ASEAN Journal of Open and Distance Learning (AJODL)
https://ajodl.oum.edu.my/
Vol. 13, No. 2, 2021, pp. 76 – 82

The Private Preschool Teachers' Perception of Information and Communications Technology Integration Usefulness in Teaching and Learning During Movement Control Order

Lim Woei Jein[1*] • Aliza Ali[2] • Mahani Abdul Malik[3] • Nurhusna Abdul Malek[4]

[1,2,3,4] Open University Malaysia, Kelana Jaya, 47301 Petaling Jaya, Selangor, Malaysia

***Corresponding author. Email:** jeanielim@oum.edu.my

Article Info:
Received: **14 Oct 2021**; Revised: **21 Apr 2022**; Accepted: **27 May 2022**; Available Online: **27 May 2022**

Abstract

In the 21st century, one of the modern pedagogical approaches is integrating Information and Communication Technology into the early childhood curriculum. Integration is essential in a new trend of early childhood education, particularly when the internet became broadly available in most developed countries. The purpose of this study is to investigate the private preschool teachers' perception of integrating Information and Communication Technology in teaching and learning children during Movement Control Order period in private preschools. This study employed a quantitative approach, and data collection was gathered through the google form survey method. A total of 44 private preschool teachers from private preschools located in the Klang Valley were selected through the snowball sampling technique. The survey was done through questionnaires using a 5-point Likert Scale. Quantitative data collected from the survey were analysed through a descriptive method using the Statistical Package for the Social Science software. The study results indicated that young teachers have a high perception of Information and Communication Technology integration usefulness, whereas senior teachers need to be given courses that will help them be more confident to handle children learning activities using Information and Communication Technology tools during the Movement Control Order. This study also found that a lack of parental support and involvement in carrying out children's learning through technology becomes an obstacle for the teachers to implement their online teaching during the Movement Control Order.

Keywords: *Information and Communication Technology, integration, internet, perception, preschool, teachers*

1. Introduction

The world has been shocked by the Covid-19 pandemic that caused all sectors to become paralysed. The covid-19 pandemic is the biggest threat not only to human health but also affects the socio-economy, including the field of education in almost every country in the world (Lekhraj & Liew, 2020). Many universities, schools, and preschools had to close due to the increasing number of Covid-19 cases. The outbreak of Covid-19 was suddenly thrown to the deep end in deciding to use e-Learning in teaching and learning. The Covid 19 pandemic has forced teachers to use Information and Communication Technology (ICT) as a teaching and learning platform and has become the only option left for preschool teachers. Preschool teachers have resorted to e-learning and integrated ICT to deliver their lessons. With the latest advancement in new communication technologies and the ever-increasing usage in daily life, online learning is seen more and more as the way forward in education that can provide rich, authentic learning that can facilitate children's collaboration (Aldhafeeri & Khan, 2016).

In Malaysia, the Ministry of Education (MoE) is concerned about the quality of the preschool curriculum. MoE has derived a guideline for preschools to incorporate ICT elements in the National Preschool Standard-based Curriculum (NPSC) 2017 as part of the teaching and learning process (MoE, 2017). To continue the teaching and learning during the Movement Control Order (MCO) period, the Ministry of Education created guidelines for public teachers to implement teaching and learning processes during the outbreak (Kelvin & Tan, 2020). Some preschool operators took the opportunity to add a new element to early childhood education to stimulate interest and make teaching and learning more enjoyable. Children learn much more by actively being involved and constructing their knowledge applied not only physically but also mentally in learning activities (Morrison, 2015). Hence, using ICT to deliver learning materials to children should be an active process, with good interactive instructions, collaborative and cooperative learning, control of the learning process, time availability, and a chance to reflect on the learning materials (Ananga, 2020).

2. Literature Review

ICT continues to rise dramatically due to digital technologies' advancement and internet usage in preschool environments (Filzah Zahilah, 2013). Research showed that many young children are exposed to digital technology as young as three-year-old age (Parette, Blum, & Quesenberry, 2013). The need for ICT integration in education is crucial because, with the help of technology, teaching and learning are not only happening in the school environment but also can happen even if teachers and students are physically distant (Ghavifekr et al., 2015). The number of young internet users is increasing dramatically (Filzah Zahilah, 2013). As new technologies become more ubiquitous, it helps people improve their quality of life in personal and professional lives. In the 21st century, one of the modern pedagogical approaches is ICT in the early childhood curriculum. Integration is essential and a new trend in early childhood education, particularly when the internet became broadly available in most developed countries. Therefore, online learning via digital technologies is part of young children's 'multimodal lifeworld'; thus should be contextualized and capitalized to support teachers, parents, and children about how best to utilize digital and online technologies to develop agentic multimodal practices (Dong et al, 2020).

