

# Digitalisation in Education: Language Learning Motivation Booster

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DOI: <https://doi.org/10.30880/dils.2024.04.02.006>

## Article Info

Received: 1 June 2024

Accepted: 1 July 2024

Available online: 17 September 2024

## Keywords

Digitalisation in education, digital education, digital tools, students' motivation, and tertiary education.

## Abstract

Integrating digital technology into tertiary education has become imperative, necessitating an in-depth exploration of its impact on students' motivation, especially to learn English. This research investigates the intricate relationship between digitalisation and student motivation to learn the language among tertiary students in Petaling District, Malaysia. Utilizing a quantitative approach, the researcher conducted surveys with 272 participants, adhering to the recommended sample-to-item ratio of 5:1. The predictive survey research design enabled researchers to anticipate future trends in this dynamic context. The findings reveal that digitalisation significantly influences students' motivation in language learning. The study highlights the role of educational institutions in fostering a digitally enriched learning environment that promotes student's engagement and motivation while learning the language. This research contributes valuable insights to the broader discourse on technology-enhanced education, offering practical recommendations for educators and policymakers to optimize digitalisation's impact on student motivation to learn the English language in a diverse educational landscape.

## 1. Introduction

The study revolves around the issue of digital and technological enforcement as we move towards the advancement of information and technology across the globe. This advancement surely impacted everyone, especially the education sector. What previously was done traditionally, now changed accordingly. Students learning previously in class are now able to learn anywhere, anytime with the aid of the internet and all sorts of technological aids such as internet applications and platforms, and devices readily available. However, does this technological advancement benefit the students, especially in their motivation towards learning language?

The challenges and effects accompanying the advancement of technology includes, disruption of internet networks, reduction of real-time communication, and not to mention the increase of stress, as work is supposed to be done and accessible everywhere, hence reduction of quality time for self. But amidst the negative

perspectives, there are positive ones including an increased interest in class and learning and easy access to retrieving and sharing information.

Lin et al., (2017) stated that digital learning allows learners not to be restricted on time and space, covers a lot of resources, provides self-learning materials that are interactive, attractive, and lively, less costs, effectively accumulates information for easy storage and retrieving, as well as promote learning persistence as opposed to traditional learning. Hamidah (2022), in a study, mentioned that among the factors influencing motivation to participate in online learning classes -which hereby indicates the usage of digital platforms and digitalisation in education, is an online learning environment that comprises of accessibility to lessons, participation in discussions and online class and sustainable internet, besides teacher roles, teacher-students engagements, time management, and the teaching-learning process.

Current practices in education for any subject be it primary, secondary, or tertiary are all highly related to the usage of digitalisation. From the materials in class, and outside of class, digital technology plays a major role from day to day. Teachers may use audio and visuals, as well as interactive online games in classrooms to grab the attention of the students. Teachers also mostly no longer practice talk and chalk but are far more creative with internet applications to produce teaching materials. However, can this digitalisation movement enhance motivation among students for a longer term towards language learning, or just a mere tool that does not significantly impact teaching and learning?

## 1.1 Purpose of Study

The growing demand for technology in education from both students and teachers highlights the need for further research into how this digitalization impacts student motivation. This is to ensure that the usage or shift towards digitalisation is not wasted or creates an unnecessary issue for the students' academic performance. Generally known to all, one of the most common factors towards academic achievement and performance is the motivation of the students themselves. If motivation could be increased with the application of digital technology, then the implementation of digitalisation should also be increased. If the motivation of the students decreased, then it should be rectified on how digitalisation could be implemented better to aid their motivation in language learning as the evolution of digital technology surely cannot be undone. If the motivation of the students stays at the same level after the implementation of digital technology, the situation is concerned. Hence, this study is purposely done to determine the relationship between the implementation of digitalisation in education and the enhancement of students' motivation in language learning.

