21st Century Skills in Practice: Malaysian Trainee Teachers' Experience at Managing Students' Learning during the Pandemic

Aplikasi Kemahiran Abad Ke-21 dalam Pengurusan Pembelajaran Murid semasa Pandemik: Tinjauan Pengalaman Guru Pelatih

Norhaili Massari[1], Noor Saazai Mat Saad[2], Fariza Puteh-Behak[3], Sakinah Ahmad[4], Hazlina Abdullah[5], Haliza Harun[6], Normazla Ahmad Mahir[7], Suzanah Selamat[8], Hazleena Baharun[9], Maziahtusima Ishak[10]

[1][2][3][4][5][6][7][8][9][10]*Faculty of Major Language Studies, Universiti Sains Islam Malaysia*

Abstract: Teaching practicum is an essential part of teacher-training that provides real classroom engagement for a beginner teacher. It is considered as one of the most critical components of teacher preparation with greatest impact on teacher quality (Mtika, 2011; Zeichner, 2010; Graham, 2006; Tang, 2003) and is significant for the development of their pedagogical skills (Kauffman, 1992). The sudden upsurge of the Covid -19 infections around the world in the first quarter of 2020, witnessed massive closure of schools worldwide in order to contain the spread of the pandemic. This unexpected turn of events had flipped the more traditional face-to-face method of teaching and learning into distance learning that requires 21st. Century technology and skills. This paper explores the experience of a group of trainee teachers from an institute of higher learning in Malaysia, at managing this unprecedented challenge in delivering education remotely via technology. Data were collected from interview and supplemental written records in the form of lesson plans, teaching evidence and online tools employed for the teaching and learning. The findings show that the trainee teachers undergo varied and often challenging experiences in ensuring the continuity of curriculum-based education and the students' progress in learning. Their successes in delivering the lessons amidst the novel encounters are the epitome of resilient and flexible teachers in the making.

Keywords: *21st. Century, Pandemic, Teaching and Learning, Practicum*

Abstrak: *Praktikum adalah satu cabang yang penting dalam latihan keguruan yang memberikan pengalaman penglibatan kelas sebenar untuk seorang guru pelatih. Ia dianggap sebagai salah satu komponen penyediaan guru yang paling kritikal dan memberi impak terbesar terhadap kualiti guru pelatih (Mtika, 2011; Zeichner, 2010; Graham, 2006; Tang, 2003) serta perkembangan kemahiran pedagogi mereka (Kauffman, 1992). Peningkatan jangkitan Covid -19 secara mendadak di seluruh dunia pada suku pertama tahun 2020, menyaksikan penutupan sekolah secara besar-besaran bagi membendung wabak tersebut. Peristiwa yang tidak dijangka ini menjadikan kaedah pengajaran dan pembelajaran konvensional iaitu bersemuka bertukar dengan drastik kepada pembelajaran jarak-jauh yang memerlukan teknologi dan kemahiran abad ke-21. Artikel ini mengupas pengalaman sekumpulan guru pelatih di sebuah institusi pengajian tinggi di Malaysia dalam menguruskan cabaran normal baharu dalam menyampaikan pendidikan jarak-jauh menggunakan teknologi. Data dikumpulkan daripada temubual dan catatan tambahan bertulis berbentuk rancangan pengajaran harian, artifak pengajaran dan platform dalam-talian yang digunakan untuk sesi pengajaran dan pembelajaran. Hasil kajian*

menunjukkan bahawa guru-guru pelatih ini mengalami pelbagai pengalaman yang mencabar dalam memastikan kesinambungan pendidikan berasaskan kurikulum dan kemajuan pelajar dalam pembelajaran tercapai. Kejayaan mereka dalam melaksanakan pengajaran dan pembelajaran di tengah-tengah polemik pandemik ini melambangkan keberhasilan penghayatan ciri-ciri keguruan yang tabah dan fleksibel seperti yang diperlukan di dalam profesion ini.

Kata kunci: *Abad 21, Pandemik, Pengajaran dan Pembelajaran, Praktikum*

Introduction

The year 2020 was dominated by the Covid-19 pandemic with a staggering number of 2.45 million deaths worldwide covering six continents (Elflein, 2021). Many sectors were affected and one that was badly affected was and still is, the education sector. Due to Covid-19, conventional teaching and learning was not an option. The process of teaching and learning must be conducted online. This made the responsibilities of the school management and teachers challenging. Not only that they had to adapt to online teaching, they also had to learn new information and skills as they need to have advanced literacy on the information technology. In other words, teachers are also required to improve their knowledge, competency and attitude towards online teaching and learning.