There have been many types of research done by educators, psychologists, and philosophers on how human teach and learn Charanjit Kaur, Nadiah, and Sasigaran (2020) reported that teachers opt for online platforms such as *Google Classes* to post learning materials such as Google Docs, Sheets, Slides, quizzes, and Portable Document Format (PDF) to Google Drive to collaborate with their students. Even though various techniques and approaches are highlighted to ensure that the teaching and learning process becomes more interesting and efficient (Amiruddin, et al., 2014), the concern right now should the quality of online learning and the difficulties in creating an online learning community with a high degree of social presence and engagement (Khurana, 2016). Most of the children experience online learning to reduce the spread of the outbreak especially face-to-face learning cannot be conducted (Gayatri, 2020). However, school children have been affected during MCO including those without easy access to the internet. Dong et al., (2020) reported that the implementation of online learning during the Covid 19 pandemic has been problematic and challenges for the family. As a student participating in the home-learning program, online learning was confusing to adjust to as we had not been prepared through simulations or practices beforehand. Students reported the home-learning program to be even more stressful than regular classrooms. Gayatri (2020) in her study reported that the implementation of home learning has challenged families with young children concerning self-regulation.

Various factors prevent teachers from integrating ICT in their teaching and learning, such as lack of knowledge on handling new technology, lack of technical funds and support from the school, and lack of professional training (Lateh & Muniandy, 2010). Ertmer and Ottenbreit-Leftwich, 2010 reported that teachers feel pressure with this new role of pedagogy and increase their workloads and expectations. Another factor that prevents teachers from integrating ICT is a poor internet connection. Tamin and Mohamad (2020) reported that the main issues implementing online learning were the weak internet connection, insufficiency of technology devices, difficulty using the system and not motivation to join virtual learning due to lack of interaction between teachers and students. However, lockdown did not

become an incentive for teachers to revise their professional experience in the sense of realizing the necessity of acquiring the competencies necessary for organizing effective distance learning for pre-schoolers (Pavlenko & Pavlenko, 2020). Therefore, it is important to have good communication between parents and teachers to support early childhood online learning during the outbreak (Gayatri, 2020).

Specifically, the objective of this study is to determine the preschool teachers' perception of ICT Integration's usefulness in teaching and learning during MCO.

3. Methodology

This study used a quantitative approach, and data collection was gathered through a survey method. A total of 44 preschool teachers from private preschools located in the Klang Valley were selected through snowball sampling. The survey was done through questionnaires using a 5-point Likert Scale. Quantitative data were analysed through a descriptive method using the Statistical Package for The Social Science (SPSS) software. The data were analysed according to their age group, working experience, and academic qualification.

4. Findings

4.1. The preschool teachers' perception of ICT integration usefulness in teaching and learning during MCO according to age.

Figure 1 below showed the teachers' perception of ICT integration usefulness in teaching and learning during MCO according to age. The bar chart illustrated the result based on the mean comparison. The chart showed that teachers aged below 20 and 45 to 49 are not being analysed as there is no respondent from these groups. The data showed that the highest mean of 4.166 is from the age group of 20 to 24. This indicates that the teacher from the age group of 20 to 24 has the highest perception of integration usefulness in teaching and learning during MCO. Results show the lowest mean of 3.654 was from the age group of 35 to 39. It showed that the respondents from this age group have the highest lowest perception of usefulness in teaching and learning during MCO.

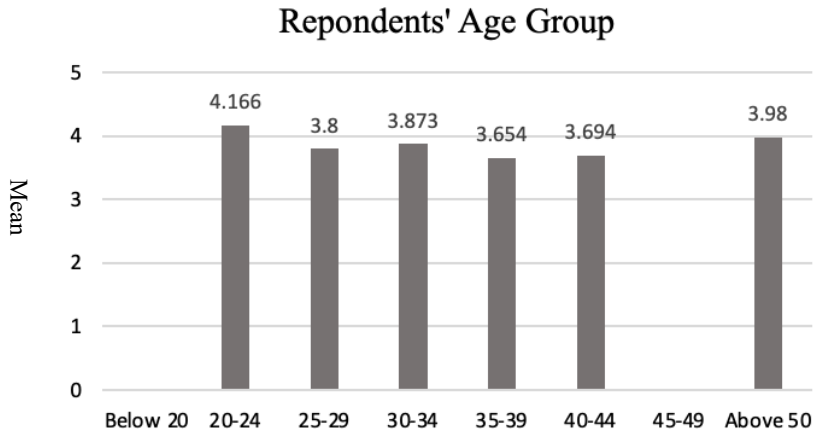

Figure 1. Teachers' perception of ICT integration usefulness in teaching and learning during MCO according to age