## 1.2 Problem Statement

Is there truly a need for digital transformation in education in Malaysia? In the Malaysia Education Blueprint 2013-2025, one of its eleven shifts stated that ICT (Information and Communication Technology) (information and communication technology) is to be leveraged to scale up the quality of learning across Malaysia. Over the past decades, billions have been spent on education initiatives such as smart schools. However, the ICT usage is still lagging behind expectations in both quality and quantity. Previously, in 2010, approximately 80% of teachers spent less than an hour using ICT and in 2012, the usage was far more critical. The education blueprint foresees teaching and learning to be more engaging and interactive with wider access to content and encouraging independent learning at their own pace with fewer limitations on distance learning. Fast forward to the Covid Era in 2020 which forcefully shifted the traditional learning classroom to be fully digitalized for teaching and learning to continue despite the endemic, the education environment in Malaysia changed drastically, and fortunately moving along the blueprint. In 2020, the Ministry of Education even launched a new digital learning platform for teachers, educators, and students called DELIMa, (Digital Educational Learning Initiatives Malaysia), in collaboration with Google, Microsoft, and Apple. This platform offers all the services required for the Malaysian school system, enabling technologies such as Google Classroom, Microsoft O366, and Apple Teacher Learning Center. Internet networks have been continuously upgrading since then, and especially for tertiary education, online classes, and online distance learning is no longer a limitation to teaching and learning. The education system and working environment change accordingly, and people with better digital literacy are more likely to be hired. According to Communication and Digital Minister Fahmi Fadzil, the digital economy plays a significant role in creating a bigger market for Malaysians, so they are not tied to the local market only.

However, is this digital education as beneficial as it is supposed to be, specifically to enhance the motivation of students in learning, especially the English language? What are the challenges and effects behind the hype of moving towards digitalizing education? Malaysia is progressing towards better internet coverage throughout the country, with the current 5G connection and such but not all areas are getting the same coverage and benefits, especially in West Malaysia and rural Peninsular Malaysia. The disruption of the network surely reduces the drive for students to continue responding in class let alone participating in online classes, tasks, and such.

Activities are prepared and conducted digitally; materials available on the network are useless if the internet connection is bad. If it is a hassle for those in urban areas, what more in the rural areas? However, are those stopping the students' drive to learn digitally? Looking at other points, is digitalizing education better than traditional learning classrooms in terms of motivating students to learn and participate in class activities? What about the motivation of the students, are they better digitally or does it stress them out more? More to list, mental and physical well-being, participation in class, financial aspects, job opportunities, mental abilities, and communications to name a few. Hence this study is to look at the effects digital education has on students' motivation to learn language due to the increasing need of digital transformation in education in Malaysia.

### 1.3 Objective of Research

To identify the relationship between the implementation of digitalisation on the enhancement of students' motivation in language learning.

### 1.4 Significance of Study

This study is conducted to determine the relationship between the effects digital education has towards students' motivation to learn the language that resulted from the digital transformation happening in Malaysian education. The study then should be able to determine whether digitalisation in education brings benefits and does not affect or give undesirable effects on the motivation of students to learn the language. This study is important because educators will be able to conduct or tailor our teaching and learning better, using the best methods available to increase the students' motivation to learn and in class, for them to achieve better outcomes from the learning sessions. As for students, this study will be beneficial so that they can determine how much impact this digitalisation has on their motivation, so they can make full use of digitalisation in their education.

### 1.5 Research Questions

Is there a significant relationship between the implementation of digitalisation in education and the enhancement of students' motivation in language learning for tertiary education in Petaling District, Malaysia?

### 1.6 Hypothesis

There is a significant relationship between the implementation of digitalisation towards motivation enhancement in language learning among tertiary students in Petaling District, Malaysia.

## 2. Literature Review

### 2.1 Motivation

Filgona et. al., (2020) stated that motivation can be associated with the energies that could bring various meanings, assigned, or directed by learners towards their academic activities, or sometimes could be called the drive to learn. Motivation is key to success in the teaching and learning process, as it is the reason people do anything and is what "pushes" or "moves" us towards certain goals or achievements. To get the students engaged in academic activities, they need to be motivated. Determining how much they will learn or be exposed to something could be the drive for them, and eventually make them use higher cognitive processes to learn. The platform used for them to learn, technology and digitalisation, the teacher's teaching, the environment of study, and peers are among the reasons for motivation. Motivation can be in the form of characteristics or a stable interest in doing something. Learners will create an effort and continue to learn if they have solid motivation for themselves that might be affected by interests, attitudes, purposes, and beliefs, intrinsically and extrinsically. Motivation might change over time and is not fixed for everyone.

