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Digital Skills: Analysis of Perceived Ease of Use & Perceived of Usefulness Levels of National School Mathematics Teachers

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Abstract

Digital skills are one of the important elements for teachers at school. The teachers who are used to have a very good digital skills will be able to provide opportunities and space for students to get involved during learning. Therefore, this study aims to identify the level of digital skills of mathematics' teachers at national schools in the district of Sepang, Selangor through perceived ease of use and perceived of usefulness. This study used survey research design with a quantitative approach. A total of 133 mathematics' teachers were selected through simple random sampling to answer the instrument. The data of this study has been collected and analyzed descriptively using the Statistical Package for The Social Science (SPSS) software version 27. The findings of the study show that the level of perceived ease of use of digital skills is at a high level (mean = 3.426, SP = 0.416), meanwhile the level of perceived of usefulness of digital skills is at a moderately high level (mean = 3.300, SP = 0.485). The implications of this study can be seen for students, mathematics teachers and Ministry of Education when the learning sessions in the classroom become more meaningful.

Keywords: Technology Acceptance Model, Digital Skills, Perceived Ease of Use, Perceived Usefulness

Introduction

The Ministry of Education Malaysia (MOE) introduced a new policy in 2023, known as the Digital Education Policy (DEP). The main vision of this policy is to produce a digitally fluent generation that is competitive across all levels of society involved with schools. This includes students, teachers, and officers at all levels and divisions. The DEP outlines four main objectives and six key pillars. Within the context of this study, the focus is on the second objective: empowering educators and educational leaders in integrating digital technology through the educational ecosystem. The relevant pillar is the second pillar: digitally

competent educators. Digitally competent educators play a crucial role in adapting digital software during teaching to enhance effectiveness (Burgess & Sievertsen, 2020; Wang & Zhao, 2020). Digitally competent educators must possess good knowledge and skills and apply them during classroom instruction. According to Manaf (2018) the extensive use of digital skills in the classroom can enhance understanding and prepare students to develop various generic skills.

However, the application of digital skills among teachers is still at an unsatisfactory level. Most of them are still focused on teacher-centered teaching methods rather than student-centered methods (Omar, 2015). Furthermore, teachers are more comfortable using traditional methods that are often practiced, even though these methods appear dull and uninspiring (Hassan et al., 2010). The attitude of many teachers who remain stagnant and reluctant to use a variety of digital skills during teaching will hinder the progress of the education sector. The use of technology is seen to significantly influence the cognitive development of students (Othman et al., 2016). This is supported by Zhao and Zhu (2010), who stated that digital skills successfully promote the cognitive processes of students and encourage effective learning. This indicates that learning using digital skills not only makes the learning process more engaging and effective but also has a positive impact on other aspects.

Literature Review

In facing the challenges of globalization in today's world, the rapid advancement of the digital age has significantly transformed teaching styles to meet current needs. Present-day teaching focuses more on utilizing materials and activities centered around students. Through the use of digital skills, vast amounts of teaching-related information are easily accessible online. Education now heavily involves supporting digital skills to ensure effective and quality teaching aligned with current developments. Moreover, it enables focusing on using digital skills for researching and acquiring various information purposes. Teachers can also store and share new knowledge with colleagues using digital skills. As a result, teachers need to master digital skills as part of their professional development.

Digital Skills

Previously, digital skills were synonymous with the term Information and Communication Technology (ICT). ICT encompasses the use of computer technology and communication in handling various tasks, including acquiring, storing, processing, presenting, and disseminating information. The rapid development in technology has provided various conveniences in accessing learning-related information. However, digital skills are not limited solely to the internet; they also involve television, mobile phones, and telegrams in delivering information to recipients (Azman & Noor, 2023). With the presence of a conducive technological environment, these technological tools can support the teaching and learning process to become more effective and meaningful. Learning strategies implemented through digital skills can assist students in mastering interactive learning and developing more creative thinking. In this regard, teachers play a crucial role in bringing about changes in the learning process. Therefore, to realize future-proof learning, emphasis should be placed on digital skills. Mastery of digital skills by teachers can make the techniques and delivery of information to students more effective.

