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(IJEPC)**www.ijepr.com**CHALLENGES WITH ONLINE TEACHING AMONG
LECTURERS DURING A PANDEMIC LOCKDOWN**Rasika Lawrence^{1*}, Uma Devi², Zahid Saaed³, Haslinda Abdullah⁴¹ Faculty of Business, Victoria University of Undergraduate Programme, Sunway College, Kuala Lumpur Malaysia
Email: rasikal@sunway.edu.my² Faculty of Business, Victoria University of Undergraduate Programme, Sunway College, Kuala Lumpur Malaysia
Email: umadeviu@sunway.edu.my³ Faculty of Defence Studies and Management, National Defence University of Malaysia, Kuala Lumpur, Malaysia
Email: zahid3107@gmail.com⁴ Faculty of Graduate School of Business, Nilai University, Negeri Sembilan, Malaysia
Email: drhaslinda@gmail.com

* Corresponding Author

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DOI: 10.35631/IJEPC.1057024**This work is licensed under** [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)**Abstract:**

The teaching and learning system is currently witnessing a complete tremendous shift from face-to-face teaching to online teaching due to a pandemic lockdown that is taking place globally lately. The entire education sector has shifted its teaching and learning to an online mode. While all educational institutions and schools are closed due to the movement control order (MCO), teachers remain accountable for the education of their students to be continued at home. Online teaching has been welcomed highly during this pandemic lockdown whereby it is expected to provide learners with a more self-directed and independent learning experience which is very much required in a highly competitive technology arena. However, despite its acceptance in the education industry, the online teaching approach is not without its challenges. This paper aims to discuss the challenges faced by the lecturers in implementing online teaching during a pandemic lockdown in a private higher education institution in Malaysia. Lectures are selected for data collection purposes for this study. Data was collected through interviews and observations. The findings of this study found that the factors like technology, student-factors, student-lecturer relationship, pre-teaching workload, lecturer's motivation, workspace and facilities, home responsibilities and institutional support have an impact on a lecturer's work performance and work commitment. This study provides a detailed insight into the challenges of online teaching to the Ministry of Higher Education in Malaysia and the academics so that strategies for overcoming the challenges of online teaching can be developed.

Keywords:

Online Teaching & Learning, Pandemic Lockdown, Education Sector

Introduction

Online teaching has become the buzzword in every educationist's mind today. According to Allen & Seaman (2014), online teaching has set a higher demand among higher education institutions since this approach is seen as critical for the future of higher education. Online teaching or known to be as e-learning can be categorized as a form of distance learning. Despite its acceptance in the education industry, the online teaching approach is not without its critics. A recent study conducted by Kebritchi, Lipschuetz & Santiago (2017) outlines the issues and challenges faced by instructors in conducting online teaching, i.e changing role of faculty, transition from face to face to online, time taken to prepare materials and teaching styles differs. According to Brooks (2003), the attitude of instructors is referred to as a major issue affecting online teaching. Meanwhile, Arbaugh (2005) stated that technology and behavioral characteristics of the learners, and the instructor's teaching style are one of the main challenges faced in online teaching. Meanwhile, Jacobs (2014) argued that student assessment is seen as the foremost issue for online teaching. Yueng (2001) stated a few other factors such as instructor and student support, course development, course structure, and how the institution evaluates online learning as the main issues affecting online teaching. According to O'Neill & McMahon (2005), there are some difficulties in its implementation whereby the resources needed to implement online teaching and the readiness of the teacher to have a positive mindset to shift from a traditional teaching method to a more personalized teaching style is also seen as a challenge towards conducting teachings online.

The COVID-19 pandemic, stemming from the novel coronavirus SARS-CoV-2, originated in late 2019 in Wuhan, China, and swiftly propagated globally, exerting its influence upon numerous nations, including Malaysia. The initial recorded cases of COVID-19 within Malaysia surfaced in late January 2020. Profoundly impacting Malaysia's education sector, the pandemic instigated a series of governmental responses aimed at mitigating viral transmission and safeguarding the welfare of students and educational personnel. The impact of this was in March 2020, the Malaysian authorities instituted a comprehensive closure of educational institutions (Ministry of Health Malaysia, 2020), encompassing kindergartens, primary and secondary schools, and tertiary education establishments. This directive, enacted under the aegis of the Movement Control Order (MCO) (Prime Minister's Office Malaysia, 2020), effectively disrupted conventional pedagogical modalities.

