

## EFFICACY OF FACEBOOK AS LEARNING MANAGEMENT SYSTEM FOR DISTANCE EDUCATION

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### ABSTRACT

Over the years, Facebook as a social network has improved its features to accommodate the demands of its billions of active users worldwide. The considerable increase of its popularity as the top social media with the greatest number of users today means that many of the world's populations have been using the platform as part of their everyday lives. With the existing data that 100% of the faculty and students were active users of Facebook as their primary social media platform, this study has evaluated the efficiency of Facebook as a temporary Learning Management System for Elementary Education Program students of Initao College for A.Y. 2020-2021 during distance online learning. It was found out that with the key features of Facebook Page, Group, and Messenger as department bulletin, virtual classrooms, and main communication platform, the first new normal school year concluded with above-average academic achievement and no online learner dropouts for 144 students in total. Furthermore, in terms of average academic performance per year level, ANOVA for independent measures revealed that there was no significant variation among the average term achievement of the first, second, and third-year students. However, the average achievement of the 144 students of the second semester compared to the 143 students during the first semester has demonstrated a significantly lower average academic semester achievement. Hence, this study concludes that Facebook has evidently aided distance learning management amid community quarantines and health security concerns.

*Keywords: Distance Education, COVID-19, Facebook, Learning Management System, Elementary Education Program, Philippines*

### INTRODUCTION

The fast-growing technologies have changed the ways of teaching and learning in educational institutions since the late 1990s. This integration between technologies and the educational environment has facilitated the communication between students and teachers, but at the same time raised new challenges as well (Pishva et al., 2010). Distance learning as a type of learning delivery modality takes place between the teacher and the learners who are geographically remote from each other during instruction. This modality was categorized into three major types: Modular

Distance Learning (MDL), Online Distance Learning (ODL), and TV/Radio-Based Instruction (Quinones, 2020). To specify, during much of the 20<sup>th</sup> and early 21<sup>st</sup> centuries, there have been two recognized macro models of university education: face-to-face, or campus-based education and distance education (Bates, 2005; Selwyn, 2012; Fallon and Brown, 2016).

Recently, COVID-19 has brought traumatic effects to billions of human lives resulting in a large-scale shift in the world and a national shift of various systems. This sudden transformation has not spared the sector of education. To prevent the

increase of cases and further proliferation of the virus in the Philippines, President Rodrigo R. Duterte signed proclamation No. 922, placing the entire nation under a state of health emergency where non-essential movements from people were restricted and only allowing relevant transactions movement, especially those that of the frontliners. Hence, the pandemic has given rise to the implementation of Modular Distance Learning as an urgent response to ensure continuity of education. Continuous innovations of educators and the active involvement of all stakeholders are immensely necessary for this continuous process of adapting to the new normal form of education at present (Dangle and Sumaoang, 2020). In fact, the recent remote learning system has revealed a digital divide among Filipino students (Santos, 2020).

The recent situation may have mostly exacerbated existing inequalities and was translated to barriers in online learning among others (Rotas and Cahapay, 2020). In fact, in a cross-sectional study conducted nationwide by Baticulon et al. (2020), it was reported that 32% and 22% out of 3,670 Filipino medical students surveyed have difficulties adjusting to new learning styles and do not have reliable internet access, respectively.

In response to the challenge of innovating educational delivery mechanisms in higher education, colleges and universities across the globe have ventured into different practices such as distance education, online teaching, remote learning, blended learning, and mobile learning. These practices can be collectively called emergency remote education (Rotas and Cahapay, 2020). As the Internet came of age, with each wave of technological innovation, ICTs have offered excellent advantages for academic applications that can be offered through a Learning Management System (LMS), since they facilitate the administration of courses in universities and training centers of organizations (Polizzi, 2020).

In an educational context, e-learning platforms are known as Learning Management Systems (LMSs). These are internet-based, software allowing instructors to manage materials distribution, assignments, communications, and other aspects of instructions for their courses (Abu

Shawar, 2009). In general, an LMS automates many of the processes associated with learning enabling the delivery of learning content, resources, and activities, and also handles the associated administration tasks (Hobbs, 2005).

