Higher Education Professors in Blended Learning Modality of Teaching: The Silent Tears of Heroes Towards Resiliency

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Abstract

With the amplified effects of the pandemic, higher academic institutions are forced to embrace blended learning as a modality of teaching. Blended learning has been a modality of teaching for the past decades to address urgency in the educational sector gaining numerous literature that exemplified its effects on the students' academic performance, however, there's no literature that examined the lived experiences of the professors in this modality of teaching. Thus, this study investigated and explicated the lived experiences of higher education professors in the blended learning modality of teaching. With 8 participants, that data was treated utilizing the Interpretative Phenomenological Analysis (IPA) anchored from the Modified Van Kaam Approach popularized by Moustakas. Four emerging core themes were generated such as (Theme 1) pedagogical challenges in delivering quality education, (Theme 2) technical Struggles are real, (Theme 3) potential Health Risk is at stake, and (Theme 4) resiliency is the key. With these emerging core themes, it is clear that although most of the professors are struggling pedagogically and technologically with their health at risk, there are some of them who thrive and gradually dance with the tune of technology. It is recommended that sufficient skill training such as webinars and web talks in manipulating technological tools and online platforms may be provided to all higher education professors.

Keywords: Blended Learning, Pandemic, Pedagogical challenges, Resiliency

Introduction

The world stopped when COVID 19 hit the core of humanity. No one can escape its tremendous effect even in the area of education (Makengo, 2021). UNESCO (2020) declared that 1.4 billion students are forced to stay at home. This resorts to different initiatives and management plans in order to continue quality education (de Bruin et al., 2020). Learning has become flexible without the physical limitation of the brick-and-mortar classroom environment (Sadeghi, 2019; Alawamleh et al., 2020; Williams & Corwith, 2021). The blended learning method which is defined as the combination of online and offline modular learning modalities has gained its popularity during this pandemic (Mishra et al., 2020). Based on the literature, the blended learning modality has already existed even before in order to address urgency in the educational sector (Jena, 2020; Triatmojo & Priyadi, 2021). Further, there are studies that concluded how effective this

modality is among the students. However, there's no study that highlights the lived experiences of our heroes – our professors in this mode of teaching. No one even bothers to ask how are they doing today. With this, the question posed as to how this blended learning modality of teaching impacts the lives of the university professors in maintaining and advancing quality education among the college students despite this unprecedented event.

Blended learning transformed the learning environment of a class (Lapitan et al., 2021). Terry et al. (2018) indicated that the collaboration of administrators, instructors, and professors is required in order to have an effective implementation of the blended learning modality of teaching. Professors' experiences attitudes and beliefs towards blended learning should be the basis for crafting and developing skill training programs (Ibrahim & Nat, 2019; Dziuban et al., 2018). The student's academic performance and utilization of technology are greatly affected by the experiences of instructors in handling blended

learning (Boelens et al., 2018; Baragash & Al-Samarraie, 2018; Medina, 2018). Students become active lifelong learners when the utilization of technology in handling blended learning is properly established. (Al-Samarraie & Saeed, 2018; Serrano et al., 2019; Castro, 2019; Diep et al., 2019). Technology improves the teaching-learning process in a virtual classroom (Shadiev & Yang, 2020; Huang et al., 2019). It is expected that higher education professors are provided with online training such as webinars in order to meet the demands of the 21st-century learners (Sarker et al., 2019; Lim et al., 2019; Kibuku et al., 2019).

It is expected that higher education professors should adopt a blended learning modality of teaching in order to pursue quality education despite the pandemic (Aldosemani et al., 2020). The blended learning modality of teaching is a combination of both online and modular instructions (Morze et al., 2021; Dey & Bandyopadhyay, 2019). Usually, blended learning courses are measured and assessed through their completion rates and program completion (Namyssova et al., 2020; Stein & Graham, 2020). In this new normal, completion rates or graduation rates may be attained but the quality of graduates is still in question (Asarta & Schmidt, 2020). It is expedient that higher education professors are well equipped in terms of differentiated learning activities online that will promote students' holistic development (Dwidedi et al., 2019; Kireev et al., 2019).

Various literature would show that blended learning was widely used even before the pandemic. It is used to address a circumstantial event in the educational sector. Most of the literature is quantitative by nature because it gauges the students' readiness towards blended learning as a modality of instruction (Anthony et al., 2019). However, there's no study or surveyed materials that will talk about the experiences of teachers, instructors, and college professors regarding blended learning (Stein et al., 2020). The main reason relies on the notion that administrators in different academic institutions are expecting teachers, instructors, and college professors to implement blended learning without knowing the knowledge and attitudes of these educators towards technology (Kerzic et al., 2019). The barrier of advancing quality education

is now in the hands of the teachers, instructors, and college professors on how they integrate technology in a blended learning modality of teaching (Previtali & Scarozza, 2019). Teachers, instructors, and college professors may need to do research regarding the different effective strategies in utilizing blended learning so that, they can structure programs that may best incorporate in the online and offline courses (Suartama et al., 2019).