4.2. Teachers' perception of ICT integration usefulness in teaching and learning during MCO according to working experience

Figure 2 below showed the teachers' perception of ICT integration usefulness in teaching and learning during MCO according to working experience. The bar chart illustrated the result based on the mean comparison. The highest mean of 4.145 fell on those teachers who have working experience between 1 to 5 years. The lowest perception is those who have working experience of 11 to 15 years. This indicates that teachers who have working experiences of less than 5 years have the highest perception of ICT integration usefulness in teaching and learning during MCO compared to those who have 11 to 15 years of experience in teaching pre-schoolers.

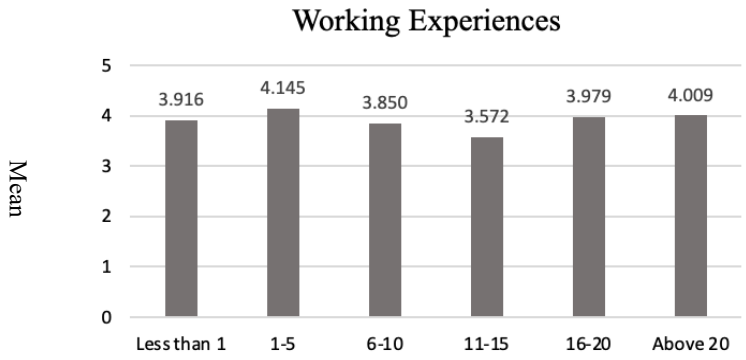

Figure 2. Teachers' perception of ICT integration usefulness in teaching and learning during MCO according to working experience

4.3. Teachers' perception of ICT integration usefulness in teaching and learning during MCO according to academic qualification

Figure 3 below showed that the teachers' perception of ICT integration usefulness in teaching and learning during MCO according to an academic qualification. The bar chart illustrated the result based on the mean comparison. The highest mean of 4.01 for those teachers who were diploma holders followed by teachers with bachelor and master qualifications. Meanwhile, the lowest mean of 3.541 falls under teachers who hold certificate qualifications. The results indicate that the diploma holders have the has the highest perception of ICT integration usefulness in teaching and learning during MCO compared to the certificate holder.

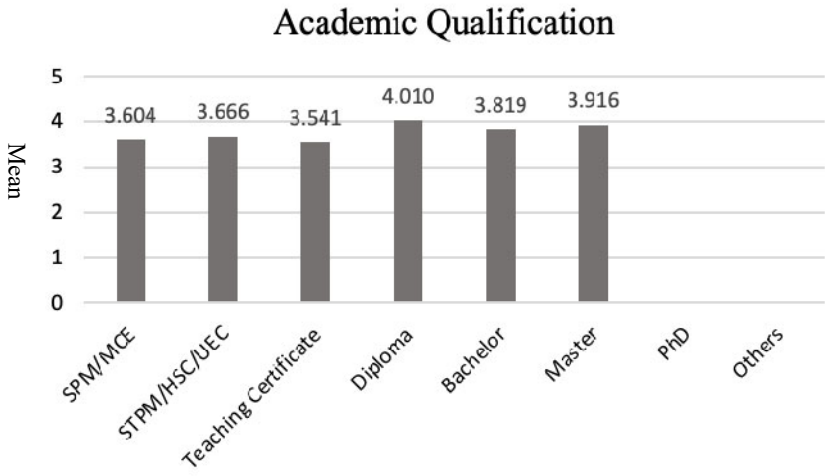

Figure 3. Teachers' Perception of ICT Integration Usefulness in Teaching and Learning during MCO According to Academic Qualification

