) [Student 10]

3. Financial challenges. This also posed as challenge in online learning experience of the students because internet connectivity does not come for free.

"*...kasama din ang walang pangload maam kasi malakas kumain ng mobile data po…*" (…part of the challenge is the mobile load and online class eats too much mobile data…) [Student 1]

"*…minsan hindi ako nakakasama kasi wala akong pangload maam, mahirap po kasi ang buhay ngayon kasi pandemic…*" (….sometimes I cannot attend the online class because I do not have load, life is difficult now during pandemic…) [Student 4]

"*…madalas kasi kailangan ng pangload kaya sa isang week aabot ng mga 100 ang pangload tapos minsan walang pera kasi marami din projects na kailangang gastusan po…"* (…I needed to spend around 100 pesos load per week and sometime I have many projects which I need to spend money with…) [Student 10]

4. No Gadgets for Online Learning. Some of the students have shared their problem that they do not have smart phones for use during the online learning, however, they managed to find ways.

"…keypad lang ako meron wala po akong cellphone na may camera or yung pang Facebook po…" (My cellphone is keypad, I do not have smartphones which I can used for Facebook…) [Student 8]
"…wala po akong saring phone nakikihiram lang sa kapatid ko maam…" (I do not have my own cellphone, sometimes, I borrow from my sibling…) [Student 9]
"…madalas din akong humiram ng cellphone sa kapatid ko o kaibigan ko kasi wala akong personal cellphone…" (I frequently borrow cellphones from my sibling or friends because I do not have my own cellphone…) [Student 13]
"…sa classmate na kapitbahay lang ako naga ask maam kung ano ang ipapagawa at minsan sumasama ako sa kanya pag mag tatawag ang teacher sa Facebook kasi wala akong phone po…" [Student 16]

5. **Some Gadgets are incompatible with online applications.** Some links shared by the teacher in Facebook Group or Group Chats cannot be accessed using some phone.

"…*pag naga share ng link kagaya yung google form po, minsan hindi po compatible sa phone ko hindi maopen*…" (…when the teacher shares link like Google Form, sometimes my phone cannot open it…) [Student 4]
"….*hindi maopen yung mga documents na nisheshare sa Groupchat na lectures ata kasi hindi ata compatible yung phone ko maam…"* (…I cannot open documents shared in our groupchats, the lectures, I think my phone is not compatible…) [Student 7]
"…*yung link po na madalas sa assessment, nakikigamit na lang ako ng phone kasi hindi ko maopen gamit yung phone ko maam*…" (…the link like assessment, I borrowed phone becaue my phone is not compatible sometimes..) [Student 13]
"…*pag bubuksan ko yung link, maglabas yung parang hindi siya pwede buksan or hindi talaga maopen ang link*…" (…when I open the link, messages will comes out saying I cannot open the link…) [Student 16]

Problem Statement 5: What are the prospects of online learning modality such as Facebook as reported by students?

Selected respondents have shared different prospects in online learning modality using Facebook. The researcher used thematic analysis to extract from respondents the answers that would suit to the question. According to the gathered data, the respondents identified the following prospects:

1. **Facebook is easy to use.** Respondents shared the prospect in using Facebook as online learning platform. They shared their experiences on why Facebook is convenient for use compare with other online learning platforms or application.

"…*madaling gamitin ang Facebook kasi matagal na po akong naga Facebook maam kaya madali na lang po siyang gamitin*…" (…Facebook is easy to use because I had been using it for a long time already…) [Student 1]
"…*gumagamit ako ng Facebook at tsaka madali lang siyang gamitin, madali lang Makita ang post ni teacher pag may updates*…" (…I am using Facebook and it is easy to use, I can easily view the posts or updates of our teacher…) [Student 2]
"...pag mag videocall, nakaka join agad ako pag malakas ang signal at nababasa ko kaagad yung mga updates ni teacher…" (…when our teachers make videocalls, I can easily join especially if the signal is good, I can also easily read the updates of our teacher…) [Student 4]

"…*maganda kasi ang Facebook maam dahil alam ko na siyang gamitin, nakakatawag naman ang teacher, nakaka usap naman ang ibang classmates, kaya madali siyang gamitin*…" (…I like Facebook because I am already used to it,…so it is easy to use…) [Student 7]

"…sa facebook, may alam na ako, sa iba kasi yung mga Google meet at Zoom kailangan pang mag download ng application kaya feeling ko mahirap yun kasi bago, sa Facebook na lang kasi madali lang po…" (…in Facebook, I know how to use it unlike Google Meet or Zoom which I needed to study on how to use it. Facebook is easy to use…) [Student 10]

2. **Learners can easily share or upload pictures of their projects and assignments.** Respondents also shared that they can easily chat their assignments or send picture of their works to their teachers in group chats or individual chats.

