The User-Friendliness and Effectiveness of the Interactive E-Book *"Learn Malay With Rene"* for Adult Foreign Speakers

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ABSTRACT

The rise of e-books has been adopted in the education system around the world due to their positive impact on the learning environment, including language learning. However, previous research has shown that the use of interactive e-books in learning Malay in Malaysia is still not encouraging. The purpose of this study is to investigate the user-friendliness and effectiveness of self-learning Malay among adult foreign speakers. This study used mixed-mode research and the Technology Acceptance Model (TAM) as a quantitative framework. The research material chosen is an interactive e-book titled *"Learn Malay With Rene,"* which was written and developed by the researcher with the participation of 18 adult foreign speakers and expatriates from Iskandar Puteri, Johor Bahru. The study's findings show that adult foreign speakers positively perceived e-book designs with interactive elements and multimedia features that are user-friendly and simple to use. Meanwhile, respondents were optimistic about interactive e-books as a self-learning Malay language tool. The study can be used as a reference for designers when creating materials for interactive e-books for learning Malay. Adult foreign speakers clearly enjoyed the audio-visual learning material and appreciated the interactive links in the e-book that included graphics, music, videos, games, and quizzes. As a result, it is possible to conclude that interactive e-books should be expanded in all fields, particularly in teaching and learning Malay.

Introduction

Malaysia is getting more and more attention from the outside world, not only for economic purposes or investment but also from the point of view of language and cultural diversity, which attracts many citizens, foreigners and tourists to Malaysia. Based on *the Demographic Statistics Report* for the third quarter released in November 2021 shows that the composition of the non-citizen population is 2.65 million people (8.1 percent). While the 2020 *Malaysian Immigration Department Counter Service Transaction Statistics* shows the number of foreign nationals from the professional group entering Malaysia through various passes or permits is 343,357 and holds expatriate status amounting to 119,293 and not including the number of spouses and children. A 2019 *InterNations* survey found that expatriates in Malaysia are a contented group, satisfied with the cost of living, their personal finances, and their standard of living. *"Malaysia My Second Home"* scheme also allures foreign nationals to settle in Malaysia and not to mention the flow of foreign workers into our country.

According to Junaini Kasdan et al. (2018), in the excitement of welcoming foreign citizens, proper planning and action should be given priority in order to develop the Malay language for foreign speakers. In order to dignify the Malay language, it must go through changes that are in line with the latest digital technology developments. The use of this technology is not only in terms of embodiment, manifestation, or feeling. It also needs to be assisted by filling in a visible or real form, especially in digital or electronic publications (Awang Sariyan, 2021). Since these foreign speakers come from various countries such as Europe, the Middle East, the Archipelago, and many more, the emphasis on technological software to increase motivation is very important in the context of Malay language learning. This is to ensure that learning Malay is done with an approach that is easy to understand and not boring (Juwairiah Osman, 2021).

The purpose of this research is to keep up with the rapid developments in the field of e-learning and the widespread use of e-books, specifically in foreign language learning. Furthermore, we will be able to bridge the gap between learning the Malay language and other prominent languages in the world by implementing digital technology of interactive e-books.

Literature Review

According to a study conducted by Kang, Wang, and Lin (in Hamadah Alsadoon, 2020), e-books are one of the new products in information technology that include a variety of digital and interactive functions such as monographs, hypertext, interactive dictionaries, bookmarks, links, highlights, multimedia objects, and note-taking. E-books, according to Khamis (2019), are an interactive medium that differs from paper as a medium. Text, sound, image, and video elements present specific content in a dynamic multimedia format that differs from the traditional paper or audible book. Baharuddin and Hashin (2020) stated that e-books could provide students with a more diverse learning environment than traditional teaching, provide an experience of interaction between students and the media, and improve students' logical thinking and ability by utilizing their senses almost entirely, such as sight, hearing, and touch. Phadung and Dueramae (2018) demonstrated that e-books, including animation, help students understand abstract concepts and that e-books can provide a clearer picture and easily accessible explanations of an event or phenomenon. Learners' ease of use of mobile devices such as smartphones and laptops for social interaction can vary greatly when the same devices are used for academic purposes. Kyong-Jee Kim (2010) conducted a study on self-directed e-learning that included working adults or people who did not attend formal educational institutions and focused on the use of digital technology specifically. According to the findings, the most important motivator for adult students to choose self-directed e-learning is the flexibility and convenience it offers in online learning.