Higher Education professors may find blended learning and integrating technology into the classroom challenging (Rasheed et al., 2020; Namyssova et al., 2019; Castro, 2019) but since it is now compulsory, a necessity, and a requirement, professors need to be flexible. Administrators in different institutions of higher education should recognize the importance of professional development and training programs, technical support, and incentives for faculty to facilitate the process of implementing technology effectively for instruction and learning (Bokolo et al., 2020; Harden & Laidlaw, 2020). Instructors' experiences with the use of technology for instruction and learning affect the implementation process and student satisfaction (Tawafak et al., 2019; Alqurashi, 2019). Understanding instructors' experiences with technology in blended learning courses may benefit administrators, program leaders, and course developers when creating professional development programs (Dos Santos, 2020; Kastner, 2019; Taghizadeh & Hasani, 2020).

Objectives

This study examined and explicated the lived experiences of the higher education professors in a blended learning modality of teaching.

Further, this study delved specifically on the following:
- The challenges and struggles of the professors in utilizing the blended learning modality of teaching;
- The everyday journey and milestone of meeting the students online and offline;
- The different ways of alleviating the circumstances in a blended learning modality of teaching; and
- The meaning of their experiences

Methodology

Research Design

This study is a Phenomenological study utilizing the Interpretative Phenomenological Analysis (IPA) approach. The main essence of this design is to explicate and examine the lived experiences of the research informants which permits the research to get into the innermost deliberation of the participants' lived experiences regarding the phenomenon (Smith, 2011).

Sampling Technique

This study will utilize a purposive sampling technique. The Purposive sampling technique is a nonprobability technique wherein the researcher relies on his own judgment when choosing the participants of the study based from the inclusion criteria. The researcher interviewed 8 informants reaches data saturation following the inclusion criteria in choosing the participants which is stated below in table 1.

Table 1. Inclusion Criteria of Participants

Inclusion Criteria
Participants must be adults (18 years old and above)
Participants can be a male or female
Participants should know how to speak and understand English
Participants should be in a university for more than 5 years as an assistant professor, associate professor, or a full fledge professor
Participants are utilizing the blended learning – online and offline modular learning modality
Participants can be a part time, permanent faculty or visiting professor

Data Collection

The researcher used a semi-structured interview questionnaire as an instrument following the interview protocol. In an IPA, the semi-structured interview is usually used in data gathering because IPA requires a flexible data collection instrument (Smith, 2011). Questions were generated through the funneling technique. The instrument was validated by the experts (Creswell, 2013). The interview was done online individually. Informed consent will be given prior to the start of the interview. All online conversations and recordings will be kept and treated with the highest form of confidentiality and anonymity (Bryman & Bell, 2007). All data being gathered will be analyzed and interpreted using the approach or strategy utilized in this study.

Research Rigor

In order to obtain and sustain the rigor of this research endeavor, the researcher sets two (2) distinct quality criteria discussed by Whittemore et al. (2001), such as (a) Credibility and Authenticity; and (b) Criticality and Integrity.

Ethical Consideration

This study utilized the Bryman and Bell (2007) Ten principles on ethical considerations. The following are the important ethical steps observed when conducting the study: (1) it was evident that the research participants in any ways were not compromised and harmed; (2) the priority of making the participants' respect for the dignity was exemplified; (3) permission from the participants was obtained with no force and intimidation; (4) there was no encroachment of privacy among the participants; (5) the information elicited from the participants were treated and valued with the highest degree of confidentiality; (6) anonymity among the research participants and organizations involved in the research study was observed; (7) it was evident that there was no deception or any form exaggeration in fulfilling the aims and objectives of the current study; (8) the declaration of any partisan from different funding and monetary involvement was boldly stipulated in this manuscript, if applicable; (9) honesty, integrity, and transparency were values used in this research endeavor in communicating, connecting and reaching out the participants in obtaining pertinent data lastly, (10) there was no bias or impartiality in presenting the details of this study.