Malaysia is one of the countries in the world that is also affected by the Covid-19. Due to the increasing number of Covid-19 cases, since March 2020, the government of Malaysia decided to impose the MCO to the whole country. This action is taken by the government in order to break the virus transmission from spreading to many more people and finally make the situation worse.

Due to MCO, schools and universities are among the institutions that are closed for face-to-face teaching and learning and is now conducted online. Fry (2001) defined online learning as the use of the internet and some other important technologies to develop materials for educational purposes, instructional delivery and management of programme. However, without precedent cases as a guide, the effects and changes of conducting online teaching in the time of Covid-19 pandemic is quite a handful to handle for those at schools - school principals, teachers and not to mention trainee teachers. While the conventional face to face classroom is deemed to be a great method in teaching and learning process, now with everything being conducted online, trainee teachers lose their opportunity to the real classroom engagement. This situation has resulted to a lot of challenges - receiving good internet coverage, maintaining the trainee teachers' own motivation as well as their students' motivation, just to name a few.

Literature Review

To meet the challenges of this 21st-century education, teachers need to improve their skills and instructional quality to ensure that student learning outcomes can be achieved (Chavan & Yoshikawa, 2013; Kim, Raza & Seidman, 2019; Pianta et al., 2009). Keeping up with the teaching skills of the 21st century has emerged as a significant global educational challenge (Eastern Washington University, 2018). Teachers need to be lifelong learners who embraced continuous, collaborative, self-directed, active, and proactive learning (Caena & Redecker, 2019; Umi Kalsum, Hutkemri, Suzieleez Syrene, Abd Razak & Riyan Hidayat, 2019; Crick & Wilson, 2005) because like technology, education develops so rapidly where techniques, skills, and technologies become obsolete within a short of time.

The skills framework presented by Dede (2010) outlined the skills needed by teachers in the 21st century, namely critical thinking, problem-solving, creativity, metacognition, communication, digital literacy and technology, civic responsibility, and sensitivity to the global environment. Those skills are essential because they can support the capability of 21st-century learners to have self-directions and the ability to collaborate with various parties (McCoog, 2008), which is in line with the 21st-century educational scenario that promotes globalization and internationalization (Boholano, 2017). No doubt, teachers are urged to act as agents of change to ensure that the learning process can continue while ensuring the well-being of students is not neglected (UNICEF, 2020). Therefore, to build a more resilient teacher workforce, all teachers should be equipped with digital and pedagogical skills (Norezan, Azzlina, Rosilawati &

Siti Fairuz, 2019), amidst their initiatives to adopt online teaching and learning (Nurfaradilla, Hazrati, Siti Nur Diyana & Lilia, 2020) as the online education should be made the way forward (Muhyiddin, 2020).

However, the aspiration does not come without problems. Despite positive findings cited that online teaching helped teachers to be more creative (Kim, 2020; Lin & Zheng, 2015), and also increase their self-efficacy and competence (Woodcock, Sisco & Eady, 2015), there were some who found it uncomfortable to use modern technology in their classrooms. A study by Singh (2016) found teachers were not comfortable in handling modern gadgets and technological devices and the lack of interest in online teaching has also been identified as one of the problems faced by some teachers (Osika, Johnson, & Buteau, 2009). Having said all these, the emergence of Covid-19 has tested the knowledge, skills and also teachers' confidence in online teaching (König, Jäger-Biela & Glutsch, 2020). It is undeniable that teachers faced many difficulties in performing online teaching during Covid-19 (Seema & Nangia, 2020). What about trainee teachers who need to gain teaching skills through the exposure in real classroom engagement? What kind of experience gained through online teaching? Thus, in this article, the authors aim to explore the experiences of a group of trainee teachers from an institute of higher learning in Malaysia, at managing this unprecedented challenge to deliver education remotely via technology. In this small-scale study, the main research questions were:

1. What were the challenges faced by the Malaysian trainee teachers with online learning classes during Movement Control Order (MCO)?