Technology Acceptance Model

The Theory of Reasoned Action (TRA) was pioneered by Fishbein and Ajzen in the book titled "Belief, Attitude, Intention and Behavior: An Introduction in Theory of Reasoned Action (TRA)," and it was the first theory related to technology acceptance, later adapted into the Technology Acceptance Model (TAM). Essentially, the TAM was developed by Davis (1989) based on the TRA, which relates to technology acceptance models. The TAM consists of three main components: Perceived Ease of Use (PEOU), Perceived Usefulness (PU), and Attitude (ATT) (Renny et al., 2013). However, in this study, only two main components of the TAM are utilized: PEOU and PU. Teacher acceptance can be determined through these two main constructs, which influence their interest and satisfaction. Teachers are inclined to use technology if they perceive it as beneficial and easy to use.

According to Saad and Daud (2016), the TAM model is based on the principles of the TRA to specifically explain the relationship between two main attributes: ease of use and usefulness. This model can be expanded for use with any type of technology and subsequently employed to identify teachers' acceptance of using digital skills in education. According to Fan et al., (2005), ease of use also influences internet perceived ease of use. Technologies that are easy and straightforward to operate often become the preferred choice for users. Various applications such as Quizziz and YouTube are widely used by teachers in teaching. All these applications can be utilized provided continuous internet access is available. Indirectly, the ease of use of the internet will increase and positively impact the usefulness of the internet among users. Ease of use in the TAM model refers to the desire to use the internet during teaching (Taylor & Strutton, 2010).

Problem Statement

However, a visible issue today is the inadequate application of digital skills among teachers, especially mathematics teachers. This issue has been frequently discussed by past researchers such as (Lubis et al., 2017; Othman, 2015). All these studies have indicated that the level of digital skills and their usage among teachers remains low to moderate. According to Abidin et al (2017), factors influencing teachers' digital skills closely relate to pedagogical knowledge, technological skills, and psychological factors. Furthermore, intensive training and social support for teachers are insufficient in ensuring mastery of digital skills. Teachers require continuous training to update their knowledge of current technologies and how to apply them in teaching. According to Salleh et al., (2018), many teachers still lack adequate training in using digital technology in classrooms. Moreover, teachers' attitudes and perceptions towards technology also play a crucial role in the application of digital skills. Some teachers are hesitant and unsure about using technology in their teaching practices. This can be observed in studies by Lee and Tan (2019), which show that a positive attitude towards technology can enhance its use in teaching.

This study aims to address several identified issues in the existing literature on digital skills among mathematics teachers in Malaysia. While many studies have examined general digital skill levels, there are deficiencies in research specifically focusing on mathematics teachers using the TAM model at the national school level, particularly in the Sepang district, Selangor. Firstly, a notable issues identified is the lack of subject-specific studies in mathematics. Previous research discussing teachers' digital skills generally, without focusing on Mathematics, can be seen in studies by Lubis et al., (2017) and Othman (2015). This is crucial because the needs and challenges faced by Mathematics teachers differ in the application of digital skills in teaching. Therefore, this study seeks to provide more detailed and relevant

data for the local context of Sepang, Selangor. Lastly, previous studies did not utilize the TAM model in assessing teachers' digital skill levels. Davis (1989) research demonstrates that the TAM model is an effective tool for understanding how users perceive and utilize digital skills. By applying the TAM model, this study aims to offer deeper insights into the factors of perceived ease of use and ease of use influencing teachers' digital skills.

Therefore, the context of this study aims to identify the level of digital skills among mathematics teachers in national schools within the Sepang district, Selangor, using the Technology Acceptance Model (TAM). Factors of perceived ease of use and ease of use will influence their willingness to utilize these skills during teaching. This study considers independent variables comprising digital skills such as operational literacy, information navigation literacy, social literacy, creative literacy, and mobile literacy. The dependent variables include perceived ease of use and ease of use factors. Specifically, this study aims to identify the level of digital skills among mathematics teachers in teaching at national schools in the Sepang district, Selangor, using perceived ease of use and ease of use factors. Therefore, the objectives of this study are as follows:

1. What is the level of perceived ease of use of digital skills in teaching Mathematics in national schools?
2. What is the level of ease of use of digital skills in teaching Mathematics in national schools?