5. Discussion

The Covid-19 pandemic has impacted the closure of physical classes. Teachers and students learned through online educational technologies (Kelvin & Tan, 2020). Hence, teachers and students were connected through the internet. Online learning becomes an alternative platform for teachers during MCO. Since then, preschool teachers have started to conduct online classes through Zoom, Microsoft Office, and Google Meet. Online learning through devices such as laptops, computers, tablets, and smartphones with internet access becomes alternative learning (Selvanathan, Hussin, & Azazi, 2020). The results of this study show that young teachers aged 20 to 24 have the highest perception of ICT integration usefulness in teaching and learning during MCO compared to the teachers who are older than them. These teachers are considered active ICT users and capable of implementing e-learning during MCO. The respondents were known as generation X or digital natives and ICT is part of their daily lives. Irfan Naufal and Mohd Tarmizi (2015) reported in their study that junior teachers use ICT significantly more frequently than their senior colleagues for teaching and learning, searching educational resources, and creating presentation/delivery materials. Meanwhile, the teachers s who have working experience of less than 5 years and diploma holders have the highest perception of ICT integration usefulness in teaching and learning during MCO compared to those who have 11 to 15 years of experience in teaching pre-schoolers and those who hold other certificates. Although most of the preschool teachers who participated in this study praised the usefulness of teaching and learning during MCO, teachers who are less than 5 years and with diploma holder are young teachers and some children requires attention from young and energetic teachers to keep them busy during online learning. According to Davoud (2015), ICT is experienced as an object for entertaining young children and keeping them busy. In fact, Filzah Zahilah (2013) reported that the number of young internet users is increasing dramatically.

Now it is time for preschools institutions to consider integrating the online learning approach to allow for distance and remote learning. Some serious social distancing during Covid 19 pandemic becomes the children's priority. The preschool teachers to raise awareness of their current teaching pedagogy by integrating ICT into teaching and learning. They need to understand the Developmentally Appropriate Practices (DAP) when integrating the ICT into the curriculum. Most importantly, senior teachers must learn to use the Internet as a learning platform and they must confident in using the ICT as a teaching tool. According to Irfan Naufal and Mohd Tarmizi (2015), senior teachers should be encouraged to use ICT in their teaching and learning activities more frequently so that they will not be left behind in terms of ICT skills. Teachers' lack of training has left teachers not knowing how to implement ICT into their practices (Dong, 2018). Taking part in the ICT training tailored for teachers will help teachers gain concrete ways to use ICT in online distance learning.

6. Conclusion

In conclusion, this study has provided important information about teachers' perception of ICT integration during MCO. The study results indicated that teachers have a high perception of ICT integration's usefulness in teaching and learning during MCO. The study results would help teachers, principals, and preschool operators understand the importance of teachers' perception of implementing ICT and weaknesses that need to be addressed before embarking on any ICT integration in the future**.** Learning can be more effective in several ways and online learning is the best option for teaching and learning during MCO. Preschool teachers regardless of their age, working experience and academic qualification must start to learn innovative online teaching strategies to engage children in learning. Interactive online learning will be able to facilitate children's active participation and engagement even though they are at home. If the views of the respondents are representative of the wider samples, then the finding suggests that senior teachers need to be given courses that will help them be more confident to handle children learning activities using ICT tools. Hence, it is important to train senior and experienced teachers in ICT integration and the online mode of learning. Enforced change in pedagogy after the COVID-19 pandemic and at the same time taking into consideration children's needs, initiatives, and abilities are needed to cater to current needs in learning. Change is all about moving the whole system and taking daily actions that build capacity and ownership (Fullan, 2006). Willingness to learn and change attitudes towards a new method of learning will help improve teacher professionalism. According

to Pavlenko and Pavlenko (2020), it is also important of examining the attitude of teachers to the distance format for assessing the prospects of distance learning for pre-schoolers if the lockdown situation will happen again.

References

Amiruddin, Ahmad Zaki & Hassan, Ahmed & Abdul Rahman, Ahmad & Rahman, Nor & Abu Bakar, Shahriman. (2014). Penggunaan aplikasi atas talian dalam proses pengajaran dan pembelajaran bahasa ketiga: pengenalan kepada quizlet.com.

Aldhafeeri F.M., Khan B.H. (2016). Teachers' and students' views on E-Learning readiness in Kuwait's secondary public schools. *Journal of Educational Technology Systems.* 2016;45(2):202–235. doi: 10.1177/0047239516646747

Ananga, P. (2020). Pedagogical considerations of e-learning in education for development in face of Covid-19. *International Journal of Technology in Education and Science, 4*(4), pp. 310-321.

