Running Head: TEACHING EXPERIENCE AND ATTITUDE TOWARDS ICT

A Study of Preschool Teachers' Teaching Experience

And Their Attitude Towards Technology Integration

In Teaching Young Children

In Johor

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A Research Project

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Approval Form

This research paper attached here to, entitled "Preschool Teachers' Teaching Experience and Their Attitude Towards Technology Integration" prepared and submitted by Beverly Ong Xin Kai in partial fulfilment of the requirements for the Bachelor of Early Childhood Education (Hons) is hereby accepted.

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Declaration

I declare that the material contained in this paper is the end result of my own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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Abstract

In today's rapidly shifting digital world, technology integration in Early Childhood Education (ECE) has become a critical component of current teaching and learning processes. As technology influences every part of our lives, it provides young learners with the skills and information they need to flourish in a digitally driven environment. Thus, examining preschool teachers' attitudes towards technology integration in relation to their teaching experiences were essentially important since little emphasis given to investigate this topic in local ECE context. Therefore, the purpose of this study is to examine the preschool teachers' attitudes towards the integration of technology in teaching young children and its relationship with years of preschool teachers' teaching experience. This study is quantitative research by using correlational design that applied survey method in which a standardize questionnaires were distributed via Google form to 100 preschool teachers who work in Johor Bahru, Johor to collect data. The findings revealed that the preschool teachers' attitude towards ICT is at the moderate level and there was a significant negative relationship between years of preschool teachers' teaching experience on their attitudes towards the integration of technology in teaching young children (rho= -.880**, N=100, p=<.001). Higher preschool educators' teaching experience lowers their ICT teaching attitude. Conversely, less experience preschool educators are more optimistic towards using ICT to teach children. This study is beneficial for preschool educators, principals and preschool administrators to develop better strategies in integrating technology and provide continuous training to enhance preschool teachers' attitudes and knowledge towards ICT especially with more experience preschool teachers. Future researchers are suggested to have larger sample size and employed random sampling method to increase the reliability of the study.

Keywords: Preschool teachers, teaching experience, attitudes, integration, technology,

young children

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List of Abbreviations

- COVID-19 Coronavirus Disease 2019
- DV Dependent Variable
- ECE Early Childhood Education
- ICT Information and Communications Technology
- IV Independent Variable
- MoE Ministry of Education
- PEOU Perceived Ease of Use
- PU Perceived Usefulness
- rs Spearman Rho Correlation
- TAM Theory Acceptance Model
- TRA Theory of Reasoned Action

Chapter 1

Introduction

Introduction

This study aims to investigate the relationship between preschool teachers' years of teaching experience and their attitudes towards integrating technology into teaching young children. The chapter provides a comprehensive overview, including the background of study, problem statement, research objectives, research questions, research hypotheses, significance of study, and definition of terms, including conceptual and operational definitions.

Background of Study

Technology plays a vital role in education. Technology plays a key role in education in several nations worldwide, including Croatia (Preradović et al., 2017), Taiwan (Chen, 2016), Singapore (Yang et al., 2012), Malaysia (Ministry of Education [MoE], 2012), Greece, and China (Liu et al., 2014).

The integration of technology into daily classroom instruction characterises educational technology integration (Ghavifekr et al., 2016). This integration has various advantages, including improving the learning experiences of children, educators, and institutions, as stated by Poon (2013). This is partly due to technology's ability to give simple access to vast knowledge resources, allowing educators as well as children to broaden their perspectives beyond traditional learning materials.

The integration of technology in early childhood education (ECE) is defined as a dynamic and transforming process aimed at improving learning experiences and meeting the different developmental needs of young children (Palaiologou, 2014). Against the backdrop

of current educational landscapes, there is a distinct trend towards higher employment of technology, indicating early childhood educators' recognition of its ability to deeply engage, inspire, and scaffold preschool-aged children's learning journeys.

Digital storytelling is an excellent example of how technology affects early childhood education (ECE) (Palaiologou, 2014). Traditionally, storytelling has been a hands-on practice; however, technological advancements now enable educators to create these narratives using a variety of digital platforms, applications, and tools, resulting in a more interactive and immersive learning environment for children (Rahiem, 2021).

Technology has emerged as a vital part in early childhood education, considerably assisting educators in various aspects of their work (Kara & Cagiltay, 2017). Initially, its primary function was to assist preschool teachers, particularly in easing administrative tasks like lesson preparation and attendance monitoring. Over time, its function evolved to improve classroom instruction, most notably by using educational movies to create a visually attractive and dynamic learning environment (Garcia, 2021). This instructional technique not only engages young learners, but it also promotes a deeper and more complex grasp of educational subjects (Kewalramani & Sari, 2019). As a result, technology has progressed from a basic administrative tool to an integral part of the teaching and learning paradigm in early childhood education (ECE) settings.

The seamless integration of technology into education relies on teachers' perspectives and attitudes towards its implementation (Akram et al., 2022). Educators that have a positive attitude towards technology are more likely to use its benefits, embracing it as a beneficial tool to enhance their teaching approaches (Akram et al., 2022). This optimistic perspective frequently leads to a stronger willingness to look into and implement various technology solutions, recognising their potential to expedite administrative duties, engage children, and improve the overall learning experience (Manire et al., 2023). Teachers that are sceptical or

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see technology as daunting may avoid using it into their educational practices (Gjelaj et al., 2020). Such reluctance may originate from worries about technical skill, the perceived complexity of technology, or reservations about its efficiency in educational settings. As a result, educators' attitudes about technology have a considerable impact on its use in the classroom, determining the overall impact on teaching methods and student learning results.

The impact of digital devices extends not only to young children but also to early childhood educators who are increasingly immersed in digital environments. The Education Blueprint 2013-2025 was developed by the Ministry of Education in order to improve the quality of education in Malaysia. According to Shift 11 of this strategy, Malaysia aims to integrate ICT into teaching and learning at all educational levels, including preschool. The effective integration of ICT into education necessitates that all teachers possess adequate ICT skills and knowledge (Syed Chear & Md Yunus, 2019).

Furthermore, Nikolopoulou and Gialamas (2015) claimed that teachers' use of technology in preschool classrooms is impacted by demographic characteristics and amount of teaching experience. Educators with substantial teaching experience frequently integrate technology into their educational techniques in a more nuanced and confident manner (Mertala 2019). Experienced educators are more likely to comprehend diverse teaching approaches and see the value of technology in early childhood education (Ruggiero & Mong, 2015). They are more likely to experiment with technology, recognising their effectiveness in engaging young children, expanding teaching tactics, and easing administrative work. In contrast, novice educators face an interesting problem with technology. While children are excited about the possibility for a dynamic and interactive learning environment, their lack of expertise poses obstacles. Novice educator frequently feel unprepared to effectively incorporate technology into their teaching methods. This lack of preparation, along with concerns about managing technology-rich classrooms and potential technological problems,

results in a complicated combination of interest, anxiety, and willingness to learn. According to research, experienced educator are more confident in using technology since they have a thorough grasp of teaching approaches and the special benefits that technology provides in early childhood education (Mertala, 2019). Furthermore, novice educator encounter technology with a unique set of emotions, their perceptions shaped by their level of comfort and exposure throughout training (Bailey, 2023). While some see it as a valuable educational tool, others are intimidated by the complexities of its integration. This lack of confidence highlights the critical need for further assistance and professional development to help inexperienced educators properly integrate technology into their preschool classes (Bailey, 2023).

Hence, this study will investigate the relationship of preschool teachers' teaching experience on their attitudes towards the integration of technology in teaching young children.

Furthermore, new research emphasises the increasingly important function of technology in education, recognising how common it is in everyday life (Alam & Mohanty, 2023). Notably, technology has immense potential to improve academic achievements, including among young children. Francis (2017) claims it has the potential to significantly improve children engagement, whereas Lilly (2014) emphasises its ability to foster creative expression in early childhood settings. To fully grasp the prospect of technology in early childhood education, educators must strategically integrate it into the classroom (Md Nazirul et al., 2019). However, Johnson et al. (2019) identify a practice gap in the intentional incorporation of technology into pedagogical activities in early childhood education. This highlights the critical need for seamless technological integration in early childhood education.

education is critical to closing this practice gap and providing young learners with necessary skills for success in an increasingly digital society.

Problem statement

The educational landscape has changed dramatically as a result of technological advancements. In 2020, the government issued Movement Control Orders (MCO), forcing the shutdown of various sectors and prompting a shift to online operations. The major goal of these interventions was to reduce the spread of COVID-19 in Malaysia (Umair et al., 2020). This resulted in a rapid shift to online operations to ensure ongoing learning (Xiu Min et al., 2021). This transformation influenced educators at all levels which including preschool education, leading them to adopt online teaching methodologies (Turnbull et al., 2021). Regardless of their expertise, educators were expected to embrace online teaching methods, including video conferencing platforms, learning management systems, and collaboration tools. This move necessitated not just fast changes in teaching methodologies, but also highlighted the critical role of technology in maintaining education during difficult times. As technology remains crucial to education, educators confront the continual difficulty of incorporating digital technologies into their educational practices, as seen during the pandemic when preschool teachers depended on online ways to transmit knowledge to young children.

As a result, this drastic change has dramatically transformed the landscape of early childhood education. Traditionally, early childhood education has emphasised hands-on, play-based learning methodologies. However, the Movement Control Orders have forced a shift from this traditional structure, bringing in a new way of learning for young children. In preschool settings, educators may face opposition to using technology into their educational techniques (Ali et al., 2022). This resistance is generally due to a preference for hands-on or

tactile learning experiences over regular involvement with digital platforms. As a result, the necessity to integrate technology into teaching techniques has raised significant concerns and obstacles, particularly among preschool educators.

The transition of the use of technology in preschool setting

The integration of technology has developed considerably since the beginning of the Covid-19 epidemic (Tamin & Maslawati, 2020), notably in the educational sphere. Reflecting on the stormy events of 2020, the educational industry witnessed a significant shift towards online learning at all levels of schooling, including preschool. As a result, early childhood educators have to alter their teaching methodologies, embracing technology to support successful engagement and learning outcomes for preschoolers.