Consequent to the cessation of in-person instruction, educational institutions swiftly transitioned to virtual learning platforms to sustain pedagogical continuity (Ministry of Education Malaysia, 2020). However, this transition was not devoid of challenges, particularly concerning access disparities, digital infrastructure limitations, and divergent levels of technological proficiency (United Nations Development Programme Malaysia, 2020). The pandemic precipitated a disruption of standardized testing and examination schedules (Ministry of Education Malaysia, 2020), impinging notably upon nationally administered assessments such as the Sijil Pelajaran Malaysia (SPM) and the Unified Examination Certificate (UEC). To mitigate the ramifications of these disruptions, educational authorities endeavoured to devise

alternative assessment modalities (New Straits Times, 2020), comprising online examinations and revised coursework evaluations. The protracted closure of educational institutions, alongside the concomitant transition to online learning, engendered a milieu conducive to heightened psychosocial distress among students, educators, and caregivers (The Star, 2020). Elevated levels of stress, anxiety, and depressive symptoms were discernible (Ministry of Health Malaysia, 2020), reflective of the exigencies wrought by protracted social isolation and the attendant uncertainties. The transition to online learning underscored pre-existing disparities in access to educational resources and technological infrastructure (World Bank Group, 2020), particularly among marginalized segments of the populace. Notably, students hailing from economically disadvantaged backgrounds or geographically remote locales confronted formidable obstacles impeding their full participation in virtual educational endeavours (Bernama, 2020). To redress these disparities, multifaceted interventions were advocated (Ministry of Communications and Multimedia Malaysia, 2020), including the subsidization of technological devices, the augmentation of digital literacy initiatives, and the expansion of broadband connectivity initiatives to underserved regions. This study provides insights into the challenges with online teaching among lecturers during a pandemic lockdown to the Ministry of Higher Education in Malaysia and the academicians so that strategies for overcoming the challenges faced by academicians in online teaching and learning can be developed.

Literature Review

Over the decades, technology has had a huge impact on its importance globally. According to research conducted by Raja & Nagasubramani (2018), the authors stated that technology plays a crucial role in making our lives easier and has changed the way we live. In today's highly competitive technology arena, the role of educational technology in teaching places greater importance due to the usage of information and communication technologies. Stošić (2015) mentioned that the assistance of various applications for distance learning today has created evidence of educational technology in the education sector. Technology integration has begun within education where technology is widely used in preparing lessons in a more meaningful and relevant way to learners. The usage of technology in education has supported its curriculum aspect rather than trying to dominate it (Ranasinghe & Leisher, 2009).

Indeed, technology is an important component in education sectors today. Many studies have been conducted on technology's usage in the education sector. According to Kurt (2012), technology is used to reform the classroom atmosphere which contributes to the development of higher-order thinking skills in a learner. In line with that, Ranasinghe & Leisher (2009) agrees that technology can motivate and encourage learners to engage in deeper cognitive activity. Keser, Huseyin, & Ozdamli (2011) stated that technology also enhances a learner to participate and collaboration together as a team. However, Radu, Radu & Croitoru (2011) argued that technology can be best suited to develop and improve traditional teaching methods of learning but will not be able to substitute the human touch entirely. Nevertheless, Ranasinghe & Leisher (2009) concluded that teachers are more likely to welcome the usage of technology if they can understand the connection between their work and the tools.