E-books are becoming more popular, and many parties have expressed interest in the use of e-books in the language learning environment in the field of education. Foreign speakers have been drawn to the use of digital e-book technology in language education because they can read some readings digitally through electronic devices such as smartphones, tablets, computers, specialized e-book readers, and personal digital assistants (Al-Harthi et al., 2020; Jia & Chen, 2020; Zhang et al., 2020). The technological limitations of learning Malay have a significant impact on adult foreign speakers who learn Malay on their own. Foreign speakers require engaging, relaxed, and effective learning methods in order to understand and remember Malay phrases. Effective learning can assist foreign speakers in the beginning and continue to learn how to interact with Malaysians (Juwairiah Osman, 2018). Mardian Shah Omar and Mashrom Muda's (2019) study discovered that using technology in teaching and learning Malay to foreign speakers, such as smartphones and the internet, can help them to understand and remember vocabulary in conversation. In comparison, Zeckqualine Melai and Dayang Nurlisa Abang Zainal Abidin (2017) stated that teaching strategies that use technology such as video, audio, quizzes, and online games could determine success or failure in Malay language courses among foreign speakers. The use of digital technology, including e-books, has improved foreign speakers' listening and reading abilities. Foreign speakers' favourite method of learning Malay has been interactive e-books, which have succeeded in increasing interest and motivation to continue learning (Juwairiah Osman, 1984).

However, according to Nor Zuhidayah Muhd Zulkifli and Siti Saniah Abu Bakar (2016), researchers discovered that the teaching and learning of the Malay language were not passed down in the form of easily accessible teaching materials or technology. According to the study, while teaching or learning materials can be obtained on social sites such as *YouTube, Facebook*, and so on, many of those produced are not done in a planned manner. Compared to websites that offer similar content in English, Nuraihan Mat Daud (2014) claims that the use of e-books in Malay language instruction is still rare in Malaysia, and the number of such resources is too small and neither reliable nor widely used. Another study, conducted by Junaini Kasdan et al. (2018), was conducted online and was open to foreign speakers anywhere for 30 days. This questionnaire received voluntary feedback from 50 respondents from 17 countries on teaching and learning materials. According to the study's findings, 85.0% of respondents said it is difficult to find Malay language online learning materials that are up-to-date with technological advances and can be accessed at any time or place.

In this study, the user-friendliness of the interactive e-book *LMWR* was explored, and *The Tech Terms Computer Dictionary* (2022) defines user-friendliness as an intuitive hardware or software interface. It is easy to learn and understand since it is "user-friendly." Interfaces that are user-friendly have four characteristics, including simplicity (i.e., they are straightforward and uncomplicated); cleanliness (i.e., they are well-organized); intuitiveness (i.e., they are simple for the average user); and reliability (i.e., they do not crash or malfunction). A study conducted by Wang

(2015) used "usability" terms similar to user-friendliness in order to better understand the relationship between the intentions of mobile e-book interface designs and user perceptions. Wang concluded four usability principles for mobile e-books based on Nielsen's (1993) attributes, Norman's (2002) good design principles, and Yeh's (2010) 3e indicators in his study: (i) visibility: the system provides users with information that encourages interaction and communication, as well as clear instructions; (ii) ease: the system is simple to learn, and users can quickly become acquainted with the system's functions and operations, resulting in minimal time spent on learning; (iii) efficiency: once users have learned how to use the system, it is simple to use all of the system's functions at full capacity; (iv) enjoyment: when using the system, users feel satisfied after completing a task.

