A Review of Hybrid Learning Strategies in Asia-Pacific Regions, Europe, USA, Middle East, and the Philippines Between the Years 201-2022

Rina Ramos Palmiano, DPA

* College of Education, Social Science Department, Quezon City University

Abstract- This paper presents a review of studies and works of literature for strategies in hybrid learning in the Asia-Pacific Region, Europe, USA, including the Philippines during the years 2012-2022. The objective of the study was to review, critique, and synthesize the issues and concerns for hybrid learning in different cultures, practices, and levels of technology access to hybrid learning in an integrated way such that new frameworks and perspectives on hybrid learning will be generated. The study was done on Quezon City University's main campus while the face-to-face classes are fully implemented in the College of General Education, particularly in Social Sciences Department. The scope of the study is focused on students' capabilities, and teachers' capabilities, including the level of technology access in hybrid learning.

Index Terms- Flipped classroom, Mathematics Education, Mathematics in the Modern World, Student Achievement

I. INTRODUCTION

The constant change of the current education system in Quezon City University needed to be reviewed and analyzed for its hybrid learning goals as even education sectors nationwide are adapting to the trust of creative innovations towards digitalization of the educational system. From traditional modality to online learning modality, Quezon City University was still adjusting to the continuing demands to modify the ongoing hybrid learning modality as the pandemic period gradually shifted to the endemic period. CHED's Memorandum Order 16, issued on November 11, gives higher education institutions (HEIs) the option to adopt either onsite learning or hybrid learning starting the second semester of the School Year 2022-2023. Specifically, CMO no. 16 SR 2022 stated among other things that pursuant to the pertinent provisions of Republic Act (RA) No. 7722, also known as the "Higher Education Act of 1994," to provide guidance to Higher Education Institutions to implement flexible learning per CMO No.4, series of 2020 the Quezon City University is adherent to this provision being a local university under the regulatory power of CHED.

II. METHODOLOGY

The reason for this review was to determine the issues surrounding the level of preparedness to technology access intended for hybrid learning and to compare the hybrid learning capability in the Asia-Pacific Region, Europe, the United States of America, including the Middle East countries. This study used a descriptive qualitative technique to Categorize, Describe, Analyze, and Interpret the literature reviewed using the technique developed by Saldana (2019), in his book Coding Techniques for Qualitative Researchers**.**

III. RESULTS AND DISCUSSION

According to Eliveria et.al (2019), the effective practice has demonstrated that the best hybrid instruction allows the students to interact with content and engage in learning activities before, during, and after the face-to-face classes. It could be further described as a method of instruction that combines online with face-to-face learning activities that are integrated in a "planned, pedagogically valuable" way and where some of the face-to-face time is replaced by online activities. In a hybrid learning setting particularly in the Philippines, part of the learning activities and assignments are transferred from the face-to-face classroom to the distance learning environment. This argument of Eliveria et.al (2019) implied that the impact of shifting to a Hybrid learning modality from the previous online learning modality brings an idea of a more convenient way of managing face-to-face classes as a result of integrating enabled technology such as the internet connectivity, classroom ready for onsite learning equipped with devices such as camera, microphone, and laptop that makes the teaching and learning process more convenient both for teachers and students. This condition is commonly observed in the College of General Education particularly in Social Sciences Department at Quezon City University respectively. This also lessens the workload of faculty since most of the learning resources are intended for digital operability. In the process, the teachers have more time to

prepare their lesson plans, and more time to check their examinations and laboratory activities. Students also gain leverage and momentum because they optimized their time for making asynchronous workloads and homework. Considering all these advantages the teachers and students elevate their capability to perform in Hybrid learning or face-to-face classes.

