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The Effectiveness of Multimedia Usage in Learning Arabic Language (Foreign Language) Based on Student Score Achievement

Keberkesanan Multimedia dalam Pembelajaran Bahasa Arab (Bahasa Asing) terhadap Pencapaian Skor Pelajar

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ABSTRACT

The Industrial Revolution 4.0 and Educational Revolution 5.0 on the Malaysian higher education system appear to have made learning Arabic much simpler, more accessible, and easier to understand. This study aims to determine the effectiveness of multimedia usage in teaching and learning of Arabic language. The Arabic language achievement scale score was examined through exploratory factor analysis, focusing on three dimensions: teaching method, learning method, and the lecturer's role in utilising multimedia. The article, which was quantitative research-based, also analysed the relationship between student achievement and these three variables. 266 respondents were selected using the random sampling technique of PLS-SEM analysis. The result showed a weak relationship between lecturers' roles and score achievement with a correlation of 0.103, followed by the teaching method (0.242). Meanwhile, learning methods have been identified as having a moderate relationship with a correlation of 0.422. The findings also showed that the learning method had the highest mean compared to other factors. This result highlighted that the students are not mentally and physically prepared for optimum multimedia usage in learning Arabic language, with an IPMA performance index of 73.287 compared to the teaching method and lecturer role.

Keywords: Arabic language; foreign language; multimedia usage; student achievement; PLS-SEM

ABSTRAK

Kesan Revolusi Industri 4.0 dan Revolusi Pendidikan 5.0 dalam sistem pendidikan tinggi Malaysia nampaknya telah menjadikan bahasa Arab lebih mudah dipelajari, mudah diakses, dan lebih mudah dipahami. Tujuan kajian ini adalah untuk menentukan keberkesanan penggunaan multimedia dalam pengajaran dan pembelajaran. Melalui analisis faktor eksploratori, skor skala pencapaian bahasa Arab telah dikenal pasti dalam tiga dimensi: kaedah pengajaran, kaedah pembelajaran, dan peranan pensyarah dalam amalan penggunaan multimedia. Artikel ini merupakan penyelidikan kuantitatif, juga menganalisis hubungan antara pencapaian pelajar dan tiga pembolehubah tersebut. Sejumlah 266 responden dipilih menggunakan teknik persampelan rawak dengan menggunakan analisis PLS-SEM. Hasil menunjukkan hubungan lemah antara peranan pensyarah dan pencapaian skor dengan korelasi sebanyak 0.103, diikuti oleh kaedah pengajaran (0.242). Sementara itu, kaedah pembelajaran dikenal pasti mempunyai hubungan sederhana dengan korelasi sebanyak 0.422. Penemuan juga menunjukkan bahawa kaedah pembelajaran mempunyai

min tertinggi berbanding faktor lain. Hasil ini menunjukkan bahawa pelajar tidak sepenuhnya bersedia secara mental dan fizikal untuk penggunaan multimedia optimum dalam bahasa Arab, dengan nilai indeks prestasi IPMA sebanyak 73.287 berbanding kaedah pengajaran dan peranan pensyarah.

Kata Kunci: Bahasa Arab; bahasa asing; penggunaan multimedia; pencapaian pelajar; PLS-SEM

INTRODUCTION

Among the many effects of the Industrial 4.0 and Educational 5.0 Revolutions in the higher learning system in Malaysia were the accessibility of Arabic Language learning and the easier to learn and master (Maidin et al. 2019). Indeed, Islam also encourages technology (Wan Fariza Alyati 2019). However, the use of multimedia in Arabic language teaching and learning at Universiti Teknologi MARA (UiTM) was reported to be underutilised by both lecturers and students (Nurul Asma 2022).

The issue is the lack of multimedia utilization in Arabic language learning to enhance students' achievement scores. Nurlaili et al. (2023) explained that students' interest and desire for having multimedia embedded into the learning sessions were often disregarded by the lecturers. This issue caused confusion among students on Arabic letters and their functions (Maidin et al. 2019). A study by Fared et al. (2019) also explained that students' speaking skills were hardly enhanced because students could not hear the correct pronunciation of words or distinguish letter sounds. Likewise, a study by Mihat (2022) found that multimedia use for reading skills only happened in the classroom. Saja et al. (2021; 2022) studied the use of YouTube among students and lecturers at UiTM and discovered a high level of interest, although still not comprehensive and consistent. Therefore, the benefits of multimedia technology in Arabic language classrooms need to be highlighted in various studies to overcome the challenges faced by both students and lecturers.