Research Objectives

The objectives of this research are:

1. To investigate the user-friendliness of the e-book *LMWR* in Malay language for adult foreign speakers in terms of interactive features and multimedia elements.
2. To investigate the effectiveness of the interactive e-book *LMWR* as a self-learning tool Malay language for adult foreign speakers.
3. To explore adult foreign speakers' motivation to learn Malay language using the interactive e-book *LMWR*.

Methodology

Research Methods and Instruments

TAM (Venkatesh, V., & Davis, F. D. 1996) was used as a quantitative approach framework to develop research instruments, as a guideline in data analysis, answer the research questions, and elaborate the study's results and findings. The collection of quantitative data in the form of questionnaires is divided into two parts; Part A focuses on the respondents' demographics and backgrounds. Part B consists of 56 questions that have been adopted and modified based on previous research by (Elyazgi Moamar, 2018) sourced from TAM approach. Referring to Figure 1, there are four TAM indicators: i. *Perceived Ease of Use* (PEOU) ii. *Perceived Usefulness (PU)* iii. *Perceived Enjoyment* (PE) iv. *Behavioral Intention* (BI).

A set of three questionnaires with a 5-point Likert scale, including (a) 1. Strongly Agree 2. Agree 3. Undecided; 4. Disagree 5. Completely Disagree (b) 1. Outstanding 2. Good 3. Satisfactory 4. Less Satisfactory 5. Not acceptable (c) 1. Very frequently 2. Frequently 3. Occasionally 4. Seldom 5. Never.

Figure 1: Technology Acceptance Model (TAM) Four indicators: PU, PEOU, PE & BI
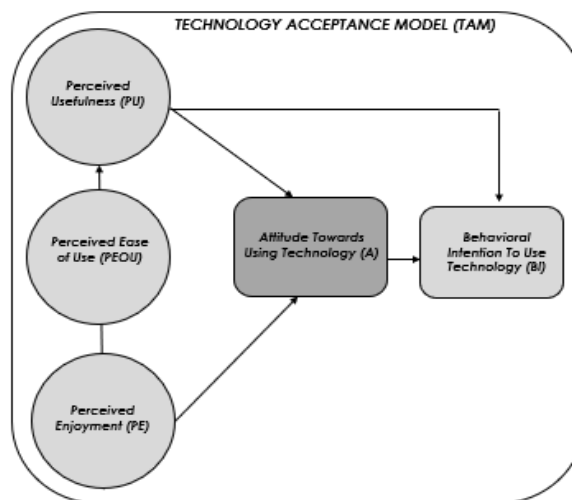
Using semi-structured interviews, the qualitative instrument directs questions and conversations around topics related to adult foreign speakers' perceptions towards the interactive e-book *LMWR*. Thematic analysis was used for qualitative data analysis, which implies searching across a data set to identify, analyze, and report on repeated patterns.

Population & Sampling

The study population included a small expatriate community that lives in Iskandar Puteri, Johor Bahru. The random sampling method was used to select 18 respondents in total, 14 expatriates and their spouses and four respondents who live in their own country outside of Malaysia and are interested in learning Malay.

Research Material

The research material chosen in this study is an interactive e-book titled *"Learn Malay With Rene" (LMWR)*, authored and developed by the researcher herself. The interactive e-book *LMWR* can meet the needs of the study since the design characteristics of this e-book includes; (a) interactive features in the form of a network of links and easy clicks to websites and multimedia; (b) multimedia elements in the form of text, graphics, audio, and video; (c) software, layout, text display, screen display, and background display. (d) mobile devices can be used on tablets, computers, or smartphones. The contents of the e-book *LMWR* included five chapters of basic Malay grammar and daily conversations for beginners. Prior to participating in this study, respondents were sent an email with a network link that enabled them to read and view the interactive e-book *LMWR* on any device, including a tablet, computer, or smartphone. In order to activate the e-book's optimal functionalities and interactive features, it must be downloaded and converted into a *PDF, EPUB, MOBI*, or *Kindle reader*.