### 2.2 Digitalisation

Abid Halim et al., (2022) defined a digital classroom as the usage of electronic devices and platforms that employ technology to fulfill the entire curriculum and allow students to learn quickly, rapidly, and creatively. All media, venues, and materials serve as learning facilitators to assist students in improving their learning experiences. Technological advancements are so powerful that they make it easier for instructors to provide materials and methods to collaborate with students. Various gadgets available are to be utilized wisely to ensure engaging and attractive lessons. When technological enhancements are used effectively, learning experiences improve and increase the students' interest to gain more knowledge. Digital technologies allow students to access

information at their fingertips, in no time, provided that they have suitable and functional gadgets, platforms, and internet access. A classroom can be easily organized anytime, virtually, anywhere to share knowledge, discuss outcomes, or have meetings. However, all these could happen only at the students' self-paced and self-disciplined, especially in managing time and stress. Digital technology also allows the avoidance of repetitive lectures by providing audio recordings, storing, and retrieving data online, saving up tons of papers for notes etcetera. However, do the students use the advantages of video-recorded materials, or materials readily online to full use?

Hamidah (2022) stated in her research, that it is important to understand students' motivation in online and offline learning, and to consider how and what motivates and engages them for the students to learn better. This is because educators and digital providers may be overly confident with the usage and implementation of digital technologies, but the expected impacts do not happen as students might be affected by not only digitalisation in education for their learning motivation but also by other known or unknown factors as well.

## 2.3 Challenges and Effects

Some challenges to being digitally literate in education stated by Ugur (2020) in his research, are that people must have skills in analyzing content to determine its reliability and understand the consequences and implications of data sharing online. Besides that, other challenges are to be competent in using digital tools and interacting in digital environments. The negative consequences stated by Elena and Olga (2021) are decreasing interpersonal communication skills and decreasing communication with teachers. Arisoy (2022), in his research stated that the difficulties encountered in the digitalisation process in education are technological problems, financial resources, not all educational content is suitable for digitalisation, and lack of application. Stating the negative effects, Ronzhina et al. (2021), digitalisation typically makes the learning not done face-to-face interactively and increases cyberbullying although the participants are comfortable learning from home. These challenges might be affecting the motivation of students to learn using digital technology.

The positive effects on students with digitalisation are increasing motivation to write better on digital platforms for audiences and wanting to work harder. Next, digitalisation in education is deemed good for career advancement and social mobility which are always associated with being digitally literate. Digitalisation is relevant to the students' future career progressions and profession and helps students find jobs or get noticed by prospective employers through professional profiles such as Linked In. Other than that, Ugur (2020) said, that being digitally literate includes allowing people to communicate with others and access information in better or new ways. Ronzhina et.al (2021), in their research stated that the positive effects of digital education are higher academic performance improvement in the students, increased motivation, and better convenience to study. The students were surveyed to have assessed themselves as having higher cognitive abilities due to higher digital literacy and the regularity of using the digital environment. These positive effects are some of the reasons students go digital and are more motivated to learn.

Elena and Olga (2021) stated in their research that the majority of the respondents agree digitalisation is an important condition for improving the quality of education and digital technologies increase motivation as well as interest in learning. The positive consequences of digitalisation are stated as increasing the level of students' knowledge, reducing the level of stress because communication shifted virtually, and expanding opportunities for the exchange of experience.

## 3. Methodology

### 3.1 Introduction

The study adheres to a quantitative approach, emphasizing the importance of numerical data and statistical analysis to glean valuable insights into our research topic. Quantitative research allows the researchers to measure and quantify the various facets of the phenomena under examination, ensuring a systematic and data-driven exploration.

