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## Exploring Malaysian ESL Pre-service Teachers' Perceptions on Knowledge of Learners, Digital Literacy and 21st Century Competency

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**Abstract.** The Sustainable Development Goals (SDG) Goal 4 is centred on providing good and quality education for all. To achieve this goal, the supply of quality teachers, particularly in English as a second language (ESL), should be increased to align with the current globalisation in which individuals are well equipped with English language skills. Hence, teacher training programs play a significant role in producing quality teachers and taking notice of the knowledge needed by ESL pre-service teachers in the 21st century. However, there is a gap in previous studies in understanding the knowledge of ESL pre-service teachers, particularly on digital literacy, knowledge of learners and 21st-century competency. Thus, this study aims to explore the ESL pre-service teachers' perspectives towards knowledge of learners, digital literacy and 21st-century competency to be an effective teacher in the 21st century. This paper employed a full qualitative method with 10 ESL pre-service teachers at a public university in Malaysia. The data were collected through a focus group discussion and were analysed using thematic analysis. Based on the findings, the ESL pre-service teachers reported that it is pivotal for them to know and be able to implement 21st-century skills in their classrooms. Additionally, the ESL pre-service teachers mentioned that

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they should be able to have digital literacy and have awareness towards learners. This study contributes to teacher training programs in understanding the knowledge needed by a modern teacher. Future research could investigate the challenges ESL pre-service teachers face in the 21st century.

**Keywords:** English as a Second Language; pre-service teachers; teacher training program; 21st-century skills; digital literacy

## 1. Introduction

English is widely employed in various domains such as international commerce, diplomacy, mass entertainment, international telecommunications, scientific publications, and the publishing of newspapers and other literary works (Rao, 2019). Furthermore, there is an increased focus on promoting awareness regarding the importance of English with a sense of gravity (Thirusanku & Yunus, 2014). As more people become aware that English is not the sole preserve of a select group of nations, the language is gradually shedding the political and cultural connotations attached to it for so long. Instead, it is a mode of transportation utilised worldwide and will create additional chances (Hasman, 2004). This observation highlights the need for individuals to proficiently master English to effectively engage in global competition and avail themselves of a more comprehensive array of prospects.

According to Sustainable Development Goal 4 (SDG4), providing quality education is imperative to guarantee universal access to opportunities and facilitate lifelong learning for all individuals. The Malaysian Education Blueprint, as outlined by the Ministry of Higher Education Malaysia in 2013, places significant importance on ensuring that all children possess proficiency in both Bahasa Malaysia, the official language of the country, and the English language. Educators, particularly those instructing in the English language, hold a pivotal position in guaranteeing the development of competent individuals who possess the necessary skills to thrive in diverse settings and circumstances. Therefore, it is imperative to enhance the availability of proficient educators, specifically those specialising in English instruction.

To ensure we can produce quality English language teachers, there is a need to properly train future teachers or pre-service teachers, particularly in Malaysia, as English is not the country's first language. Hence, higher education institutions and teacher training programs in Malaysia focus on Teaching English as a Second Language or TESL. The students enrolling in the TESL programs are commonly referred to as ESL pre-service teachers. They must complete degree requirements, including coursework and field experience, such as practicum teaching, before being awarded a teaching license (Ryan et al., 2017). In this study, the term pre-service teachers was used to specify further that the knowledge centralised in the study is for future teachers.

However, previous research has shown that teachers lack various competencies, particularly those preparing to teach English as a second language (TESL). There

is a lack of 21st-century skills among ESL pre-service teachers (Patrick et al., 2020; Ong et al., 2021; Seitova & Kazykhankyzy, 2023), a lack of self-efficacy among ESL pre-service teachers (Ahmad et al., 2018; Hishamudin & Li, 2023), as well as unpreparedness and inadequate knowledge in using technology (Batanero et al., 2022; Batane & Ngwako, 2017). Additionally, the Technological Pedagogical and Content Knowledge framework or TPACK comes into discussion when discussing the teachers' knowledge. The framework was developed by (Mishra & Koehler, 2006) and serves as a guide for teachers to understand the knowledge needed by a teacher.