Figure 2: Examples of the interactive components used in the interactive e-book *LMWR*
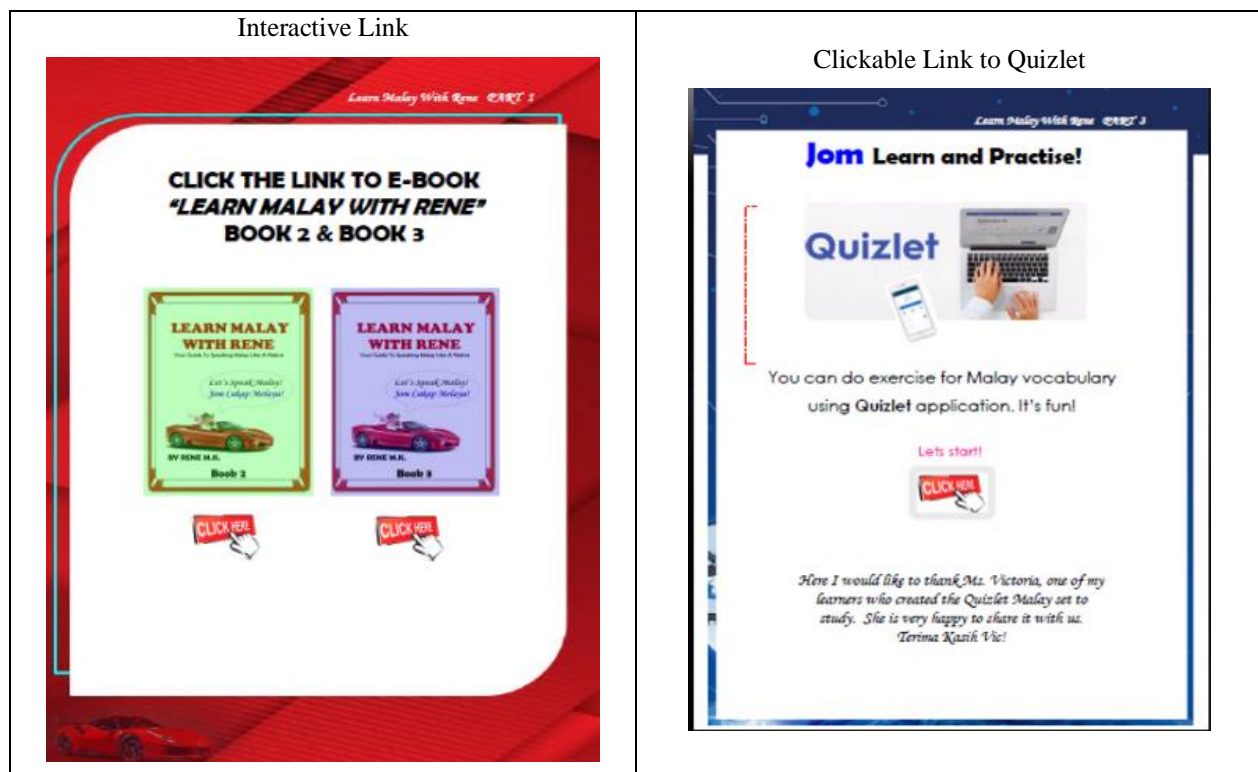