As technology continues to penetrate preschool education, concerns emerge about teachers preparation and ability to adapt to new innovations. The Covid-19 epidemic has highlighted the importance for educators to have enough technology proficiency in their educational activities. Ali et al. (2022) emphasise the inequalities in educators' readiness to incorporate technology into their educational practices, regardless of their attitudes or background. This emphasises the prevalent need for educators to learn the skills required for effective technology integration. Furthermore, research suggests that educators who are used to conventional hands-on teaching techniques may struggle to effortlessly integrate technology (Arumugam et al., 2021). This paradigm shift raises concerns about educators' ability to navigate and leverage technology in the preschool setting (Dazuka et al., 2023), emphasising the critical need for supportive measures and comprehensive training initiatives to facilitate the seamless integration of technological tools into educational practices (Izhar et al., 2021). As a result, this concern requires scientific investigation to get insights into teachers' attitudes towards technology.

A thorough investigation of teachers' attitudes towards technology in preschool education is required due to the direct implications for incorporating these tools into the educational setting. Teachers' attitudes influence their willingness to embrace technology, experiment with new instructional methods, and change their teaching strategies (Wen & Hua, 2020). A scientific inquiry into teacher attitudes can reveal the underlying factors that contribute to resistance or openness to technological advancements. By examining their perceptions, preferences, and concerns, the study can identify specific areas that require targeted interventions, thereby informing the development of tailored training programmes and supportive measures. Finally, This research undertaking has the potential to lead the creation of policies that not only address practical obstacles, but also create the cultural transformations essential for successful technology integration in preschool education.

The effectiveness of technology is heavily dependent on people's attitudes towards its adoption (Nordlöf et al., 2017). People's perceptions and interactions with technology have a significant impact on their daily lives. Positive attitudes frequently correlate with more efficient use of technological tools, which promotes innovation and improves overall outcomes (Kamble et al., 2019). In conversely, individuals who hold negative attitudes towards technology are less likely to adopt it (Kamble et al., 2019). This negative attitudes may stem from factors such as unfamiliarity, discomfort, or scepticism about its efficacy (Prasad et al., 2018). This reluctance to embrace technology may result in missed opportunities for learning, collaboration, and operational optimisation.

Furthermore, gender, age, ethnicity, and educational attainment can all influence preschool educators' attitudes towards technology use (Alotaibi, 2023). These demographic variables may influence educators' comfort levels, prior experiences, and beliefs about integrating technology into early childhood education. For example, younger educators may be more familiar and confident with technology, whereas differences in educational

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backgrounds and cultural perspectives may influence readiness to adopt technological innovations (Tajuddin & Bakar, 2023). Recognising and addressing these background factors is critical for developing tailored training initiatives and support structures, ensuring that preschool educators can navigate and adopt technology in a way that respects their diverse backgrounds and perspectives.

Despite extensive research into the impact of various background factors such as gender, age, ethnicity, and educational level on preschool educators' attitudes towards technology, teaching experience remains a relatively underexplored aspect in existing literature. For example, Islahi and Nasrin (2019) discovered gender differences in technology integration attitudes, with males having more optimistic outlooks than females. Similarly, Ali et al. (2022) found a positive correlation between younger age among preschool teachers and a greater proclivity for technology integration in the classroom. Furthermore, studies have shown that technology usage varies by ethnic group, with Malay educators demonstrating the highest levels of integration compared to their Chinese and Indian counterparts (Kamaruddin et al., 2018). Furthermore, Tang and Chaw (2016) found that people with higher educational attainment use technology more effectively than those with lower levels of education. Despite extensive research, the role of teaching experience remains unexplored. As a result, the purpose of this study is to investigate the relationship between preschool teachers' years of teaching experience and their attitudes towards using technology to teach young children.

In addition, existing research primarily focuses on primary and secondary education settings. For example, Asbulah et al. (2022) look into teachers' attitudes in Malaysian primary schools, whereas Cheok et al. (2017) look into teachers' perceptions in secondary schools throughout Malaysia. As a result, this study aims to close a gap by investigating the

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impact of preschool educators' teaching experience on their attitudes towards technology integration in the Malaysian educational context.

Research Objectives

- 1. To identify the preschool teachers' attitudes towards the integration of technology in teaching young children.
- 2. To examine the relationship between years of preschool teachers' teaching experience on their attitudes towards the integration of technology in teaching young children.

Research Questions

- 1. What is the preschool teachers' level of attitudes towards the integration of technology in teaching young children?
- 2. Is there any significant relationship between years of preschool teachers' teaching experience on their attitudes towards the integration of technology in teaching young children?

Research Hypotheses

H_{a1}: There is a significant relationship between different years of teaching experience of preschool teachers on their attitudes towards using technology in teaching young children.

Significant of Study

Researchers emphasise the importance of investigating this topic in light of the increased use of technology during the COVID-19 epidemic. With technology playing an increasingly important role in a variety of fields, notably education, it is critical to understand its developing relevance in teaching approaches. This paradigm change requires instructors, regardless of educational background or experience, to get conversant with technology in

order to successfully engage and educate students. The research recognises the growing relevance of technology competence among educators, emphasising its critical role in allowing successful educational practices and adjusting to the changing demands of young learners. The findings, which provide evidence-based suggestions, have the potential to improve technology integration in early childhood education, therefore contributing to the creation of informed strategies and best practices in the sector.

First, this study has significant consequences for preschool educators, requiring them to critically reflect on their teaching attitudes towards technology inclusion. By examining a previously ignored aspect of teaching experience, the study provides crucial insights that enable preschool educators to improve their pedagogical techniques. Educators may raise their understanding of the need of developing a positive attitude towards technology, increasing their preparedness to include it into teaching techniques. This may encourage educators to study and utilise applicable educational technology tools, therefore broadening the learning environment to fit varied learning styles. Furthermore, this research helps preschool educators understand how their teaching experiences have shaped their views on technology integration. This self-awareness allows educators to discover areas where their competency or familiarity with technology should be improved. With this knowledge, educators may actively explore professional development options such as workshops on educational app usage or online courses on incorporating technology into certain curricular topics. Educators may make informed decisions about integrating technological tools into their teaching approaches by determining the impact of teaching experience on attitudes towards technology. This reflective procedure not only has enormous potential to improve teaching techniques, but it also raises awareness among educators after participating in the research study. It also allows educators to identify areas where their comfort level or understanding of technology might be improved, promoting participation in training or

ongoing professional development programmes. This comprehensive approach is consistent with the Ministry of Education's (MoE, 2019) objectives for the National Preschool Curriculum (NPSC), which call for a thorough study of teaching attitudes as well as the creation of a dynamic and effective educational environment for preschool children.

Second, administrators play a critical role in the study's findings since their insights and support are required to develop effective techniques for incorporating technology into preschool education. Recognising how diverse background variables, particularly teaching experience, impact preschool educators' perceptions on technology may help administrators tailor professional development plans and support initiatives. Administrators may create a more inclusive and successful framework for technology integration by recognising the varied viewpoints of their teaching staff (Avci et al., 2019). This study provides administrators with significant information for addressing potential problems and facilitating the easier implementation of technology in preschool settings. Finally, administrators may use these results to match institutional goals with the changing educational landscape, ensuring that preschool educators are well-prepared to negotiate and embrace the benefits of technology in early childhood learning. Administrators must be aware of their preschool educators' opinions. This is because it enables them to influence teacher perceptions of technology. This acknowledgment can increase preschool teacher motivation to study and apply applicable educational technology tools in their classrooms. Furthermore, this research enables administrators to make more informed decisions about the significance of teaching experience in influencing attitudes towards technology. Administrators can include teaching experience into the selection criteria for new preschool teachers, which might successfully encourage the use of technology in early childhood education (ECE) settings.

Lastly, this study has important implications for future researchers. The findings of this study can serve as a platform for further inquiries into the complex aspects impacting educators' attitudes in early childhood education. Future researchers can use this work to look into other factors and their interactions in preschool settings, adding to a more thorough knowledge of how educators handle technology integration. The findings of this study may be utilised to guide future research efforts, allowing for a more in-depth evaluation of successful methods and treatments to assist preschool educators in adapting to advances in technology. Thus, this study provides an excellent beginning point for researchers looking to broaden their knowledge base and improve the efficiency of technology integration in early childhood education.

Definition of Terms

This study has identified specific keywords, and their explanations are provided in both conceptual and operational terms.

Conceptual Definition

Firstly, **preschool teacher** is generally defined as an individual responsible for developing and implementing lesson plans, giving education, and providing care and assistance to young children under the supervision of a principle or assistant principal in the preschool environment. (Irvine Unified School District, 2017).

Second, **young children** refers to individuals range in age from newborn to seven years old (Ntuli & Kyei-Blankson, 2013).

Thirds, **teaching experience** refers to entails to the process of learning information and skills via the act of teaching (Cambridge University Press, 2020). Furthermore, **attitudes** represent a person's sentiments, viewpoints, or patterns of behaviour about a given field (Cambridge University Press, 2020). Lastly, **technology integration** refers to the seamless incorporation and utilization of technology across different domains (Gilbertson, 2007).

Operational Definition

Firstly, **preschool teacher** is delineated as A person in charge of mentoring children under the age of seven at private or government preschools in Johor Bahru, Malaysia.

Second, young children refers to individuals who are 4 to 6 years old.

Third, **teaching experience** pertains to the amount of time preschool educators devote to teaching young children. Ghavifekr and Rosdy (2015) divide teaching experience into four categories: less than a year, one to five years, six to ten years, and more than ten years.

Moreover, **attitudes towards technology** in preschool education refer to a multidimensional concept that encompasses people's general opinions on technology use. This attitude is measure by using the questionnaire developed by Kol name as Attitudes of Preschool Teachers towards Using Information and Communication Technologies (ICT) (Kol 2012).

Lastly, **technology integration** is defined as the process or action of blending instructional approaches with the use of different technology, such as projectors, laptops, tablets, printers, digital cameras, interactive whiteboards, and so on.

Conclusion

This study examines the relationship between preschool teachers' teaching experience and attitudes towards ICT in Johor. This chapter reviewed the study's background and problem statement in order to highlight and explain the key knowledge gap about the level of teaching experience that influences their attitudes towards ICT in the classroom. Next, the study objectives, questions, and hypotheses were clearly stated. This report highlights the dynamics of the early childhood education industry in Johor. To provide clarity, fundamental ideas were defined conceptually and operationally in this study.

Chapter 2

Literature Review

Introduction

This chapter will further explain the research studies on the teachers' teaching experiences and attitudes of ICT in early childhood education (ECE). The first part of the literature will be discussed on the technology integration in education, benefit of technology in education, technology integration in ECE, teachers' attitudes towards technology integration and relationship between teaching experience and attitudes towards technology integration. This chapter will also discuss on the theoretical framework and conceptual framework.