Methodology

Research Design

The selection of research design by researchers in a research study depends on the study's objectives and the research problems to be addressed (Noah, 2003). In the context of this study, a quantitative approach with a survey design was employed among mathematics teachers in national schools within the Sepang district, Selangor. According to Creswell (2013), survey research is widely used in the field of education to gather information from a large number of respondents. Therefore, a questionnaire instrument was utilized in this study to gather information from respondents. This method is highly popular among researchers as it allows for gathering data from large samples, sometimes exceeding thousands of respondents at a time during a study (Chua, 2006).

Population and Sample

Population is a crucial indicator in a research study as it determines the sample size used. According to Creswell (2008), population refers to a group of individuals who share specific characteristics and criteria relevant to the study's objectives. On the other hand, sample refers to the study respondents selected to represent that population (Gay & Airasian, 2003). Using the Raosoft application to determine the sample size, a total of 133 mathematics teachers from national schools were randomly selected as respondents for the study. This simple random sampling method is essential to ensure that every unit in the population has an equal chance of being chosen as a study sample, thereby avoiding bias in the research process (Idris, 2013).

Data Collection Procedure

In the context of this study, a questionnaire instrument was used for data collection to obtain feedback regarding the digital skills of mathematics teachers in national schools within the Sepang district, Selangor. The construction of the questionnaire items was adapted from

Chong (2019). The researcher prepared a questionnaire set comprising a total of 55 items divided into three different sections: Part A, Part B, and Part C. Part A includes demographic profiles of the study respondents, covering five different items: gender, age, ethnicity, teaching experience, and highest educational attainment. Part B consists of 25 questions related to the ease of use of digital skills in teaching mathematics by teachers. Part C focuses on the usefulness of digital skills in teaching mathematics by teachers. All items in Part B and Part C of the questionnaire use a four-point Likert scale.

A pilot study was conducted with 40 mathematics teachers in the vicinity of the Sepang district, Selangor. Prior to distributing the questionnaire, the researcher obtained permission from the Mathematics SISC+ officers and the principals of the involved schools. Permission letters from the Education Policy and Research Division (EPRD) and the Selangor State Education Department (JPN) were also attached as evidence of support for the study. The primary aim of this pilot study was to ensure the suitability of the questionnaire items and to assess their validity and reliability. The instrument was also validated by consulting a senior Mathematics lecturer from Universiti Teknologi Malaysia. The reliability, as indicated by the Cronbach's Alpha coefficient for this study, was 0.969. According to Lim (2007), this reliability value indicates excellent reliability.

Data Analysis Procedure

After the actual study was conducted, data were analyzed using Statistical Packages for Social Sciences for Windows 27.0 software to obtain descriptive statistical data. Descriptive findings were obtained to identify the level of ease of use and usefulness of digital skills among mathematics teachers in national schools in the Sepang district, Selangor, through comparing minimum score values. The interpretation of minimum score values is explained in Table 1 as shown below.

Table 1
Interpretation of min values

Mean values	Interpretation of min values
1.00 – 1.60	Very Low
1.61 – 2.20	Low
2.21 – 2.80	Moderate
2.81- 3.40	Moderate to high
3.41 – 4.00	High

Source : Nunnally (1978)

Research Findings

Descriptive analysis was conducted to address the first and second research questions, namely the level of ease of use and usefulness of digital skills among mathematics teachers in national schools in the Sepang district, Selangor.

Perceived Ease of Use Digital Skills Level

Based on this study, the level of perceived ease of use of digital skills is measured through five different constructs, namely operational literacy, information navigation literacy, social literacy, creative literacy, and social literacy. Based on Table 2, the findings indicate that the overall minimum score for the digital skills perceived ease of use variable is high with a minimum value of 3.426 and a standard deviation of 0.416. Although the results show that

only the first construct, operational literacy, reaches a high level, the other four constructs also show minimum score values approaching high levels.