Since computers are still not widely used in many schools, the teaching process is dominated by traditional methods. Education has witnessed a tremendous shift from the traditional learning environment to more digitalized learning with the support of computers today (Richardson and Swan, 2003). The internet-based education has created an opportunity for all

learners to plan their study efficiently from every corner of the globe with the enormous number of courses, seminars, and certificates being offered online. As online learning is progressively becoming extensive, studies show that online learning benefits students in many ways (Christensen et al, 2011). A study conducted by Raffo, Gerbing & Mehta (2014) outlines the benefits of online learning that include effective teaching, easy access to a learning environment, using technology support, cost (use of fewer resources for more learners, reduced need for classroom materials, campus access and accommodation). However, some previous researchers found that some students felt online learning has decreased their involvement towards the course. This is due to an increased demand for computer-based instruction that has controlled and weakened their success towards education (Lowell, 2011). In line with that, Piaciano (2002) & Kum (1999) stated that students have a mixed perception of the usage of technology as part of their learning process. Marzano & Pickering (1997) strongly emphasized that the attitude of a student would have a direct impact towards the learning they achieve.

Online teaching has evolved the way of teaching into a more digitalized learning where technology plays an important role in imparting knowledge to students (Folley, 2010; Dobahue & Glodstein, 2013). Teachers need to understand the different learning styles of students in implementing online teaching. It is essential to recognize how students will perceive knowledge while online teaching is being delivered (Brozik & Zapalska, 2006). Different students have different learning styles and need which remains a challenge for all academics in implementing online teaching (Islam, Beer & Slack, 2015). As a consequence, it is crucial to recognize learning style during the implementation of online teaching as institutions will need to deliver and offer sufficient resources and training to academics to meet the requirements set. Nevertheless, this is time-consuming and costly as a high devoted time and effort are needed. If academics fail to meet the preference, the potential of this online teaching will not be successful and undoubtedly will be the utmost challenge to meet (Islam, Beer & Slack, 2015). The author further explained the major impact of online teaching and learning is that the role of both teacher and students changes significantly. The major impact of the Internet is that the traditional teacher and student roles change significantly. Students assume increasing responsibility for their learning while teachers become resources, facilitators and evaluators, guiding students in their problem-solving efforts. As a learner, the ability to concentrate and to use time well is the key to succeed.

In today's fast-growing academic world, a lecturer's motivation is an important key factor that needs attention. A teacher's motivation plays a crucial role in education as it sets a huge impact on the teaching and learning process. Sinclair (2008) defined a teacher's motivation involves three main factors such as attraction, retention and concentration that control 'what attracts individuals to teaching, how long they remain in their initial teacher education courses and subsequently the teaching profession, and the extent to which they engage with their courses and the teaching profession' (2008, p. 37). Hord (1997) stressed the importance of a teacher's motivation to be an important factor in professional development and change. However, it is never easy for organizations to preserve and maintain a motivated and committed working environment without its challenges. Research conducted by Farid (2011) concludes the factors that affect a teacher's motivation include personal/social factors, classroom environment, socioeconomic status, student behaviour, examination stress, reward/incentives, self-confidence as in the personality of the teacher and many more. Utomo (2018) also added that when a teacher's motivation decreases, they will not be effective in imparting education or teaching effectively. According to Singh & Tiwari (2011), there is a positive relationship

between motivation and job satisfaction. Indeed, motivation is an important factor for teachers as a teacher plays a main role in shaping students for a better future. Motivation is an important element that needs to be given attention to sustain and create a competitive advantage in an organisation, especially in the education sector. Assbeihat (2016) stated that in general, motivation is an important influence to keep employees working together efficiently which could lead to desired performance. Nevertheless, a very minimum number of researches has been commenced that debate academic's viewpoint compared to student's perspective towards online teaching and learning (Islam, Beer & Slack, 2015).

An interactive workspace and facilities are always an ideal requirement for any employee to have. Over the years, the speed changes that took place in information technology have placed a greater influence on workspace work and design. Studies show that with the assistance of IT, work performance in terms of speed, accuracy and workloads shows a positive shift (Riratanaphong, 2006). Changes in information technology have influenced office work and office design. In addition, the development of information technology helps improve work performance in terms of speed, accuracy, and workload. A survey conducted by Huge (2007) indicated that employees believe workspace quality impacts the attitude of an employee and improves the efficiency level. Another survey conducted by Taiwo (2009) emphasized that to have an active working atmosphere, it is essential to create an attractive environment, imaginative and inspired environment, comfortable, pleasing and motivating to employees as this provides an employee to feel proud and have a purpose in what they do. A study by Veitch (2018) stated a more spacious and larger workspace resulted in a lower absenteeism rate amongst the employees, better job performance, highly satisfied, lower turnover and overall contributed to better health conditions. However, the author also further explained that a huge space is not necessary to store materials with the assistance of online document sharing and archiving, but rather a noiseless and silent space to think.