Data Analysis

This study utilized the Interpretative Phenomenological Analysis (IPA) anchored from the Modified Van Kaam Approach popularized by Moustakas. The 8 key steps are shown in the image below:
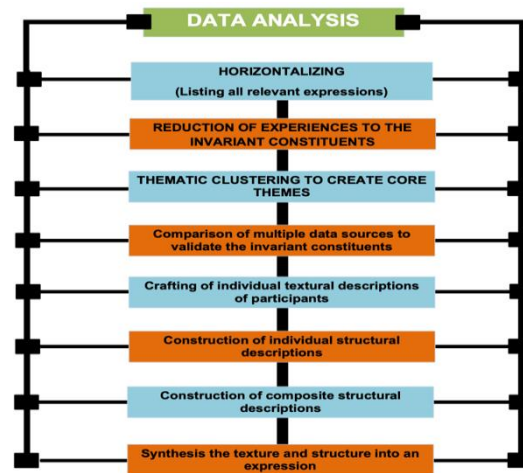
Table 2. The Horizontalization

Horizons	
Professor A	*"I am used of moving or walking around the classroom while I am discussing. In this blended learning, I feel like I am deprived with space."*
Professor B	"I like the online class because I find it convenient and safe relative to the public health crisis that we are experiencing
Professor C	"I am enjoying so far with my experience in teaching online class because of the flexible schedule and environment."
Professor D	"Although there was a training prior to the start of the semester for 3 days, I think it is not enough for me to know everything about this learning modality."
Professor E	"Some of my prepared lessons are not as absorbing and interesting as before."
Professor F	"Sometimes, I may think that having blended learning is way just to comply with the common goal of education for all."
Professor G	"The only negative side of this online class is we are limited to what we can teach more to our students just like in our field, TLE."
Professor H	"I have to learn things especially the google classroom." "I need to be equipped with the necessary skills in manipulating and navigating this online platform of teaching."

Table 3. REDUCTION OF EXPERIENCES TO THE INVARIANT CONSTITUENTS

TEXTURAL LANGUAGE			
Space Deprivation in Teaching	*Satisfaction in Face-To-Face Interaction*	*Lack of Concept Reinforcement*	*Mastery of Manipulating and Navigating Online Platform*
Latency in Message Transmission	*Flexible Schedule and Environment*	*Low Quality Education*	*Modular Readiness*
Less Student's Interaction and Engagement	*Quality Time with The Family*	*For the Sake of Compliance Only*	*Adjustment of Schedules Towards Modular Students*
Intermittent Connectivity Issue	*Practical Experiences in Blended Learning*	*Mediocrity*	*Health Risk in Staying Longer Facing the Computer*

Student's Interaction and Engagement	Economical	Compromised Standards in Education	Turning Difficulties into Opportunities
Flexibility and Adaptability	Efficiency and Technology Exploration	Doubts in Delivering the Lesson	Longer Computer Exposure

Table 4. THEMATIC CLUSTERING TO CREATE CORE THEMES

Core Themes of the Experience	Textural Language
Pedagogical challenges in delivering quality education.	*Less Student's Interaction and Engagement*
	Satisfaction in Face-To-Face Interaction
	Lossing of Excitement to Teach
Technical struggles are real.	*Space Deprivation in Teaching*
	Latency in Message Transmission
	Intermittent Connectivity Issue
Potential health risk is at stake.	*Health Risk in Staying Longer Facing the Computer*
	Longer Computer Exposure
	Body Pain After Online Classes
Resiliency is the key.	*Flexibility and Adaptability*
	Finding Ways and Means to Meet the Ends
	Convenience and Safety

Results and Discussion

After the analysis, there are four emerging themes generated, namely:

Theme 1: Pedagogical challenges in delivering quality education.

Theme 2: Technical Struggles are real.

Theme 3: Potential Health Risk is at stake.

Theme 4: Resiliency is the key.

Each theme is comprehensively discussed with literature incorporating the expressions and quotes from the participants.

Theme 1: Pedagogical challenges in delivering quality education.

Most of the participants would say that students are not taught well in this time of the pandemic - they are not learning (Alvarez, 2020). The main reason of this poor content delivery of instruction is due to how the delivery the content effectively communicated (Ali, 2020). For some professors who are teaching more than 10 to 15 years in the university through face-to-face instruction, online class would a different approach. It is like being in the university in their first year of teaching.

Professor G said that:

"The only negative side of this online class is we are limited to what we can teach more to our students just like in our field, Technology and Livelihood Education (TLE)."

Obviously, professor G is teaching TLE which would like to emphasize the importance of honing one's skills. Indeed, the limitations set in this blended learning posed a great risk for students not to learn practical skills that they should be doing or manipulating such as baking cake and the like. If everything will just be showing videos, presenting a PowerPoint, and sending of soft copy hand-outs, how can they learn to master the skills intended to be honed.

Professor D added,

"This is really a very sad reality and I think that the quality of education is not given to them although I really tried my very best."

Clearly, the statement of Professor D elaborately questioned the quality of education being afforded to the students even if he is doing his best. No matter how loud your voice and how clear it is on your end if the students will just open google classroom with the camera off and the mic muted, you will never know if they're listening or not. Additionally, many of the professors would say that students usually copy and paste their answers from google. They will just pull up their

paraphrasing tool then, after that, they will send it without even reading it. This is indeed a very sad reality.