2. How did the Malaysian trainee teachers cope with online learning classes during Movement Control Order (MCO)?

Methodology

This study employs a qualitative approach to data collection. The selection of participants for this study is based on purposive sampling, in which the researcher 'handpicks cases to be included in the study on the basis of their typicality' (Cohen, Manion & Morrison, 2000). The 'typicality' of their selections was due to the fact that all selected participants conducted online teaching, whereby others from their cohort did not. Besides that, these participants experienced teaching online for the first time, and also, teaching for the first time during a pandemic. The six research participants are final semester students of a post-graduate Diploma

in Teaching (Islamic Studies) who have undergone their practicum at selected national schools in Malaysia. To ensure that this study adhere to research ethics, all participants involved gave their consents to participate in this study.

Data for this study was obtained, mainly through an interview, and supplemented by other evidence related to their teaching (daily lesson plans and teaching evidence). The interview was done after the Movement Control Order (MCO) was lifted, while the supplemental evidence was collected during the MCO period (between March and July, 2020). Data was analysed via thematic analysis, in which interview responses from each participant were transcribed and grouped according to the interview protocols. The data went through an iterative process of evaluation through data exploration, coding, reflection and query in order to investigate its interesting themes and emerging themes. Through this rich data, a range of perspectives were identified for coding based on conceptual thematic codes relating to their experiences in the teaching practicum. Input from the interview was also organized and analysed using Nvivo.

Findings and Discussion

The findings show that the trainee teachers had many similar experiences with a few varying ones during their MCO online teaching practicum. Challenges were real but they posed opportunities for the trainee teachers.

Challenges

Managing distance learning during the Covid-19 pandemic proved to be a complex teaching and learning scenario that all teachers, including trainee teachers, had to grapple with. The bigger part of the trainee teachers' experiences deals predominantly with challenges of distance learning via technology.

Inaccessible/Weak Internet Connection and Limited Appliances

Difficulties to access or maintain good internet or wifi connections seem to be among the significant hurdles to online learning both for the trainee teachers and their students. A trainee teacher shared her dilemma caused by weak internet connections, that resulted in misunderstandings by her students and caused disengagements:

If we, the teachers do not answer the students' questions, the students will say that we ignored them

and they no longer want to participate in the online class. There are also those who left the Whatsapp group. Previously, I had classes through the Zoom platform, so maybe at that time, the network access was not very good, so the student's voice was not clear and I could not hear the student's voice (Trainee Teacher C).

Another problem that hampered the process of online teaching and learning is due to limited appliances and digital skills. This was explained by a trainee teacher who mentioned that:

Among the challenges faced during the learning period are internet access, limited use of electronic gadgets among family members, I mean every family has only one smartphone to use as an online learning tool to be shared among the siblings. For example, in the morning, a Form Three brother will use the smartphone. Later, in the evening, my student will use the smartphone for his online class and then followed by his brother as well. …Besides, they [the students] are also inadept at using telecommunication appliances and digital platform like Zoom, Google classroom and others. (Trainee Teacher D)

As experienced first-hand by these trainee teachers, technology can facilitate seamless migration of face-to-face learning to an online platform, provided that firstly, teachers and students are able to access or own the technology appliances needed to operate the system. Secondly, the internet connection exists and is strong enough to secure everybody on the platforms for a quality online experience. Considered as digital natives, it would be unfair to generalize students' technological skills as at par with one another. Students need to be coached systematically on the know-how and use of the platforms, so that they are able to mutually benefit from the online sessions.

Students' Attitude, Interest and Commitment

Apart from the problem of internet connection and appliances, the trainee teachers had to deal with students' behaviours. Managing students' attendance, learning and attitude during online seems to be quite an uphill task to accomplish for these new teachers, as students' motivations fluctuated and trending low. A trainee teacher remarked that:

Students' involvement and commitment for online classes was unsatisfactory because students were not committed in submitting their assignments. Some students had to follow the online classes outside their homes, thus affecting their focus during the online sessions (Trainee Teacher F).

Recollecting the conduct of the online classes as a whole, this trainee teacher summarized the problematics relating to some students' attitude and commitment, that did not contribute positively towards the overall teaching experience:

There are students who do not attend the class, some do not give cooperation, some do not reply messages and so on. When I want to conduct a virtual class using Google Meet, they will give reasons that there is no data or network available, no money to buy prepaid and so on. Some students remained silent, disappeared and did not respond. My doubt is…I see their family background is good, not poor, they wear branded items. But many of my students gave data and money problems as excuses. My school is not located in the countryside or even at an outskirt where there would be internet connection problems. I think my students' excuses were illogical and many gave such reasons. We [teachers] cannot force the students to attend the classes when they give reasons like not having money to buy internet data. (Trainee Teacher A).