Technology integration in education

The use of technology into teaching has grown increasingly common. It provides possibilities to overcome hurdles and impediments to knowledge acquisition (Yadav et al., 2018). Technology facilitates learning not just from traditional sources like books, but also from the vast resources available on the Internet. This ease of access to information through technological means is critical in training children to actively participate in a knowledge-centric society (Ghavifekr et al., 2012). Given the imperatives provided by this knowledge-centric culture, educators are encouraged to consider using technology into their teaching practices (Ghavifekr et al. 2012).

Benefits of Technology in Education

Technology has transformed the educational system, providing several benefits. The availability of knowledge via internet platforms has democratised learning by breaking down geographical barriers and making learning opportunities available to people all around the world (Kamalov et al., 2023). The versatility and flexibility of technology allow for

personalised learning experiences that accommodate a variety of learning preferences and paces (Nedungadi & Raman 2012). Interactive multimedia information, simulations, and virtual reality applications improve knowledge, comprehension, and memory recall, resulting in a more immersive and effective learning experience (Natale et al., 2020).

Furthermore, technological integration in education promotes cooperation and communication between children and educators, allowing for seamless engagement and knowledge sharing (Alam & Mohanty, 2023). Online forums, video conferencing, and collaborative technologies enable children to engage with classmates and experts, cultivating a feeling of community and extending their viewpoints (Zamiri & Esmaeili, 2024). Technology also simplifies administrative responsibilities for educators, allowing them to concentrate on teaching and mentoring (McKnight et al., 2016). For example, evaluation tools and analytics give real-time feedback, highlighting areas for development and tailoring teaching techniques appropriately (Kamalov et al., 2023). Furthermore, technology teaches children critical digital skills and prepares them for the changing needs of the modern workforce (Tucker, 2014). In essence, the integration of technology in education goes beyond accessibility, providing a dynamic and engaging learning environment that improves the educational experience for everyone engaged.

Technology integration in ECE

Technology integration in early childhood education has become an increasingly important issue as educators work to prepare children for the digital age. When used effectively, technology has the ability to strengthen the learning experience by instilling critical thinking, creativity, and collaborative abilities at a young age (Behnamnia et al., 2020). Interactive educational tools, multimedia materials, and digital platforms all provide exciting opportunities for hands on discovery. Educators must carefully choose and incorporate digital tools that are appropriate for the developmental needs of young children, promoting active involvement and meaningful learning experiences (McManis & Gunnewig, 2012). By adopting technology wisely and cooperatively, early childhood education may use its strengths to create a lively and adaptive learning environment, preparing young learners for the challenges and possibilities of the digital domain.

Technology has had a significant impact on educators and early childhood education (Nikolopoulou & Gialamas, 2015), transforming instructional approaches and the educational journeys of young children. The potential advantages of technology in early childhood education are significant since it provides educators with easy access to a range of information, resources, and creative technologies, hence improving teaching and learning experiences in the classroom (McKnight et al., 2016). Online platforms and educational platforms provide a wide selection of materials, allowing educators to build interesting and individualised lessons that address the unique requirements of young learners. This seamless incorporation of technology not only improved classroom experiences, but also laid the groundwork for a more dynamic and flexible approach to early childhood education.

Teachers' attitudes towards technology integration

Research emphasises the critical impact of teachers' perceptions of technology use in educational settings (Konca et al., 2015; Preradovié et al., 2017). Teachers' attitudes are valid predictors of new technology uptake in educational settings (Drossel et al., 2016). According to Kerckaert et al. (2015), teachers' attitudes towards information and communication technology (ICT) include assessments of technology's influence on teaching and learning in the classroom. Teachers' attitudes regarding the integration of technology in education have a substantial impact on the successful use of digital technologies in the school environment. Positive attitudes are essential for creating an atmosphere in which technology enhances teaching and learning opportunities. When educators see technology as a helpful supplement to traditional teaching techniques, they are more likely to try new approaches and change their teaching style to meet the requirements of different children (Ertmer et al., 2012). However, barriers may arise when teachers are resistant to technology (Alop, 2019). Such attitudes might come from a variety of circumstances, including unfamiliarity, aversion to change, or concerns about the possible downsides of using technology. Rais & Rashid (2023) revealed that educators had good attitudes towards ICT. The findings imply that teachers' ICT knowledge and competences improve as a result of school-based training. Furthermore, most preschool educators feel that ICT tools engage and include children in activities (Rais & Rashid, 2023). Nikolopoulou and Gialamas (2015) emphasised this point of view, claiming that preschool educators must embrace innovation in order to excite young children, and that ICT is one educational tool that may help with this. The study highlights the advantages of adopting ICT in an early childhood education (ECE) environment, emphasising the need of preschool educators having proper teaching abilities.

Furthermore, the educational landscape constantly evolves and teachers' attitudes towards technology must adapt correspondingly. For example, the COVID-19 epidemic has driven the use of digital tools for remote and hybrid learning, leading educators to reevaluate and reframe their approach to technology. As technology becomes more integrated into education, it is critical for teachers to foster a growth mindset, constantly polish their abilities, and stay open to discovering new and successful methods to incorporate technology into their pedagogical practices. This flexibility guarantees that educators can navigate their teaching approaches and give children with the best learning experiences in a technologydriven environment (Manubag et al., 2023).

Relationship between teaching experience and attitudes towards technology integration

Teachers' attitudes have an important role in shaping their use of technology in educational contexts, with their answers influenced by past experiences, whether positive or negative (Zaiti Zainal & Zaidah Zainuddin, 2020). Inexperienced educators are frequently enthusiastic about technology and eager to try new methods, experienced educators may initially be resistant to technology integration whereas they are more prefer maintaining to their well-established teaching routines (Lily et al., 2020). However, when educators get more experience, they develop a deeper grasp of pedagogical practices and recognise the potential of technology in increasing children engagement and encouraging better learning outcomes.

Teaching experience has a substantial impact on educators' perceptions of technology, as well as their confidence and ability to integrate digital resources into their teaching methods (McKnight et al. 2016). The relationship between educators' teaching experiences and their attitudes towards technology integration in early childhood education is complex and dynamic. Ali et al. (2022) discovered a positive relationship between teaching experience and attitudes towards ICT use in the classroom, with educators with more than five years of experience having more favourable attitude on technology integration. Experienced educators frequently see technology as a way to improve educational approaches and spark creativity (Konca et al., 2015). Kundu et al. (2020) found a favourable correlation between preschool teachers' teaching experience and attitudes towards technology integration (r = 0.553; p <.01). Furthermore, recent research indicates that preschool educators have more positive attitudes towards ICT use with preschoolers than primary and secondary school teachers (Hinostroza et al., 2013). According to Kara and Cagiltay (2017), most preschool educators have positive intentions for using technology in the classroom to teach young children, seeing it as useful to both children and teachers.

However, Mohd Ayub et al. (2015) found a negative relationship between years of teaching experience and attitudes towards using ICT in teaching and learning (r = -0.192; p <.01). Liang et al. (2017) found a negative correlation between teaching experience and attitudes towards ICT use in the classroom (r = -0.114; p <.01). These data show that as

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teachers gain more expertise, their desire to incorporate technology into their teaching decreases. Shi & Jiang (2022) discovered a negative correlation between teaching experience and attitudes towards ICT usage in the classroom (r = -0.192; p < .01), suggesting that higher levels of teaching experience are related with less favourable attitudes towards technology integration. As a result of the inconsistent findings from the previous study, the research is needed to understand the nature of this relationship.

According to Davis's (1989) Technology Acceptance Model (TAM) states that an individual's acceptance and behaviour when using technology are impacted by external influences, including teaching experience. According to the TAM paradigm, people's willingness to accept and engage with technology is influenced by their opinions of its usefulness and usability (Miller & Khera, 2010). Specifically, the TAM emphasises the impact of external factors on teachers' attitudes towards technology integration. The duration of preschool teaching experience is being explored as an external variable in this study. This element greatly influences preschool educators' positive or negative attitude towards technology integration. Yet it is critical to recognise that this factor might influence educators' views towards ICT, with preschool educators displaying varying attitudes depending on their teaching experience.

Theoretical Framework

This study utilizes a theory as the basic understanding of the relationship of preschool teachers' teaching experience on their attitude towards the integration of technology in teaching children in Johor.

Figure 1

Technology Acceptance Model (TAM)



Note. From "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology" by F. D. Davis, 1989, MIS Quarterly, 13(3), p.319 (https://doi.org/10.2307/249008). Copyright 1989 by the Management Information Systems Research Center, University of Minnesota.

Figure 1 illustrates the theoretical framework, the Technology Acceptance Model (TAM), developed by Davis (1989). The TAM Model provides a theoretical framework for understanding user acceptance of technology and determining consumers' attitudes towards the implementation of technology (Wanjala, 2015).

The external variable discussed in this research study is preschool educators' teaching experience with the integration of ICT into teaching. Existing research shows that experience

has a considerable effect on users' perceived ease of use (PEU) of electronic learning systems (De Smet et al., 2012; Lee et al., 2013; Purnomo & Lee, 2012).

This theory relies on the Theory of Reasoned Action (TRA), and it emphasises Perceived Usefulness (PU), which is defined as the user's subjective assessment of the likelihood that using a specific technology will improve their job performance within an organisational context (Davis, 1989). Perceived Ease of Use (PEOU) is the user's belief that the system is simple to navigate and requires little effort. It has a significant impact on consumers' attitudes towards technology acceptance, since users often prioritise the technical and practical features of technological items (Aypay et al. 2012).

In this theoretical framework, the external variable influences both users' perceived usefulness (PU) and perceived ease of use (PEOU). As shown in Figure 1, the users' perceived ease of use has a direct influence on their perceived usefulness, influencing their attitudes towards technology integration. These attitudes impact users' desire to utilise technology. Furthermore, users' behavioural intentions are impacted by the perceived utility of the technology. Ultimately, users' actual use of the technology is controlled by their behavioural intents. This theoretical model integrates effectively into the setting of the current research. Previous study has revealed a number of external characteristics that impact preschool teachers' attitudes towards technology integration in the classroom, including qualification (Gambari et al., 2016), gender (Akturk et al., 2015), age, and teaching experience (Alshammari et al., 2016). However, the external variable investigated in this study is preschool teachers' teaching experience, which may be related to their views about adopting technology into early childhood education (Konca et al., 2015). Preschool educators' reviews of technology's ability to improve academic achievement and the perceived ease of employing technology for educational purposes may differ depending on their degree of teaching experience. As a result, preschool educators are likely to have a variety of attitudes

about using technology in the classroom, resulting in a range of behaviours and intents to utilise technology.