Thus, the hypothesis of this study is, there is a statistically significant positive effect of using multimedia on students' scores in Arabic language learning. Research objective of this study is as follows:

1. To identify the effectiveness of multimedia technology in the relationship between teaching methods and student achievement.
2. To identify the effectiveness of multimedia technology in the relationship between learning methods and student achievement.
3. To identify the effectiveness of multimedia technology in the relationship between lecturers' roles and student achievement.

LITERATURE REVIEW

THE USE OF MULTIMEDIA IN ARABIC LANGUAGE TEACHING

A quality teaching depends on the lecturers' ability to prepare their lessons to fulfil the teaching objectives and learning outcomes (Nor Fadilah 2017). The main challenge for a lecturer is to identify students' readiness before the learning session commences, which helps shape students' initial perception of the lecturer. This then created the relationship between lecturers and teachers in the context of knowledge transfer (Mohamad Kamil Ariff & Normala 2018). Medley (2012) argued that the quality of this relationship affected students' willingness to participate in classroom activities. If a positive relationship exists between lecturers and students, then the cooperation between the two can be established. For students, the main role of a lecturer is to teach them valuable lessons. Oftentimes, students need a clear explanation of any learning problems and guidance from the lecturers to assist them in searching for solutions.

According to George (2015), effective teaching means an improvement in students' learning, which can only happen in a healthy, interesting and democratic environment. Should the lecturers be able to determine students' readiness before the sessions begin, the learning outcomes could change students' behaviour as a result of receiving new knowledge or beliefs. At the end of the lessons, lecturers needed to closely examine their teaching strategies, approaches, methods and techniques in order to determine the effectiveness of the lessons. This included the factors of students' knowledge comprehension and acceptance of the topics discussed as well as the students' responses and involvement in the activities carried out in the classroom. These factors could help lecturers to make adjustments and improvements in their teaching methods (Brown & Atkins 1993; Mohamad Kamil Ariff & Normala 2018).

In UiTM, students' Arabic language backgrounds varied accordingly. There were students who have completed college level for Arabic language while others have started the course during primary and

secondary schools. In addition, there was also a group of students who had not learned the language prior to entering tertiary education. Unfortunately, the placement system in UiTM did not distinguish these different levels of students, as there were no placement tests before the semester began. Therefore, a class may contain students of different learning backgrounds, which may then affect their Arabic language proficiency levels (Ghazali Yusri 2012). Thus, appropriate teaching methods and techniques need to have utmost importance in order to ensure every student masters the topics learned throughout the language course.

The teaching of the Arabic language through audio-visual techniques, such as the implementation of animations in the classroom, is an innovation that enables the manifestation of fantasy to reality, which should be fully utilised by Arabic lecturers since it has great impacts on teaching and learning sessions (Shang et al. 2022; Wang et al. 2022). In fact, Jamalludin and Zaidatun (2003) stated that animations could help improve students' speaking and memorisation skills as well as their comprehension and interest during lessons. Furthermore, the use of animations improved students' listening skills because they were able to understand the conversation spoken with a variety of intonation as they watched the videos, and at the same time, they could imitate the sounds and improve their pronunciation skills.

In addition, Ahmad Zaki et al. (2020) suggested that online activities should be organised systematically and diversely to strengthen Arabic language skills. The use of Web 2.0 through social media (Facebook, Instagram and Twitter), live audio or video conferencing (Microsoft Teams, Google Meet, GoToMeeting, Zoom, Cisco Webex, Skype and Facebook Live) and chat applications (WhatsApp, Signal, WeChat, Telegram and Bip) also helped to facilitate students to practice their Arabic language skills (Khadijah & Maheram 2013; Shang et al. 2022; Wang et al. 2022). This technological development has made learning the Arabic language less rigid and traditional, and students have become more interested in adopting Arabic as their third language, eventually placing the Arabic language on par with other international languages in developed countries.

The teaching and learning of the Arabic language at UiTM focus on Outcome-Based Education and Student-Centered Learning (OBE-SCL), which is synonymous with an integrative approach. The purpose is to create a classroom that stimulates students to apply basic skills, understand the relationship between different academic disciplines, appreciate the elements of diversity and work productively towards the achievement of the learning outcomes. This integrative approach combines several methods, strategies and techniques that allow students to have a better understanding of the contents. It also allows lecturers to focus on appropriate content to stimulate students' thinking skills. Lecturers also attempt to integrate new ideas into existing approaches for a more effective learning experience where students are able to apply their knowledge in their daily routines, unlike the teacher-centred method, where students are expected to only sit and listen to the lectures. An integrative approach requires students to think, synthesise and provide feedback on the topics learned while increasing their achievement scores in order to produce competitive graduates (Nurul Asma 2022).