Upon implementing a hybrid learning approach, theoretically and practically, students who are well prepared for laboratory classes are more likely to successfully acquire laboratory skills and gain the maximum possible benefit from the laboratory learning environment Gregory et al (2012). To facilitate a more effective and efficient student readiness and improve their learning outcomes, Gregory et al (2012) designed and developed an online resource centre as mentioned in their study. The said resources are utilized by students and teachers in conjunction with traditional resources including the laboratory manual prior to attendance in laboratories. The learning resources package is composed of a series of web-based activities including visual and audio presentations, pre-laboratory questions, and quizzes related to the laboratory activities that the students needed to accomplish. (Kazu et. al, 2022 & Abdelraheem, A. Y. et.al, 2015), To determine how effective the said resources were in facilitating laboratory preparation, students were surveyed both before and after the introduction of the resources. Gregory's (2012) findings revealed that to successfully improve the capacity of second-year students there is a need to prepare relevant and updated materials for laboratories in order to cope up with different learning modalities.

A study conducted by Akgunduz et.al (2017) on The Impact of Blended Learning and Social Media-Supported Learning on the Academic Success and Motivation of the Students in Science Education. Akgunduz et.al (2017) used the mixed pattern method as research model, took place with the 7th grade 74 students attending to a primary school in Kadikoy, Istanbul and carried out "Our Body Systems" unit at 2011-2012 Academic Years. The study groups of the research were; the control group (CG) taught by using the face to face learning, experimental group-1 (EG1) received blended learning model and experimental group-2 (EG2) received social networking supported learning model. Academic success test (AST) and motivation scale for learning science (MSFLS) were used to determine the effects of blended learning and social media supported learning to the students' successes and motivations in science learning. Besides, a semi-structured interview form was applied to experimental group about the methods and the practices. Quantitative data were analyzed by One-Way Anova in SPSS 17 Statistic Program. Descriptive statistical methods were used to analyze the qualitative data. As a result, while blended learning increase academic success and motivation in a meaningful way compared to face-to-face learning; social media supported learning has a positive impact on academic success and motivation, although this change didn't make a significant difference compared with the face-to-face learning. There was also no significant difference between academic success and motivation between blended learning and social media supported

learning. The results of qualitative analysis carried out for student interviews are aligned with the quantitative results.

In Today's world knowledge construction in students can be enhanced by combining technology with the traditional way of lecture delivery. Hybrid learning is a technique which integrates digital media and technology along with face to face classroom activity. It also provides more flexibility for students to customize their learning experiences. Both online and offline would complement each other by using their individual strength. Bhadri et.al (2022) paper presented a Blended learning approach using Modular Object-Oriented Dynamic Learning Environment (Moodle) as Learning Management System (LMS) platform. Asynchronous videos were created in studios using Lightboard and uploaded on LMS and subsequent Synchronous classes were handled using the MS Teams platform. (Unnisa, 2016 & Susithra et.al, 2021), Learners Centric Blended learning model includes interactive videos, Frequently Asked Questions (FAQs), post-tests, additional study materials, Quizzes, Assignment submissions, etc. This paradigm is efficiently employed for all the courses in the university and is illustrated in this paper using the Numerical Methods and Differential Equations (NMDE) course at second Year Biotechnology. An online survey was conducted to understand the assessment of the respondents about the blended learning approach through Learning Management System. The results of feedback revealed that the blended learning approach was more flexible and provided independent opportunities for students to learn. More than 82% of the respondents have given positive feedback towards this digital approach in teaching and learning.

IV. CONCLUSION

Based on the literature reviewed in this documentary, the issues and concerns being experienced by the teachers and students relative to the implementation of Hybrid learning or face to face classes is also being experienced by other schools. Student's capability could surely be enhanced when there is a safe guard like health insurances and continuing adherence to QCU health and safety protocols. It is best to acquire health insurance for the students of Quezon City University now that the face to face learning modality or Hybrid learning is about to end in order to shift in a full face to face classes. This idea is not a unique strategy but advisable to all colleges and universities throughout the country until the learning modality returns to the new normal.

Hybrid learning seeks to find a balance that ensures the best experience for students needs via any possible learning technique. It is important that a teacher requires the students to always bring online devices intended for hybrid learning such as smartphone, iPad, laptop, etc. It is essential that schools should require teachers to supply students with the learning resources package intended for hybrid learning.

In the current setting, the ICT program and the Engineering courses of Quezon City University have better learning resources and technology access package as of yet.