Table 2
Level of Perceive Ease of Use Digital Skills

Level of perceived ease of use digital skills	Mean score value	Standard deviation	Level
Operational literacy	3.768	0.362	High
Information navigation literacy	3.350	0.471	Moderate to high
Social literacy	3.271	0.554	Moderate to high
Creative literacy	3.350	0.512	Moderate to high
Mobile literacy	3.390	0.605	Moderate to high
Overall score mean	3.426	0.416	High

Operational Literacy Construct Perceived Ease of Use
Descriptive analysis of the distribution of operational literacy construct of digital skills perceived ease of use according to items is presented in Table 3 below.

Table 3
Operational Literacy Construct Perceived Ease of Use

Question	Statement	D	SD	A	SA
B1	I find it easy to search for information in software engines like Google Chrome	0 (0.0)	0 (0.0)	21 (15.8)	112 (84.2)
B2	I find it easy to search for received emails	0 (0.0)	0 (0.0)	25 (18.8)	108 (81.2)
B3	I find it easy to download images from the Internet	0 (0.0)	0 (0.0)	31 (23.3)	102 (76.7)
B4	I find it easy to search for suitable software like Microsoft Word	0 (0.0)	1 (0.8)	34 (25.6)	98 (73.7)
B5	I find it easy to search for saved files	0 (0.0)	2 (1.5)	37 (27.8)	94 (70.7)

In this study, the distribution of the operational literacy construct of digital skills perceived ease of use is measured by five items. Table 3 shows the frequency scores and percentages for each item studied. Based on the study findings, the highest percentage value is for item B1, "I find it easy to search for information in software engines like Google Chrome," recording 84.20% for strongly agree. Meanwhile, the lowest percentage selected by respondents is for item B4, "I find it easy to search for suitable software like Microsoft Word," with a percentage value of 0.80%.

Information Navigation Literacy Perceived Ease of Use

Descriptive analysis of the distribution of the information navigation literacy construct of digital skills perceived ease of use according to items is presented in Table 4 below

Table 4
Information Navigation Literacy Perceived Ease of Use

Question	Statement	D	SD	A	SA
B6	The design of the website facilitates information search	0 (0.0)	1 (0.8)	63 (47.4)	69 (51.9)
B7	I find it easy to verify the accuracy of information obtained online	0 (0.0)	8 (6.0)	83 (62.4)	42 (31.6)
B8	I find it easy to determine relevant keywords for online searches	0 (0.0)	6 (4.5)	66 (49.6)	61 (45.9)
B9	I do not need a course on methods for online information searching	7 (5.3)	23 (17.3)	62 (46.6)	41 (30.8)
B10	I find it easy to locate downloaded files	0 (0.0)	2 (1.5)	57 (42.9)	74 (55.6)

In this study, the distribution of the information navigation literacy construct of digital skills perceived ease of use is measured by five items. Table 4 presents the frequency scores and percentages for each item studied. According to the study findings, the highest percentage selected by respondents is for item B7, "I find it easy to verify the accuracy of information obtained online," recording 62.40% for the agree scale. Meanwhile, the lowest percentage is for item B6, "The design of the website facilitates information search," with a percentage of 0.80%.

Social Literacy Construct Perceived Ease of Use

Descriptive analysis of the distribution of the social literacy construct of digital skills perceived ease of use according to items is presented in Table 5 below.