THE USE OF MULTIMEDIA IN ARABIC LANGUAGE LEARNING

Multiple studies on the use of multimedia technology in Arabic language learning have been done by Sharifah Fatimah (2013), Norhayati (2011) and Janudin (2009). They have found several advantages in this approach, among which are the interface elements that attracted students' interest as it included diagrams, pictures and colours, a diversity in texts and fonts, and attractive, clear and easy-to-understand audio. In addition, graphic elements could stimulate students' senses, especially the clear display of pictures accompanied by texts (Sharifah Fatimah 2013) and mind maps or infographic (Ahmad Fauzi et al. 2022) where students could easily understand the contents presented, especially the Arabic language knowledge section (Sharifah Fatimah 2013).

Other than that, animations also played a significant role in delivering Arabic language content. Animations stimulate the student's mind to make guesses about the meaning of Arabic sentences, especially for students who are relatively weak in the language. This is because the concept of rhyme found in Arabic phonology will be better understood by the students if it is explained through animations. On the other hand, students with high levels of intelligence will be able to develop the syntactic concept of the Arabic language to construct longer and more meaningful sentences (Sharifah Fatimah 2013).

THE ROLE OF LECTURERS ON STUDENT'S ARABIC LANGUAGE SCORES

According to Muhammad Zulazizi (2020), multimedia technology embedded into the teaching and learning process is actually a communication arrangement that applies advanced technology. Therefore, an effective teaching approach that adopts the concepts of "beyond schools" and "beyond borders" is highly necessary in order to move towards excellence in teaching as well as to inculcate successful learning experiences (Mohd Nawi et al. 2020). In other words, multimedia use in the classroom allows lecturers to be creative in preparing interactive learning materials such as e-books, digital textbooks and educational applications. These materials, such as videos, animations with interactive elements and online quizzes, help to make learning more dynamic and engaging for students (Lee et al. 2014; Zulfiani & Sugiyono 2020; Djamas et al. 2018). A lot of educational videos and animations are able to simplify complex topics, which helps students easily understand and retain the knowledge (Abdulrahaman et al. 2020; Zulfiani & Sugiyono 2020).

In the attempts to obtain information on students' interaction with the multimedia-based teaching materials used in the classroom, lecturers usually allow their students to be more independent in exploring the tools. The lecturers would let students experience the multimedia technology first-hand by choosing the topics onscreen, and it was found that students were able to access the tools easily (Deng & Benckendorff 2020; Mady & Baadel 2020).

It was also reported that students voluntarily or involuntarily responded to any questions posed by the lecturers despite the inquiries being divergent or evaluation types of questions (Sharifah Fatimah 2013). Students were also seen to have a better focus on the contents displayed onscreen. The differences in individual intelligence levels were also factors that can affect student understanding (Iqzuan Samsudin et al. 2021; Yuneline 2022). It also affects students' motivation to continue learning (Khalil et al. 2020; Nik Abdullah, Lubis & Muhammad Isa 2022). Based on the satisfactory responses to the questions, it was concluded that students had a better understanding of the topics learned with the use of multimedia, as the lesson did not require much explanation because there were concepts of visual and auditory. When students listened attentively to lecturers' explanations accompanied by pictures and text as well as other elements (animation, sound, chart, mind map and colour), they were able to remember the message delivered well. This approach can eliminate fatigue among students because one's mental activity cannot focus for too long at a time.

METHODOLOGY

SAMPLE SIZE

This research aims to investigate the effectiveness of teaching and learning the Arabic language using multimedia on student achievement. For the purpose of attaining the objectives of this research, investigating grading scores in the context of teaching and learning the Arabic language in UiTM, a quantitative research method was utilised to retrieve data. Research ethics approval is (600-TNCPI 5/3/DDN (04) (002/2023). The primary data for this descriptive and analytical study were obtained through questionnaires administered to all UiTM Melaka, including Alor Gajah Campus, Bandaraya Melaka Campus, as well as Jasin Campus. A simple random sampling technique has been used through a Google Form survey to obtain the responses. The sample size for this study was 274 students who have been identified primarily by referring to the G*Power Calculation Software (Hair et al. 2019). Based on the G*Power 3.1 software analysis, the effect size (f2) used for this research paper is 0.15 of the minimum number. According to Cohen (1992), the effect size indexes and conventional value is medium, but it is relevant for social sciences studies. The issue of an error on alpha values (α) is 0.05 (95% confidence level), and the beta value (β) is 0.05 (at 95% position to avoid error). Therefore, the minimum sample size required to be calculated by G*Power in this study is at least 138 respondents. Since a total of 274 students participated in this study, the minimum sample size requirement has therefore been met.