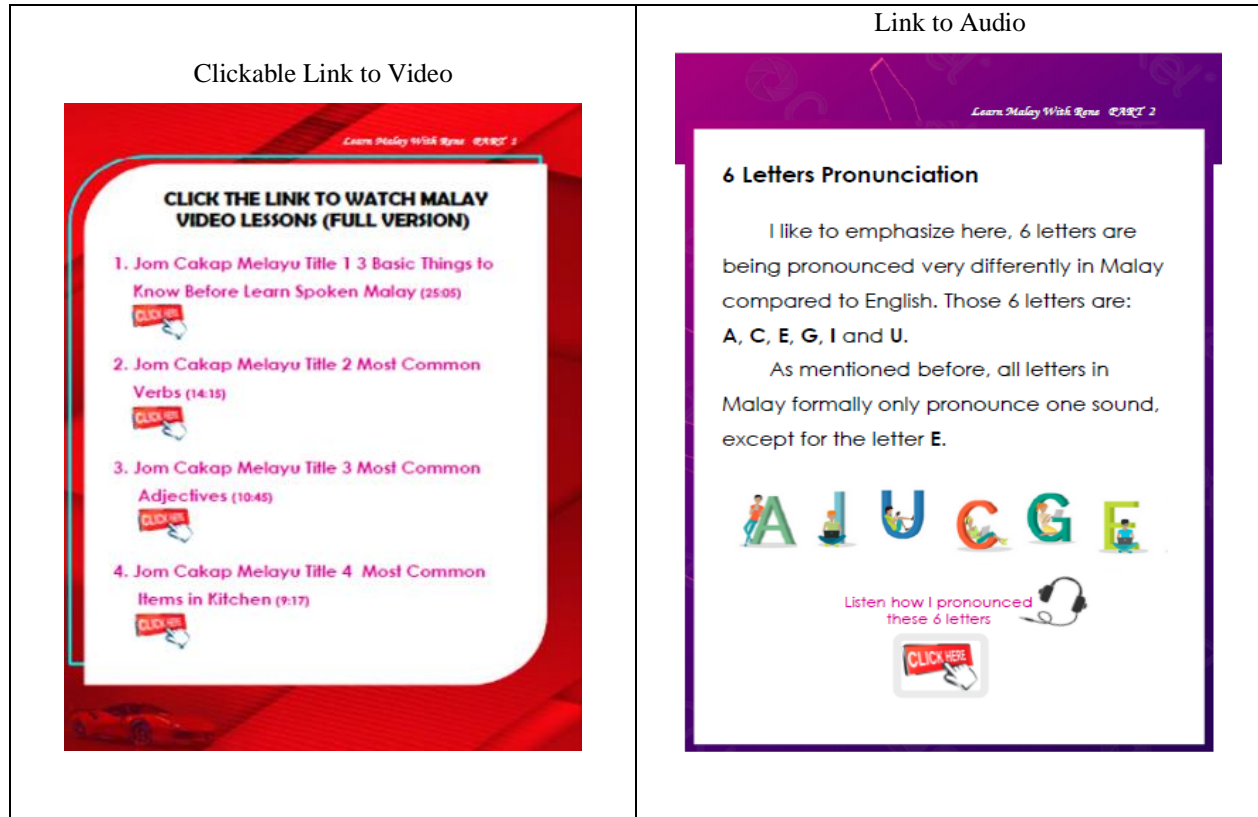
Figure 3: Examples of the multimedia components used in the interactive e-book *LMWR*