Professor F stated about the status quo of education and its standard, he said that:

"The standard that we are following is really compromised because I only have a unified style of teaching."

Professors tend to just have a uniform approach or strategy in teaching all the lessons. The different pedagogies in teaching are not being practiced anymore. Showing the PowerPoint presentation while reading it would just be enough. The question, then, posed if this is also enough for the students to learn, stay motivated to listen, and find the meaning of what they are learning.

Professor C concluded that with the effort of continuing and advancing education for all, quality is not maintained and sustained. He said that:

"Sometimes, I may think that having blended learning is way just to comply with the common goal of education for all."

The real battle in this time of pandemic specifically in the area of education is the delivery of instruction which is commonly experienced by the participants. It is manifested that there is really a poor delivery of quality education – less absorption of concepts that need reiteration - brought about by different circumstances. This reality is consciously known by the professors, but do they have a choice? This thought-provoking question is undeniably the reality of this new normal.

Theme 2: Technical Struggles are real.

Most of the participants are really struggling in embracing the advancement of technology. Loague et al. (2018) mentioned that there was an uneven acceptance and adoption of technology not just in the K-12 schools but also in higher education. Findings revealed in the study of Moralista & Oducado (2020) there was a lack of support from the universities and colleges in terms of providing technical assistance and training. It was substantiated in the study of Lederman (2019) that inadequate support of training and skills development towards the integration of technology in instruction leads to limited space for sharing pertinent conceptual information. Ali (2020) proposed that considering the rising concern of the pandemic where education is affected, faculty staff should be aided and provided with the necessary skills and training about technical issues in integrating technology into online classes. Instructors and professors are really struggling in coping with the need to use online resources in teaching. These findings corroborate the struggles of the participants in this study.

Professor A said that:

"I am used to moving or walking around the classroom while I am discussing. In this blended learning, I feel like I am deprived of space."

One of the participants deliberately explained that she is mobile inside the classroom. She likes to roam around and check if all students are listening especially those seating at the back of the corner. However, with this blended learning modality of teaching, she is just sitting all throughout her 8-hour duty. The worse is, in her break, she dedicated it to familiarizing the different tabs and functions of the online platform just to make sure that the next time she will be presenting a PowerPoint or a video, she will not take so much of the time locating what to click. *Showing to our students that we are incapable of doing things gives them an impression that we are not good*, Professor A added.

Professor B shared his sad experience regarding the connectivity issue, he said that:

"W*hen there is a power cut/interruption and intermittent internet connectivity, it worries me most of the time. I feel so helpless when I encounter such situations."*

Connectivity in this country is really bad no matter how fast the speed you subscribed with. Because of this problem, most of the participants are really struggling. They need to repeat what they've said because it was not clear – choppy as they term. They need to refresh the modem. They need to wait for a couple of minutes to back online. When the participants are online, some students will be offline because they also experience the same thing. With this repeated circus of events and circumstances, professors and even the students end up disappointed and frustrated.

Professor D mentioned that:

"I am not used to just talking to the camera while discussing although I know that my students are listening, I don't know if they really understand."

Most of the participants are really forced to learn doing online classes and while they are learning, they are also teaching. Some of them are concerned with the way how they look in the camera. They are thinking if students are taking pictures while they are talking which can be a barrier for a meaningful discussion because of the focus that is already diverted.

One of the participants is worried about the modules. The reproduction, distribution, and retrieval of the modules are said to be very tedious and problematic. Although, some participants find their own prerogative on how to handle this kind of situation still they are having problems communicating with the students under this modality especially those who are living in remote and mountainous areas.

Professor H said that:

"For the modular instruction, I see it as a problem as everyone is not ready even the university, well, actually all of us are not ready for this."

The struggles of the professors in integrating technology in their classes are immeasurable. It underscores the fact that they might have all the necessary knowledge and content of the subject matter, but they are having difficulties in manipulating technological tools because of the lack of skill training because they were not born when Facebook, Instagram, TikTok, Zoom, and Google classroom are already available. Although, they are striving their very best on how to discuss the concepts and teach the subject matter in a way that students learn from it but still the vacant space in their heart as a teacher of reassuring that quality education is advanced would always be an impossible dream.

Theme 3: Potential Health Risk is at stake.

Health risk in an online class is prevalent among all teachers and students. This impacted more the professors who are aging. In the inclusion criteria in selecting the participants, most of the qualified professors have already aged. Some of them were wearing glasses since they have eye problems. Some are very conscious

of their working space at home. Others are alone with their children abroad while others are alone because they are single. Here are their statements regarding how the blended learning modality of teaching challenged their health.