Teaching on the Web is not merely about distance learning. It is a new kind of education and a new way of learning. The teacher has to be available every day. Students expect an instant response. For each course you are teaching, you should expect to spend much more (two to three times) amount of time compared with face-to-face teaching. Online teaching is a new way of imparting knowledge to students. Teachers need to be available every day to deliver teaching and respond to students' needs. However, students demand immediate responses to their enquiries throughout the online learning process. Teachers need to allocate more time compared to traditional teaching methods which are more time-consuming (Arsham, 2002). In today's fast-growing phase, the implementation of online learning plays an important role in teachers delivering lessons effectively to their learners as it concerns the use of information and communication technologies (Zoroja, Skok & Bach, 2014). With the assistance of effective information communication and technology (ICT), educational institutions are at their advantage as ICT is seen as a main support in the teaching and learning process (Omwenga, Waema & Wagacha, 2004). Although there is significant growth witnessed in e-learning, Fetzner (2014) commented that institutional support is critical for online teaching.

To receive a positive outcome for online teaching, every education institution needs to consider the needs, interests and objectives of the faculty. According to research conducted by Kira & Saade (2006), the authors commented that educational institutions have been facing difficulties in catering for the needs of the learners by designing and setting up online learning tools as support to the computer-assisted classroom. Phipps & Merisotis (1999) pointed out future

research should emphasize the collaboration of multiple technologies instead of single technologies since instructors teach a variety of students that have diverse educational needs that come from different backgrounds. Besides, academic staff who are inexperienced in handling online teaching are delaying the entire online teaching process and it is recommended that the staff need wide-ranging skills development to adopt online teaching more smoothly (Ellis, Reilly & Debreceeny, 1998). However, Leask (2004) commented technical skills alone are the main issue that needed attention, but the content designed for online teaching should also be designed suitably fitting by not crushing a huge amount of information onto a website that leads to inefficiency. Chua & Dyson (2004) commented another possible challenge that may be faced during online teaching in terms of technical are bugs, speed, errors, functions and features that may be dysfunctional and not meet the requirements of the academic. In line with that, Reeder et al., (2004) commented that technical errors, bugs and slowness is critical for the usage of academics and this will limit its success in implementing online teaching smoothly. This may even have a negative impact towards online teaching and learning that can have a huge consequence for institutions since they have invested a big chunk in technologies.

However, not only are the technical aspects an issue but content should be appropriately designed for distance learning; it is not simply about “dumping large amounts of text onto a website” as this is inefficient (Leask, 2004: p.347). Chua & Dyson (2004) further added other issues related are not left behind without critiques relevant to the quality of online teaching such as usability, poor performance, institutions not being able to adapt requirements and sometimes being criticized for having a teacher-centred system relatively than learner-centred system. Indeed, with the arrival of online teaching, academicians are fronting challenges in implementing online teaching. Institutional support is critical in providing the assistance and support to deliver effective online teaching. Research indicates that technical aspects are lacking to support academics to attain the desired learning success due to insufficient investment and infrastructure and technological assistance (Reeder et al., 2004).

Organisational performance is crucial in determining independent goals to be achieved (Venkatraman & Ramanujam, 1986). One of the important fundamentals that are measurable is the employee’s performance through the level of their productivity. According to Stephan et. al (2012), performance refers to the expected organizational value of what people do. According to Wong & Wong (2007) & Prajogo (2007), there are numerous approaches used to evaluate an organisation’s performance which include quality, quantity, knowledge or creativity of an individual that is evident towards the achieved task in agreement with the responsibilities outlined.