However, with the continuing demands in innovations of Hybrid learning the teachers and students should take their own initiatives to remain updated to the learning tools for Hybrid learning. The best way to design an effective syllabus, the Dean, should call for a faculty meeting to discuss with the course coordinators and Chairpersons including members of the faculty and curriculum planning and development section to discuss what are to be modified in the revisions of Hybrid learning strategies that will meet the highest level of Health and Safety Measures.

REFERENCES

[1] Carlos (2021) Covid-19 vaccine to protect students during F2F classes: Palace. Published by Philippine News Agency, Manila Philippines.

[2] Magsambol (2021) Here's how students can get PhilHealth insurance for face to face classes. Published by Rappler, Manila Philippines.

[3] Oost (2021) What is the difference between hybrid and blended learning?. Published by EIT Digital, Brussels Belgium

[4] Patten (2021) Make Hybrid Teaching Easier: Classroom technology for Hybrid Learning Success. Published by Viewsonic Library, Parmetech Inc.137 West Eagle Road Havertown.

[5] Chu (2020) Hybrid learning: A complete list of Essential Resources. Published by ViewSonic Corporation, United Kingdom, London.

[6] Harden (2023) Hybrid Course Syllabus. Published by The University of North Carolina, USA.

[7] Orren et.al (2022) Scheduling for Schools: Why is it Essential?. Published by Education Advanced, Dallas San Antonio Texas USA.

[8] Gregory et.al (2012) A Blended Learning Approach to Laboratory Preparation. Published by ResearchGate

[9] Eliveria et.al (2019) Investigating student's Engagement in a Hybrid Learning Environment. Published by Materials Science and Engineering.

[10] Ziden et.al (2017) Perceptions and experience in mobile learning via sms. a case ctudy of distance education etudents in a malaysian public university. Published by Int. J. of Interactive Mobile Technologies vol 11 no 1 pp 116-32

[11] Cruz, Carmelita U. (2010), Methods of Research: A simplified approach. Milson's Publishing House, Inc, Cubao Quezon City Philippines.

[12] Calmorin et.al (2010) Thesis Writing and Education Research. Published by Rex Bookstore Inc. Manila Philippines

[13] CHED Memorandum order Series of 2016

[14] CHED Memo Circular NR12 SR 2021

[15] Academic Council Meeting January 9,2023

[16] Kazu İbrahim Yaşar et al. (2022) Investigation of the Effectiveness of Hybrid Learning on Academic Achievement: A Meta-Analysis Study. Published by Firat University, Istanbull, Turkey

[17] Abdelraheem, A. Y. et.al (2015). Effects of activity based blended learning strategy on prospective of teachers' achievement and motivation. Published by Sultan Qaboos University, Oman, Jordan

[18] Akgunduz et.al (2017) The impact of Blended Learning and Social Media-Supported Learning on the Academic Success and Motivation of the Students in Science Education. Published By ResearchGate.

[19] Bhadri et.al (2022) Blended Learning: An effective approach for Online Teaching and Learning. Published by Department of Mathematics, KLE Technological University, Hubballi, Karnataka, India.

[20] Unnisa (2016) Comparative Analysis of Online and Blended Online Learning. Published by Dept. of Electronics and Communication Engineering Hyderabad Institute of Technology and Management, Gowdavelly (V), Medchal(M), Telangana, India.

[21] Susithra et.al (2021) Enriched Blended Learning through Virtual Experience in Microprocessors and Microcontrollers Course. Published by Department of Electronics and Communication Engineering PSG Institute of Technology and Applied Research, Coimbatore, India.

[22] Nisar et.al (2022) A Critical of Hybrid Learning Versus Manual Classroom Learning at Tertiary Level of Education. Published by Research Scholar COMSATS University, Islamabad, Pakistan.

[23] Halilovic et.al (2016) The Hybrid Learning University: Insights, Challenges, and Lessons Learned from Best Practice at Branderburg University of Technology. Publisehd by Brandenburg University of Technology Cottbus-Senftenberg, Germany.

AUTHOR

Correspondence Author – Rina Ramos Palmiano, DPA, Associate Professor I, College of Education, Social Science Department, Quezon City University. Email: rina.ramos66@yahoo.com Mobile number: +639328798226