The design selected for this study is the predictive survey research design. This design is particularly well-suited to the research objectives, as it enables the researchers to anticipate and understand trends, patterns, and potential future outcomes related to the research topic. In the context of this study on "Enhancing Language Learning Motivation Among Tertiary Students Through Digitalisation in Petaling Jaya, Malaysia," the predictive survey research design allows the researchers to forecast how digitalisation may impact motivation among tertiary students, providing valuable insights for both current and future educational practices.

The primary instrument employed for data collection in this research is questionnaires. Questionnaires offer a standardized and structured means of collecting data, ensuring consistency and reliability in responses. Given the large and diverse sample of students involved in the study, questionnaires enable the researchers to efficiently gather data regarding their perceptions, opinions, and experiences. The questionnaires have been meticulously designed to address aspects related to digitalisation's impact on motivation to learn language in tertiary education. This instrument ensures the systematic collection of data that can be quantitatively analysed to provide in-depth insights into our research topic.

### 3.2 Research Design

A research design serves as a blueprint for addressing the research question. It outlines the overarching methodology and dictates the methods that will be employed to gather and analyse data. (Shona McCombes, 2021) Hence, the research approach can be categorized into three distinct groups which are deductive, inductive, and abductive (Hassan, 2023). The deductive approach is a research method that starts with a theory or hypothesis and tests it using empirical data to confirm or refute it (Hassan, 2023). The inductive approach is a research method that starts with specific observations or data and uses them to develop broader theories or concepts (Hassan, 2023). The abductive approach is a research method that blends deductive and inductive thinking, starting with observations or data and generating multiple explanations or hypotheses to understand complex or uncertain phenomena (Hassan, 2023).

For this research on enhancing language learning motivation among tertiary students through digitalisation education in Petaling District, Malaysia, we have opted to utilize an inductive approach. This strategic decision is driven by our overarching goal of achieving a holistic and thorough comprehension of the subject matter. By embracing the inductive approach, we position ourselves to uncover fresh insights and construct theories grounded in authentic real-world experiences and empirical data, thus providing us with a deeper and more nuanced understanding of the complex dynamics of digitalisation within the educational context.

There are three stages of applying the inductive approach to research which are data collection, pattern recognition, and theory development (Wong, 2020).

The initial phase of inductive research involves the collection of data from diverse sources, such as interviews, observations, focus groups, and surveys, which are chosen in the study, to amass a rich dataset. The primary goal in this stage is to accumulate a substantial amount of information that can serve as the foundation for recognizing emerging patterns, themes, and categories. Subsequently, in the second stage, this collected data undergoes a rigorous analysis, employing methods like coding and categorization to identify underlying trends and associations. The objective is to organize the data into coherent segments and uncover potential correlations or links between different elements. Lastly, in the third stage, the insights derived from pattern recognition guide the development of fresh ideas and hypotheses. This is where new theories and concepts take shape, built upon the data, and then further examined, refined, and validated through additional rounds of research and analysis.

### 3.3 Research Methodology

In this study, quantitative research approach was adopted. Apuke (2017) described quantitative research as a structured approach that entails the systematic gathering and analysis of numerical data. It utilizes precise statistical methods to investigate inquiries about "who," "how much," "what," "where," "when," "how many," and "how." This methodology fundamentally serves as a means of understanding intricate subjects or phenomena by collecting data in numerical forms.

The primary data collection method was a structured questionnaire. Before the main data collection, a pilot test was conducted to ensure the questionnaire's clarity and effectiveness. To ensure a representative sample from the diverse tertiary student population in Petaling District, the Stratified Random Sampling technique was employed. Subsequently, the collected data undergo rigorous statistical analysis, to provide quantitative insights into the impact and challenges of digitalisation on motivation to learn language among tertiary students in this region.

In the reporting section of the study, "Enhancing Language Learning Motivation Among Tertiary Students Through Digitalisation in Education in Petaling District, Malaysia," a comprehensive analysis of the research findings will be presented. This would include a detailed presentation of the quantitative data gathered through structured questionnaires, with a focus on descriptive and inferential statistics. This reporting section aims to provide a well-rounded and insightful account of the study's outcomes and their relevance to enhancing motivation to learn language among tertiary students in Petaling District, Malaysia.