Specifically, employee engagement at the workplace reflects the dedication given, high focus, passion, and obligation of an individual in giving services to their employer as part of the employment obligation. The terminology of employee engagement is more than a buzzword it has been defined in many different contexts. Employee engagement becomes an emerging topic that has gained wide attention from employers worldwide and the fundamental concept should be understood clearly. Employee commitment or also known to be as employee engagement is an important key factor for any employer to maintain and retain them in a long run in any business. An employee’s commitment to an organisation reflects on factors such as dedication, focus, passion and obligation of an individual in providing their services to their respective employers (Othman & Mahmood, 2019). Commitment can be referred to as psychological

attachment devoted to an organization whereby an employee stretches their faithfulness and trustworthiness to its values and goals (Altun, 2017).

Methodology

This study uses the basic qualitative research design. According to Anas & Ishaq (2022), the qualitative research design concentrates on considering a research question as a humanistic or idealistic approach. The authors further explained the approach is considered to be a more dependable and consistent approach as it is aimed at understanding one's beliefs, experiences, attitudes, behaviour and interactions. As for this study, basic quantitative research and data are collected from lecturers in a selected private higher education through interviews and discussions. This qualitative study was designed following the phenomenological design. According to Abdullah (2019), this analysis mainly emphasizes experiences and interpretations. Lecturers in a private higher institution are chosen as the population of this study. The total population of lecturers in this private higher institution is about four hundred, however, convenience sampling is chosen to select lecturers to be interviewed. According to Etikan, Musa & Alkassim (2016), in most the research area, it would be excellent to use the whole population as a sample size, however in most research, it is not possible to obtain data entirely as the data is almost limited and restricted; hence the convenience sampling is used in most research. A total of 15 lecturers were selected as a sample for this study. Approximately 30 minutes to 45 minutes are utilized for the interview session with the assistance of an audiotape and note-taking manually as well. Upon the completion of the interview process, a summary of the interview is interpreted by the respondents to obtain their confirmation and validity of the information as validity is to ensure the accuracy and truthfulness of the research findings in reflecting the reality of the phenomenon being studied, thus, allows for a confident interpretation of the findings (Braun & Clarke, 2019). Primary data through interviews with 15 respondents until saturation point was gathered and analyzed. Data obtained was analyzed using the analytical induction technique and subsequently categorized into themes to form the findings.

Findings and Discussion & Results

Technology

Technology does have a positive and negative impact on teaching. Based on Raja (2018), the contribution has shifted on how we academics work, teach and share knowledge that is no longer constrained within the four quadrants of a class setting, but to an online setting. Nevertheless, we can't disregard the drawbacks of unprecedented and interrupted connectivity issues. These findings are supported by the world economic forum which highlights the need for countries to shift and move with the times of seamless connectivity.

Student Factors

In a way, student-lecturer factors complement each other as their roles change significantly with online teaching. In line with research conducted by Donahue & Goldstein (2013), the traditional role of a teacher to the facilitator shifts the responsibility to students to take control of their learning. They focus on guiding students to cultivate their key critical thinking.

However, some authors found there is a sense of disengagement by students in online teaching. Students are left unmotivated which decreases their success towards education (Lowell, 2011). To overcome this, Banning (2005) and other researchers propose the embedding of the Socratic

method that focuses on student-oriented learning so students can think independently. Here, the shift is to introduce higher order thinking, of in the now and doing, so students engage more, rather than mere one-way traditional listening. They participate in discussions that allow them to be creative, thus shifting the power dynamics from teacher to student.

Pre-Teaching Workload

Online teaching has been labelled to increase the workload for academics, and this is at par with findings by Horn & Staker (2010). This is concurrent with the findings that state increased workload due to low level of support, and challenges of poor adaptability as the blur in differentiating between work and home life. A case study conducted in an Estonian University by Nandi et al., 2012, validates the workload issues among lecturers.

Lecturer Motivation

Motivation is essential for the success of one's job satisfaction. As the relationship is linear, this is impacted by online teaching supported by Islam, Beer & Slack (2015). This is true as findings indicate lack of motivation impacts the delivery of class, duties and responsibilities of academics. When morale is low, productivity declines and this impacts delivery at the expense of students. This is further validated by research done on academics in the UK, where teachers who are motivated will have an encouraging attitude to enable positive learning outcomes. Volery and Lord (2000).