Professor H said that:

"*I have spent so much time on the computer and my head and eyes are not cooperating.*"

Facing the laptop or computer screen for too long would constitute damage in our eyes specifically in our retina which causes eye strain and headache. This experience is not common only to professors who are aging but also to all teachers who dedicate their time preparing for modules, effective assessment tools, and PowerPoint presentations. In the blended learning modality of teaching, all of us have something to offer, something to sacrifice. *We might finish our academic tasks and responsibilities on time, but we also reap health threats,* Professor H added.

Meanwhile, Professor B mentioned the need to survive and thrive despite these challenges. She said that:

"*I am so stressed with this blended learning, but I need to survive and thrive.*"

Professor D also described what kind of life he has when he is teaching online and making the activities to those who are under modular instruction. He said that:

"I stayed in our old wooden chair for more than 8 hours teaching and making the activities."

Professor E added that:

"I always have body aches right every after my sessions with my students."

Professor E made mentioned having body aches every after a day of online classes; this is due to just plainly and literally sitting in a singular position for more than 8 hours – even taking their lunch would just be on their table next to their laptop or computer. Interestingly, these professors with 2-4 classes a day would have an interval of an hour or so, "*I usually dedicate my time learning the mode of teaching when I don't have classes in-between*", Professor E added. They tend to forget time as they are engrossed with different activities to be posted in the google classroom for offline activities. The next time they check their watch is already nighttime.

According to Besser et al. (2020), higher education professors in Israel are prone to health threats when the shifting of teaching and learning modalities was implemented. In Italy, the study of Truzoli et al. (2021) revealed that the usual predictor's basis for satisfaction levels in a blended learning modality are stress and depression. In the Philippine context, the study of Toquero (2020) suggested healthy measures as everyone is faced with the risk of migrating from face-to-face to blended learning modality. These surveyed materials and the statements of the participants of this study constitute a reality that professors' health is at stake.

Theme 4: Resiliency is the key.

In this time of the pandemic, resiliency in every aspect of our lives is very essential (Walsh, 2020). In teaching, some professors practice resiliency - the capacity of recovering from adversities, difficulties, and challenges especially in delivering quality education. They have a view that is different from the usual reactions of other participants. Indeed, everyone is unique - different ways to alleviate circumstances. Pham & Ho (2020) stipulated that some instructors and aging professors who were not proficient in technology were given self-phase tutorials at home. This is a way of adapting to the new normal in Vietnam Higher Education Institutions (HEIs). Abdullah et al. (2020) mentioned that in attaining resiliency in higher education, one must possess adaptability and flexibility in handling technological advancements. Some of the participants in this study are optimistic enough to see the advantages that this pandemic brought to our educational system especially in higher education. Here are some of their statements:

Professor G stated that it was in the middle of the implementation that he was able to slowly adapt the modality of teaching. This means that at first, he was also struggling but the game is not over. He pursued learning how it should be utilized, and he also observed that his students are having the same kind of journey that he experienced. He said that:

"*In the middle of the implementation, I have slowly adapted to the online style and I guess most of my students were able to adjust as well.*"

Professor A said that:

"*My charm and my ways can help me in attending all the expected deliverables.*"

Some participants may think that it's hard to teach online because this is new in the new normal, but others see it as a way for them to exhaust all their resources in order to comply with the deliverables. They set the right mindset.

Professor B expressed that:

"*I am enjoying so far with my experience in teaching the online class because of the flexible schedule and environment.*"

Participants, like professor B, find it very convenient on their part to be in an online class because they are at home. They are safe. They can see and monitor their family. Aside from this, they can set and do other activities prior to their scheduled classes. "*Before I have to take a bath, do some personal hygienic activities because I need to go to school, but right now, I can just wash my face and comb my hair, then, turn the camera on and I can start talking to my students*", Professor B added.

Another positive statement Professor B said that:

"I*t allows me to save time, money, and effort in going to school and in going back home.*"

At some point, staying at home while working is an advantage to our pocket. It allows us not to be tempted to buy things. It can save up liters of gasoline or transportation fees. The effort of traveling and staying on the road for more than 30 minutes for some and hour for the rest because of traffic can now be eradicated. Professors are not traveling from home to school anymore. They are in the comfort zone of their home.

One of the lived experiences of the professors is the brighter side or the silver lining of the situation. With the common notion that everyone has a unique way of coping with this new normal, each one has a different degree of acceptance. Some professors may have bittersweet experiences with online classes, others may learn in a hard way, and there are some who are fortunate enough to dance with the tune of technology.

Conclusion

To be a resilient professor, one must thrive despite the degree of educational

challenges. The silent tears to be endured in the blended learning modality of teaching may not be heard but should be deliberated. The lived experiences of higher education professors were significant in understanding their status quo in this time of pandemic; professors are struggling pedagogically and technologically with their health at risk. In this study, there are four emerging themes elicited from the expressions of the participants which can be a basis for formulating management plans that can alleviate the silent tears of heroes in order to achieve resiliency.