When individuals integrate technology into their teaching techniques and see its value, they develop a favourable attitude towards technology and a behavioural desire to use it. This is evident when educators use technology into their teaching strategies and see its advantages, resulting in a direct positive behavioural desire to include it into their teaching methodology.

Conceptual Framework

Figure 2

Conceptual Framework

 Independent Variable (IV)

 Preschool teachers' teaching experience

 • Less than 1 year

 • 1 to 5 years

 • 6 to 10 years

 • More than 10 years

Figure 2 shows the relationship between the independent variables (IV) and dependent variables (DV). The independent variable concerns preschool educators' teaching experience, whereas the dependent variable focuses on their attitudes about using technology into young children's education. This study aims to investigate how different years of teaching experience affect preschool educators' views on integrating technology into their teaching practice. The teaching experience is separated into four categories: less than one year, one to five years, six to ten years, and more than ten years. Previous research has shed

light on the possible link between preschool educators' teaching experience and their attitude towards using technology to teach young children. For example, Konca et al. (2015) discovered that preschool teachers who have extensive teaching experience have more positive attitudes towards integrating technology into their teaching practices. Similarly, Merjovaara et al. (2024) found that preschool educators with less years of experience may be more hesitant to include technology into their teaching. Building on these findings, the hypothesis in this study proposes a significant relationship between different years of teaching experience among Johor preschool educators and their views towards utilising technology to teach young children. This study seeks to give a thorough knowledge of how educators' tenure influences their attitudes and preparation for technology integration in early childhood education by categorising teaching experience into separate groups ranging from less than a year to more than ten years.

Conclusion

This chapter focuses on preschool teachers' teaching experiences and attitudes towards ICT, which are fundamental to the study's foundation. Additionally, a thorough evaluation of relevant journal papers has been done to provide a full overview of existing research in the topic. The theoretical and conceptual frameworks used in this investigation have been presented. The theoretical framework and its application to the current investigation have been explored. This chapter gives a solid basis and information for the subsequent stages of the investigation.
Chapter 3

Methodology

Introduction

In this chapter, the researcher presents the procedures and strategies used to conduct the study. This chapter discusses the research design, sampling and respondents, research instrument, data analysis method and research procedures.

Research Design

According to Watson (2015), quantitative research includes a variety of approaches aimed at methodically investigating social issues using statistical or numerical data. This approach emphasises the collecting and analysis of objective data that may be organised into quantitative models (Yilmaz, 2013). Quantitative research is used to better understand phenomena and test hypotheses. According to Polit and Hungler (2013), the major goal is to experimentally evaluate objective ideas by looking into the correlations between variables. Due to restrictions such as limited resources and time, the researcher chose a quantitative research strategy for this study (Kirti, n.d.).

In this study, a quantitative research approach was used to explore how preschool educators' teaching experiences impact their views about using technology into early childhood education. Data was collected through the distribution of online surveys using Google Forms. This questionnaire addressed a variety of subjects relevant to the research topic. The collected data was then coded, analysed using correct analytic processes, and presented in tabular form. The findings were viewed in a way that revealed important information about the research purposes.

Correlational research design is a scientific methodology for examining the relationship between two or more variables without changing them. This method determines if changes in one variable correlate to changes in another (Curtis et al., 2016). In this study, a

correlational research method was used to investigate the relationship between preschool teachers' teaching experience and their views regarding integrating technology into educating children in Johor.

Sampling Method, Respondents and Population

In research, sampling methods can be grouped into two categories which is probability sampling and non-probability sampling. Probability sampling makes sure fair distribution by giving each participant in the target population an equal probability of being picked for the sample (Elfil & Negida, 2017). Non-probability sampling picks the sample population using a non-randomized process, resulting in uneven representation (Elfil & Negida, 2017). For this study, non-probability sampling was used. This approach uses a nonrandomized and easy sample selection strategy (Showkat & Parveen, 2017). Convenient sampling is a type of non-probability sampling characterised by the cost and accessibility of information from respondents (Etikan et al., 2016). This sample approach was chosen because it was more cost-effective, time-efficient, and provided easy access to respondents' information than other sampling methods (Edgar & Manz, 2017).

This study focused on preschool educators who now educate children aged 4 to 6 years in several preschools around Johor Bahru, Johor. The researcher selected Johor, Malaysia as the research location since the researcher lived in that region and is familiar with the region's preschool teachers. As a result, the researcher had a broader range of connections within the preschool industry in this state than others. Despite the limits of time and budget, the researcher aimed to obtain responses from 90 participants for this study.

Research Instrument

The research instrument included a series of questions customised to the variables listed in the research objectives. It included a series of closed-ended (multiple-choice)

questions and Likert scales that provide answer alternatives based on respondents' experiences and opinions. The questionnaire was divided into two sections whereas the first focused on the respondents' demographic data, while the second discussed preschool educators' opinions about technology use in educating young children. Overall, the questionnaire has 25 items.

The demographic characteristics part of the questionnaire asked about gender, age, ethnicity, years of teaching experience, and education level. Meanwhile, the question on respondents' years of teaching experience was adapted from Ghavifekr and Rosdy's (2015) research.

The questionnaire's second component was adapted from Kol's (2012) study of early childhood teachers' thoughts on using technology into young children's education. This version of the questionnaire was first created in 2012.

The questionnaire had 20 items, and each question utilised a five-point Likert scale with response categories ranging from "strongly disagree" to "strongly agree." The second part of the questionnaire included six items designed to examine preschool educators' unfavourable attitudes towards technology integration in educating young children. In contrast, the other 14 questions in this part aimed to explore preschool educators' positive attitudes about using technology to teach young children.

The questionnaire has different scoring methods for positive and negative questions. Positive items had the following ratings: strongly agree = 5, agree = 4, uncertain = 3, disagree = 2, and severely disagree = 1. In contrast, negative questions were rated inversely: strongly disagree = 5, disagree = 4, undecided = 3, agree = 2, and strongly agree = 1 (Koç, 2014).

The researcher analysed data to calculate the average score for each question, which provided insight into preschool educators' attitudes regarding integrating technology into educating young children. Higher average scores showed a positive attitude towards technology integration, while lower average scores showed a negative attitude among preschool educators.

According to Heale & Twycross (2015) explain validity as "the extent to which a concept is accurately measured in a quantitative study." It explores if an indicator created to measure an idea actually measures the concept and explains how effectively the data obtained covers the region of research (Taherdoost, 2018). According to Heale and Twycross (2015), construct validity assesses how effectively a research instrument measures its target concept. This study used factor analysis to show construct validity by finding a single component: preschool teachers' attitudes about the use of technology in early childhood education (Kol, 2012). Heale and Twycross (2015) explain content validity as "the extent to which a research instrument accurately measures all aspects of a construct". Kol (2012) confirmed the questionnaire by reviewing it with six kindergarten educators and eleven area professionals. This procedure resulted in a modification to the initial 37-item questionnaire, with certain items being removed based on feedback (Kol, 2012). Furthermore, the researcher received verification from their supervisor to ensure that the questionnaire items were consistent with the research objectives.

Cronbach's Alpha, a method for measuring an instrument's internal consistency, is widely used to assess the reliability of a questionnaire that addresses measure consistency (Heale & Twycross, 2015). Kol (2012) indicated a Cronbach's Alpha coefficient score of .92 for the research instrument, showing good reliability. Thus, the questionnaire was considered very reliable and valid for investigating the relationship between preschool teachers' teaching experience on their views towards technology integration. The reliability of the questionnaire was showed by a Cronbach's Alpha coefficient of 0.70 or above (Griethuijsen et al., 2014).

Data Analysis Methods

The quantitative data collected for this study underwent two basic analyses which is descriptive and inferential. Descriptive statistics include respondent demographics, were arranged into tables that accurately show numerical information. The researcher then used IBM SPSS 29.0.2.0 to calculate the frequency, percentage, and cumulative percentage of the descriptive statistics.

In this study, an inferential statistic was used to explore the relationship between preschool educators' teaching attitudes and their attitudes towards technology use. Spearman's rank correlation was selected as the analytical method for understanding and drawing conclusions from the data. This nonparametric statistical approach was chosen for its ability to handle ordinal data and determine correlation strength (Fang, 2017). The method used to assess the level and direction of a monotonic relationship between two variables examined on an ordinal scale or ranked (Fang, 2017). A monotonic relationship means that the variables continually move in the same relative direction, even if the rate of change differs (Jaadi, 2019). For example, when both variables increase together or when one variable increases while the other decreases. The correlation coefficient ranges from -1 to +1. A value of -1 indicates a perfect negative correlation (as one variable's rank rises, the other falls); 0 indicates no correlation, showing that no monotonic relationship between the variable rankings; and +1 indicates perfect positive correlation. The monotonic relationship between the variables increases as the coefficient approaches +1 or -1.

Pallant (2010) describes weak correlations as $r_s = 0.10$ to 0.29, medium correlations as $r_s = 0.30$ to 0.49, and large correlations as $r_s = 0.50$ to 1.0. Meanwhile, the p-value shows the probability of finding a significant correlation in either a positive or negative direction (Beers, 2022). A low p-value (p < 0.05) shows a strong relationship between teaching experience and attitude towards technology integration. A high p-value (p > 0.05) shows that

there is no significant relationship between teaching experience and attitudes towards ICT. In this study, Spearman's rank correlation coefficient (r_s) is used to identify the strength and direction of the relationship between variables. A positive r_s showed that less experienced educators are more likely to have positive attitudes towards technology integration. On the other hand, a negative r_s shows that educators with greater experience may have negative attitudes towards technology integration.

Research Procedure

The questionnaires and consent letters were created by the researcher before distribution to the respondents. The consent letter was sent to the respondents together with the surveys in order to gain their informed consent prior to answering the questions. The study's target sample consisted of preschool educators who taught children under the age of six at a Johor Bahru preschool. The researcher begins with data collecting. The researcher will select the kindergarten's location using Google Maps. The researcher will then contact the gatekeeper to brief them on the study. If the responder accepted to participate in this study, they needed to click the agree box in the consent letter to continue answering the surveys. However, if individuals refuse to participate in this study, they are not required to complete the questionnaire. Both consent letters and surveys were posted to Google Forms to collect answers. The researcher selected this strategy to collect data since it was more convenient and required less manpower needed. Respondents were chosen based on their availability and ability to meet the study's requirements. Once the gatekeeper accepts, the researcher will give the link to the Google form.