Initao College, a CHED recognized local college located in a third-class municipality in Northern Mindanao, Philippines, which, even with its topographic and remote location, scarcity of online amenities among its faculty and students, above all, the unavailability of an institutional online workspace for learning management system, has taken the challenge brought by the pandemic. In fact, a section of the enrollment procedure for the Academic Year 2020-2021 revealed that a significant fraction of learners does not have mobile gadgets or cellular signals in their residence for internet connection. This case, however, may lead to a poor learning environment in which according to Baticulon et al. (2020), is detrimental for students to comfortably participate in remote learning. In addition, establishing a positive and conducive learning space has long been a problem in distance education especially in most poor households which may affect the study productivity and concentration of students are at (Chang and Fang, 2020).

Since the rise in the popularity of social networks means that many people often use them in their everyday life, integration of these social network environments into education has been utilized considering that many social networking sites are now being used for purposes different from their original design (Kalelioğlu, 2017). In general, Zhu (2012) confirmed that students feel that social media and mobile devices are cheap and convenient tools for obtaining relevant information. By application, LMS according to Lonn and Teasley (2009) enable teachers and students to share materials, submit and return assignments, and communicate online. Considering that Facebook as a social media network has been used as an LMS and have shown several advantageous aspects even before the pandemic (Kalelioğlu, 2017), Initao College teacher education department took the advantage of using good and free features to build a constant connection with the students along with ensuring that quality instructional and learning procedures



be not compromised, amid the inadequacy of amenities and relevant resources.

## OBJECTIVES OF THE STUDY

This study aimed to assess the efficiency of Facebook as the primary learning management system during distance learning caused by the COVID-19 pandemic.

Specifically, it seeks to: 1) assess the key features of Facebook suitable for instructional and learning management with online distance learning; 2) evaluate the academic performance of the BEd online learners who have studied with the aid of Facebook during the first year of new normal education, S.Y. 2020-2021.

## METHODOLOGY

Nowadays, the provision of e-learning tools or complex blended learning scenarios depends on an online platform where students and teachers can get access to them (Gray, 2012). Some LMS which are used by higher education institutions in the Philippines as options are Canvas, Moodle, Blackboard, and Google Hangouts, Zoom, and Skype. Initao College, however, has utilized the most used social media platform, Facebook, which can even have limited feature access “free data mode” with no cellular load requirement.

Fortunately, all students enrolled in the teacher education program were active Facebook users. The population was primarily divided into online groups and offline groups. Learners from the online group primarily access learning materials from Facebook class groups. On the other hand, although offline learners were also page followers and group members, they have the least access to mobile gadgets and internet connections in their area of residence. Hence, the offline learners were provided printed module kits in their scheduled distribution in their respective areas.

An initial survey was conducted during the student enrollment procedure for the School Year 2020 - 2021 to determine the consensus of the available distance learning resources and connectivity which have determined the most plausible approach in accommodating the needs of students streamed further in two to three learning

categories. The majority of the students of Initao College were found to have limited access to computers or access to the internet due to the varied socioeconomic status of the students in the municipality and neighboring communities, the teacher education department of the institution agreed in consensus, that instructors and students use Facebook and Messenger as the main platform of communication and instruction aside from other existing manners available to the limited number of the department population.

## RESULTS AND DISCUSSION

### 1. Facebook as Learning Management System

**Facebook Page.** A Facebook page was created in July 2020, which has served as the primary source of information and communication for the teacher education community of Initao College. All enrolled students were instructed to like and follow the page to get updated with the latest instruction. The page has primarily served as a venue for general orientation and instruction including redirecting students to all necessary links for specific instructions. General information and announcements such as updates in school activities, institutional or departmental orientation, and promotions are posted in the Facebook page. The page has also served as a help desk to address student concerns about the program and other services of the institution to address relevant concerns.

**Facebook Messenger.** Facebook Messenger has served the main venue for communications. Module activities, questions, individual or group updates were communicated through personal messages and group chats. It has been a useful extended application from Facebook which has given the students and instructors easy access to communication and relevant updates. With the messenger, information or urgent announcement from the block advisers was posted automatically. Furthermore, FB Messenger has a variety of additional features: can also send files or documents, pictures, videos, and use or send a voice message but is limited only to not more than one minute. Lastly, the Messenger

rooms, provide a virtual venue for real-time discussions through video conferencing.

**Facebook Group.** The Facebook group has served as the virtual classroom with a closed-visible setting for privacy consideration. All requests of joining by account names who are included in the official class list for the course were accepted by the instructor as the group administrator.

The following are the useful features of the Facebook group as a virtual classroom:

**Photo.** The photo feature is used as supplementary learning material for instructions that can be graphically expressed in an image layout. In addition, slide presentations of the faculty and students can be converted as an image file and be uploaded for easier access.