Recommendation

A webinar can be initiated in order to augment the lacking knowledge and scarce expertise of the professors in the higher education institution pertaining to the utilization of the new learning modality of teaching.

References

Abdullah, M., Husin, N. A., & Haider, A. (2020). Development of post-pandemic COVID19 higher education resilience framework in Malaysia. Archives of Business Review–Vol, 8(5).

Al-Samarraie, H., & Saeed, N. (2018). A systematic review of cloud computing tools for collaborative learning: Opportunities and challenges to the blended-learning environment. Computers & Education, 124, 77-91.

Alawamleh, M., Al-Twait, L. M., & Al-Saht, G. R. (2020). The effect of online learning on communication between instructors and students during Covid-19 pandemic. Asian Education and Development Studies.

Aldosemani, T., Shepherd, C. E., & Bolliger, D. U. (2019). Perceptions of instructors teaching in Saudi blended learning environments. TechTrends, 63(3), 341-352.

Ali, W. (2019). The Efficacy of Evolving Technology in Conceptualizing Pedagogy and Practice in Higher Education. Higher Education Studies, 9(2), 81-95.

Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. Higher Education Studies, 10(3), 16-25.

Allen, J., Rowan, L., & Singh, P. (2020). Teaching and teacher education in the time of COVID-19.

Alqurashi, E. (2019). Predicting student satisfaction and perceived learning within online learning environments. Distance Education, 40(1), 133-148.

Alvarez Jr, A. V. (2020). The phenomenon of learning at a distance through emergency remote teaching amidst the pandemic crisis. Asian Journal of Distance Education, 15(1), 144-153.

Anthony, B., Kamaludin, A., Romli, A., Raffei, A. F. M., Abdullah, A., Ming, G. L., ... & Baba, S. (2019). Exploring the role of blended learning for teaching and learning effectiveness in institutions of higher learning: An empirical investigation. Education and Information Technologies, 24(6), 3433-3466.

Asarta, C. J., & Schmidt, J. R. (2020). The effects of online and blended experience on outcomes in a blended learning environment. The Internet and Higher Education, 44, 100708.

Baragash, R. S., & Al-Samarraie, H. (2018). Blended learning: Investigating the influence of engagement in multiple learning delivery modes on students' performance. Telematics and Informatics, 35(7), 2082-2098.

Besser, A., Lotem, S., & Zeigler-Hill, V. (2020). Psychological stress and vocal symptoms among university professors in Israel: implications of the shift to online synchronous teaching during the COVID-19 pandemic. Journal of Voice.

Boelens, R., Voet, M., & De Wever, B. (2018). The design of blended learning in response to student diversity in higher education: Instructors' views and use of differentiated instruction in blended learning. Computers & Education, 120, 197-212.

Bokolo Jr, A., Kamaludin, A., Romli, A., Mat Raffei, A. F., A/L Eh Phon, D. N.,

Abdullah, A., ... & Baba, S. (2020). A managerial perspective on institutions' administration readiness to diffuse blended learning in higher education: Concept and evidence. Journal of Research on Technology in Education, 52(1), 37-64.

Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2020). Mapping research in student engagement and educational technology in higher education: A systematic evidence map. International Journal of Educational Technology in Higher Education, 17(1), 2.

Bordoloi, R., Das, P., & Das, K. (2021). Perception towards online/blended learning at the time of Covid-19 pandemic: an academic analytics in the Indian context. Asian Association of Open Universities Journal.

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., ... & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. Asian Journal of Distance Education, 15(1), 1-126.

Bryman, A., Bell, E., Mills, A. J., & Yue, A. R. (2007). Business research strategies. Business research methods, 226-238.

Cabello, C., Bonotan, A. (2020). Designing and Validating an Instrument to Assess the Wellness of Business Process Outsources' Customer Service Associates. *Asia Pacific Journal for Multidisciplinary Research. 9(1),* 1-11

Castro, R. (2019). Blended learning in higher education: Trends and capabilities. Education and Information Technologies, 24(4), 2523-2546.

Cirrincione, L., Plescia, F., Ledda, C., Rapisarda, V., Martorana, D., Moldovan, R. E., ... & Cannizzaro, E. (2020). COVID-19 pandemic: prevention and protection measures to be adopted at the workplace. Sustainability, 12(9), 3603.

de Bruin, Y. B., Lequarre, A. S., McCourt, J., Clevestig, P., Pigazzani, F., Jeddi, M. Z., ... & Goulart, M. (2020). Initial impacts of global risk mitigation measures taken during the combatting of the COVID-19 pandemic. Safety science, 128, 104773.