However, over the past few years, the framework has received criticisms, such as the lack of explanation of the technological construct. Graham (2011) went on to explain that the technological construct could have any one of dozens of different definitions and that each of these definitions was explained by a different researcher. Due to the lack of technological emphasis in the framework, past studies have stated that ESL pre-service teachers should have digital literacy, which is a knowledge that should be emphasised in teacher training programs and the TPACK framework. The TPACK framework has also been criticised due to the lack of learners' emphasis (Zainuddin & Idrus, 2017). Hence, this paper aims to explore the ESL pre-service teachers' perspectives towards knowledge of learners, digital literacy and 21st-century competency to be an effective teacher in the 21st century with the research objective and question:

RO: To explore the ESL pre-service teachers' perspectives towards knowledge of learners, digital literacy and 21st-century competency to be an effective teacher.

RQ: How do the ESL pre-service teachers perceive the knowledge of learners, digital literacy and 21st-century competency?

Furthermore, this research fundamentally contributes to the field of education. Stakeholders such as policymakers can benefit from the study by understanding the knowledge that ESL pre-service teachers need to be effective teachers in the 21st century. Teacher training programs can also benefit from this study to ensure they can produce good and quality teachers equipped with all the knowledge of a 21st-century teacher.

## **2. Literature Review**

### **ESL Learners' Needs**

For teachers to create a learning atmosphere, it is crucial that they genuinely understand their students and are aware of their requirements. This understanding goes beyond strengths and weaknesses; it includes considering each student's diverse social and cultural backgrounds, individual learning styles and emotional well-being (Rusticus et al., 2023). With this insight, educators can adjust their teaching methods to cater to learning preferences, ensuring that every student has the chance to succeed. In the context of acquiring a second language, it is imperative for English as a Second Language (ESL) instructors to possess a comprehensive understanding of their students' present proficiency levels. According to Toh and Rahmat (2021), there is a prevailing belief among ESL students that acquiring a second language is a challenging endeavour, and this perception often correlates with heightened levels of anxiety. Consequently,

English as a Second Language (ESL) instructors play a pivotal role in facilitating the acquisition and advancement of students towards their educational goals.

Previous studies have asserted the significance of English as a second language instructors accommodating the diverse needs of their students. Ives and Castillo-Montoya (2020) asserted that there is a prevailing belief among educators that the recognition and consideration of diverse learners have become increasingly urgent due to present and anticipated demographic patterns. ESL teachers must consistently meet their students' varied learning requirements (Fadzilah et al., 2010; Miranda & Wahyudin, 2023). Educators have been assigned the task of cultivating a consciousness regarding the distinct educational needs of their students and implementing measures to guarantee ongoing support for these students in their scholarly pursuits (Drigas et al., 2021).

In addition, ESL teachers must possess knowledge of the strengths and weaknesses of ESL learners to support their learning process effectively. Verzat et al. (2021) underscored the importance of elucidating the process of awareness, which involves comprehending the strengths and weaknesses of learners to develop customised lessons that cater to their specific needs. Raising awareness among English as a Second Language (ESL) instructors can enhance their students' comprehension and enable them to offer effective support in pursuing their educational goals (Ramzan et al., 2023). Therefore, ESL teachers need to have pedagogical knowledge, not only for teaching but to understand the learners' needs.

The responsibilities of ESL pre-service teachers extend beyond the mere instruction of the English language. They must cultivate individualised pedagogical approaches tailored to English as a Second Language (ESL) students' unique needs. When educators ascertain the interests of these students, it ultimately results in a more engaging and effective pedagogical approach. According to Hashim et al. (2019) and Kamaruddin et al. (2020), evidence suggests that when language learning activities are aligned with learners' interests, it can lead to increased motivation and participation among students. Furthermore, the argument is reinforced by Alamri et al. (2020), who asserted that personalised education more effectively accommodates individuals' diverse backgrounds and preferences, increasing learner satisfaction. According to Mohammad et al. (2020), it is crucial for English as a Second Language (ESL) teachers to demonstrate particular attention towards ESL learners and implement personalised learning strategies, as these approaches can enhance students' focus and motivation towards their educational pursuits. This shows that knowledge of learners gives teachers opportunities to personalise their lessons to suit learners' current needs.