A seven-point Semantic Differential-based scale was used in the questionnaire to represent the most suitable responses from the respondents. The description of the semantic differential scales used includes, 1-Strongly Disagree to 7-Strongly Agree (Johns 2010). To test the reliability of the answers to the questionnaires, reliability analysis was used in the study. The reliability analysis has been conducted by referring to the rule of thumb made by Perry, Charlotte, Isabella, and Bob (2004). They described that Cronbach's alpha (α) 0.90 and above shows excellent reliability, 0.70 to 0.90 shows high

reliability, 0.50 to 0.70 shows moderate reliability and 0.50 and below shows low reliability. All factors of independent variables (teaching method, learning method, and lecturer role) and dependent variables (score achievement) have been tested using SPSS 28.0. The study used mean, standard deviation, correlation, and regression analysis to examine the relationship between teaching, learning and lecturers' roles in the Arabic language using a technology approach. Besides, the analyses also have been carried out to identify the most influential factors that affected score grades in Arabic language courses among UiTM Melaka students.

CLEANING DATA

Once the questionnaires were successfully collected, the data were cleaned through SPSS 28.0 software. This stage was needed to reduce errors that may affect the study findings by removing unqualified data such as missing data, straight lining, outliers, normality tests and collinearity statistics. Non-differentiation in ratings was detected; thus, 8 respondents were discarded. However, the present study did not have missing data. In addition, the normality of the data was reviewed to ensure that the data provided for the analysis stage is within the range of abnormalities acceptable to PLS-SEM, which is between the values -1 and +1 (1 and þ1). However, for some cases (collinearity and/or small sample size), values lower or higher than 1 are still accepted (Hair et al. 2019), in contrast to Kline (2016) setting, skewness value <2.0 and kurtosis value <7.0. Testing of normality in the study found that the distribution of data was abnormal, but still in skewness and kurtosis that met the PLS-SEM requirements, which ranged from 2.0 to 7.0 (Kline 2016). The total number of respondents who qualified for the final analysis stage was 266.

FINDINGS

DESCRIPTIVE ANALYSIS

This study represented 266 students who responded to the questionnaires distributed, and they were from various faculties in UiTM Melaka. The majority of the respondents were females (n=168; 63.2%), and the rest were males (n=98; 36.8%). They are in full-time study mode (n=266; 100%) in Jasin Campus (n=112; 42.1%), Bandaraya Melaka Campus (n=85; 32%) and Alor Gajah Campus (n=69; 25.9%). The educational qualification of the respondents shows that 80.1% (n=213) at a level of bachelor's degree and the rest from diploma (n=53; 19.9%). They are from the Faculty of Business and Management (n=122; 45.9%), School of Computing and Mathematics (n=113; 42.5%), Faculty of Accounting (n=19; 7.1%) and Faculty of Hotel and Tourism Management (n=12; 4.5%). They were from the age group 19 to 21 years (n=150; 56.4%) and 22 to 24 years (n=116; 43.6%).

In addition, the majority of the respondents had studied Arabic language either in primary school or secondary school (n=176; 66.2%) before they continued their studies at UiTM, while 33.8% (n=90) had never learned Arabic prior to enrolling on the course. Although a majority of the respondents have basic knowledge of the Arabic language, there was a 29% decline in excellent grades for level two Arabic students, from 44.4% (n=118) to 15.5% (n=41). Likewise, with the good grade, it decreased from 13.9% (37) to 7.9% (n=21), while 2 (0.8%) respondents remained at a medium grade at both levels. A total of 41% (n=109) of the respondents did not take Arabic language level one, and 75.9% (n=202) did not take Arabic language level two. These students had a credit exemption to continue taking level three instead at UiTM since they had already studied Arabic at the diploma level. The Arabic language course at the diploma level allowed them to qualify for a credit exemption to continue straight to level three.

1. PLS-SEM Approach

Once the questionnaires were successfully collected, the data were analysed through SmartPLS4.0 software.

a. Measurement Model

In this section, testing of the validity and reliability of the data was performed involving three criteria that were essential to fulfilling the requirements, which are the validity of convergence, the validity of discrimination and the internal reliability of the study items (Ramayah et al. 2018). Convergence validity refers to the level of several items that can measure the same concept. This validity is achieved when all AVE (Average Variance Extracted) values exceed the value of 0.50 and CR (Composite Reliability) passes the minimum level of 0.7 (Hair et al. 2017). The reliability of the

construct or factor studied is tested using the value of Cronbach's alpha and the value of rhoA. The minimum required value is 0.7 (Cronbach 1951). The findings showed that the minimum requirements for convergence validity, validity of discrimination and reliability of questionnaire items were met even though two items had a loading value of 0.5 (Gold et al. 2001). The results of the analysis are summarized in Table 1.