Dey, P., & Bandyopadhyay, S. (2019). Blended learning to improve quality of primary education among underprivileged school children in India. Education and Information Technologies, 24(3), 1995-2016.

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. Journal of Educational Technology Systems, 49(1), 5-22.

Diep, A. N., Zhu, C., Cocquyt, C., De Greef, M., Vo, M. H., & Vanwing, T. (2019). Adult Learners' Needs in Online and Blended Learning. Australian Journal of Adult Learning, 59(2), 223-253.

Dos Santos, L. M. (2020). The Motivation and Experience of Distance Learning Engineering Programmes Students: A Study of Non-Traditional, Returning, Evening, and Adult Students. International Journal of Education and Practice, 8(1), 134-148.

Dwivedi, A., Dwivedi, P., Bobek, S., & Zabukovšek, S. S. (2019). Factors affecting students' engagement with online content in blended learning. Kybernetes.

Dziuban, C., Graham, C. R., Moskal, P. D., Norberg, A., & Sicilia, N. (2018). Blended learning: the new normal and emerging technologies. International journal of educational technology in Higher education, 15(1), 1-16.

Eldeeb, S. (2019). An investigation into students' views on blended learning at the English Language Institute in King Abdulaziz University. Arab World English Journal, Special, (1), 164-178.

Harden, R. M., & Laidlaw, J. M. (2020). Essential skills for a medical teacher: an introduction to teaching and learning in medicine. Elsevier Health Sciences.

Huang, R., Spector, J. M., & Yang, J. (2019). Educational Technology a Primer for the 21st Century. Springer.

Ibrahim, M. M., & Nat, M. (2019). Blended learning motivation model for instructors in higher education institutions. International Journal of Educational Technology in Higher Education, 16(1), 1-21.

Jena, P. K. (2020). Impact of pandemic COVID-19 on education in India. International Journal of Current Research (IJCR), 12.

Jowsey, T., Foster, G., Cooper-Ioelu, P., & Jacobs, S. (2020). Blended learning via distance in pre-registration nursing education: A scoping review. Nurse education in practice, 44, 102775.

Kastner, J. (2019). Blended Learning: Moving Beyond the Thread, Quality of Blended Learning and Instructor Experiences.

Keržič, D., Tomaževič, N., Aristovnik, A., & Umek, L. (2019). Exploring critical factors of the perceived usefulness of blended learning for higher education students. PloS one, 14(11), e0223767.

Kibuku, R. N., Ochieng, D. O., & Wausi, A. N. (2020). e-Learning Challenges Faced by Universities in Kenya: A Literature Review. Electronic Journal of e-Learning, 18(2), pp150-161.

Kireev, B., Zhundibayeva, A., & Aktanova, A. (2019). Distance Learning in Higher Education Institutions: Results of an Experiment. Journal of Social Studies Education Research, 10(3), 387-403.

König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. European Journal of Teacher Education, 43(4), 608-622.

Lapitan Jr, L. D., Tiangco, C. E., Sumalinog, D. A. G., Sabarillo, N. S., & Diaz, J. M. (2021). An effective blended online teaching and learning strategy during the COVID-19 pandemic. Education for Chemical Engineers, 35, 116-131.

Lederman, D. (2019). Professors' slow, steady acceptance of online learning: A survey. Inside Higher Ed.

Lim, C. P., Wang, T., & Graham, C. (2019). Driving, sustaining and scaling up blended learning practices in higher education institutions: A proposed framework. Innovation and Education, 1(1), 1-12.

Linkov, I., & Kott, A. (2019). Fundamental concepts of cyber resilience: Introduction and overview. In Cyber resilience of systems and networks (pp. 1-25). Springer, Cham.

Loague, A., Caldwell, N., & Balam, E. (2018). Professors' Attitudes and Perceptions about Technology Use in the Classroom. Alabama Journal of Educational Leadership, 5, 1-11.

Makengo, B. M. (2021). COVID-19's Impacts and the End of Globalization?. Open Journal of Social Sciences, 9(1), 212-233.

Medina, L. C. (2018). Blended learning: Deficits and prospects in higher education. Australasian Journal of Educational Technology, 34(1).

Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. International Journal of Educational Research Open, 1, 100012.

Moralista, R., & Oducado, R. M. (2020). Faculty Perception Toward Online Education in Higher Education During the Coronavirus Disease 19 (COVID-19) Pandemic. Available at SSRN 3636438.

Morze, N., Varchenko-Trotsenko, L., Terletska, T., & Smyrnova-Trybulska, E. (2021, March). Implementation of adaptive learning at higher education institutions by means of Moodle LMS. In Journal of Physics: Conference Series (Vol. 1840, No. 1, p. 012062). IOP Publishing.