Conclusion

This chapter covers research design, sampling method, and identifying respondents from a larger group. The researcher provided an overview of data collection and analysis

methods, laying the groundwork for the subsequent chapter. The study technique was well detailed, including an in-depth breakout description of the data collection procedure.

Chapter IV

Findings and Analysis

Introduction

In this chapter, the researcher discusses the statistics and analysis for both descriptive and inferential data and summary of the data collected.

Descriptive Analysis Finding

The researcher discusses the finding of demographic analysis of the respondents in this part. The demographic information collected from the respondents were the respondents' gender, age, ethnicity, years of teaching experience, educational level, attended any training or workshop related to technology integration in classroom and frequency of using technology in teaching activity. The researcher analysed the demographic information of the respondents into the frequency and percentage which are shown in the tables. The researcher had taken two weeks, proximately 12 days to collect 100 respondents. Researcher had able to collect 100 respondents which is exceed the targeted respondent.

Gender	Frequency	Percent (%)
Schuch	(N)	Tercent (70)
Male	19	19.0
Female	81	81.0
Total	100	100.0

Distribution of Respondents' Gender

Table 1 shows the frequency and percentage of the respondents based on their genders. The table shows that out of 100 respondents, 19 respondents (19.0%) are male and

81 respondents (81.0%) are female.

Distribution of Respondents' Age

	Frequency	
Age	(N)	Percent (%)
25 years old and below	36	36.0
26 - 30 years old	25	25.0
31 - 35 years old	14	14.0
36 - 40 years old	7	7.0
41 - 45 years old	7	7.0
46 years old and above	11	11.0
Total	100	100.0

Table 2 shows the frequency and percentage of the respondents based on their ages. Out of 36 respondents (36.0%) aged 25 years old and below, 25 respondents (25.0%) aged between 26 to 30 years old, 14 respondents (14.0%) aged between 31 to 35 years old, 7 respondents (7.0%) aged between 36 to 40 years old, 7 respondents (7.0%) aged between 41 to 45 years old and 11 respondents (11.0%) aged 46 years old and above.

Frequency	$\mathbf{D}_{\text{ansaut}}(0/)$
(N)	Percent (%)
14	14.0
70	70.0
16	16.0
100	100.0
	Frequency (N) 14 70 16 100

Distribution of Respondents' Ethnicities

Table 3 shows the frequency and percentage of the respondents based on their ethnicities. The table shows that out of 100 respondents, there are 14 respondents (14.0%) are Malay, 70 respondents (70.0%) are Chinese, 16 respondents (16.0%) are Indian and no respondent from other races.

Years of teaching experience	Frequency	Percent (%)
	(N)	(,,)
Less than 1 year	29	29.0
1 to 5 years	39	39.0
6 to 10 years	8	8.0
More than 10 years	24	24.0
Total	100	100.0

Distribution of Respondents' Years of Teaching Experience

Table 4 shows the frequency and percentage of the respondents which based on their years of teaching experiences. The table show that out of 100 respondents, there are 29 respondents (29.0%) have less than 1 year of teaching experience, 39 respondents (39.0%) have 1 to 5 years of teaching experience, only 8 respondents (8.0%) have 6 to 10 years of teaching experience and 24 respondents (24.0%) have more than 10 years of teaching experience. Therefore, the researcher can conclude that there are most of the respondents have 6 to 10 years of teaching experience and the least number of the respondents have 6 to 10 years of teaching experience.

Frequency	
(N)	Percent (%)
27	27.0
22	22.0
32	32.0
9	9.0
10	10.0
100	100.0
	Frequency (N) 27 22 32 9 10 100

Distribution of Respondents' Educational Level

Table 5 shows the frequency and percentage of the respondents based on their educational level. Table 5 showed respondents who is the Bachelor holder had the highest number which is 32 respondents (32.0%) out of the 100 respondents. While there are 27 respondents (27.0%) are SPM, STPM, UEC or Pre-university holders, 22 respondents (22.0%) are Diploma holders, 32 respondents (32.0%) are Bachelor holders, 9 respondents (9.0%) are Master holders and 10 respondents (10.0%) are PhD holder. Therefore, most of the respondents are having high level of education with the minimum education is Diploma holders.

Distribution of Respondents' that attended any training or workshop related to technology integration in classroom

Have you attended any training or workshop related to technology integration in classroom	Frequency (N)	Percent (%)
Yes	65	65.0
No	35	35.0
Total	100	100.0

Table 6 shows the frequency and percentage of the respondents that attended any training or workshop related to technology integration in classroom. Out of the 100 respondents, 65 respondents (65.0%) attended while 35 respondents (35.0%) did not attended any training or workshop related to technology integration in classroom.

How frequent do you use technology in your teaching activity	Frequency (N)	Percent (%)
Rarely	26	26.0
Sometimes	7	7.0
Often	34	34.0
Always	33	33.0
Total	100	100.0

Distribution of Respondents' frequency on using technology in teaching activity

Table 7 shows the frequency and percentage of the respondents which based on their frequency on using technology in your teaching activity. The table show that out of 100 respondents, there are 26 respondents (26.0%) are rarely, only 7 respondents (7.0%) are sometimes, 34 respondents (34.0%) are often and 33 respondents (33.0%) always use technology in their teaching activity.

Mean and Standard Deviation of Preschool Teachers' Attitudes towards the Integration of Technology in Teaching Young Children

Item		Maan	Standard	
		Mean	Deviation	
1.	Technological tools are essential for	3.55	1.527	
	me.			
2.	Use of technology supports early	3 63	1 426	
	childhood education.	5.05	1.420	
3.	Use of technology in instructional	3 80	1.61/	
	activities is a waste of time.	5.67	1.014	
4.	Technological tools make early	3 67	1 347	
	childhood teachers' work easy.	5.02	1.347	
5.	Use of technological tools increases			
	the quality of early childhood	3.63	1.447	
	education.			
б.	Technological tools undermine the	276	1 747	
	teacher's role.	5.70	1./7/	
7.	Technological tools highly motivate	3.64	1 306	
	young children.	5.04	1.370	
8.	Technological tools make early			
	childhood instructional activities	3.72	1.415	
	more enjoyable.			

9.	Technological tools distract young children's attentions.	3.79	1.690
10.	My technical skills are adequate		
	enough to use the technological	3.53	1.396
	tools.		
11.	The use of technology in early		
	childhood education is not	3.85	1.629
	necessary.		
12	Technological tools are suitable for		
	instructional methods used	3.55	1.424
	in early childhood education.		
13.	Experienced teachers do not need		
	technological tools to deliver	3.62	1.728
	quality education.		
14	Technological tools are essential for		
	visualization in early	3.57	1.402
	childhood education activities.		
15.	Technological tools make early	3 60	1 407
	childhood teachers more effective.	5.00	1.107
16	Technological tools decrease	3.82	1.702
	teacher-student interaction.	5102	11702
17.	Technological tools help the learner	3.62	1.455
	retain new knowledge longer.		11100
18	The instructional activities	3 70	
	containing technological tools help		

	improve young children's		
	development levels.		
19	. The use of technology positively		
	contributes to young children's	3.62	1.448
	development.		
20	. Technological tools are influential in	3 65	1 466
	making abstract concepts concrete.	5.05	

Table 8 shows the descriptive analysis of the relationship of preschool teachers' teaching experience on their attitude towards the integration of technology in teaching children in Johor which showing the mean and standard deviation of each item in the questionnaire. There are 14 positive items and 6 negative items in the research instruments. Among the negative item, the highest is Item 3 which showing that the teacher is strongly disagree that the use of technology in instructional activities is a waste of time. In contrast, the table showed that Item 8 had the highest mean among the positive item which is the teacher is strongly agree that technological tools make early childhood instructional activities more enjoyable.

Averagely the respondents think that technological tools are essential for them in Item 1 with a mean of 3.55 out of 5.00 and it shows that most of the respondents agreed and strongly agreed with this statement. The statement of "Use of technology supports early childhood education" in Item 2 with a mean of 3.63 out of 5.00. The mean of Item 4, "Technological tools make early childhood teachers' work easy" is 3.62. The mean for Item 5, "Use of technological tools increases the quality of early childhood education" is 3.63. In Item 7, "Technological tools highly motivate young children" with a mean of 3.64 out of 5.00. The mean of Item 8, "Technological tools make early childhood instructional activities more enjoyable" is 3.72. There is 3.53 out of 5.00 for the mean of Item 10, "My technical skills are adequate enough to use the technological tools". For the mean of Item 12 which stated "Technological tools are suitable for instructional methods used in early childhood education" is 3.55 out of 5.00. In Item 14, "Technological tools are essential for visualization in early childhood education activities" shows that there is a mean of 3.57 out of 5.00. In Item 15, "Technological tools make early childhood teachers more effective" with a mean of 3.60 out of 5.00. The statement mentioned that "Technological tools help the learner retain new knowledge longer" in Item 17 with a mean of 3.62 out of 5.00. Another statement which stated in mean in Item 18, "The instructional activities containing technological tools help improve young children's developmental levels" is 3.70. Most of the respondents believed that, "The use of technology positively contributes to young children's development" in Item 19. The mean for Item 19 is 3.62 out of 5.00. In Item 20, "Technological tools are influential in making abstract concepts concrete" with a mean of 3.65.

Table 8 shows that Item 3, 6, 9, 11, 13 and 16 are negative items and the score for these items are scored in reverse order. In Item 3, "Use of technology in instructional activities is a waste of time", the mean is 3.89. It indicates that most of the respondents think that use of technology in instructional activities is not a waste of time. In Item 6, "Technological tools undermine the teacher's role" with a mean of 3.76 and it shows that most of the respondents think that technological tools will not undermine the teacher's role. Most of the respondents disagreed or strongly disagreed with the statement in Item 9, "Technological tools distract young children's attentions". The mean for Item 9 is 3.79. The mean for Item 11, "The use of technology in early childhood education is not necessary" is 3.85 out of 5.00 which indicates that majority of the respondents disagreed and strongly disagreed with this statement. The mean for Item 13, "Experienced teachers do not need technological tools to deliver quality instruction" is 3.62. The mean for Item 13 is the lowest which compared with other items. Therefore, it shows that the experienced teachers do not think that they do no need technological tools to deliver quality instruction. Lastly, the mean for Item 16, "Technological tools decrease teacher-student interaction" is 3.82.

Total Mean and Standard Deviation

	Mean	Standard Deviation	Ν
Total Attitude	3.6680	1.44053	100

Table 9 shows the mean (M) and standard deviation (SD) of the total attitude score of the respondents. The sample size is N=100. The result shows that the mean and standard deviation for total attitude score of the respondents is M=3.6680 and SD=1.44053.