Clickable Link to Video	Link to Audio

Results & Discussions

Respondent's Demography & Background

Table 1: Continent

		Frequency	Percent	Valid Percent	Cumulative Percent
Continent					
Valid	Asia	4	21.1	22.2	22.2
	Africa	1	5.3	5.6	27.8
	America	2	10.5	11.1	38.9
	Europe	9	47.4	50.0	88.9
	Australia	2	10.5	11.1	100.0
	Total	18	94.7	100.0	
Total			100.0		

The questionnaire was completed by nine people from the European continent, including the United Kingdom, France, Germany, the Netherlands, Denmark, Ireland, Australia, and Russia. As shows in Table 1, there are four people from Asia, 22.2 percent, including Japan, Iran, Hong Kong, and the Philippines, and others from Australia, Africa, and America, including Canada and the United States.

Table 2: Age

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	56-75	3	15.8	16.7	16.7
	46-55	6	31.6	33.3	50.0
	36-45	6	31.6	33.3	83.3
	25-35	3	15.8	16.7	100.0
	Total	18	94.7	100.0	
Total			100.0		

Based on Table 2, the combination of respondents aged 35-55 accounted for 66.6 percent of the total number of respondents. Others aged 25-35 and 56-75 account for 16.7 percent of the total.

Table 3: Gender

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	6	31.6	33.3	33.3
	Female	12	63.2	66.7	100.0
	Total	18	94.7	100.0	
Total			100.0		

Table 3 illustrate that the majority of the respondents were women (66.7 percent) and men (33.3 percent or six people).

Table 4: Education Level

Education		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree	12	63.2	66.7	66.7
	Master	6	31.6	33.3	100.0
	Total	18	94.7	100.0	
Total			100.0		

Based on Table 4, the respondents' educational levels were as follows: 12 Bachelor's Degrees (66.7%) and six Master's Degrees (33.3%).

Table 5: Residency Status

Status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Expatriate	14	73.7	77.8	77.8
	Foreign Learner	4	21.1	22.2	100.0
	Total	18	94.7	100.0	
Total			100.0		

Table 5 display that respondents were categorized into two parts: 14 of those who lived in Malaysia as expatriates (77.8 percent) and four of those who were multilingual speakers who lived outside Malaysia (22.2 percent).

Table 6: Reason for Learning Malay Other than Interaction with Locals

Reason learn Malay other than interact with locals		Frequency	Percent	Valid	Cumulative
Valid	Working	1	5.3	5.6	5.6
	Resident Permit	3	15.8	16.7	22.2
	Family	2	10.5	11.1	33.3
	Traveling	12	63.2	66.7	100.0
	Total	18	94.7	100.0	
Total			100.0		

Respondents have other goals besides learning Malay to interact with locals. According to the data, the majority of the respondents, a total of 12 people (66.7 percent), learn Malay for the purpose of travelling in Malaysia. Three people (16.7%) wanted to apply for a permanent resident permit, two (11.1%) wanted to pursue family interests, and one (5.6%) wanted to pursue employment.

Table 7: Malay Language Proficiency

Malay level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Beginner	11	57.9	61.1	61.1
	Pre-Intermediate	3	15.8	16.7	77.8
	Intermediate	4	21.1	22.2	100.0
	Total	18	94.7	100.0	
Total			100.0		

The majority of respondents have a beginner level of mastery or proficiency in the Malay language, with 11 people (61.1 percent), four advanced people (16.7%), and three pre-advanced people (22.2 percent).

Table 8: Malay Language Attendance Class Hours

Attended Malay class		Frequency	Percent	Valid	Cumulative
	26 hours & above	6	31.6	33.3	33.3
	10-15 hours	2	10.5	11.1	44.4
Valid	1-9 hours	8	42.1	44.4	88.9
	Never	2	10.5	11.1	100
	Total	18	94.7	100	
Total			100		

This data shows that respondents who have attended an informal Malay language class for 1-9 hours total of eight people (44.4 percent), those who have attended a class for 10-15 hours total of two people (11.1 percent), and those who have never attended a class total two people.

Table 9 Availability of High-Speed Internet

High Speed		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	2	10.5	11.1	11.1
	Yes	16	84.2	88.9	100.0
	Total	18	94.7	100.0	

Sixteen respondents with 88.0 percent have high internet speed, and only two people have internet speed problems with 11.1 percent.

The user-friendliness of the LMWR IN Malay Language e-book for adult foreign speakers in terms of interactive features and multimedia elements.

The result is based on two TAM indicators which are 20 **PEOU** indicators and 5 **PE** indicators.