TABLE 1. Convergent Reliability Test

Construct	Item	Loading	Cronbach	rhoA	CR	AVE
Teaching Method (TEACHING)	TE1	0.729	0.865	0.873	0.895	0.520
	TE2	0.782				
	TE3	0.542				
	TE6	0.659				
	TE7	0.707				
	TE11	0.826				
	TE12	0.680				
	TE13	0.805				
Learning Method (LEARNING)	LN1	0.766	0.878	0.885	0.902	0.509
	LN2	0.719				
	LN3	0.702				
	LN4	0.655				
	LN5	0.717				
	LN6	0.766				
	LN7	0.752				
	LN8	0.743				
	LN11	0.578				
Lecturer Role (LECTURER ROLE)	LR1	0.868	0.928	0.957	0.960	0.726
	LR2	0.797				
	LR3	0.892				
	LR4	0.881				
	LR5	0.808				
	LR6	0.885				
	LR7	0.893				
	LR9	0.815				
	LR10	0.824				
Score Achievement in Foreign Language (SCORE)	CR1	0.779	0.922	0.931	0.941	0.666
	CR2	0.790				
	CR3	0.828				
	CR4	0.839				
	CR5	0.814				
	CR6	0.839				
	CR7	0.830				
	CR8	0.806				

rhoA & CR: Composite Reliability, AVE: Average Variance Extracted [Source: Nurul Asma et al. (2023)]

Figure 1 The PLS-SEM Modelling analysis showed the relationship between all variables.