Inferential Statistics and Analysis

The researcher discusses the analysis of the questionnaire based on the research objective in this part which are to determine the preschool teachers' attitudes towards the integration of technology in teaching young children and the influence of preschool teachers' different level of teaching experience on their attitudes towards the integration of technology use in teaching young children.

Table 10

			Years of teaching	Total
			experience	Attitude
Sperman's rho	Years of teaching experience	Correlation Coefficient	1.000	-0.880
		Sig. (2-tailed)		<.001
		Ν	100	100
	Mean	Correlation Coefficient	-0.880	1.000
		Sig. (2-tailed)	<.001	
		Ν	100	100

Spearman's rank Correlational Test

**. Correlation is significant at the 0.01 level (2-tailed).

Ha1: There is a significant relationship between different years of teaching experience of preschool teachers on their attitudes towards using technology in teaching young children.

Based on Table 9, the result shows there is a significant negative relationship between different years of teaching experience of preschool teachers on their attitudes towards using

technology in teaching young children, with $r_s = -.880^{**}$, N=100, p=<.001. Based on Pallant (2010), the correlation coefficient of this result is interpreted as having a large correlation strength (-.50< r<-1.0). This correlation indicates that a higher level of teaching experience is linked to a lower level of attitude towards using technology in teaching young children. Indirectly, the lesser the year of teaching experience lead to having a better attitude towards using technology in teaching young children. Additionally, A low p-value whereas p<0.05 reveals that there is a significant relationship between teaching experience and attitude towards ICT (Sedgwick, 2014). Thus, in this study, with a p-value of less than 0.01, the results were statistically significant, indicating a significant relationship between the two variables. Therefore, it can be concluded that the hypothesis H_{a1} of this study is accepted.

Summary

Table 11

Summary of Findings

Research Hypothesis	Finding	Accepted / Fail to Accept
H _{a1} : There is a significant	$r_3 =880$	Accepted
relationship between	N=100	
different years of teaching	p=<.001	
experience of preschool		
teachers on their attitudes		
towards using technology		
in teaching young		
children.		

In conclusion, the findings show that there is a negative significant relationship of preschool teachers' teaching experience on their attitude towards the integration of technology in teaching children in Johor. In brief, the hypotheses Ha1 is accepted.

Conclusion

In this chapter, the study findings are given. Tables were used to show both descriptive and inferential data. These tables give a clear and organised representation of the research outcomes. Descriptive analysis highlights respondents' demographics, whereas inferential analysis identifies correlations between variables. The data will be analysed and discussed in the following chapter.

Chapter V

Discussion and Conclusion

Introduction

In this chapter, the researcher discusses the findings of the descriptive and inferential analyses in Chapter 4. This chapter also presents some limitations of this study and recommendations for future research, and finally ends with a conclusion to summarize the whole study.

Descriptive Analysis and Discussion

The study's findings showed that Johor preschool educators' views towards ICT use had a moderate level. The mean score for attitudes towards ICT usage is 3.6680, which falls in the moderate range of 2.34 to 3.67 (Konca et al., 2015). This finding is similar with past research by Junaidi et al. (2022), which found a mean score of 2.66, showing that the preschool educators had a moderate attitude towards technology as well.

First, the reason for the moderate level but tendency to have a high level of attitude towards ICT among Johor preschool educators can be attributed to the respondents' educational background. This is due to the fact that the majority of preschool teachers (73%) in this current survey hold higher institutions certificates such as diploma, bachelor's degree, master's degree, or PhD. During their studies, they had been exposed to the use of technology in incorporating coursework, assignments, and creating materials for internships (Kumar & Subramaniam, 2023). Thus, the opportunity to use technology during their schooling time led to a more positive attitude towards technology integration.

Second, the moderate attitude level among preschool educators is likely related to their age demographics (Ali et al., 2022). According to Fry & Parker (2018), the Y

generation, born between 1981 and 1995, currently ranges from 24 to 38 years old, whereas the Z generation, born between 1996 and 2015, is 4 to 23 years old. Individuals under the age of 40 are mainly from the Y and Z generations, and they frequently show a strong preference for the latest technologies (Grous, 2022). Thus, preschool educators in this age group mainly from Y and Z generation, have a passion for technology, which stems from their interest in the digital world (Ali et al., 2022). This generational setting often fosters a positive attitude towards integrating technology into teaching practices (Ali et al., 2022). Their early exposure to digital technologies provided them with a natural ability, allowing them to efficiently integrate technology into their teaching practice. These educators expertly use technology to enhance the learning environment, using visuals, interactive apps, and instructional games to attract and engage children. Furthermore, their proactive commitment to professional development ensures that they remain current with emerging trends and effective educational technology practices. These young educators serve not just as catalysts for technology but also as sources of motivation for their colleagues, exhibiting their skill and passion for technology use and therefore cultivating an environment favourable to technological growth in early childhood education. Thus, participants' moderate views are relevant because the majority of them are under the age of 36 (75% of the overall group, as shown in Table 2).

			Years of teaching	Total
			experience	Attitude
Sperman's rho	Years of teaching experience	Correlation Coefficient	1.000	-0.880
Mean		Sig. (2-tailed)		<.001
		Ν	100	100
	Mean	Correlation Coefficient	-0.880	1.000
		Sig. (2-tailed)	<.001	
		Ν	100	100

Inferential Analysis and Discussion

Ha1: There is a significant relationship between different years of teaching experience of preschool teachers on their attitudes towards using technology in teaching young children.

The findings from Chapter IV showed a significant relationship between preschool educators' years of teaching experience and their attitude towards the use of technology into early childhood education. The current findings are in line with past research done by Ali et al. (2022), which found a link between teaching experience and educators' attitudes towards ICT in their teaching experiences. Their study found that educators with more than five years of teaching experience have more positive attitudes towards integrating technology into their teaching methodologies, indicating that there is a significant relationship between teaching experience and attitude towards ICT. This tendency can be linked to experience educators' view that technology acts as a catalyst for encouraging creativity and improving educational techniques (Konca et al., 2015). Moreover, the research conducted by Kundu et al. (2020)

showed that a significant positive relationship between preschool teachers' years of teaching experience and their perspectives on technology integration in teaching (r = 0.553; p < .01).

However, the current findings showed a slightly contrast with pass study which a negative correlation was found. The study's result proves a significant negative relationship between preschool teachers' teaching experience on their attitude towards the integration of technology in teaching children, r = -.880, p<0.001. This showed that the higher the teacher teaching experience, the lower their attitude towards technology integration in their teaching.

This contradicted finding may be explained due to the fact that experienced educators have refined and honed their teaching approaches (Tajuddin & Bakar, 2023), which are mostly based on traditional method that have demonstrated productive result (Tajuddin & Bakar, 2023). Thus, their comfort and familiarity with established traditional methods may contribute to their reluctance to embrace change, especially when they believe that their current strategies are adequate and successful.

According to Mustafa and Hashim (2022), experienced educators possibly developed daily routines and teaching strategies over time based on their preferences. These established routines play an important role in establishing structure and predictability in the preschool setting, both of which are necessary for effective learning experiences. Zainal et al. (2020) emphasised the importance of careful preparation and adaptability when integrating technology into established teaching routines. In addition, educators will be more likely to put in time and effort to improving their traditional teaching approaches (Jantan et al., 2015). This is because integrating new technology necessitates more time and resources (Kamaruddin et al., 2017), which can be especially challenging for educators who work from morning to late afternoon. Furthermore, experienced educators found to had difficulties with technological integration (Ghavifekr et al., 2016). The impact of technology in education may have been less noticeable for these teachers throughout during their schooling and early teaching experiences (Ghavifekr et al., 2016). As a result, their teacher training programmes are likely to put less focused on incorporating technology into teaching methods (Nachiappan et al., 2018). Thus, these experienced educators may lack knowledge of technology. This lack of knowledge may lead to feelings of inadequacy or lack of confidence while using technology in their teaching practices (Ogegbo and Aina, 2020). As a result, this situation may lead to reluctance to using new technology tools in the educational context.

Furthermore, experienced educators may be concerned about the possibility of failure or about their capacity to successfully use these tools, fearing that technology would disrupt their traditional teaching approaches (Nachiappan et al., 2018). The time commitment required to become talented with new technologies might be a difficulty (Abdul Rahim & Abu Bakar, 2023). Educators with hectic schedules who work from 8:00 a.m. to 7:00 p.m. may be hesitant to take on the additional burden of learning a new approach (Swaran Singh et al., 2022). Lastly, experienced educators may worry about maintaining classroom discipline during technological integration (Ali et al., 2022). They will concern about children's distractions or technical interruptions impacting with their teaching flow may cause them to be hesitant to include technology tools into their teaching strategies.

According to the Technology Acceptance Model (TAM), an individual's desire to obtain and use technology is impacted by their impression of its utility and usability (Miller & Khera, 2010). According to the TAM Model, external factors can impact teachers' attitudes towards technology integration. In this study, the external variable is years of preschool teaching experience. This element contributes to the preschool teacher's positive view of technology integration. Conversely, this aspect can influence educators' attitudes towards ICT in a negative view. For example, preschool teachers with less teaching experience may have a positive or negative attitude towards technology integration. The findings of this study show that preschool educators with more years of experience had a more negative attitude towards integrating technology into teaching practice. Based on TAM theory, this finding from the current study suggested that experienced educators have greater challenges in integrating educational technology, resulting in reluctance and resistance (Abdullah et al., 2023). Preschool teachers with many years of experience may have well-established methods for teaching and beliefs about early childhood pedagogy (Jantan et al., 2015), which may lead them to see technology integration as not compatible or disruptive to their traditional approaches (Ali et al., 2022). In conclusion, the findings of this study revealed that years of teaching experience influences teachers' attitudes regarding technology integration in the classroom.

Implication

The Mean of The Attitude

Based on Konca et al. (2015), there are three levels of attitudes for technology integration: low (1 to 2.33), moderate (2.34 to 3.67), and high (3.68 to 5.00). According to the findings of the study, educators have a moderate attitude, with an average attitude score of 3.6680. As a result, preschool educators should examine techniques for strengthening and encouraging educators' positive views towards technology.