Perceived Ease Of Use (PEOU)

Table 10: **PEOU**

Indicators	Item	Mean Score	Interpretation
PEOU1	Learning how to use the e-book *Learn Malay with Rene* application/device is easy for me.	4.5	Highest
PEOU2	I have the necessary skills for using the e-book *LMWR* application/device.	4.33	Highest
PEOU3	The E-book *LMWR* application/device certainly provides me with an easy way to find what I want.	4.11	High
PEOU4	The E-book *LMWR* application/device has all the functions and capabilities I expect it to have.	4.22	Highest
PEOU5	It is pleasant to follow and use the chapter and sub-chapter of the e-book *LMWR* application/device.	4.33	Highest
PEOU6	Sequence of the e-book *LMWR* application/device screens is clear and consistent.	4.56	Highest
PEOU7	**The e-book *LMWR* application/device is user-friendly.**	**4.72**	**Highest**
PEOU8	Ability to enlarge the font size of the e-book *LMWR* application/device is helpful for me.	4.44	Highest
PEOU9	Reading characters from the e-book *LMWR* application/device on the screen is easy.	4.61	Highest
PEOU10	The e-book *LMWR* application/device layout design is easy on my eyes.	4.67	Highest
PEOU11	**The e-book *LMWR* application/device screen layout is creative and colorful.**	**4.72**	**Highest**
PEOU12	I can use the e-book *LMWR* application/device on my computer or tablet easily.	4.56	Highest
PEOU13	I can use the e-book *LMWR* application/device on my mobile phone anywhere and anytime.	4.17	High
PEOU14	Using the e-book *LMWR* application/device in my mobile phone is convenient and easy.	4.06	High
PEOU15	I have no difficulty using the clickable or interactive link in the e-book *LMWR*.	3.83	High
PEOU16	I found it easy to use the clickable or interactive link in the e-book *LMWR*.	4.06	High
PEOU17	Using the clickable and interactive link in the e-book *LMWR* is helpful to learn Malay.	4.17	High
PEOU18	Using the clickable and interactive links in the e-book *LMWR* enhanced my effectiveness in learning Malay.	3.72	High
PEOU19	Using the clickable and interactive links in the e-book *LMWR* is fun and enjoyable.	4.11	High
PEOU20	Using the clickable and interactive link in the e-book *LMWR* is informative.	4.06	High

Table 10 shows the interactive e-book *LMWR* is user-friendly in terms of design and multimedia and has reached the highest level on the variables PEOU1 to PEOU12 with a mean score ranging from 4.22 to 4.72. On the PEOU7 item *"The application/equipment on the LMWR interactive e-book is user-friendly."* obtained feedback *Strongly Agree* with the highest score value of 4.72. At the same time, the variables PEOU3 and PEOU13 to PEOU20 reached a high level, with mean scores ranging from 3.72 to 4.17.

Based on the results of the analysis of 20 PEOU indicators, it can be assessed the usability or user-friendliness of the interactive e-book *LMWR* is very high and reached satisfaction. According to the survey respondents, the design of the interactive e-book *LMWR* application/hardware is simple, clear, comfortable, and informative. Respondents also found the clickable link to other multimedia networks to be extremely effective, multi-functional, entertaining, and useful for learning Malay. The most important feature of this interactive e-book is that it is user-friendly, so adult foreign speakers

can use it anywhere and at any time, whether they are using a computer, tablet, or smartphone. User-friendliness also implies that this interactive e-book is easy to use for extended periods of time without causing eye strain, and the function of enlarging the font size was very useful; also, the e-screen book's layout was creative. Respondents found the clickable link to other multimedia networks is very beneficial when learning Malay language using the e-book.