### **Digital Literacy**

To accommodate the new generation of tech-savvy learners, there is a need for ESL pre-service teachers to implement technology in language learning (Hashim, 2018). Integrating technology into English as a Second Language (ESL) classrooms necessitates comprehensively comprehending students' digital inclinations. This observation enables educators to discern appropriate tools and platforms by

students' existing skill sets, thereby facilitating improved language acquisition (A. Hassan & Plcorpora, 2021). Educators can strategically select from various digital resources to incorporate into curriculum activities or utilise customised communication channels to meet students' needs. According to Martin et al. (2020), ESL educators can enhance engagement levels and foster peer collaboration by incorporating technology that aligns with student preferences. This approach ultimately leads to improved overall proficiency rates among learners. To successfully implement technology in the classroom, ESL pre-service teachers must be fully competent in using technology and have strong 21st-century competency.

Given the profound importance of technology and digital tools in the field of education, ESL pre-service teachers must exhibit proficiency in their utilisation. Digital literacy refers to a broad range of skills encompassing the effective utilisation of technology, the critical assessment of digital resources, and the adept navigation of various communication platforms (Tomczyk, 2020). Hassan and Mirza (2021) emphasise incorporating digital literacy into language learning as crucial in enhancing pedagogical approaches.

In accordance with the contemporary progression of Web 2.0, technology has emerged as a prominent focal point in pedagogical advancement. According to Sailin and Mahmor (2018), researchers suggest that ESL teachers should contemplate integrating technology into their instructional practices. This is because technology has the potential to facilitate constructivist and meaningful learning experiences. In ESL teaching, technology has significantly impacted the development of language skills, including listening, speaking, reading, and writing. Raman et al., (2023) supported by stating that technologies offer distinct opportunities, novel tools, approaches, and strategies for enhancing teaching and learning.

Several studies have indicated that integrating technology within an ESL classroom catalyses increased motivation and engagement, resulting in more captivating and stimulating lessons (Pazilah et al., 2019; Pinter, 2019; M. Rafiq et al., 2020). In the context of ESL education, it is common for individuals to experience feelings of fear and anxiety when engaging in second language acquisition, as it is widely acknowledged as a challenging endeavour (Toh & Rahmat, 2021). However, the integration of technology has the potential to create a conducive learning environment for contemporary students, who possess a natural affinity for digital tools and resources. According to Wah and Hashim (2021), students exhibit a greater level of comfort when engaging in learning activities involving technology, primarily due to their familiarity with and frequent utilisation of such tools.

Therefore, digital tools must be integrated into language instruction to guarantee the effectiveness of ESL learning. To enhance the quality of the teaching and learning process, it is imperative for contemporary educators, especially those in the field of ESL who are still in training, to possess a high level of proficiency in Information and Communication Technology (ICT). This proficiency is necessary

to ensure their confidence in effectively utilising and incorporating ICT tools and strategies in pedagogical practises across various subject areas within the teacher training programmes. It should possess the capacity to equip ESL pre-service teachers with the essential knowledge required to generate graduates of high calibre and enhance the educational environment for all students (Fajrie et al., 2023; A. Hassan & Plcorpora, 2021).

### **21st-Century Competency**

The term "21st Century Competency" holds great significance as it encompasses a range of essential skills and capabilities necessary for success in the face of contemporary educational challenges. In the current interconnected world, the rapid advancement of technology, increasing globalisation, and dynamic changes in job dynamics necessitate the acquisition of specific skill sets for individuals to thrive. In 2006, the Partnership for 21st Century Skills framework was developed as a guideline to understand the 21st century skillset (Ohio Department of Education, 2015). The framework includes skills such as collaboration skills and critical thinking. For ESL pre-service teachers, it is essential for them to acquire adequate collaboration and critical thinking skills as they must contribute to developing language proficiency in learners who require it to navigate our increasingly interconnected global society effectively (Park & Son, 2022). An additional crucial aspect involves incorporating the notion of 21st-century competency within the training process of these educators, as it will empower them to address their students' diverse requirements and anticipations effectively.