In the 21st century, technology is a crucial component in a variety of sectors, including education. As a result, when educators have a favourable attitude towards information and communication technology (ICT), they are more willing to integrate technological tools into their teaching methods. This active involvement with technology leads to improving the learning experiences for children (Akram et al., 2022). Besides, teachers with a positive attitude tend to be motivated and willing to explore with new teaching methods. This active involvement not only encourages innovation, but also creates a learning environment that fosters creativity and critical thinking skills in early childhood education (Costley, 2014). Furthermore, preschool educators' positive views towards technology are critical for improving both the effectiveness and efficiency of teaching methods, ensuring that children have the abilities that they require to thrive and grow in this digital world (Muhammad Faizal et al., 2014). Thus, it is critical for educators to use targeted strategies aimed at cultivating a favourable attitude towards technology integration in preschool settings. These strategies may include providing extensive professional development sessions (Ghavifekr & Rosdy, 2015), enabling access to relevant technical tools, and fostering a supportive workplace that stimulates exploration and creativity.

Moreover, when preschool educators acknowledge that they have a moderate attitude towards ICT, it provides a chance for them to take proactive efforts to improve their attitudes and abilities in technology integration.

One excellent way to improve is to seek advice from younger colleagues, who frequently have a higher degree of knowledge and ease with technology (Ghavifekr & Rosdy, 2015). These younger educators may offer vital insights, practical recommendations, and supporting advice on how to effectively integrate technology into teaching methods (Ghavifekr & Rosdy, 2015). Also, preschool educators can improve the use of online resources, such as online tutorial videos, to strengthen their ability in using technological tools (Chen & Adams, 2022). These videos provide extensive instruction and practical examples, preparing educators to confidently negotiate different technology platforms and resources (Mohd Asim et al., 2022). In short, this study suggests teachers to improve their personal attitudes towards using technology into their teaching practices. Other than that, this study might also be providing implication to preschool operator as they make decisions on resource allocation, professional development, and curriculum design (Dhamotharan et al., 2019). Preschool operators may utilise this information to create focused interventions and techniques to encourage their teachers to have a more favourable attitude towards technology inclusion. For example, they may provide comprehensive professional development programmes that aim to improve teachers' technical skills and expertise (Dhamotharan et al., 2019). This might include workshops, seminars, and training sessions particularly designed to address areas where educators may lack confidence or competence in using technology in the classroom (Rahmatullah et al., 2021). Additionally, preschool operators might create chances or incentives for teachers. Preschool operators can also support and sponsor their teachers to attend technology-related workshops, seminars, and training sessions organised by a third party (Rahmatullah et al., 2021). In short, this study suggests that preschool operators assist teachers in improving their attitudes towards technology integration in their classrooms.

Relationship between teachers' teaching experience and their attitude towards technology integration in teaching

The result showing that the teacher with high experience, they tend to have less attitude towards ICT integration. This implies that high-experience teachers need to get continuous professional development training related to technology so that they are up to date, know, and explore how technology can benefit or make their teaching more versatile and diversify their teaching, rather than relying solely on traditional methods of teaching (Zaiti Zainal & Zaidah Zainuddin, 2020). Experienced educators who are confined with traditional strategies can learn about alternative strategies for improving their teaching practices by participating in ongoing professional development training focusing on technology integration (James & Lee, 2021). This training can help them widen their viewpoints and embrace technology as a way to diversify and enhance their teaching practices (James & Lee, 2021). Instead of relying solely on traditional methods, attending such training sessions enables experienced teachers to effectively incorporate technology into their teaching (Nikian et al., 2013), broadening their pedagogical scope and improving the overall learning experience for children.

Aside from that, novice educators can also gain benefits by participating in continuous professional development training focused on technology (Nguyen & Bower, 2018). These training workshops enable them to improve and expand their teaching approaches, which also enhances the learning experience for children. Additionally, novice educators can use online platforms, such as training videos, to retain their abilities or empower themselves while staying up to speed on developing technological developments (Nguyen & Bower 2018). These easily accessible materials serve as significant professional development tools, ensuring that educators can expand their positive view towards ICT in teaching young children (Nguyen & Bower, 2018).

Next, preschool principals or school administrators should adopt a proactive approach by sending experienced teachers to conferences or short courses focusing on current technology that can improve early childhood classrooms (Nikian et al., 2013). By giving experienced educators the opportunity to explore directly with the most recent advancement in educational technology, they can gain specialised skills and insights necessary for efficient incorporation into teaching methods (Ghavifekr & Rosdy, 2015). These experiences not only extend their technical skills, but also instil confidence and excitement for investigating new teaching methods (Zaiti Zainal & Zaidah Zainuddin, 2020). As a consequence, educators return to their classrooms with new information and tactics, instilling a favourable attitude towards technology integration. This focused investment in professional development not only improves individual teacher competency, but also fosters a culture of innovation and quality in the preschool setting (Dhamotharan et al., 2019).

Furthermore, the current study's findings enable to promote collaboration among colleagues in the preschool context. Teachers with less experience might provide significant insights by discussing technology tools and strategies they have encountered or experienced with in their teaching practices (Cheok et al., 2017). This information sharing fosters a mutually beneficial learning environment in which educators of all levels may benefit from one other's expertise (Yusof et al., 2023). Teachers with greater experience might benefit from embracing a culture of collaboratively learning and knowledge-sharing since it allows them to gain new views and innovative ideas from their colleagues, eventually expanding their own understanding and skill in technology integration. This collaborative dynamic not only develops mutual respect and encouragement among colleagues, but it also emphasises the need of ongoing learning and professional development within the preschool setting (Rahmatullah et al., 2021).

Limitations

First, the research's limitation is the use of online platforms, particularly social media as a data collection tool. Despite the fact that this platform is convenient and accessible but by using online survey, respondents can easily ignore or skip survey invitations or questions without any immediate consequences. This is unlike physical surveys where the researcher can actively engage the respondent and encourage participation. This situation has led to prolonged response times from respondents that contributed to the extension of data collection period of this research.

Second, quantitative methods were used in this research study. In this study, the use of a Likert scale to collect data limits the detailed thoughts and perspectives of the preschool

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teachers, which limits the knowledge of their personal beliefs. Quantitative methods usually focus on numerical data (Queirós et al., 2017), which are unable to convey the depth and complexity of interpersonal interactions and human experiences. Questionnaires contain closed-ended questions, which limit the respondents' ability to express their own thoughts or provide thorough explanations. Questionnaires are often used to collect a specific type of information within a given scope. This limits the total number of issues or variables that can be explored, and may result in important parts of the study topic being overlooked because they are not covered in the questionnaire. As a result, the study provides limited findings and exploration of the perceptions of preschool teachers. The lack of detailed qualitative information blocks their ability to fully understand the elements of the study question. In addition, the use of standardised questionnaires at a single point in time limits a full understanding of the relationships between variables, as the questionnaire may not fully capture the specific information of a given research, leading to measurement limitations (Morgado et al., 2017). For example, the questionnaire used in this study, Attitude Scale for Technological Tool, only focuses on extrinsic and intrinsic attitude, while the factors that lead to those positive or negative attitude or other variables that are related to the positive and negative attitude context were not asked in the questionnaire.

Furthermore, this study's generalizability is restricted. The study is limited beyond the context of Johor's urban area only. In addition, this study employed convenience sampling which is a non-random sample strategy. Both of these limitations can result in limited generalizability (Jager et al., 2017). Convenient sampling, in which samples are drawn from the population via non-random techniques, creates sampling bias since it did not produce a well-rounded picture of the population (Tyrer & Heyman, 2016). It frequently lacks obvious generalizability and is not appropriate for drawing conclusions for a larger population (Jager et al., 2017). The demographic data of the respondents suggests that the study's participants
are mostly young graduates with less teaching experience. As a result, the study's generalizability is limited, as it does not fully represent the various Johor preschool teachers' populations. Because this study focuses on the population of Johor Bahru only, a highly urbanised area, this study is only applicable to preschool educators working in Johor Bahru. In brief, because this study focuses only on Johor Bahru, the sample size is small (Andrade, 2020). As a result, it restricted the applicability of this finding to certain other states, including suburban and rural regions.

Recommendations

Firstly, future researchers could utilise traditional approaches, such as distributing physical surveys, to overcome the problems identified in this study (Rowley, 2014). By avoiding relying on online platforms, researchers can speed up the data collecting process and ensure that stated timetables are met (Newman et al., 2021). This strategy not only speeds up data collection but also reduces delays associated with engaging respondents, improving efficiency and accelerating analysis (Salamah et al., 2024). Additionally, using physical surveys allows for quick and direct engagement with participants, perhaps resulting in more detailed and thoughtful responses.

Secondly, the future researcher may choose to adopt a mixed methods strategy. This mixed methods technique allows researchers to combine quantitative and qualitative methods to gather both numerical data and in-depth insights. This technique allows the researcher to obtain preschool educators' personal perceptions and overall views in addition to numerical measures. A mixed methods research design allows for a more thorough analysis of the research question by exchanging the advantages of one method for the limitations of another, while also expanding knowledge of the respondents' experiences and perspectives (Regnault et al., 2018). For example, the future researcher may choose a qualitative approach that

requires direct interaction with people, such as face-to-face interviews and observations. In addition, this change in approach increases the validity and reliability of the study (Ebert et al, 2018) and allows for the collection of data that accurately represents the true impressions and experiences of preschool educators. By combining collection methods with traditional approaches, future researchers can produce more robust and reliable findings (Maher et al., 2018), thereby increasing the validity of their study findings. This allows researchers to gain a more complete understanding of the research question. Therefore, it is recommended that future studies use a mixed methods approach to address the identified limitations and provide a more insightful view of the opinions and experiences of preschool educators.

Lastly, in order to enhance the application of the research findings, future researchers might consider expanding the study's scope to include a larger variety of areas to increase the sample population (Casteel & Bridier, 2021). For example, broadening the research area to include diverse parts of Johor, including both urban and rural areas such as Muar, Tangkak, Pontian, and so on. This larger scope will allow for the inclusion of a more varied and representative sample, hence increasing the study's generalisability. Employing a random sampling approach is critical to ensuring sample representativeness, since probability sampling methods provide samples that better match the characteristics of the target population (Elfil & Negida, 2017). For example, random sample can include responders from a variety of employment regions, age categories, and ethnic origins, providing a more realistic picture of Johor's preschool teacher population. Future researchers can divide the population into numerous groups (clusters) for research, such as Chinese female teachers aged 20-25 working as ECE educators in Tangkak, Johor. Then look for existing groupings that reflect the population as a whole and select the clusters for the study using simple random sampling. Then, conduct the research on each member of the selected clusters. Hence, the study's findings can be more extensively used in a variety of circumstances if

broader region. Furthermore, future research could examine expanding the study's scope to other states in Malaysia, encompassing a larger range of places to increase the sample population (Casteel & Bridier, 2021).