Table 5
Social Literacy Construct Perceived Ease of Use

Question	Statement	D	SD	A	SA
B11	I find it easy to make new friends online	3 (2.3)	10 (7.5)	68 (51.1)	52 (39.1)
B12	I find it easy to determine information that should be shared online	2 (1.5)	4 (3.0)	63 (47.4)	64 (48.1)
B13	I find it easy to deactivate friends from my contact list	2 (1.5)	14 (10.5)	53 (39.8)	64 (48.1)
B14	I find it easy to share information with colleagues	2 (1.5)	7 (5.3)	54 (40.6)	70 (52.6)
B15	I often share stories with friends online	10 (7.5)	34 (25.6)	52 (39.1)	37 (27.8)

In this study, the distribution of the social literacy construct of digital skills perceived ease of use is measured with five items. Table 5 presents the frequency scores and percentages for each item studied. According to the study findings, the highest percentage selected by respondents is for item B14, "I find it easy to share information with colleagues," recording 52.60% for strongly agree. Meanwhile, the lowest percentage selected by respondents is for items B12, B13, and B14 for strongly disagree, with a percentage of 1.50%.

Creative Literacy Construct Perceived Ease of Use

Descriptive analysis of the distribution of the creative literacy construct of digital skills perceived ease of use according to items is presented in Table 6 below.

Table 6
Creative Literacy Construct Perceived Ease of Use

Question	Statement	D	SD	A	SA
B16	I find it easy to create something new like pictures	2 (1.5)	23 (17.3)	72 (54.1)	36 (27.1)
B17	I find it easy to search for new songs available in the market	2 (1.5)	6 (4.5)	62 (46.6)	63 (47.4)
B18	I find it easy to search for live-streaming videos	0 (0.0)	7 (5.3)	68 (51.1)	58 (43.6)
B19	I find it easy to search for educational websites	0 (0.0)	3 (2.3)	68 (51.1)	62 (46.6)
B20	I find it easy to search for relevant videos for teaching purposes	0 (0.0)	5 (3.8)	62 (46.6)	66 (49.6)

In this study, the distribution of the creative literacy construct of digital skills perceived ease of use is measured with five items. Table 6 presents the frequency scores and percentages for each item studied. According to the study findings, the highest percentage selected by respondents is for item B16, "I find it easy to create something new like pictures," recording 54.10% for strongly agree. Meanwhile, the lowest percentage selected by respondents is for items B16 and B17 for strongly disagree, with a percentage of 1.50%.

Mobile Literacy Construct Perceived Ease of Use

Descriptive analysis of the distribution of the mobile literacy construct of digital skills perceived ease of use according to items is presented in Table 7 below.

Table 7
Mobile Literacy Construct Perceived Ease of Use

Question	Statement	D	SD	A	SA
B21	I find it easy to install new applications on mobile devices	1 (0.8)	17 (12.8)	54 (40.6)	61 (45.9)
B22	I find it easy to uninstall existing applications on mobile devices	1 (0.8)	13 (9.8)	55 (41.4)	64 (48.1)
B23	I find it easy to access the Internet using mobile devices	1 (0.8)	6 (4.5)	45 (33.8)	81 (60.9)
B24	I find it easy to determine suitable applications for mobile devices	1 (0.8)	10 (7.5)	59 (44.4)	63 (47.4)
B25	I find it easy to organize applications according to relevant themes	1 (0.8)	14 (10.5)	58 (43.6)	60 (45.1)

In this study, the distribution of the mobile literacy construct of digital skills perceived ease of use is measured with five items. Table 7 presents the frequency scores and percentages for each item studied. According to the study findings, the highest percentage selected by respondents is for item B23, "I find it easy to access the Internet using mobile devices," recording 60.90% for strongly agree. Meanwhile, the lowest percentage selected by respondents is for items B21, B22, B24, and B25 for strongly disagree, with a percentage of 0.80%.

Perceived Usefulness of Digital Skills Level

In this study, the perceived usefulness level of digital skills is also measured through five different constructs; operational literacy, information navigation literacy, social literacy, creative literacy, and social literacy. Based on Table 8, the findings indicate that the overall minimum score for the digital skills perceived usefulness variable is moderately high, with a minimum value of 3.300 and a standard deviation of 0.485. However, two constructs, operational literacy and information navigation literacy, each record high levels with minimum scores of 3.465 and 3.582, and standard deviations of 0.496 and 0.450, respectively.