To foster positive relationships among students and peers, ESL pre-service must demonstrate proficient communication skills and practical collaboration abilities. According to Ugalingan et al. (2021), acquiring these skills is essential in establishing a conducive environment that facilitates effective pedagogy. According to Loi et al. (2021), fostering critical thinking through collaborative work is necessary to achieve effective education and promote active student participation. Additionally, it is essential to ensure that complex ideas are communicated in a manner that is easily understood through various modes of comprehension. According to Supena et al. (2021), the significance of this matter lies in its impact on the cultivation of practical communication abilities, particularly in creating collaborative learning settings that facilitate the exchange of ideas among students or the development of projects.

In the contemporary and rapidly changing global landscape, acquiring critical and creative thinking skills has assumed heightened significance among students (Zulyusri et al., 2023). Rahman (2019) argued that acquiring these skills is essential for problem-solving, decision-making, and effective communication. Furthermore, the ESL pre-service teachers could further contribute to developing these skills among the students. Calavia et al. (2023) assert that the exhibition of creative thinking in pedagogical approaches by ESL pre-service teachers can empower students to engage in independent thinking and develop novel solutions to various challenges. These abilities enhance the quality of their teaching and enable educators to effectively adapt to the evolving needs of their students and the educational environment. This demonstrates the importance of

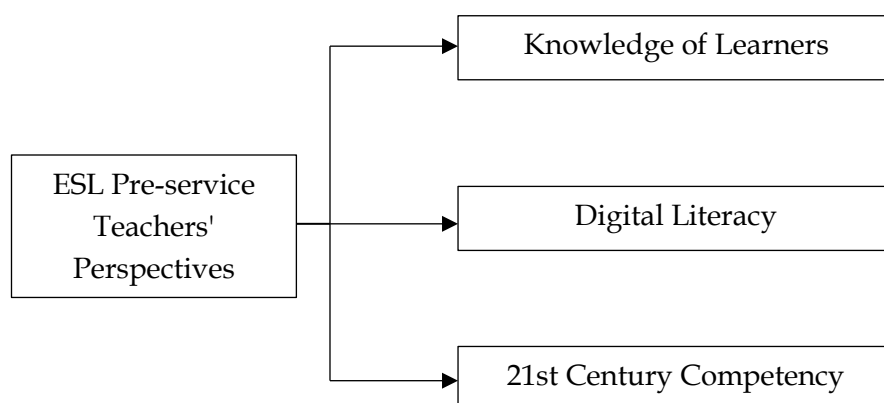
critical and creative thinking skills for ESL pre-service teachers, as these skills contribute to their professional development in teaching and learning and enable them to foster these skills in their students.

In the context of Malaysia, a research study conducted by Sulaiman and Ismail (2020) revealed the essential 21st-century skills required by teachers in Malaysia. The skills encompassed in this context comprise curriculum development, school administration and management, lesson plan formulation, assessment, and professionalism in the contemporary era. Malaysia's Ministry of Education (MOE) has implemented various initiatives to equip teachers with the necessary skills and knowledge per the 21st-century learning (PAK-21) framework. Schools provide an optimal environment for educators to employ 21st-century skills effectively. The utilisation of the Malaysian Education Quality Standard 2 (SKPMg2), specifically emphasising Standard 4, has the potential to facilitate the acquisition of 21st-century skills among students.

Teacher training programmes play a crucial role in ensuring that ESL pre-service teachers are adequately prepared to meet the objectives established by the ministry, thereby facilitating the achievement of this goal. Chouhan and Srivastava (2014) clarified the abovementioned skills, asserting that these abilities enable ESL pre-service teachers to navigate diverse circumstances and adapt to evolving societal dynamics effectively. Proficient educators frequently engage in introspection regarding amalgamating their knowledge, skills, and abilities when undertaking a task, particularly in ambiguous moments. This highlights the significance of ESL pre-service teachers possessing a solid basis of 21st-century skills in the contemporary era.

### Conceptual Framework

In this study, the teachers' knowledge is divided into three constructs, namely (1) knowledge of learners, (2) digital literacy and (3) 21st-century competency. Each construct is further explored to understand the ESL pre-service teachers' perspectives. Figure 1 shows the conceptual framework of the study.