Workspace & Facilities

The shift to online teaching requires a comfortable workspace and support from facilities. This is not possible when one is favored compared to the other. This is true when lockdowns took place, teachers were pushed to their homes and had to make do with whatever resources they had to ensure the continuity and undisrupted education system. Concurring with the literature highlighted by Veitch (2018), an active environment creates employees a place to perform well, and contributes to overall satisfaction in the delivery of teaching. Organizations realized the need to invest more in infrastructure and technological assistance to ensure the challenges of online teaching are minimized. This research was done by (Nielsen et al., 2011), which supports the literature.

Home Responsibilities, Work Performance and Commitment

The challenges of online teaching are parallel with home responsibilities and have taken a toll on teachers, unable to prioritize responsibilities. This will contribute to their work performance and commitment, where academics are scored based on key performance indicators. This is true as highlighted by Wong & Wong (2007), outlining how job performance is evaluated and supported by Altun (2017) which highlights values and goals are amplified to denote one's commitment. Findings back this literature in pointing out the unbalanced work-life due to the constant juggling of work and home responsibilities. This has contributed to unhealthy lifestyles that have seen a decrease in health and led to danger in social, emotional and spiritual well-being. Further Islam, Beer ann Slack (2015), pointed this disruption leads to poor time management.

Institutional Support

The last area outlined as a challenge in online teaching is institutional support. Academics are assumed to implement online teaching effectively and efficiently using the 'tools' they already own (hardware, software, training and equipment). Supported by Reeder et al., 2004, there is a

lack of support for teachers attaining the desired learning success due to insufficient investment, infrastructure and technological assistance. This point is validated by the issue of workplace and facilities that has been outlined above. The effectiveness of institutional support will be reflected in the return on investment and, thus increases student satisfaction with online learning.

Conclusion

The COVID-19 pandemic has presented numerous challenges for lecturers in transitioning to online teaching during lockdowns. From technical difficulties to maintaining student engagement, educators have had to adapt quickly and creatively to overcome these obstacles and continue delivering quality education in an unprecedented environment. This study mainly contributes to the literature by filling up the gap in the literature review and the body of knowledge regarding online teaching and learning. To the policy maker in private universities, this study should be able to bring an understanding regarding the challenges faced among academicians during a pandemic lockdown approach to the Ministry of higher education to review policy and strategic direction on the use of learning approach. The study should also be able to assist private higher education universities in the use of teaching approaches more effectively and efficiently. An effective teaching approach is essential in shaping the success of future education. Educators need to be trained and willing to adopt and implement the appropriate and state of the art approaches in teaching and learning.

This research only covers the challenges with online teaching among lecturers in Malaysia's higher private education institutions. This could be one of the limitations for the readers if different institutions or industries are being looked at. In addition, this research highlights more the viewpoints of the academicians from the private higher institution industry, which is primarily the lecturers who are engaged in teaching. For future research, a larger number of respondents can be included for different categories of respondents such as students and top management. The research is limited to a qualitative analysis which is to be explored into a quantitative analysis for more in-depth research. An additional limitation of this research is concerning the trustworthiness, reliability and consistency of feedback attained during the interview session. It is doubtful that the respondents would not answer the question sincerely as they would have been reserved, biased, assume or influenced by another in giving a genuine and honest answer. This might affect the accuracy and reliability of the results obtained. More research is needed relating to the learning and teaching approaches in Selected Private Higher Education Institutions. It is highly recommended that future researchers explore the study at a more specific level of the education industry in Malaysia.