Table 8
Perceived Usefulness of Digital Skills Level

Perceived usefulness constructs	Mean score	Standard deviation	Level
Operational literacy	3.465	0.496	High
Information navigation literacy	3.582	0.450	High
Social literacy	3.185	0.564	Moderate to high
Creative literacy	2.929	0.713	Moderate to high
Mobile literacy	3.340	0.557	Moderate to high
Overall score mean	3.300	0.485	Moderate to high

In this study, the perceived ease of use level of digital skills is measured through five different components: operational literacy, information navigation literacy, social literacy, creative

literacy, and mobile literacy. The interpretation of minimum scores on a four-point Likert scale was guided by Nunnally (1978). Based on Table 8 above, the findings indicate that the minimum scores for each construct in the perceived ease of use variable are as follows: operational literacy (min = 3.465, SD = .496) and information navigation literacy (min = 3.582, SD = .450) are at a high level. Meanwhile, the minimum scores for the other constructs such as social literacy (min = 3.185, SD = .564), creative literacy (min = 2.929, SD = .713), and mobile literacy (min = 3.340, SD = .557) are moderately high. Overall, for the variable of digital skills perceived ease of use in teaching mathematics teachers in national schools (min = 3.300, SD = .485), it is at a moderately high level.

Operational Literacy Construct Perceived of Usefulness

Descriptive analysis of the distribution of the operational literacy construct of digital skills perceived uf usefulness according to items is presented in Table 9 below.

Table 9
Operational Literacy Construct Perceived of Usefulness

Question	Statement	D	SD	A	SA
C1	I am skilled in connecting computers or mobile phones to WiFi	0 (0.0)	4 (3.0)	39 (29.3)	90 (67.7)
C2	I am skilled in managing privacy, such as coordinating phishing and malware protection in search engines	2 (1.5)	31 (23.3)	61 (45.9)	39 (29.3)
C3	I am skilled in filling out online forms	0 (0.0)	4 (3.0)	53 (39.8)	76 (57.1)
C4	I am skilled in opening downloaded files	0 (0.0)	2 (1.5)	53 (39.8)	78 (58.6)
C5	I am skilled in clicking on other websites	0 (0.0)	5 (3.8)	52 (39.1)	76 (57.1)

In this study, the distribution of the operational literacy construct of digital skills perceived ease of use is measured by five items. Table 9 shows the frequency scores and percentages for each item studied. According to the study findings, the highest percentage is for item C1, "I am skilled in connecting computers or mobile phones to WiFi," recording 67.70% for strongly agree. Meanwhile, the lowest percentages are for item C2, "I am skilled in managing privacy, such as coordinating phishing and malware protection in search engines," for strongly disagree, and item C4, "I am skilled in opening downloaded files," for disagree, each recording 1.50%.

Information Navigation Literacy Perceived of Usefulness

Descriptive analysis of the distribution of the information navigation literacy construct of digital skills perceived of usefulness according to items is presented in Table 10 below.

Table 10
Information Navigation Literacy Perceived of Usefulness

Question	Statement	D	SD	A	SA
C6	I am able to revisit previously browsed websites	0 (0.0)	7 (5.3)	54 (40.6)	72 (54.1)
C7	I am able to determine suitable keywords for online searches	0 (0.0)	10 (7.5)	58 (43.6)	65 (48.9)
C8	The use of the Internet helps me obtain more accurate information	0 (0.0)	1 (0.8)	44 (33.1)	88 (66.2)
C9	The use of the Internet helps me obtain the latest information	0 (0.0)	0 (0.0)	37 (27.8)	96 (72.2)
C10	The use of the Internet helps me obtain quality information	0 (0.0)	1 (0.8)	47 (35.3)	85 (63.9)

Based on this study, the distribution of the construct of information literacy navigation perceived ease of use of digital skills is measured by five items. Table 10 shows the frequency scores and percentages for each item studied. According to the study findings, the highest percentage score selected by respondents was for item C9, "Using the Internet helps me obtain the latest information," recording 72.20% for the strongly agree scale. Meanwhile, the lowest percentage score was for item C8, "Using the Internet helps me obtain more accurate information," and C10, "Using the Internet helps me obtain quality information," recording 0.80% for the disagree scale.