**Figure 1: Conceptual Framework**

Figure 1 shows the conceptual framework of the study. This study looked into the ESL pre-service teachers' perspectives on the knowledge of learners, digital

literacy and 21st-century competency. This knowledge is vital for teachers to acquire to be effective and quality teachers in the modern era (Sulaiman & Ismail, 2020; Tomczyk, 2020; Zainuddin & Idrus, 2017).

### **3. Methodology**

#### **Design**

This study employed the qualitative method to explore the perspective of ESL pre-service teachers on the knowledge needed by an ESL teacher in the 21st century. The qualitative method was used to get meaningful answers and further understand the pre-service teachers' perspectives. A focus group discussion was conducted, and the data was analysed using thematic analysis.

#### **Instrument**

This study employed a semi-structured focus group discussion. On the other hand, semi-structured interviews are usually guided by a set of guidelines and centre around a central theme that offers a broad framework that needs to be explored (Ruslin et al., 2022). Semi-structured interviews are usually conducted in focus group discussions, allowing interactions and exchanges among respondents. Focus group discussions allow answers to be generated from the dynamics of opinions expressed in the discussion, such as contrarities, contradictions, distinctions, specifications, and examples (Acocella, 2012). Hence, in this study, semi-structured interviews via focus group discussions were employed to further understand the ESL pre-service teachers' perspectives. The methodology seeks to gather data from a deliberately chosen group of individuals instead of a statistically representative sample from a larger population (O.Nyumba et al., 2018). This study also employed an online focus group discussion that exhibits a distinct atmosphere of dynamism, modernity, and competitiveness, surpassing traditional challenges associated with in-person focus group discussions (Edmunds, 1999).

#### **Validity and Reliability**

Two Teaching English as a Second Language (TESL) experts validated the interview questions and protocol. This is to ensure that the questions were evaluated without bias and suitability in eliciting appropriate answers for the qualitative data collection to be valid. The reliability was carried out using member checking and an audit trail. For the member checking, the participants were asked to verify the information in the interview transcripts and get their agreement on the accuracy of what is in the transcript. The themes generated are the form of member checking that will be applied in this research. Merriam (2009) stated that the validation of the data by the respondents should be done throughout data collection. This study employed a view in which the respondents transcribed and validated the data during data collection.

For the audit trail, the study documents and records in great description and detail all the steps taken throughout the study. In other words, keeping research logs and memos is a practice. These logs and memos were taken in steps throughout planning data collection and data analysis. This practice is a must as it will describe in detail how the categories and themes are derived, the problems encountered and the rationale for the solutions. This will ensure the objectiveness



of the results that are free from bias and the interpretations made are only based on the research results (Bloomberg & Volpe, 2008)

### Sample and Population

The samples in this study were selected using purposive sampling. The purposive sampling is also called judgement sampling, in which the participants were chosen due to their qualities and characteristics (Rai & Thapa, 2015). The participants in the study were undergraduate students pursuing their Bachelor's Degree in Teaching English as a Second Language (TESL) at a public university in Malaysia. A total of 10 undergraduate students were involved in this study. The sample for this was also gathered based on voluntary participation. Figure 1 shows sampling demographics.

**Table 1: Sample Demographics**

Gender	Frequency
Male	4
Female	6
Total	10

### Procedure of Data Analysis

The data for this study was analysed using thematic analysis following the six-step analysis by Braun and Clarke (2006). The six steps of thematic analysis are 1) familiarising yourself with the data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing reports.

### Procedure of Data Collection

A semi-structured focus group discussion was conducted via Google Meet. The focus group discussion was conducted in two sessions with five participants per session. The focus group discussion was conducted online because it was done at the end of the semester, and most of the ESL pre-service teachers were already in their hometowns. Hence, they expressed apprehension about having the discussions over a certain period. This also led to the discussion being conducted online via Google Meet. The focus group discussion's main goal was to understand the perspective of ESL pre-service teachers on the knowledge needed by ESL teachers in the 21st century. Before the interview, participants consented to use English as much as possible to answer the interview questions. They also consented to have their interview session audio-recorded. The focus group discussion lasted about one hour on average.