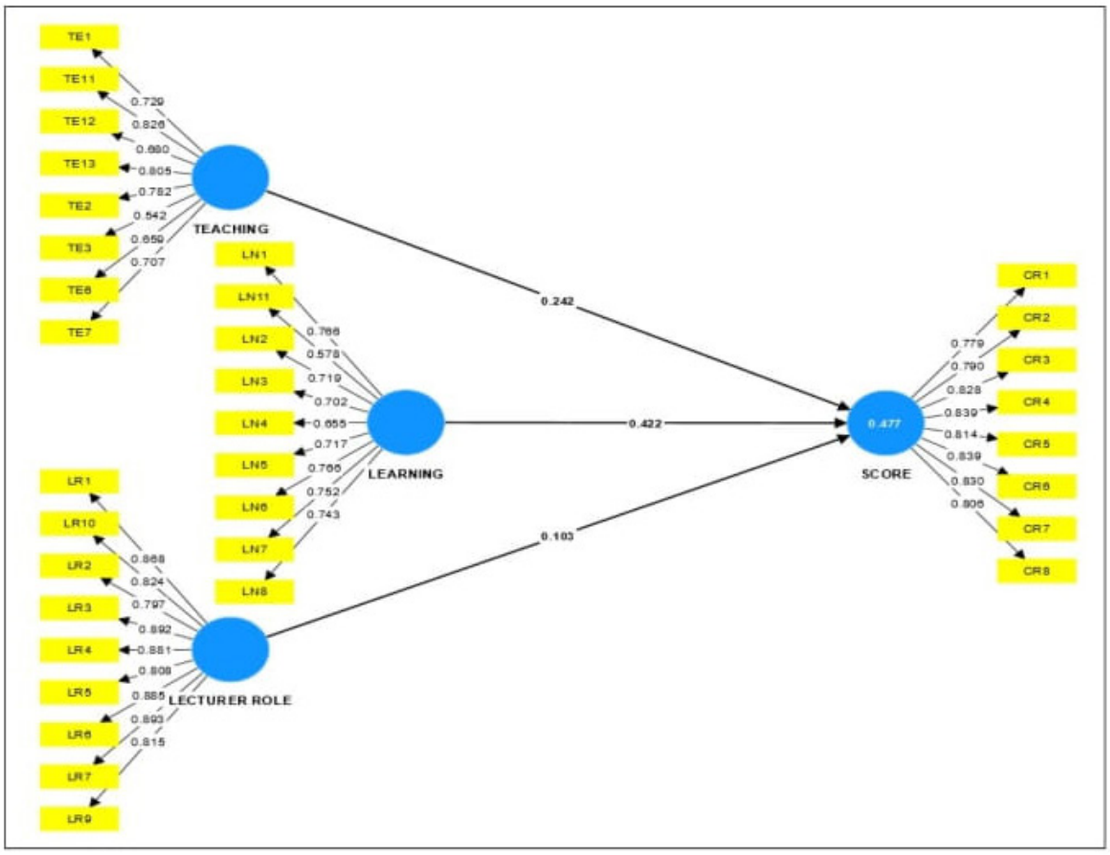

FIGURE 1. Reflective Measurement Model

The validity of the discriminant was checked using the criteria of the Heterotrait-Monotrait method – HTMT (Henseler et al. 2015). If the HTMT value is 0.90 or smaller than 0.90, the validity of the discriminant has been achieved (Gold et al. 2001). As described in Table 2, the validity of discrimination between the constructs of the studies is below the prescribed value of 0.90. All values obtained below the HTMT level of 0.90 (Gold et al. 2001) indicated that the validity of discriminant has been achieved.

TABLE 2. Ratio Heterotrait-Monotrait (HTMT)

	LEARNING	LECTURER ROLE	SCORE	TEACHING
LEARNING				
LECTURER ROLE	0.634			
SCORE	0.711	0.527		
TEACHING	0.834	0.777	0.679	

SCORE: Score Achievement [*Source: Nurul Asma et al. (2023)*]

b. Structural Model

In investigating the correlation between teaching style, learning style and lecturer role on score achievement among UiTM students, three hypotheses were tested between the variables in the study. The SmartPLS 4.0 bootstrapping function (Ringle et al. 2015) was used to test the significant level and t-value of all path coefficients in the study model. The results of the analysis revealed that both the path coefficient of teaching style, learning style and lecturer role were found to significantly affect score achievement at level 0.05 with a value of $t \geq 1.96$. Next, the quality of the study model was determined by the effect size (f^2), R^2 value and Q^2 value (Hair et al. 2017). The analysis findings showed an intangible effect size (f^2) between the two constructs with (0.010) and (0.161). This showed that the role of lecturers and teaching methods had a very small impact on score achievement, while the learning method had a medium effect on score achievement (Cohen 1988). The value of R^2 is weak at 0.473, in which Q^2 exceeded 0 (0.463), indicates that the study model has a medium predictive relevance (Hair et al. 2017). Finally, the Q^2 values for the endogenous constructs were over 0; hence predictive relevance was established. All the results of the study's hypothetical testing analysis and model quality are described in Table 3.

TABLE 3. Path Coefficient Test

Hypothesis	Correlation	Std. Beta	Std. Error	t-value	Result	R^2	f^2	Q^2
H1	TEACHING -> SCORE	0.242	0.077	2.922	Supported	0.473	0.040	0.463
H2	LEARNING -> SCORE	0.422	0.058	5.485	Supported		0.161	
H3	LECTURER ROLE -> SCORE	0.103	0.080	1.999	Supported		0.010	

SCORE: Score Achievement **p<0.05, t value greater than 1.96 [Source: Nurul Asma et al. (2023)]

Figure 2 The PLS-SEM Modelling analysis showed the significance between all variables.

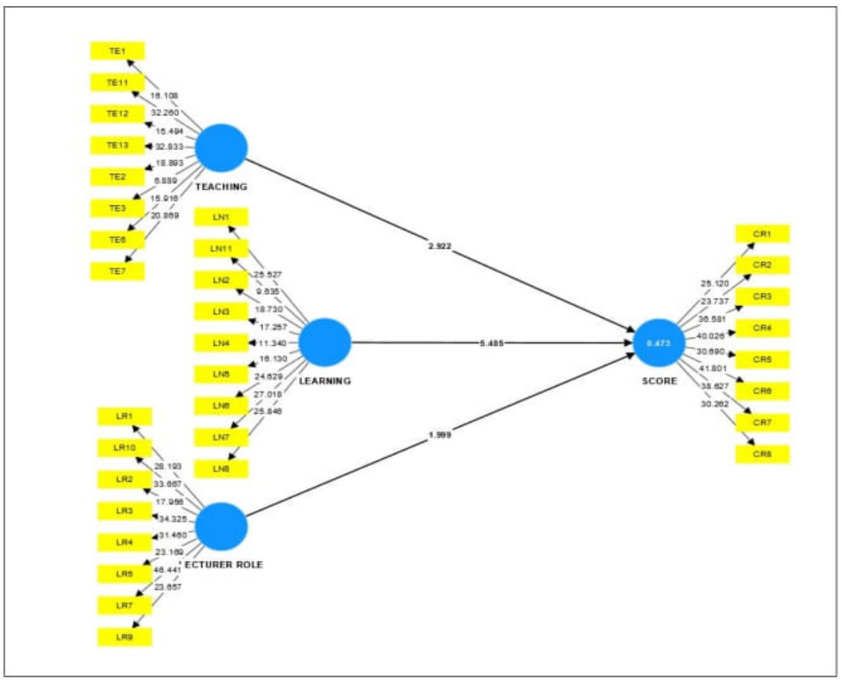

FIGURE 2. Reflective Structural Model

c. Importance-Performance Matrix Analysis (IPMA)