"…minsan sinesend ko sa teacher po yung picture ng assignment ko..." (…sometimes I send to my teacher the picture of my assignment…) [Student 2]

"…maganda din ang Facebook maam kasi picturan ko lang yung project or assignment ko tapos isend lang po sa teacher, parang sobrang dali lang po gamitin…" (…Facebook is good because I can take picture of my project or assignments then send it to my teacher…) [Student 5]

"…nakakatulong po ang Facebook kasi madali mag share sa teacher ng mga ginagawa ko po…" (…Facebook is helpful because I can easily share to my teacher about my works…) [Student 6]

3. **Learners can easily communicate with teachers for Feedback and clarifications.** Selected respondents also shared their usability of Facebook made them easily to communicate with their teachers for feedback or for advices.

"… *madali pong makausap si teacher pag kailangan ng tulong…"* (…I can easily talk to my teacher if I needed help…) [Student 3]

"…*tumatawag po ako minsan sa professor po nag-aask regarding sa mga assignments at humihingi ng feedback, kaya gusto ko ang Facebook kasi madali lang po silang ma contact*…" (…sometimes, Icall my professor and ask questions regarding our assignments and I also ask feedback from them, that is why Iike Facebook because I can easily communicate them…) [Student 7]

"…*pag kailangan ko ng clarification or parang hindi ko naintindihan maam, naga chat ako sa teacher tapos nag rereply naman agad*…" (…If I needed clarification or if I cannot understand, I chat my teacher then they respond immediately…) [Student 13]

"*...ayos ang Facebook pag need ng help ng teacher or ng friends*…" (…Facebook is cool if I needed help from teachers or friends…) [Student 13]

4. **Learners can easily connect with friends and classmates.** Learners can easily connect with their classmates and friends and share ideas and opinions on how to finish learning tasks.

"...madaling makaconnect sa mga classmates at mga kaibigan ko at minsan humihingi rin ako sa kanila ng tulong…." (…I can easily connect with my classmates and friends and sometimes I ask for their help…) [Student 3]

"...may groupchat kaming magkaka classmate at kaibigan dun kami naga tulungan sa isat isa, at may mga naga ask ng questions dun kami naga share ng mga ideas namin…" (…we have groupchat with my classmates and friends and we help each other. Sometimes we ask questions and share our ideas there…) [Student 5]

"...nakakatulong din ang Facebook pag bored kasi nakakausap ko mga kaibigan ko pati rin ibang classmates…" (…Facebook is helpful especially when I am bored, I talk to my friends and some classmates…) [Student 9]

"...importante kasi yung may nakakausap ka rin pag marami na pinapagawa sayo kaya nagchachat at minsan nag vivideocall kami mga friends ko..." (…it is important to talk with someone especially if there are so many works to do that is why I chat and talk with my classmates…) [Student 13]

5. **Learners can express their opinions and ideas related to their lessons.** Learners expressed their ideas and opinions in class discussion done virtually.

"...madali din pong sabihin yung opinion or kung may idea ako sa tanong ng instructor po..." (…it is also easy to share opinions or my ideas about the question of our instructors…) [Student 12]

"...kahit wala ako sa actual na klase talaga maam, nakaka participate pa rin ako sa klase kahit virtual kasi nasasabi ko rin ang ideas ko..." (…even when there is no actual face-to-face calss, I can still participate in virtual class and I can share my ideas as well…) [Student 11]

"...gusto yung Facebook kasi may mga classmates ako na naga share talaga ng ideas nila tapos minsan ako naga share din kahit nasa bahay lang ako..." (…I like Facebook because I have classmates who share their ideas and I also share my ideas sometimes…) [Student 14]

"...naeexpress ko minsan ang opinion ko or mga ideas ko kahiy virtual ang klase..." (…I can express sometimes my opinion or ideas even in virtual class…) [Student 16]

6. Learners can easily download learning materials uploaded by teachers. The students also shared their convenience in terms of downloading learning materials such as their lectures.

"...pag mag share yung teacher ng learning materials, nadodownload agad gamit ang wps or Microsoft word..." (…when the teacher shares learning materials, I can easily download it using wps or msword…) [Student 5]

"...marami din inupload ang intructors po sa mga group chats namin of sa group namin tapos madali lang naman din maidownload..." (…the teachers upload many learning materials in our groupchats yet I can easily download it…) [Student 8]

"...pag may Microsoft word or wps and cellphone, madali lang ma download ang documents or lectures..." (…micorsoft word or wps in cellphones facilitates download of documents or lectures uploaded by teachers in GC of FB Groups…) [Student 10]

CHAPTER V

Summary of Findings, Conclusions, and Recommendations

The study aimed to determine the extent of educational experience of First Year Students in MACFI in online learning using Facebook. Specifically, it sought to answer the following questions: (a) What are the demographic profiles of the participants in terms of Age, Gender, and Course Program? (b) What is the extent of educational experience in blended learning modality in terms of Social presence, Cognitive presence, and Teaching presence? (c) Is there a significant difference in terms of social presence, cognitive presence, and teaching presence using blended learning modality when data are categorized according to student's demographic profile? (d) What are the challenges experienced by the students in the blended learning modality? And (e) What are the prospects of the blended learning modality as reported by students?