### 3.4 Participants

In this research, the target population encompasses tertiary students within the Petaling Jaya region of Malaysia. To precisely delineate this population, several key aspects must be considered, aligning with the objectives of our study. Firstly, there is a need to ascertain the types of educational institutions within the region, such as universities, colleges, and vocational schools. This consideration will guide the decision to include or exclude specific institution types, contingent on the focal point of our research. Additionally, factors such as the age range of students, encompassing traditional-age students and adult learners, will be evaluated to determine the boundaries of our population. Furthermore, the academic disciplines of students play a crucial role. For example, researchers may opt to narrow their focus to STEM or non-STEM disciplines based on the specific objectives of the research. By thoughtfully defining the target population using these aspects, it allows the researchers for a more precise exploration of digitalisation's impact on motivation to learn the language.

The research samples include 272 tertiary students currently pursuing their studies in the Petaling District, Malaysia. This sample size decision aligns with the conventional sample-to-item ratio of 5:1, as recommended by past research. (Mumtaz Ali Memon, 2020) For instance, a study featuring 30 items or questions would typically necessitate a sample size of 150 respondents. Following this ratio, given that our questionnaire consists of 41 questions, it is determined that the minimum required sample size of respondents should not be fewer than 205 tertiary students.

### 3.5 Data Collection Tools

In quantitative research, data collection techniques commonly encompass methods like surveys, interviews, observation, document review, and secondary data collection (Houston, 2023). In this research study, questionnaires were chosen as the primary data collection method.

Questionnaires offer a standardized and structured means of collecting data, ensuring consistency and reliability in responses. Given the large and diverse sample of students involved in the study, questionnaires enable the researchers to efficiently gather data regarding their perceptions, opinions, and experiences. The questionnaires have been meticulously designed to address aspects related to digitalisation's impact on motivation to learn language in tertiary education. This instrument ensures the systematic collection of data that can be quantitatively analysed to provide in-depth insights into our research topic.

Previous research in digital education and motivation has used questionnaires effectively to measure motivation levels, assess the impact of technology on learning outcomes, and collect data from students. Teo's 2009 study, involving 159 student teachers, used a Technology Acceptance Model TAM-based questionnaire to show that people's attitudes toward technology have a significant influence on their intentions to use it in the classroom (Francis, 2017).

This choice is rooted in the need to systematically quantify and measure the impact of digitalisation on student motivation. Questionnaires are ideal for capturing numerical data and allow us to assess the extent to which digitalisation affects motivation among students. Besides that, questionnaires offer a standardized approach to data collection. Each respondent receives the same set of questions, minimizing potential interviewer bias and ensuring consistency in responses. This standardization is crucial for maintaining the integrity and reliability of the research.

In a context as diverse and extensive as Petaling District, where tertiary students form a significant population, questionnaires provide a practical means to efficiently engage a large and varied sample. Additionally, this approach is cost-effective, time-efficient, and facilitates comparative analyses.

### 3.6 Data Analysis and Statistical Processing

The participants were asked to assess each questionnaire item on a 5-point scale, where 1 is strongly disagree or negative agreement with the statement, and 5 is strongly agree or positive agreement with the statement. In terms of data analysis, our research paper will primarily employ descriptive statistics. This approach involves summarizing and presenting the data clearly and concisely, providing an overview of the key findings from the survey responses (Calzon, 2023).

Performing a descriptive analysis involves several essential stages, including data collection, data preparation, the application of methods, and the presentation of summary statistics and visualizations (Villegas, 2022). For this research paper, a systematic collection of data was achieved through the administration of a

comprehensive questionnaire designed to assess students' motivation levels and their experiences with digital tools in education.

Following data collection, rigorous data preparation procedures were executed to address missing values, format data, and make it ready for analysis. As part of the analysis, frequency distribution analysis was applied to the dataset. This involved creating frequency tables and bar charts to illustrate the number and proportion of occurrences within categorical variables. The resulting findings were presented in numerical formats, providing valuable insights into how digitalisation impacts student motivation.