Before MCO, these new trainee teachers had just started to adjust to a higher degree of autonomy linked to the traditional physical classroom management. Inevitably, due to the pandemic, they were pulled drastically into a more independent and student-centered pedagogy through online classes. Thus, these trainee teachers faced many constraints in handling students online since the traditional classroom control diminishes in an online or virtual class.

Students' Ability, Discipline and Problems

According to UNESCO (2020), delivering education remotely changes the learning settings, which leads to a physical and psychological separation and distance between teachers and learners, and among peer learners. In this new learning setting, learners gain more autonomy and teachers lose some opportunities for direct control and supervision. The experiences of trainee teachers during this "pandemic" practicum shed some lights on issues relating to these concerns. One teacher trainee remarked the difficulties to ascertain the performance and understanding of the students in an online class:

It is quite difficult for us to evaluate their performance and understanding during this online learning period (Trainee Teacher A).

Another trainee teacher recounted the impact of physical and psychological separation between teachers and students in an online class which affect classroom management and discipline:

From the teacher's perspective, he/she cannot evaluate the students' discipline. The teacher is only

able to present the lessons, if there are lazy students, or students who are not focused, the teacher is not able to reprimand them…I have asked [my students] to [switch]on [their] camera but it is also difficult to ask them to cooperate with me (Trainee Teacher B).

To mitigate these challenging scenarios, and to resolve the issues at hand, supporting and engaging teachers and parents or caregivers to provide regular supervision can help to reduce the sense of distance and disengagement, and manage the rules or disciplines needed for home-based learning (UNESCO, 2020). Reflecting upon these issues, many trainee teachers expressed their preference for the conventional face-to-face interactions that is absent in online classes (students' immediate responses, teacher-student direct interactions and group dynamics):

Having face-to-face meetings is more satisfying for me. This is because, when I give an instruction, I will be able to see the reactions given by my students. In addition, we can also give direct encouragement to students to do the assignments given at the same time (Trainee Teacher C).

Due to no face-to-face meetings, most students do not understand what they are learning. There are also those who are shy to ask. Furthermore, when they do not activate the camera during Google Meet, we [teachers] also wonder if these students really understand [the lesson] or not (Trainee Teacher D).

Online classes are a bit bland. It was as if I was the only one speaking (Trainee Teacher C).

Coping Strategies

School Support

For many trainee teachers, support from the schools in terms of awareness and trainings took place almost immediately. Sharing of knowledge and expertise between teachers also took place as they support one another in ensuring good online teaching and learning can be delivered. These initiatives addressed skills related to digital literacy and technology outlined by Dede (2010) as the critical skills 21st. Century skills teachers need to have, also signifying their civic responsibility towards the field as well. A trainee teacher shared the experience undergoing trainings organized by the school:

We were introduced in advance about this (online class) from ICT (Information, Communication & Technology) teachers… about Google form, Google Meet, the account provided by the Ministry of Education and so on. To some extent, these has added to my knowledge on how to access these applications.

… The school assisted us a lot (Trainee Teacher D).

Schleicher (2020) remarked, "In this crisis, schools need to provide ways for teachers to remain socially close when they are physically distant". The impact of supportive engagements between the formal structure (schools) and the trainee teachers would be very beneficial for the trainees in shaping their current and future views of the profession. Having the opportunities to work closely together with fellow teachers and school administrators to manage teaching and learning during this pandemic might facilitate their navigation into a more positive prospects of professional learning within the teaching field.

Trainee Teachers' Initiatives

Trainee teachers had to speed up their technological savviness for them to embrace the new phenomenon and become fast learners of this novel learning landscape: by acquiring the necessary knowledge and skills critical to their performance in the online classes. To be adept with the 21st. Century technological teaching and learning requirements during this pandemic, these trainee teachers quickly become "life-long learners" (Caena & Redecker, 2019; Umi Kalsum, Hutkemri, Suzieleez Syrene, Abd Razak & Riyan Hidayat, 2019; Crick & Wilson, 2005). One trainee teacher recounted the experience of equipping themselves with the know-how of online teaching and learning; critically thinking what would be beneficial for the students and harnessing their creativity to solve problems relating to online learning and motivation (Dede, 2010) for optimal learning to take place:

As a teacher, we used the time a lot to add knowledge…finding suitable game applications for teaching, exploring the various functions of youtube, listening to presentations from excellent teachers and so on… (Trainee Teacher C).