## 4. Findings

From the analysis, three themes were submerged and categorised into three main themes: (1) knowledge of learners, (2) digital literacy, and (4) 21st-century competency. Table 1 summarises the main themes and subthemes of the study.

Table 2: Focus Group Discussion Findings

Themes	Subthemes	Exemplary notes
Knowledge of learners	Awareness of learners	"I think before we even start teaching, we need to know our students first". (R1)
		"We need to know their preferences and proficiency level in the English language". (R3)
		"If we know the learners and their level, we can design better lessons and pick suitable methods they can use to learn". (R8).
Digital Literacy	Digital Know-How	"If we do not know how to operate technological tools and have literacy, I do not think we can survive in this world as teachers". (R4)
		"Students love to learn using technology, so ESL pre-service teachers need to be able to use them effectively". (R2)
		"It is so easy to use technological tools as they offer practicality. We can save and search everything. So, it is very important for us to know how to use digital tools (R9)."
	Digital Safety	"Digital safety is so crucial as it involves making sure that the students are protected from any unwanted sources" (R5)  "Sometimes some websites might contain ads that are not suitable for students, and some might have random pop-ups. So, it is always better to be safe" (R6)

21st-century competency	Critical Thinking	<p>“Nowadays, we need to emphasise problem-solving activities and questions to the students so that we can produce critical thinkers. To do that, we need to be critical thinkers” (R7)</p> <p>“Teachers need to be able to understand facts and information that critically are related to ESL, like being able to distinguish fact and opinions” (R10)</p>
	Professionalism	<p>“Sometimes teaching and work can be stressful, but we must ensure we don’t show it to the students” (R5).</p> <p>“We have to keep boundaries and have limits on how friendly and approachable we can be” (R4)</p>
	School Development and Management	<p>“As future school teachers, we have many documents, clerking matters to do and store. So, managing them is important” (R1).</p> <p>“Having good management skills is so important because we can help the school to develop plans to make sure that the school can still deliver effective lessons even in crisis” (R6).</p>
	Collaboration Skills	<p>“ESL pre-service teachers need to be able to collaborate with peers to plan future activities for student's development, and they can invite NGOs who would like to collaborate with the schools and students” (R2)</p> <p>“If we can work well together with other teachers, it will help us ease our work” (R8)</p>

As shown in the table above, the ESL pre-service teachers emphasise three knowledge: learners' knowledge, digital literacy and 21st-century competency. The ESL pre-service teachers believed that the first step to teaching should be to know their students in terms of their teaching preferences and proficiency level in the English language. In addition, the ESL pre-service teachers added that they should have digital literacy in order to be able to accommodate the technological era and tech-savvy students. Last, the ESL pre-service teachers also asserted that they should have critical thinking, problem-solving skills, and professionalism. Further discussion of the findings is detailed in the next section.

## 5. Discussion

This study explored the ESL pre-service teachers' perspectives towards knowledge of learners, digital literacy and 21st-century competency to be an effective teacher in the 21st century. Based on the findings, the ESL pre-service teachers agreed that they must know their learners before they start teaching. This includes knowing their background and their culture. Previous studies have stated the importance of teachers understanding the strengths and weaknesses of the learners. In addition to that, teachers should also consider the learners' diverse social and cultural backgrounds, individual learning styles and emotional well-being (Rusticus et al., 2023). Furthermore, the ESL pre-service teachers also mentioned the importance of knowing the learners' proficiency level.

The ESL pre-service teachers unanimously agreed on the importance of cultivating an understanding of learners' knowledge. During their discussions, they emphasised that grasping their student's strengths, weaknesses and proficiency levels is fundamental to teaching. Verzat et al. (2021) echoed this sentiment by highlighting how crucial it is for teachers to comprehend their learners' abilities in ESL learning to tailor lessons that match their skill levels. Ramzan (2023) stated that ESL teachers could customise their teaching and learning to suit the student's proficiency level, which could result in effective learning. This shows that knowledge of learners is crucial for ESL pre-service teachers.