Murphy, M. P. (2020). COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. Contemporary Security Policy, 41(3), 492-505.

Namyssova, G., Tussupbekova, G., Helmer, J., Malone, K., Mir, A., & Jonbekova, D. (2019). Challenges and benefits of blended learning in higher education.

Pham, H. H., & Ho, T. T. H. (2020). Toward a 'new normal' with e-learning in Vietnamese higher education during the post COVID-19 pandemic. Higher

Education Research & Development, 39(7), 1327-1331.

Previtali, P., & Scarozza, D. (2019). Blended learning adoption: a case study of one of the oldest universities in Europe. International Journal of Educational Management.

Prifti, R. (2020). Implementation of blended learning in a higher education institution in Albania: an analysis of factors that affect students' learning experience. International Journal of Innovation and Learning, 27(3), 233-253.

Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. Postdigital Science and Education, 2(3), 923-945.

Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. Computers & Education, 144, 103701.

Sá, M. J., & Serpa, S. (2020). The COVID-19 pandemic as an opportunity to foster the sustainable development of teaching in higher education. Sustainability, 12(20), 8525.

Sadeghi, M. (2019). A shift from classroom to distance learning: Advantages and limitations. International Journal of Research in English Education, 4(1), 80-88.

Salmons, J. (2019). Learning to collaborate, collaborating to learn: Engaging students in the classroom and online. Stylus Publishing, LLC.

Sarker, M. F. H., Al Mahmud, R., Islam, M. S., & Islam, M. K. (2019). Use of e-learning at higher educational institutions in Bangladesh. Journal of Applied Research in Higher Education.

Serrano, D. R., Dea-Ayuela, M. A., Gonzalez-Burgos, E., Serrano-Gil, A., & Lalatsa, A. (2019). Technology-enhanced learning in higher education: How to enhance student engagement through blended learning. European Journal of Education, 54(2), 273-286.

Shadiev, R., & Yang, M. (2020). Review of studies on technology-enhanced language learning and teaching. Sustainability, 12(2), 524.

Smith, J. A. (2011). Evaluating the contribution of interpretative phenomenological analysis. Health psychology review, 5(1), 9-27.

Stein, H., Gurevich, I., & Gorev, D. (2020). Integration of technology by novice mathematics teachers–what facilitates such integration and what makes it difficult?. Education and Information Technologies, 25(1), 141-161.

Stein, J., & Graham, C. R. (2020). Essentials for blended learning: A standards-based guide. Routledge.

Suartama, I. K., Setyosari, P., & Ulfa, S. (2019). Development of an Instructional Design Model for Mobile Blended Learning in Higher Education. International Journal of Emerging Technologies in Learning, 14(16).

Taghizadeh, M., & Hasani Yourdshahi, Z. (2020). Integrating technology into young learners' classes: language teachers' perceptions. Computer Assisted Language Learning, 33(8), 982-1006.

Tawafak, R. M., AlSideir, A., Alfarsi, G., Al-Nuaimi, M. N., Malik, S. I., & Jabbar, J. (2019). E-learning vs. traditional learning for learners satisfaction. E-learning, 29(3), 388-397.

Teo, T., Zhou, M., Fan, A. C. W., & Huang, F. (2019). Factors that influence university students' intention to use Moodle: A study in Macau. Educational Technology Research and Development, 67(3), 749-766.

Terry, L., Zafonte, M., & Elliott, S. (2018). Interdisciplinary Professional Learning Communities: Support for Faculty Teaching Blended Learning. International Journal of Teaching and Learning in Higher Education, 30(3), 402-411.

Toquero, C. M. (2020). Challenges and Opportunities for Higher Education Amid the COVID-19 Pandemic: The

Philippine Context. Pedagogical Research, 5(4).

Triatmojo, W., & Priyadi, M. (2021, March). Implementation of Flipped Classroom on Experiences in Online Learning During Pandemic Covid-19 for a Project-Base Vocational Learning Guide. In Journal of Physics: Conference Series (Vol. 1842, No. 1, p. 012019). IOP Publishing.

Waller, R. E., Lemoine, P. A., Mense, E. G., & Richardson, M. D. (2019). Higher education in search of competitive advantage: Globalization, technology and e-learning. International Journal of Advanced Research and Publications, 3(8), 184-190.

Walsh, F. (2020). Loss and resilience in the time of COVID-19: Meaning making, hope, and transcendence. Family process, 59(3), 898-911.

Whittemore, R., Chase, S. K., & Mandle, C. L. (2001). Validity in qualitative research. Qualitative health research, 11(4), 522-537.

Williams, K. M., & Corwith, A. (2021). Beyond Bricks and Mortar: The efficacy of online learning and community-building at College Park Academy during the COVID-19 pandemic. Education and Information Technologies, 1-22.