The study was a mixed-method design to treat the quantitative and qualitative data. The empirical data of the study for quantitative analysis were taken from the responses of 164 First Year college students in Mindanao Autonomous College Foundation Incorporated through a checklist-questionnaire. Total population sampling was used in choosing respondents wherein all First Year students are included in the study. On the other hand, the empirical data for qualitative portion of the study were taken from 14

selected respondents who were part of the semi-structured interviews.

In answering the questions, frequency, percentages and ranking were used to analyse data sets for the first research question. For the second question, weighted mean was used to analyse the extent of educational experience of the respondents in online learning using Facebook in terms of social presence, cognitive presence, and teaching presence. To answer the third question, the analysis of variance (ANOVA) was used to determine the relationship in the extent of educational experiences when data are grouped according to course programs and age groups while the z-test was used when data are grouped according to gender. The fourth and fifth questions used thematic analyses which determined patterns of meaning from the gathered qualitative data from interviews.

Summary of Findings

The data were treated and analysed, and the researcher found the following:

SOP 1: What are the demographic profiles of the respondents?

- Most of the respondents were BSCrim students with 55 or 33.54% followed by BEEd with 42 or 25.61%. The least number of respondents were from BSCS with only 14 or 8.54%.
- Female dominated male with 97 or 59.15%. On the other hand, there were 67 male or 40.85%.
- Most of the respondents are aged 19 with 46 participants or 28.05% followed by aged 20 with 37 or 22.26%. The least aged participants were 22 with only 23 of them or 14.02%.

SOP 2: **What is the extent of educational experience of the respondents in online learning using Facebook in terms or social presence, cognitive presence, and teaching presence?**

- Students responded that there is “high” evidence on the educational experiences for social presence, cognitive presence, and teaching presence in online learning using Facebook; and
- Students responded that there is “high” evidence on the educational experience for social presence, cognitive presence, and teaching presence in online learning using Facebook when date are grouped according to course programs, gender, and age groups;

SOP 3: Is there a significant difference in terms of social, cognitive, and teaching presence in online learning using Facebook when data are categorised according to student’s demographic profile?

- There is no significant difference on the extent of educational experience in social, cognitive, and teaching presences when data are grouped according to course programs, gender, and age.

SOP 4: What are the challenges experienced by the students in online learning using Facebook?

- The challenges experienced by the students in the online learning using Facebook are the following:
  - Poor internet connections;
  - Regular power interruptions;
  - Financial challenges;
  - No gadgets for online learning;
  - Some gadgets are incompatible with online applications.

SOP 5: What are the prospects of online learning using Facebook as reported by students?

- The prospects of online learning modality such as Facebook as reported by students are the following:
  - Facebook is easy to use;
  - Learners can easily share or upload pictures of their works;
  - Learners can easily communicate with teachers for Feedback and clarifications;

- Learners can easily connect with friends and classmates;
- Learners can express their opinions and ideas related to their lessons; and
- Learners can easily download learning materials uploaded by teachers.

Conclusions

The researcher arrived at the following conclusions:

The study revealed the extent of educational experience among First Year students of Mindanao Autonomous College Foundation Incorporated in online learning using Facebook. The study showed that students were able to project themselves socially and emotionally as real people through the use of Facebook as reflected in their responses in social presence survey. They were also able to construct meaning and knowledge through continues communication, reflection, and discussion as shown in their responses in cognitive presence survey. And, they were able feel the teaching design, teachers' facilitation, and direction of cognitive and social process for the purpose of realizing personally meaningful and educational worthwhile learning outcomes as shown in their collective response in teaching presence survey. Thus, Facebook is effective in facilitating online learning among First Year students of MACFI.

Moreover, selected students have shared some of their common problems in online learning such as poor internet connections, regular power interruption, financial challenges, no gadgets for online learning, and gadgets that are not compatible for online learning.

On the other hand, students divulged that Facebook is easy to use; they can share easily or upload pictures of their works, can communicate with teachers for feedbacks and clarification, connects with classmates and friends, express their opinions and ideas, as well as easily downloads learning materials uploaded by teachers.

Recommendations

On the basis of findings and conclusions, this study has made the following recommendations:

1. The administration of MACFI may suggest to the City Council of Lamitan inviting Telecommunication company representatives from Globe and Smart to improve service delivery specifically their internet services since most learning deliveries during the pandemic uses online mode. In part to strengthen as well their reach or widen their coverage by installing more cell-sites and system-upgrades.
2. The administration of MACFI may propose the City Council of Lamitan inviting the Basilan Electric Cooperatives since there regular power interruption affects the delivery of learning in online mode.
3. The administration of MACFI may suggest to the City Council of Lamitan to maximise the implementation of the Republic Act No. 10929 also known as Free Internet Access Program in Public Places in the country and encourage each public places such as basketball courts and plazas in every Barangay shall install Wi-Fi free for use of all students. This will help the students in online learning.
4. The administration of MACFI may suggest to the City Council of Lamitan to encourage every Barangay in the city to purchase computer sets or smartphones free of use for students who wanted to search in the internet. This will help students who do not have gadgets for use during online class or any related school works.

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