Digital literacy is one of the most significant forms of knowledge for teachers in the 21st century. ESL pre-service teachers must exhibit proficiency in using technology in their classrooms. Hassan and Mirza (2021) emphasise incorporating digital literacy into language learning as crucial in enhancing pedagogical approaches. Studies have indicated that technology has the potential to facilitate constructivist and meaningful learning experiences. In ESL teaching, technology has significantly impacted the development of language skills, including listening, speaking, reading, and writing. According to Gilakjani and Sabouri (2017), technologies offer distinct opportunities, novel tools, approaches, and strategies for enhancing teaching and learning. This shows that the benefits of technology integration go beyond chalk and talk. Hence, ESL pre-service teachers need to master implementing digital tools in teaching and learning. As highlighted in the findings, the ESL pre-service teachers agreed that digital literacy is a pivotal knowledge for ESL pre-service teachers to acquire.

Additionally, as asserted in the findings, the ESL pre-service teachers also agreed that acquiring digital literacy is pivotal to know how to operate technological tools and the danger they might bring. Adequate digital literacy consists of navigating technological tools and considering safety issues they might bring. Tomczyk (2020) argued that possessing digital literacy also includes critically assessing digital resources. Hence, this shows that ESL pre-service teachers should be able to know about ensuring that all digital resources are safe and appropriate for ESL learners to use. Digital literacy is also one of the skills highlighted in the Malaysian Education Blueprint (Ministry of Education Malaysia (MoE), 2015); producing future teachers equipped with digital literacy is one of the main goals stated in the blueprint.

21st-century competency is among the most discussed competencies for ESL pre-service teachers in the modern era. Among the 21st-century competencies would be collaboration skills. Having positive relationships with students and peers is imperative for all teachers. ESL pre-service teachers must exhibit proficient communication and collaboration skills to achieve this. According to Ugalingan et al. (2021), acquiring these skills is essential in establishing a conducive environment that facilitates effective pedagogy.

Additionally, Loi et al. (2021) added that to achieve effective education, fostering critical thinking through collaborative work is necessary, thereby promoting active student participation. This study highlighted that the ESL pre-service teachers believed in the significance of critical thinking skills. Rahman (2019) stated that acquiring these skills is essential in the 21st century. Having critical thinking and problem-solving skills could contribute to producing a generation of learners who are also critical thinkers (Calavia et al., 2023).

School management skills and professionalism are among the 21st-century skills stated by Sulaiman and Ismail (2020). They believed teachers must acquire a versatile package and the flexibility organisations need. In Malaysia, the Ministry of Education, through the Malaysian Education Quality Standard 2 (SKPMg2), have highlighted the need to produce quality English teachers packed with 21st-century skills such as management and professionalism. In the findings highlighted, the ESL pre-service teachers also agreed that they should possess school management skills. The ESL pre-service teachers also argued the need to be professional in teaching and their relationship with the learners.

## **6. Limitations of the Research**

The focus group discussion method used in the study caused some limitations. Due to time and practical constraints, the discussions had to be conducted and administered in two discussions in a single day. This is because the discussion was done at the end of the semester, and most of the ESL pre-service teachers were already in their hometowns. Hence, they expressed apprehension about having the discussions over a certain period. This also led to the discussion being conducted online via Google Meet. The online method also caused some issues, such as poor internet connection. However, the discussions were still managed on

a single day, and the data collected proved the importance of the constructs in the study.

## 7. Recommendations

This study explored the ESL pre-service teachers' perspectives towards knowledge of learners, digital literacy and 21st-century competency to be an effective teacher in the 21st century. Hence, future research could develop a framework that centralises the knowledge teachers and pre-service teachers need to be effective in the modern era. Future research could also modify the TPACK framework by including the knowledge stated in this study, particularly for teacher training programs in Malaysia. Future research could also investigate the challenges ESL pre-service teachers face in the 21st-century era.

## 8. Conclusion

All in all, ESL pre-service teachers must understand their learners along with digital skills and proficiency in the 21st century skills. With education evolving due to technology and global changes, educators need to equip themselves with the tools to engage and empower a diverse range of learners. Recognising the importance of these skills, teacher training programs can significantly benefit in improving the curriculum and emphasising these competencies and skills. By emphasising these competencies, teacher training programs can better prepare their teacher trainees to navigate the complexities of classrooms. This will foster a generation of educators who can effectively meet the needs of students while navigating the digital landscape.

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