**Video.** The video feature is used as another way of providing supplementary learning material. It helps the instructor in giving recorded discussions and other videos from educational sites which are vital in the discussion of the topic.

**File.** The file feature is the most used area in Facebook closed group because instructional materials such as the learning module portable document format, other activity sheets in the e-file version can be posted easily, also allowing the students for easy access to the learning material documents.

**Live.** Facebook live is a feature that provides a very important venue with limited interactive virtual instructional and learning procedures. The instructor can facilitate class discussions, brainstorming, and feedback sessions. Students simply type their comments during the live event, which the instructor and students can see in real-time, and address concerns on spot. Facebook live video can also take the place simultaneously with another video conferencing platform. A video clip can also be created out from the live conducted.

**Poll.** Posting a poll is another good feature that can serve as a feedback tool helping the instructor to collect data consensus from the learner, especially with quick surveys. This feature is also used as a form of interactive motivation prior to the main discussion.

**Q & A.** The Q & A feature is used by the instructor in promoting problem-based activity related to the certain topic being discussed. It also promotes teacher-learner virtual engagement via the comment section.

**Event.** Facebook events allow the instructors to announce e-Learning events and relevant activities to the class who are members of the group. The instructor can post an event photo, share the location, and add keywords to help students find an e-Learning event announcement. Another perk is being able to track audience engagement and promote e-Learning events more effectively.

## 2. Academic Performance of BEEd Students in Aid of Facebook as Primary LMS

It was found out that 96% of the student population of the department primarily use Facebook and Facebook Messenger as the main social media platform. Because of this, the utilization of Facebook as an LMS was made easier, considering the familiarity of the students with the platform. Moreover, the term and semester achievement of online learners were monitored by the department to evaluate the efficacy of the introduced management system.

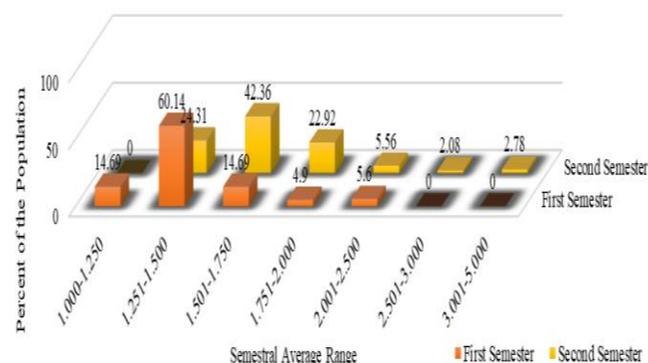


Figure 2. Distribution of Academic Achievement per Semester of Online Learners

The grading system of the institution follows the 1.0 to 5.0 system as mark equivalent of the percent grades, where 75 to 100 percent is expressed in 3.0 to 1.0 with 0.1 inverse increment.



From the figure above, all learners from the first year to the third year during the first semester were mainly distributed to the upper quartile indicating above average participation and performance. In the second semester, however, there is an observable graphical retrograde in the average academic achievement of the online learners which implies a decline in the learners' performance.

On the other hand, promoting connected and continuous learning with Facebook is a choice. School administrators and teachers should consider that unlike before when social media competes with study time in terms of priority, Facebook today has become a powerful tool and has played a big role in the limitations of learning amid the difficulties of distance education. Facebook, which was primarily used as the learning management system of Initao College Elementary Education program, with Page, Group, and Messenger as the utilized key features, has undeniably assisted the continuity of learning to the community with limited access to the internet connectivity.

Conversely, the first new normal academic year has concluded with above-average academic achievement and no online learner dropouts for 144 students in total. Moreover, without fourth-year students due to K12 transition, academic performance and participation in terms of average academic achievement per year level of the first, second-and third-year groups were found out to have no significant variability for two semesters. This was determined using ANOVA for independent measures which revealed that at  $p < 0.05$ , there was no significant variation with  $F(2, 284) = 1.00576$ ,  $p\text{-value} = 0.367065$ . Furthermore, the Post hoc Turkey test also showed that there were no differences between the pairwise comparison of the three-year student groups in the Elementary Education program of A.Y. 2020-2021.

The average achievement of the 144 students of the second semester however, ( $M = 1.72$ ,  $SD = 0.353$ ) compared to the 143 students during the first semester ( $M = 1.46$ ,  $SD = 0.254$ ) has demonstrated a significantly lower average academic semester achievement,  $t\text{-value} = -7.14323$ ,  $p < 0.00001$  at 0.05 significance level.