To obtain the diagnostic value of the model, an IPMA analysis was carried out (Martilla & James 1977). This assessment is based on a comparison between the average value of score achievement (SCORE) and the expectation of PLS, which will result in one measure of the importance of each construct in the study model. In more detail, the importance and achievement of each factor influencing the score achievement will be identified through the analysis of IPMA.

TABLE 4. IPMA Analysis

Construct	Important (Total Effect)	Performance (Index Value)
TEACHING	0.233	78.076
LEARNING	0.420	73.287
LECTURER ROLE	0.117	87.668
SCORE		67.742

Table 4 clearly shows that the factor learning style (LEARNING) is the most important factor with performance values (0.420), followed by teaching style (TEACHING) with interest values (0.233) and lecturer role values (0.117). Meanwhile, performance between all constructs shows that the lecturer role had the highest values (87.668) compared to teaching and learning styles (78.076, 73.287). Based on IPMA analysis, the learning method was shown to have a very large impact in improving the achievement of the Arabic language scores of UiTM Melaka students, but the students underutilised it, while the lecturer role was the variable that had the least impact on the achievement of student scores, but the Arabic language lecturers at UiTM Melaka gave full effort to help students in the subject. This analysis will be discussed further in the discussion section.

DISCUSSION

Overall, the findings of the study have shown that 67.742% of the independent variables, which consisted of teaching method, learning method and lecturer role, were influenced by a dependent variable which was score achievement, whereas another 32.258% has been influenced by other factors.

Based on the results of this study, live audio or videoconferencing used in the Arabic language teaching and learning sessions recorded the highest value. A total of 57.89% of the respondents chose Google Classroom as the main platform for Arabic learning activities, followed by others (30.82%) (WhatsApp, Microsoft Teams and Cisco Webex), Google Drive (1.05%) and Moodle (0.75%). This has proved that Google Classroom has become the most preferred platform among students at UiTM Melaka since it allows the lecturers to upload teaching videos, notes and additional materials and assignments. For those students who did not really understand the learning content, they could access the teaching videos provided by their lecturers as frequently as they need and at the same time, they could ask questions to their lecturers online. This result was supported by the study conducted by Noriyani (2017), in which students preferred the learning approaches using Google applications as compared to other platforms.

In addition, there was a diverse Arabic learning background among students who were taking the language course in UiTM. This included students who had finished studying Arabic at the college level or who had learned it at the secondary and primary school levels, and there were even those who had never studied Arabic prior to enrolling at the university. Despite this diversity, UiTM learning system did not distinguish the students, and there was also no placement test which meant a group of students in a class may have students of various learning backgrounds and knowledge in Arabic. Due to this factor, this study found that lecturers took a number of appropriate approaches, such as simulation methods, role-play methods and drills, by using various reference sources to ensure that all students were able to understand the topics being taught. These findings were in line with a study by Ghazali Yusri et al. (2020), who revealed that teaching methods through simulation techniques and role plays were most preferred by

lecturers at UiTM. These teaching methods were compatible with the Arabic curriculum and have already been studied for their effectiveness in the Arabic teaching and learning process at UiTM, which focuses on Outcome-Based Education and Student-Centred Learning (OBE-SCL). Additionally, language scholars acknowledged the effectiveness of cooperative methods in teaching communication compared to the traditional methods, other than the former being more relevant. This was because cooperative methods exposed students to the use of meaningful and authentic language and combined various activities that emphasised the active involvement of students in the classroom. Other than that, lecturers' active roles were necessary to ensure that language students participated in activities that encouraged them to learn spontaneously. The roles could be seen through two-way interaction between lecturers and students, shared responsibility in creating an active environment and involving every student in group activities.