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References

- Alam, M. T., & Farid, S. (2011). Factors affecting teachers motivation. *International Journal of Business and Social Science*, 2(1), 298-304. Retrieved from: http://www.ijbssnet.com/journals/Vol._2_No._1%3B_January_2011/30.pdf

- Altun, M. (2017). The effects of teacher commitment on student achievement: A case study in Iraq. *International Journal of Academic Research in Business and Social Sciences*. 7(11), 417-426. Retrieved from: <https://www.researchgate.net/publication/325122709>
- Anas, N., & Ishaq, K. (2022). Qualitative research method in social and behavioural science research. *International Journal of Management, Social Sciences, Peace and Conflict Studies (IJMSSPCS)*, 5(1) March, 2022; p.g. 89- 93; ISSN: 2682-6135
- Arsham, H. (2002). Impact of the Internet on Learning and Teaching. *USDLA Journal*. Retrieved from: https://www.researchgate.net/publication/234635927_Impact_of_the_Internet_on_Learning_and_Teaching
- Bakia, M., Shear, L., Toyoma, Y., & Lassetar, A. (2012). Understanding the implications of online learning for educational productivity. Washington, D.C. Retrieved from: <https://tech.ed.gov/files/2013/10/implications-online-learning.pdf>
- Bernama. (2020). Ensuring inclusive access to education during the COVID-19 pandemic. Retrieved from: <https://www.bernama.com/en/thoughts/news.php?id=1842593>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11:4, 589-597
- Brooks, AM. (2007). it's all about the motivation: factors that influence employee motivation in organizations. PhD diss., University of Tennessee. Retrieved from: [rticle=5926&context=utk_graddiss](https://search.proquest.com/docview/5926?context=utk_graddiss)
- Butorac, ŽM., & Nebic, Z. (2009). Institutional support for e-learning implementation in higher education practice: A case report of University of Rijeka, Croatia. *International Conference on Information Technology Interfaces*, ITI. 479 - 484. Retrieved from: https://www.researchgate.net/publication/224573994_
- Etikan, I., Musa, SA., & Alkassim, RS. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*. Vol 5(1): 1-4
- Fetzner, MJ. (2014). institutional support for online faculty: Expanding the model. Retrieved from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.533.4978&rep=rep1&type=pdf>
- Han, J., Yin, H., & Boylan, M. (2016) Teacher motivation: Definition, research development and implications for teachers, *Cogent Education*, 3:1. Retrieved from: <https://www.tandfonline.com/doi/full/10.1080/2331186X.2016.1217819>
- Islam, N., Beer, M., & Slack, F. (2015). Learning challenges faced by academics in higher education: A literature review. *Journal of Education and Training Studies*. 3. 10.11114/jets.v3i5.947. Retrieved from: https://www.researchgate.net/publication/281767697_E-Learning_Challenges_Faced_by_Academics_in_Higher_Education_A_Literature_Review
- Kebritchi, M., Lipschuetz, A., & Santiago, L. (2017). Issues and challenges for teaching successful online courses in higher education: A literature review. *Journal of Educational Technology Systems*. 46. 4-29. 10.1177/0047239516661713. Retrieved from: <https://www.researchgate.net/publication/319013030>
- Kevin, C. (2014). The positive effects of technology on teaching and student learning. Retrieved from: <https://files.eric.ed.gov/fulltext/ED554557.pdf>
- Keskin, S., & Yurdugul, H. (2019). Factors affecting students' preferences for online and blended learning: Motivational vs. Cognitive. *European Journal of Open, Distance and*