Social Literacy Construct Perceived of Usefulness

Descriptive analysis of the distribution of social literacy and digital perceived of usefulness skills constructs by item is presented in Table 11.

Table 11
Social Literacy Construct Perceived of Usefulness

Question	Statement	D	SD	A	SA
C11	I can register myself in the new application	0 (0.0)	5 (3.8)	55 (41.4)	73 (54.9)
C12	I can distinguish the purpose of using each application such as Facebook and X.	1 (0.8)	5 (3.8)	54 (40.6)	73 (54.9)
C13	I often interact with friends via video conferencing	3 (2.3)	41 (30.8)	52 (39.1)	37 (27.8)
C14	I can generate income directly from video conferencing software.	15 (11.3)	48 (36.1)	39 (29.3)	31 (23.3)
C15	I can deactivate previously downloaded applications.	1 (0.8)	11 (8.3)	62 (46.6)	59 (44.4)

Through this study, the distribution of social literacy and digital perceived ease of use skills constructs was measured using five items. Table 11 displays the frequency scores and

percentages for each item examined. Based on the study findings, the highest percentage was for item C11, "I can register myself in the new application," and item C12, "I can distinguish the purpose of using each application such as Facebook and X," which recorded 54.90% for the strongly agree scale. Meanwhile, the lowest percentage chosen by respondents was for item C12, "I can distinguish the purpose of using each application such as Facebook and X," and C15, "I can deactivate previously downloaded applications," recording 0.80% for the strongly disagree scale.

Creative Literacy Construct of Perceived Usefulness

Descriptive analysis of the distribution of creative literacy constructs in digital skill perceived of usefulness by item is presented in Table 12.

Table 12
Creative Literacy Construct of Perceived Usefulness

Question	Statement	D	SD	A	SA
C16	I am skilled in writing comments on blogs.	2 (1.5)	28 (21.1)	60 (45.1)	43 (32.3)
C17	I am skilled at uploading videos to websites.	4 (3.0)	22 (16.5)	60 (45.1)	47 (35.3)
C18	I am skilled in designing learning websites.	12 (9.0)	47 (35.3)	48 (36.1)	26 (19.5)
C19	I am capable of creating short videos online.	3 (2.3)	29 (21.8)	61 (45.9)	40 (30.1)
C20	I can create animations from existing images.	12 (9.0)	42 (31.6)	48 (36.1)	31 (23.3)

Through this study, the distribution of creative literacy constructs in digital skill perceived ease of use was measured using five items. Table 12 shows the frequency scores and percentages for each item examined. According to the study findings, the highest percentage was for item C19, "I can create short videos online," which recorded 45.9% on the agree scale. Meanwhile, the lowest percentage was for item C16, "I am skilled at writing comments on blogs," recording 1.50% on the strongly disagree scale.

Mobile Literacy Constuct of Perceived Usefulness

Descriptive analysis of the distribution of mobile literacy constructs in digital skill perceived of usefulness by item is presented in Table 13.

Table 13
Mobile Literacy Constuct of Perceived Usefulness

Question	Statement	D	SD	A	SA
C21	I am skilled at installing applications on car hardware.	3 (2.3)	21 (15.8)	53 (39.8)	56 (42.1)
C22	I am skilled at downloading applications onto car hardware.	0 (0.0)	11 (8.3)	64 (48.1)	58 (43.6)
C23	I am skilled at uninstalling downloaded applications.	1 (0.8)	11 (8.3)	57 (42.9)	64 (48.1)
C24	I often use a mobile phone as a teaching aid.	3 (2.3)	9 (6.8)	60 (45.1)	61 (45.9)
C25	I frequently share accurate information on my mobile phone.	2 (1.5)	6 (4.5)	62 (46.6)	63 (47.4)

Through this study, the distribution of mobile literacy constructs in digital skill perceived ease of use was measured using five items. Table 13 presents the frequency scores and percentages for each item examined. Based on the study findings, the highest percentage was for item C22, "I am skilled at downloading applications onto car hardware," on the agree scale, and item C23, "I am skilled at uninstalling downloaded applications," on the strongly agree scale, recording 48.10%. Meanwhile, the lowest percentage was for item C23, "I am skilled at uninstalling downloaded applications," on the strongly disagree scale, recording 0.80%.