## CONCLUSIONS

The research findings show that Facebook provides a venue for social interaction and a convenient learning environment. However, although this is the case, there is still a significant decline in terms of student participation and performance in a function of time.

## RECOMMENDATIONS

Promoting connected and continuous learning with Facebook is a choice. School administrators and teachers may consider that unlike before when social media competes with study time in terms of priority, Facebook today has become a powerful tool and has played a big role, given the limitations of learning amid the difficulties of distance education. Hence, these findings have been a very good basis for annual strategic and academic planning for learning management augmentation for the succeeding academic years.

## REFERENCES

- Abu Shawar, B., (2009). *Learning management system and its relationship with knowledge management*. In: Faculty of Computer & Information Science, Ain Sham University, 4th International Conference on Intelligent Computing and Information Systems. Cairo, Egypt
- Bates, A. W. (2005). *Technology, e-learning and distance education*. New York: Routledge
- Baticulon, R. E., Alberto, N. R., Baron, M. B., Mabulay, R. E., Rizada, L. G., Sy, J. J., Tiu, C. J., Clarion, C. A. & Reyes, J. C. (2020). *Barriers to online learning in the time of COVID-19: A national survey of medical students in the Philippines*. medRxiv. doi: 10.1101/2020.07.16.20155747
- Chang, C. L. & Fang, M. (2020). E-Learning and online instructions of higher education during the 2019 novel coronavirus diseases (COVID-19) Epidemic. *Journal of Physics: Conference Series*, 1574, 1-5. doi: 10.1088/1742-6596/1574/1/012166
- Dangle, Y. R. P. & Sumaoang, J. D., (2020). *The implementation of modular distance learning in the Philippine secondary public schools*. 3rd

- International Conference on Advanced Research in Teaching and Education, pp. 100 – 108, Dublin, Republic of Ireland.
- Fallon, C., & Brown, S. (2016). *E-learning standards: a guide to purchasing, developing, and deploying standards-conformant e-Learning*. Florida, USA: CRC Press.
- Gray K. and Tobin J. (2010). *Introducing an online community into a clinical education setting: a pilot study of student and staff engagement and outcomes using blended learning*. BMC Med Educ. 10:6.
- Hobbs, D. (2005). *Understanding learning management systems*. Training and Development in Australia, 14–16.
- Kalelioğlu, F. (2017). *Using facebook as a learning management system: Experiences of pre-service teachers*. *informatics in education*, 16 (1), 83–101. doi:10.15388/infedu.2017.05
- Lonn, S., & Teasley, S. (2009). *Saving time or innovating practice: investigating perceptions and uses of learning management systems*. *Computers & Education*, 53(3), 686-694. doi: 10.1016/j.compedu.2009.04.008.
- Pishva, D., Nishantha, G.G.D. and Dang, H. A. (2010). *A Survey on how blackboard is assisting educational institutions around the world and the future trends*. in: 12th International Conference on Advanced Communication Technology (ICACT). Phoenix Park, Korea, Feb. 7-10, 2010. IEEE.
- Polizzi, G. (2020). *Digital literacy and the national curriculum for England: Learning from how the experts engage with and evaluate online content*. *Comput. Educ.* 152, 103859. [CrossRef]
- Quinones, M. T. (2020, July 3). *DepEd clarifies blended, distance learning modalities for SY 2020- 2021*. *Philippine Information Agency*.: <https://pia.gov.ph/news/articles/1046619>
- Rotas, E. E. & Cahapay, M. B. (2020). Difficulties in remote learning: voices of Philippine university students in the wake of COVID-19 crisis. *Asian Journal of Distance Education*. 15 (2), 147 – 158. 147. doi: 10.5281/zenodo.4299835
- Santos, A. P. (2020, October 6). *In the Philippines, distance learning reveals the digital divide*. <https://eu.boell.org/en/2020/10/06/philippines-distance-learning-reveals-digital-divide>
- Selwyn, N. (2012). *Making sense of young people, education, and digital technology: The role of sociological theory*. *Oxford Review of Education*, 38(1), 81–96.
- Statista Research Department, (2021). *Facebook: number of monthly active users worldwide 2008-2021*. <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>
- Zhu, C. (2012). Student satisfaction, performance, and knowledge construction in online collaborative learning. *Journal of Educational Technology & Society*, 15(1), 127–136

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