One trainee teacher remarked:

We [teachers] made various efforts to attract their [the students'] interest. I have also used other platforms such as Prezi, Kahoot and Telegram (Trainee Teacher D).

By harnessing these three critical 21st. Century skills, these trainee teachers are putting their students' learning outcomes as their utmost priority. Thus, these trainee teachers raised "to the challenge to improve their skills and instructional quality" (Chavan & Yoshikawa, 2013; Kim, Raza & Seidman, 2019; Pianta et al., 2009). These unique intent and effort at learning new knowledge and upskilling to provide an optimum teaching and learning experience for their students are very commendable on the part of these trainee teachers.

These efforts would nonetheless "increase their self-efficacy and competence (Woodcock, Sisco & Eady, 2015), bringing them at a higher level of competency in their field.

Conclusion

Schleicher (2020) surmised, "Learning is not a transactional process, where students are passive consumers of content, where schools are service providers and where parents are clients. Learning always happen through interaction and in an environment of well-being and self-efficacy for both learners and teachers". In view of the current pandemic situations worldwide where accessibility of vaccines is low and still at experimental stages, online learning seems to be a practice that would stay. Thus, as suggested by Croft (2002), it is necessary to reconceptualize pedagogical orientations based on contextual realities.

The findings of this study provided testimonies and evidence from real experiences of the trainee teachers on how online learning has shifted the autonomy from the teacher to the students. Pedagogical practices especially a wholesale shift in orientation from teacher-centered to learner-centered, are not only issues for trainee teachers in classrooms; they are also issues for school-curriculum and teacher education (Mtika and Gates, 2010). From this study, the trainee teachers have proved their mettle as they are self-driven to upskill their IT knowledge and performance, used their own resources, and sharing the know-how and expertise with fellow colleagues and teaching community, in order to ensure that the curriculum based-teaching and learning gets to be conducted online and meaningfully for their students. These reflected many elements of the 21st. Century Skills Framework mooted by Dede (2010) needed by teachers; namely, digital literacy, critical thinking, problem-solving, creativity and civic responsibility. The availability of quality technology and appliances for both teachers and students remains a primary concern, as it serves as a gateway to the online class, without which no such learning will take place.

Acknowledgement

References

Berge, Z. (1997). Characteristics of online teaching in post-secondary, formal education. *Educational Technology*, May-June, 35-47.

Boholano, H. B. (2017). Smart social networking: 21st century teaching and learning skills. *Research in Pedagogy*, 7(1), 21-29. doi: 10.17810/2015.45

Caena, F., & Redecker, C. (2019). Aligning teacher competence frameworks to 21st century challenges: The case for the European Digital Competence Framework for Educators (DIGCOMPEDU). *European Journal of Education*, 54(3), 356-369. doi: 10.1111/ejed.12345

Chavan, M., Yoshikawa, H., & al. (2013). *The future of our children: Lifelong, multi-generational learning for sustainable development.* Authored by the Thematic Group on Early Childhood Development, Education and the Transition to Work. U.N. Sustainable Development Solutions Network.

Chin, C. (2020, March 29). Learning musn't stop with Covid-19. The Star. Retrieved from https://www.thestar.com.my/news/education/2020/03/29/learning-mustnt-stop-with-covid-19.

Choi, H. J., & Park, J. (2006). Difficulties that a novice online instructor faced: A case study. *The Quarterly Review of Distance Education, 7,* 317–322.

Crawley, F. E., Fewell, M. D., & Sugar, W. A. (2009). Researcher and researched: The phenomenology of change from face-to-face to online instruction. *Quarterly Review of Distance Education,* 10(2), 165-176. https://www.learntechlib.org/p/103635/.

Crick, R. D., & Wilson, K. (2005). Being a learner: A virtue for the 21st century. *British Journal of Educational Studies*, 53(3), 359-374. https://doi.org/10.1111/j.1467-8527.2005.00300.x

Croft, A. (2002). Singing under a tree: Does oral culture help lower primary teachers be learner-centred? *International Journal of Educational Development*. 22 (3–4): 321–337.

Elflein, J. (2021) Covid-19 deaths worldwide as of

February 19, 2021, by country. Statista. https://www.statista.com/statistics/1093256/novel-coronavirus-2019ncov-deaths-worldwide-by-country/.

Fry, K. (2001). E-learning markets and providers: Some issues and prospects. *Education+ Training* 43 (4/5), 233–239. https://doi.org/10.1108/EUM0000000005484.