Discussion of The Study

Overall, the findings indicate that the level of perceived ease of use of digital skills in teaching among mathematics teachers in national schools is high. This suggests that each component within the digital skills perceived ease of use variable is well achieved by mathematics teachers. Different constructs such as operational literacy, information navigation literacy, social literacy, creative literacy, and mobile literacy successfully measure digital skills perceived ease of use. Findings by Martin (2021), Mansor (2021) and Kuppusamy and Norman (2021) are consistent in showing that the level of digital skills perceived ease of use among teachers is high and conducive to effective teaching implementation. Gumussoy (2016) also found that this perceived ease of use level is influenced by the quality of Internet service available either at school or at home, as disruptions and issues can affect digital skills perceived ease of use. Additionally, according to Meoller and Reitzes (2011), the use of digital skills in teaching is not a straightforward process, involving various factors such as computer equipment and Internet speed during teaching.

Furthermore, the findings also reveal that the level of digital skills perceived ease of use is moderately high. This indicates that each component within the digital skills perceived ease of use variable achieves a moderate level. It suggests that teachers' digital skills still have room for improvement, especially in the aspect of digital skills perceived ease of use during teaching. There are five different constructs that can measure the level of perceived ease of use, namely operational literacy, information navigation literacy, social literacy, creative literacy, and mobile literacy. These findings are consistent with Asnawi (2018), who found that teachers lacking training in digital skills and a strong foundation in technology skills tend to resist using them during teaching. The factor of digital skills perceived ease of use is seen to

play a crucial role, particularly for teachers with moderate skills. Additionally, this study's findings support previous research conducted by Yusoff and Marzaini (2021); Moonma (2021), who found that the factor of digital skills perceived ease of use can influence its usage outcomes. According to Chong (2019), perceived ease of use and perceived ease of use are often interconnected. If technology is beneficial, it will be used regardless of its ease or difficulty because it benefits the user.

Conclusion of The Study

In conclusion, this study indicates that mathematics teachers' digital skills are at a high level in terms of perceived ease of use factor, but at a moderately high level in terms of perceived of usefulness factor. The findings of this study can serve as a guide for stakeholders to provide professional development training to teachers, especially mathematics teachers, to ensure they are well-prepared to face educational challenges in the future. This research provides significant theoretical and contextual contributions to the field of digital skills among mathematics teachers. Theoretically, this study utilizes the Technology Acceptance Model (TAM) to assess digital skills, highlighting how factors such as perceived ease of use and perceived usefulness influence the level of teachers' digital skills. This is a novel and in-depth approach, as previous research primarily evaluated digital skills generally without focusing on mathematics teachers.

Contextually, the study is conducted in national schools in the Sepang district of Selangor Malaysia, providing relevant and specific data for this area. It highlights the unique challenges and needs of mathematics teachers in this region, providing a foundation for targeted interventions and policy decisions. This is important because the needs and challenges faced by mathematics teachers in applying digital skills might differ from those of teachers in other subjects. By addressing the local context, this research not only contributes to the global understanding of digital skills in education but also plays a pivotal role in improving educational practices and outcomes within the specific community it studies.

This research also fills a gap in existing literature by offering a more detailed analysis of digital skills among mathematics teachers, which has been relatively underexplored in previous studies. Therefore, further research is recommended to expand into different theories and models, different locations, and a broader population. In conclusion, this research is significant to the existing knowledge as it provides new insights into how digital skills can be measured and improved among mathematics teachers through the TAM. This not only helps in enhancing teaching quality but also provides a foundation for continuous training and support for teachers.

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