Conclusion

In conclusion, this study focuses on the relationship between preschool teachers' teaching experience and their attitudes towards ICT in Johor. The study's goal is to examine preschool teachers' views regarding using technology into young children's education in contexts beyond than the local setting and at various levels of teaching. This narrow study focus has made it difficult an accurate understanding of the distinctive level of attitude towards ICT. Furthermore, the level of teaching experience has been found as a component that might have an unfavourable impact on their attitude towards ICT, resulting in a good or negative attitude towards ICT. As a result, the purpose of this study is to look into preschool educators' teaching experiences and attitudes regarding using ICT when teaching young children. The current study uses a quantitative correlational research approach and one instrument, attitude scale for technology tools (Kol, 2012). The data reveal that preschool educators' teaching experience has a strong negative correlation with a moderate level of attitude towards ICT.

This research study has important implications for the setting of early childhood education in Johor since it addresses a large gap in local literature about preschool teachers' teaching experience and attitudes towards ICT. The study provides insights for preschool educators, school administrators, principals, and colleagues to take action and intervention measures to improve the attitude towards ICT by identifying the mean of the total attitude as well as the relationship between preschool teachers' teaching experience and their attitude towards ICT. However, the study showed limitation , such as the use of an online survey approach, which increased data collecting time, the language barrier discovered among participants, and the study's lack of generalizability. To solve these limitations, it is suggested that field professionals employ qualitative methods such as face-to-face interviews and the distribution of physical questionnaires, give dual language questionnaires, broaden the range, and use random sampling. These enhancements can result in more accurate and complete data, providing for a better understanding of the variety of preschool teachers' teaching experiences and attitudes towards ICT in educating children in Johor.

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Appendices

Appendix A : Questionnaire

Figure 3

Questionnaire – Informed Consent Letter

Preschool Teachers' Teaching Experience on their Attitude towards the Integration of Technology in Teaching Children in Johor

Dear participant,

My name is Beverly Ong Xin Kai. I'm conducting this research at Universiti Tunku Abdul Rahman (UTAR) as part of my final year project. This study aims to explore the relationship of preschool teachers' teaching experience on their attitude towards the integration of technology in teaching children in Johor. You are invited to take part in this study and the information obtained is for academic purposes.

A. Purposes of Study

To investigate the relationship of preschool teachers' teaching experience on their attitude towards the integration of technology in teaching children in Johor.

B. Benefits

The data collected may help the policymakers and educators to develop a basic understanding on a specific needs and potential challenges faced by teachers with varying levels of experience regarding technology integration. This information can be used to develop targeted professional development programs, resource allocation strategies, and guidelines for effective technology use in preschool classrooms.

C. Participation

You are invited to complete this questionnaire to investigate the study of the relationship of preschool teachers' teaching experience on their attitude towards the integration of technology in teaching children in Johor. The surveys are designed to identify the attitude on preschool educator's perception towards technology. It may take about 5 to 10 minutes for completion.

D. Confidentiality

For the research study, your information will be anonymous. Participant data will be kept confidential. The researcher will ensure your confidentiality is preserved at all costs. Your responses will be reported as a combined total. Only the researcher and her supervisor will know your answers to the questionnaire

E. Contact information

If you have any concerns or questions regarding the study, you may contact the researcher, Beverly Ong Xin Kai via beverlyong022@1utar.my

F. Voluntary Participation

Your participation in this study is completely voluntary. If you decide to take part in this study, you will have to read the consent form. If you are doing the questionnaire, you are

Questionnaire – Google Form (1)

still free to withdraw at any time and without giving a reason.

Thank you for the time to complete this survey.

* Indicates required question

 I have read the consent form and understand the explanation provided to me. I * have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

Mark only one oval.

) I agree
<u> </u>	I disagree Skip to section 4 (Thank you for taking out your precious time ! Wish you have a
	nice day ahead :))

Section A: Demographic characteristics

Please choose the most appropriate response. Choose only ONE response.

2. Gender *

Mark only one oval.



Age *

Mark only one oval.

- 25 years old and below
- 26-30 years old
- 31-35 years old
- 36-40 years old
- 41-45 years old

46 years old and above

Questionnaire – Google Form (2)

- 4. Ethnicity *
 Mark only one oval.
 Malay
 Chinese
 Indian
 Other:
- 5. Years of teaching experience *

Mark only one oval.

Less than 1 year

- 1 to 5 years
- 6 to 10 years

More than 10 years

6. Educational level *

Mark only one oval.

SPM/ STPM/ UEC/ Pre-university

Diploma

- Bachelor
- Master

O PhD

 Have you attended any training or workshop related to technology integration in * classroom?

Mark only one oval.

Yes
No

Questionnaire – Google Form (3)

8. How frequent do you use technology in your teaching activity? *

Mark only one oval.

Rarely
 Sometimes
 Often
 Always

Section B: Preschool teachers' attitudes towards the integration of technology in teaching young children

Please choose the most appropriate response. Choose only ONE response.

- 1 Strongly disagree
- 2 Disagree
- 3 Undecided
- 4 Agree
- · 5 Strongly agree

9. Technological tools are essential for me. *

Mark only one oval.



10. Use of technology supports early childhood education. *

Mark only one oval.



Questionnaire – Google Form (4)

11. Use of technology in instructional activities is a waste of time. *

Mark only one oval.

	1	2	3	4	5	
Stro	0	0	0	0	0	Strongly Agree

12. Technological tools make early childhood teachers' work easy.*

Mark only one oval.

1 2 3 4 5

13. Use of technological tools increases the quality of early childhood education. *

Mark only one oval.

	1	2	3	4	5	
Stro	0	0	0	0	0	Strongly Agree

14. Technological tools undermine the teacher's role. *

Mark only one oval. 1 2 3 4 5 Stro O O O Strongly Agree

Questionnaire – Google Form (5)

15. Technological tools highly motivate young children. *

Mark only one oval.

1	2	3	4	5	
Stro 🔾	0	\bigcirc	\bigcirc	0	Strongly Agree

 Technological tools make early childhood instructional activities more enjoyable.

1 2 3 4 5 Stro O Strongly Agree

17. Technological tools distract young children's attentions. *

Mark only one oval.

Mark only one oval.

1	2	3	4	5	
Stro 🔾	\bigcirc	\bigcirc	\bigcirc	\bigcirc	Strongly Agree

18. My technical skills are adequate enough to use the technological tools. *

Mark only one oval.



*

Questionnaire – Google Form (6)

19. The use of technology in early childhood education is not necessary.*

Mark only one oval.

	1	2	3	4	5	
Stro	0	0	0	0	0	Strongly Agree

 Technological tools are suitable for instructional methods used in early childhood education.

Mark only one oval.

	1	2	3	4	5	
Stro	0	0	0	0	0	Strongly Agree

Experienced teachers do not need technological tools to deliver quality
instruction.



 Technological tools are essential for visualization in early childhood education * activities.

Mark only one oval.

1 2 3 4 5

*

Questionnaire – Google Form (7)

23. Technological tools make early childhood teachers more effective. *

Mark only one oval.



24. Technological tools decrease teacher-student interaction. *

Mark only one oval.



25. Technological tools help the learner retain new knowledge longer. *

Mark only one oval.



 The instructional activities containing technological tools help improve young * children's developmental levels.

Mark only one oval.



Questionnaire – Google Form (8)

27. The use of technology positively contributes to young children's development. *

Mark only one oval.



28. Technological tools are influential in making abstract concepts concrete. *

Mark only one oval.



Appendix B : Original Data

Figure 12

SPSS output of Descriptive Statistics – Respondents' Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	19	19.0	19.0	19.0
	female	81	81.0	81.0	100.0
	Total	100	100.0	100.0	

Figure 13

SPSS output of Descriptive Statistics – Respondents' Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25 years old and below	36	36.0	36.0	36.0
	26-30 years old	25	25.0	25.0	61.0
	31-35 years old	14	14.0	14.0	75.0
	36-40 years old	7	7.0	7.0	82.0
	41-45 years old	7	7.0	7.0	89.0
	46 years old and above	11	11.0	11.0	100.0
	Total	100	100.0	100.0	

Age
SPSS output of Descriptive Statistics – Respondents' Ethnicities

Editional					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	14	14.0	14.0	14.0
	Chinese	70	70.0	70.0	84.0
	Indian	16	16.0	16.0	100.0
	Total	100	100.0	100.0	

Ethnicity

Figure 15

SPSS output of Descriptive Statistics – Respondents' Years of Teaching Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	29	29.0	29.0	29.0
	1 to 5 years	39	39.0	39.0	68.0
	6 to 10 years	8	8.0	8.0	76.0
	More than 10 years	24	24.0	24.0	100.0
	Total	100	100.0	100.0	

Years of teaching experience

SPSS output of Descriptive Statistics – Respondents' Educational Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SPM/STPM/UEC/Pre- university	27	27.0	27.0	27.0
	Diploma	22	22.0	22.0	49.0
	Bachelor	32	32.0	32.0	81.0
	Master	9	9.0	9.0	90.0
	PhD	10	10.0	10.0	100.0
	Total	100	100.0	100.0	

Educational level

Figure 17

SPSS output of Descriptive Statistics – Respondents' that Attended Any Training or Workshop

Related to Technology Integration in Classroom

Have you attended any training or workshop related to technology integration in classroom?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	65	65.0	65.0	65.0
	No	35	35.0	35.0	100.0
	Total	100	100.0	100.0	

SPSS output of Descriptive Statistics – Respondents' Frequency on Using Technology in

Teaching Activity

	2					
		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Rarely	26	26.0	26.0	26.0	
	Sometimes	7	7.0	7.0	33.0	
	Often	34	34.0	34.0	67.0	
	Always	33	33.0	33.0	100.0	
	Total	100	100.0	100.0		

How frequent do you use technology in your teaching activity?

Figure 19

SPSS output of Descriptive Statistics – Total Mean and Standard Deviation for Total Attitude towards Technology Integration

Statistics

totalattitude2

Ν	Valid	100
	Missing	0
Mean		3.6680
Std. D	eviation	1.44053

SPSS output of Inferential Statistics – Spearman's Rank Correlational for Teaching

Experience and Total Attitude

		Correlations		
			Years of teaching experience	totalattitude2
Spearman's rho	Years of teaching experience	Correlation Coefficient	1.000	880
		Sig. (2-tailed)		<.001
		N	100	100
	totalattitude2	Correlation Coefficient	880	1.000
		Sig. (2-tailed)	<.001	
		N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).