Kim, J. (2020). Learning and teaching online during Covid-19: Experiences of student teachers in an early childhood education practicum. *International Journal of Early Childhood*. doi.org/10.1007/s13158-020-00272-6

Kim, S., Raza, M., & Seidman, E. (2019). Improving 21st-century teaching skills: The key to effective 21st century learners. *Research in Comparative & International Education*, 14(1), 99-117. doi.org/10.1177/1745499919829214

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*. doi: 10.1080/02619768.2020.1809650

Lin, C-H., & Zheng, B. (2015). Teaching practices and teacher perceptions in online world language courses. *Journal of Online Learning Research*, 1(3), 275-303.

McCoog, I. J. (2008, November 08). 21st century teaching and learning. http://www.eric.ed.gov/PDFS/ED502607.pdf

Merriam-Webster Online Dictionary. (2020, October 21). Definition of Pandemic. https://www.merriam-webster.com/dictionary/pandemic.

Mtika, P. (2011) Trainee teachers' experiences of teaching practicum: Issues, challenges, and new possibilities. *Africa Education Review*, 8(3), 551-567.

Mtika, P. & Gates, P. (2010). Developing learner-centred education among secondary trainee teachers in Malawi: The dilemma of appropriation and application. *International*

Journal of Educational Development. 30(4): 396–404.

Muhyiddin, Y. (2020, Mei 16). Make online teaching the way forward. https://www.astroawani.com/berita-malaysia/make-online-teaching-the-way-forward-pm-advises-teachers-243238

Norezan, I., Azzlina, A., Rosilawati, S., & Siti Fairuz, D. (2019). Trainee teachers' readiness towards 21St century teaching practices. *Asian Journal of University Education*, 15(1), 1-12.

Nurfaradilla, M. N., Hazrati, H., Siti Nur Diyana, M., & Lilia, H. (2020). Mitigating the COVID-19 pandemic: A snapshot from Malaysia into the coping strategies for pre-service teachers' education. *Journal of Education for Teaching*. doi: 10.1080/02607476.2020.1802582

Osika, E. R., Johnson, R.Y. & Buteau, R. (2009). Factors influencing faculty use of technology in online instruction: A case study. *Online Journal of Distance Learning Administration*, 12(1). https://eric.ed.gov/?id=EJ869270

Pianta, et al. (2009). The effects of preschool education: What we know, how public policy is or is not. Aligned with the evidence base, and what we need to know. *Psychological Science in the Public Interest*, 10(2), 49-88.

Schleicher, A. (2020). How can teachers and school systems respond to the Covid-19 pandemic? Some lessons from Talis. https://www.oecd-forum.org/posts/63740-how-can-teachers-and-school-systems-respond-to-the-covid-19-pandemic-some-lessons-from-talis.

Seema, S., & Nangia, A. (2020). Online teaching during COVID 19: Attitude and challenges faced by school teachers. *International Journal of Disaster Recovery and Business Continuity*, 11(1), 3012-3018.

Singh, G. (2016). Challenges for teachers in the era of e-learning in India. *International Journal of Multidisciplinary & Allied Studies*, 3(2), 14-18. doi: 10.19085/journal.sijmas030201.

Sivan, A. & Chan, D.W.K. (2009). The roles of supervised teaching practicum and peer observation in teacher education in Hong Kong:

Implications for partnership. *Teacher Development*. 13(3): 251–266.

Umi Kalsom, M. S., Hutkemri, Z., Suzieleez Syrene. A. R., Abd Razak, Z., & Riyan Hidayat. (2019). Roles of self-directed learning and social networking sites in lifelong learning. *International Journal of Instruction*, 12(4), 167-182.

UNESCO. (2020, April 23). UNESCO COVID-19 Education response: Education Sector Issue Notes. https://en.unesco.org/covid19/educationrespons e/issuenotes.

UNICEF. (2020, Oct 5). Teachers: Leading in crisis, reimagining the future. https://www.unicef.org/press-releases/teachers-leading-crisis-reimagining-future

United Nation. (2020). Policy brief: Education during COVID-19 and beyond. https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond#:~:text=The%20COVID%2D19%20pa ndemic%20has,190%20countries%20and%20al l%20continents.&text=Education%20is%20not %20only%20a,of%20all%20other%20human% 20rights.

Woodcock, S., Sisco, A., & Eady, M. (2015). The learning experience: Training teachers using online synchronous environments. *Journal of Educational Research and Practice*, 5(1), 21–34.