This systematic approach provided a comprehensive understanding of the research area, potentially informing educational institutions and policymakers on strategies for enhancing student motivation through digitalisation.

### 3.7 Ethical Issues

The research team has considered ethical considerations by obtaining informed consent from participants, ensuring data privacy, and adhering to ethical guidelines for research involving human subjects. The researchers are committed to protecting the rights and well-being of all respondents.

### 3.8 Research Limitation

This study recognizes that the questionnaire method may be prone to response bias, including socially desirable answers, question misinterpretation, or participant availability issues. To mitigate this, survey instructions will stress the importance of honest responses. Future research could incorporate qualitative interviews or behavioral observations to complement and validate the findings, offering a more comprehensive understanding of students' motivations and experiences in digital education.

## 4. Findings

**Table 1** Findings of the study

Indicator	Scale & Percentage				
	<b>Part two: % Digitalisation Usage</b>				
	Never	Rarely	Daily	Weekly	Monthly
<b>1. Frequency</b>	11.8	18.8	52.2	13.2	4
	Not Comfortable	Slightly Comfortable	Moderately Comfortable	Very Comfortable	Extremely Comfortable
<b>2. Comfortability</b>	0	10.7	23.5	41.5	24.3
	Declined Significantly	Declined Moderately	Somewhat Improved	Improved Moderately	Improved Significantly
<b>3. Academic Performance</b>	0.7	13.2	23.5	45.7	16.9
	<b>Part Three: % Motivation to Learn English Language</b>				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>1. Knowledge of digital tools</b>	0.4	0	8.8	49.3	41.5
<b>2. Positive impact of digital tools</b>	0.4	0	24.3	31.6	43.8
<b>3. Needs to use digital tools to increase motivation</b>	0.4	1.5	19.9	48.9	29.4
<b>4. Needs to continuously use digital tools to sustain motivation</b>	0.4	5.8	24.3	37.5	32
<b>5. Easy-to-use</b>	0.7	1.5	9.2	38.2	50.4

<b>digital tools</b>						
6. Understand and create new knowledge when using digital tools	0.4	0	16.5	44.5	38.6	
7. More motivated to explore when using digital tools	0.4	0	18.8	37.9	43	
8. Enjoyable class with digital tools	0	0	11	53.7	35.3	
9. Satisfactory amount of information with digital tools	0	0	12.5	37.5	50	
10. Confidence to complete tasks with digital tools	0	0	14.3	35.3	50.4	
11. Fun time using digital tools	0	0.7	8.5	48.2	42.6	
12. Expert in using digital tools	0	0.7	16.5	44.9	37.9	
13. Better time management with digital tools	0	1.8	13.6	41.6	43	
14. Not affected by internet connection when using digital tools	1.8	4.8	29	34.6	29.8	
15. Easy access to information with digital tools	0	0	13.2	42.6	44.2	
16. Easy to participate in discussions with digital tools	0.4	0.7	18	35	46	
17. Easy to get a job with digital knowledge	0	0	14	34.2	51.8	
18. Not stressful when using digital tools	0	7.4	23.9	38.6	30.1	
19. Better comprehension with digital tools	0	0	19.1	33.1	47.8	
20. No financial effect when using digital tools	0	0	23.2	34.9	41.9	
21. Able to distinguish useful information when using digital tools	0	0.4	20.2	37.9	41.5	
22. Able to distinguish consented information when using digital tools	0	2.6	18	39.3	40.1	
	Not enhanced	Slightly enhanced	Moderately enhanced	Significantly enhanced	Highly enhanced	