Charanjit Kaur Swaran Singh, Nadiah Yan Abdullah, Sasigaran Moneyam (2020). Rethinking English language teaching through Telegram, WhatsApp, Google Clsssroom and Zoom Meeting. *Systematic Reviews in Pharmacy.*, pp. 45-54.

Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online learning readiness among university students in Malaysia amidst COVID-19. *ERIC, 16*, pp. 46-58. Retrieved from https://eric.ed.gov/?id=EJ1267359

Davoud, M. (2015). Preschool teachers' use of ICTs: Towards a typology of practice. *Centre for Teaching, Development and Digital Media, Aarhus University, Denmark 6*(1) 5-17

Dong, C. & Cao, S. (2020). Young children's online learning during COVID-19 pandemic: Chinese parents' beliefs and attitudes. *Science Direct Children and Youth Services Review, 18,* 105440

Ertmer, P. A., & Ottenbreit-Leftwich, T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture interact. *Journal of Research on Technology in Education, 42*(3), 255-284. doi:https://doi.org/10.1080/15391523.2010.10782551

Filzah Zahilah Mohamed Zaki. (2013). *ICT and internet usage in early childhood education: A comparative study of Australian and Malaysian teachers' beliefs and current practises.* Masters thesis, Queensland University of Technology, Queensland.

Fullan, M. (2007). *Change theory: A force for school improvement.* Australia: Centre of Strategic Education.

Gaya, M. (2020). The implementation of early childhood education in the Covid-19 pandemic: A systematic review. *Humanities & Social Sciences Reviews,* 8(6), 46-54 Simin Ghavifekr, Wan Athirah Wan Rosdy

Ghavifekr, S., Wan Athirah & Wan Rosdy. (2015). Teaching and learning with technology: Effectiveness of ICT integration in Schools. *ERIC, 1*(2), 175-191.

Gordon, A. M., & Browne, K. W. (2016). Begining essentials in early childhood education. Boston: Cengage Learning.

Irfan Naufal Umar & Mohamad Tarmizi Mohd Yusoff. (2013). A study on Malaysian teachers' level of ICT skills and practices, and its impact on teaching and learning. *Social and Behavioral Sciences, 116*(2014), 984 1877.

Kelvin, Y. K., & Tan, K. H. (2020). ESL teachers' intention in adopting online educational technologies during Covid-19 pandemic. *Journal of Education and e-learning Research, 7*(4), pp. 387-394. doi:10.20448/journal.509.2020.74.387394

Khurana, C. (2016). Exploring the role of multimedia in enhancing social presence in an asynchronous online course. (Doctoral Dissertation). The State University of New Jersey, Rutgers, U.S, Retrieved from https://search-proques com.simsrad.net.ocs.mq.edu.au/docview/1844392065?pq-origsite=primo.

Lateh, H., & Muniandy, V. (2010). ICT implementation among Malaysian schools: GIS, obstacles and opportunities. *Procedia Social and Behavioral Sciences*, 2846-2850.

Lekhraj Rampal & Liew, B.S. (2020). Coronavirus disease (COVID-19) pandemic. *The Medical Journal of Malaysia, 75*(2), 95.

Ministry of Education. (2017). *National Preschool-standard Based Curriculum.* Putrajaya: Curriculum Division Department, MoE. Morrison, G. (2015). Early childhood education today. Boston: Pearson Allyn Bacon Prentice Hall.

Parette, H. P. Blum, C. (2013). Instructional technology in early childhood. Retrieved from http://archive.brookespublishing.com/documents/instructional-technology.pdf

Pavlenko G.V. & Pavlenko. A.I. (2020). Impact of COVID-19 Lockdown on the Readiness of Preschool Educators for Distance Learning. *Advances in Economics, Business and Management Research*, 156

Selvanathan, M., Hussin, N. A., & Azazi, N. A. (2020). Students learning experiences during COVID-19: Work from home period in Malaysian Higher Learning Institutions. Retrieved from https://journals.sagepub.com/doi/full/10.1177/0144739420977900

Tamin, N. H., & Mohamad, M. (2020). Google Classroom for Teaching and Learning in Malaysia Primary School during Movement Control Order (MCO) due to Covid-19 Pandemic: A Literature Review. *International Journal of Multidisciplinary Research and Publications (IJMRAP), 3*(5), 34-37.

Tee, C. M. (2017). Teachers' preception of technology integration in preschool teaching and learning. Master project paper, Cluster of Education and Social Sciences, Open University Malaysia, Kuala Lumpur.