- E-Learning*. 22. 71-85. 10.2478/eurodl-2019-0011. Retrieved from: https://www.researchgate.net/publication/334626343_F
- Kira, D., & Saade, R. (2006). Factors affecting online learning. *IADIS International Conference on Cognition and Exploratory Learning in Digital Ag*. ISBN: 972-8924-22-4. Retrieved from: <https://www.researchgate.net/publication/267692209>
- Makhya, BK., & Ogange, BO. (2012). the effects of institutional support factors on lecturer adoption of elearning at a conventional university. *Journal of Learning for Development*. Vol. 6, No. 1, pp. 64-75. Retrieved from: <https://files.eric.ed.gov/fulltext/EJ1212522.pdf>
- Ministry of Communications and Multimedia Malaysia. (2020). National Fiberisation and Connectivity Plan (NFCP). Retrieved from: <https://www.malaysia.gov.my/portal/content/30736>
- Ministry of Health Malaysia. (2020). COVID-19 Pandemic Guidelines for Educational Institutions. Retrieved From: <https://covid-19.moh.gov.my/garis-panduan/garis-panduan-kkm>
- Muda, I., Rafiki, A., & Harahap, MR. (2014). Factors influencing employees' performance: A study on the Islamic Banks in Indonesia. *International Journal of Business and Social Science*. Vol. 5 No. 2. Retrieved from: http://ijbssnet.com/journals/Vol_5_No_2_February_2014/9.pdf
- Muianga, X., Klomsri, T., Tedre, M., and Mutimucuo, I. (2018). From teacher-oriented to student-centred learning: Developing an ict-supported learning approach at the Eduardo Mondlane University, Mozambique. Retrieved from: <https://files.eric.ed.gov/fulltext/EJ1176163.pdf>
- New Straits Times. (2020). COVID-19 disrupts examination schedules. Retrieved from <https://www.nst.com.my/opinion/columnists/2020/08/615637/education-risk-second-wave>
- Ostinelli, G. (2016). The role of motivation and understanding in the change of teaching practices. *Journal of Inquiry & Action in Education*, 7(2). Retrieved from: <https://files.eric.ed.gov/fulltext/EJ1133404.pdf>
- Othman, SA., & Mahmood, NHN. (2019). Linking employee engagement towards individual work performance through human resource management practice: From high potential employee's perspectives. *Management Science Letters*. 9. 1083-1092. 10.5267/j.msl.2019.3.016. Retrieved from: <https://www.researchgate.net/publication/332456868>
- Raja, R. & Nagasubramani, P.. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*. 3. 33. 10.21839/jaar.2018.v3iS1.165. Retrieved from: https://www.researchgate.net/publication/325086709_Impact_of_modern_technology_in_education
- Ranasinghe, AI., & Leisher, D. (2009). The benefit of integrating technology into the classroom. *International Mathematical Forum*, 4, 2009, no. 40, 1955 – 1961. Retrieved from: <http://m-hikari.com/imf-password2009/37-40-2009/ranasingheIMF37-40-2009.pdf>
- Reevy, Gretchen & Chamberlain, Chris & Stein, Julie. (2014). Identifying collaboration, teamwork, and leadership practices on campus. *Currents in Teaching and Learning*. 6. 4-17. Retrieved from: https://www.researchgate.net/publication/266676537_Identifying_collaboration_team_work_and_leadership_practices_on_campus/citation/download

- Stosic, Lazar. (2015). The importance of educational technology in teaching. *International Journal of Cognitive Research in Science, Engineering and Education (IJCRSEE)*. 3. 111-114. Retrieved from: <https://www.researchgate.net/publication/278848636>
- The Star. (2020). Coping with the mental health impact of COVID-19 in schools. Retrieved from: <https://www.thestar.com.my/news/focus/2021/01/24/help-our-students-help-themselves>
- World Bank Group. (2020). Addressing the digital divide in education during the COVID-19 pandemic. Retrieved from: <https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic>
- Utomo, HB. (2018). Teacher motivation behavior: The importance of personal expectations, need satisfaction, and work climate. *International Journal of Pedagogy and Teacher Education*. 2. 333-341. 10.20961/ijpte.v2i2.24036. Retrieved from: <https://www.researchgate.net/publication/328653863>
- Varma, C. (2018). Importance of employee motivation & job satisfaction for organizational performance. *International Journal of Social Science & Interdisciplinary Research*. ISSN 2277-3630 IJSSIR, Vol. 6 (2). Retrieved from: https://www.researchgate.net/publication/329698335_PERFORMANCE
- Omwenga, El., Waema, E., & Wagacha, Pw. (2004). A model for introducing and implementing e-learning for delivery of educational content within the African context. *African Journal of Sciences and Technology*. 5. 35-48. Retrieved from: <https://www.researchgate.net/publication/309426242>
- Zoroja, J., & Skok, MM., & Bach, MP. (2014). E-Learning implementation in developing countries: Perspectives and obstacles. 10.4018/978-1-4666-5832-5.ch004. Retrieved from: [arning_Implementation_in_Developing_Countries_Perspectives_and_Obstacles](#)