<b>23. Digital implementations enhance motivation in learning</b>	2.6	4.9	17.3	<b>47.1</b>	33.1
	Never	Rarely	Often	Frequently	Very Frequently
<b>24. Frequency of using digital tools</b>	0	3.7	21.7	34.9	<b>39.7</b>
<b>Part Four: % Digitalisation and Engagement</b>					
	Low	Somewhat Low	Neutral	Somewhat High	High
<b>1. Level of Engagement</b>	0.7	1.1	18.4	<b>48.9</b>	30.9
<b>2. Level of Motivation</b>	0.4	3.6	22.4	33.8	<b>40.1</b>
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>3. Active involvement in learning</b>	0	1.1	21.3	38.6	<b>39</b>
<b>4. More interest in class</b>	0	1.8	27.9	<b>38.6</b>	31.6
<b>5. More focused in class</b>	1.1	4.4	21.7	<b>40.4</b>	32.4
<b>6. More attendance in class</b>	0	7.7	21.3	<b>43.8</b>	27.2
<b>7. More connected to teachers and friends</b>	0	1.8	14	32.4	<b>51.8</b>
<b>8. More interactive learning</b>	0.3	1.5	24.3	<b>43.4</b>	30.5
<b>9. Easy to exchange information</b>	0	1.1	26.1	29.8	<b>43</b>
<b>Part Five: % Digital Learning Experience – relationship between digital integration to motivation to learn the English language</b>					
	Not Improved	Slightly Improved	Somewhat Improved	Moderately Improved	Greatly Improved
<b>1. Attending classes</b>	0.4	3.3	17.2	<b>40.1</b>	39
<b>2. Completing coursework</b>	0	5.5	19.5	35.7	<b>39.3</b>
<b>3. Learning</b>	0	1.5	18.7	33.1	<b>46.7</b>
	Never	Rarely	Sometimes	Often	Always
<b>4. Continuation of digital usage</b>	0	4.8	22.4	32.4	<b>40.4</b>
	Not helpful	Slightly helpful	Somewhat helpful	Very helpful	Extremely helpful
<b>5. Digital resources help in learning</b>	0	3.7	28.3	<b>37.9</b>	30.1

## 5. Discussion, Conclusion and Recommendation

The survey, which involved 272 participants, is divided into five sections. The first section collects demographic data, revealing that 69% of participants are from universities, 25% from colleges, and the rest from technical institutes. Among these, 54.4% are undergraduates, and the participants' ages range from 18 to 40 years.

The second section addresses the use of digital tools in education, including their frequency, ease of use, and impact on academic performance. Most students use digital tools daily, are very comfortable with them, and believe that these tools moderately enhance their academic performance.

The third section focuses on language learning motivation. Participants generally feel knowledgeable about digital tools and strongly agree that these tools positively impact their motivation. They find digital tools easy to use, agree that these tools help them create new knowledge, and feel more motivated to learn when using digital resources. They also note that digital tools make classes more enjoyable and informative, boosting their confidence and making learning more engaging and fun.

Most students find digital tools enhance time management, information access, discussion participation, and job prospects through digital literacy. They are mostly unaffected by connectivity issues, feel no stress, and believe these tools improve comprehension without financial drawbacks. They also discern useful information well. Frequent use of digital tools is linked to increased motivation for language learning.

The fourth section examines the relationship between digitalization and engagement. Students generally agree that digital tools foster higher engagement and motivation for language learning. They feel that digital tools promote active involvement, increase class interest, help them stay focused, and lead to higher attendance. Digital tools also enhance connectivity with teachers and peers and facilitate information exchange.

The final section explores the connection between digital integration and motivation. Students report that digital learning experiences enhance their attendance, coursework completion, and overall motivation to learn. They agree that digital integration significantly improves motivation and should be continually used to sustain it.

Overall, the survey shows that participants predominantly choose positive responses (neutral, agree, or strongly agree) rather than negative ones, indicating a significant relationship between digitalization and motivation. Digitalization, encompassing internet usage, applications, platforms, and electronic devices, clearly enhances motivation in language learning. The findings confirm that digitalization positively impacts students' motivation in tertiary education in Petaling District, Malaysia.

Educators should leverage digitalization creatively to boost student motivation and engagement. Motivating students effectively requires careful planning and the thoughtful integration of digital tools. As technology evolves, educators must maintain and upgrade digital infrastructure to maximize benefits. Students should explore and persist with digital tools that align with their interests to maintain their motivation. Education providers need to ensure that digital resources are well-maintained and updated to keep pace with technological advancements.

## Acknowledgement

This research was made possible by the author. Also, the unconditional support from the Centre for Language Studies, UTHM.

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