This study also identified a significant relationship between lecturers' roles and students' achievement scores significantly. Arabic lecturers in UiTM has displayed positive attitude in teaching and learning sessions, including being confident and resourceful in teaching the language. In fact, lecturers often built close relationships with students and motivated them to stay interested in improving their Arabic language skills. These positive outlooks were seen through lecturers' efforts in selecting appropriate teaching methods and techniques based on students' characteristics and competence. This leads to students' perception of the lecturers would later transform into leaders and facilitators as the lecturers were always ready to assist them in overcoming learning difficulties. The lecturers who emphasised the aspect of professional socialisation that involved interaction with students could help in nurturing students' personalities and skills, which would be advantageous in their future careers. Professionalism is an important attribute to determine the competency of a lecturer, as stated in the Statement of Principles for UiTM Academics: On Academic Duties in Teaching and Learning, Research, Publication, and Community Engagement, which is (1) maintaining behaviour and character a lecturer; (2) exhibiting a positive attitude in teaching; (3) encouraging students; and (4) always building good relationships with students.

In addition, lecturers also played a significant role in assisting students to use multimedia to aid their independent learning time. Students would find it easier to understand the contents of the lesson, and it also has been found to affect the achievement of scores. Although Arabic is recognised to be a challenging subject for students to master, multimedia can involve students in the real environment through 2D and 3D animated YouTube shows, video simulations, role plays, writing interesting Arabic words, reading through e-text or audio text, an e-game application that improves language vocabulary and topics discussion through social media. The results of the study further strengthened previous studies by Muhammad Zulazizi (2020), Mohd Nawi et al. (2020), Zulfiani and Sugiyono (2020), Djamas et al. (2018), Abdulrahaman et al. (2020) and Saja (2021) where students could understand the syllabus more easily and with less pressure. The role of lecturers in creating an atmosphere of Technology Enable Learning (TEL) showed that students were able to be competitive in their field and could also meet industry criteria as skilled workers in ICT, as shown in studies by Deng and Benckendorff (2020) and Mady and Baadel (2020).

Furthermore, the study has also proven a strong significant relationship between learning methods and achievement scores. Effective learning happened when students were capable of mastering the Arabic language, especially in communication skills. Students' desires to learn beyond what has been taught in the classroom could also develop them to be independent, optimistic and creative individuals. Language learning through multimedia could also build self-confidence to speak in Arabic because students were able to integrate the elements of innovation into the conversation. For example, as part of their assessments, students would develop dialogue simulation videos by adding pictures, texts, sounds and animations that might affect the audience's emotions. In addition to the role of lecturers to guide and facilitate students, continuous and consistent practices allowed students to improve their language skills. This finding supported the studies by Mohamad Kamil Ariff and Normala (2018), Medley (2012), Brown and Atkins (1993), Jamalludin and Zaidatun (2003) and Ahmad Zaki et al. (2020). The higher the language skills, the higher the score can be achieved. The implication was that multimedia and Arabic language learning could never be separated and must be developed continuously.

On the other hand, even though the students

lacked knowledge of the use of technology, they agreed that the lecturers really helped them overcome their challenges in the learning process. The teaching approach used by the lecturers was not really complicated, and the lecturers did try to understand students' problems and, at the same time, ease the students' concerns to go through the ongoing semester that was full of challenges. The majority of UiTM Melaka students agreed that their lecturers already gave a full commitment to the teaching and learning process.

Hence, it can be concluded that most students were not physically and mentally ready for full technology usage in teaching and learning. In addition, a lack of knowledge in the usage of technology has made it more difficult for students to practice their learning, and lecturers have also struggled to ensure their teaching sessions are effective and accessible to students.

CONCLUSION AND RECOMMENDATIONS

The researchers believe that students with a good ability to use various tools and technologies will be able to participate in teaching and learning more easily. It is also vital for students to have a good technological background in order to be excellently involved in learning since they are required to have some level of comfort while using computer and web technologies. Without good technological knowledge, it becomes a hindrance for the students to take part in online learning. To increase the acceptance level among the students towards teaching and learning sessions, it is very crucial for the management of the university to take several initiatives to provide technological training to the students through Google Meet, Skype and Cisco Webex, among others. This training may be available through internal resources of institutions, such as the Information Technology department in a university. Correspondingly, training sessions can be conducted outside of the university by software vendors or IT experts from other educational institutions. Training, whether conducted internally or externally, is positively related to technology acceptance.

For future research, it is recommended that the researchers broaden the population of the study to several other universities and not only focus on one university so that the result of the study can be generalized. Finally, it is suggested that future researchers investigate or examine factors other than technology acceptance that could affect score achievement during teaching and learning sessions.

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Conceptualization and writing original draft preparation, Ijlal Saja; methodology and formal analysis, Nurul Asma Mazlan; resources, Asma' Wardah Surtahman; editing and translating, Nur Aqilah Norwahi; Provides mentor and writing-review, Ahmad Maghfurin. All authors have read and agreed to the published version of the manuscript.

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