Perceived Enjoyment (PE)

Table 11: **PE**

Indicators	Item	Mean Score	Interpretation
PE1	**I am positive toward the e-book *LMWR*.**	**4.83**	**Highest**
PE2	I am happy to learn Malay using the e-book *LMWR*	4.72	Highest
PE3	Using the e-book *LMWR* is fun and enjoyable.	4.33	Highest
PE4	I am mentally prepared to learn Malay using the e-book *LMWR*.	4.61	Highest
PE5	I have a favourable attitude toward learning Malay using the e-book *LMWR*.	4.44	Highest

Table 11 shows how the interactive e-book received the highest level of Perceived Enjoyment (PE) in terms of design and multimedia in all PE1 to PE5 items, with a mean score ranging from 4.33 to 4.83. On the PE1 item, *" I am positive toward the e-book LMWR*," the Strongly Agree response had the highest score value of 4.83. This notion is supported when respondents admit to having a pleasant and enjoyable experience while reading the e-book *LMWR*. Sood and Isha (2018) stated that interactive learning could involve a whole lot of creative formats, including presentations, scenarios, quizzes, games, and more, so that learners don't get bored.

According to the respondents in the interviews, the interactive e-book *LMWR* has a very important feature as a digital material whether using a computer, tablet, or smartphone. The video and audio network contained in the e-book is easily accessible, multi-functional, and well-organized, and more detailed explanations are available with a single click. The combination of writing and audio visuals aids foreign speakers' understanding of a concept or topic while also making the e-book more interesting.

A 70-year-old Australian respondent stated:
> *This e-book is not only visually appealing, but it also includes audio, which allows me to listen, see, and understand better. It provides me with a different type of reference than a textbook, and this e-book is perfect. The video explains certain words from the e-book, and my memory became stronger and easier to memorize.*

It turns out that none of the respondents has ever read or studied Malay language through digital technology or e-books or in the form of interactive and multimedia elements. All respondents indicated an interest in learning Malay language through new digital media. As a result, they were intrigued and agreed to first read and explore the interactive e-book *LMWR* before attending the interview.

A respondent who is dedicated to learning Malay in his home country of Australia owns a variety of Malay language reference books and admits that this is the first time he has read the e-book digital technology format. As a proficient Malay speaker, learning Malay language through digital media is a novel, enjoyable, and highly effective experience.
> *Reading only text is very boring and has no attraction, similar to reading a computer manual book, unlike the experience when using the LMWR e-book because the interactive network link has taken me to the audio-visual world, a new world, interactive e-book LMWR appears to "talk" and "tell stories" with me until I enjoy learning Malay.*

He added that there are some YouTube videos or networks that are very entertaining, and he laughs alone while watching them. He is still eager to use and repeat the network links found in the e-book.

As an expatriate information technology engineer, he was immediately impressed by the design and network links found in the interactive e-book *LMWR*. The e-book is so simple and quick to access with one click at any time, whether with a computer, tablet, or smartphone, and it can be accessed anywhere, such as at work, at home, or in a restaurant. He added that the design of this e-book, in terms of font size, screen display, and a variety of different background colours at each transition from one chapter to the next, has made it interesting to continue exploring. When asked if the interactive e-book *LMWR*'s design met his expectations, he replied that it exceeded them by one hundred percent.

In a previous study, Wang (2014) established four usability principles for mobile e-books, which are as follows: (i) visibility: the system provides users with information that encourages interaction and communication, as well as clear instructions; (ii) ease: the system is simple to learn, and users can quickly become acquainted with the system's functions and operations, resulting in minimal time spent on learning.; (iii) efficiency: once users have learned how to use the system, it is simple to use all of the system's functions at full capacity; (iv) enjoyment: when using the system, users feel satisfied after completing a task. The quantitative and qualitative findings in this study clearly demonstrate that the interactive e-book *LMWR* incorporates all four user-friendly or usability principles. The e-book fulfilled the requirement for adult foreign speakers of Malay language in terms of interactive features and multimedia elements.

The effectiveness of the interactive e-book LMWR as a self-learning tool Malay language for adult foreign speakers.

Here's the outcome based on two TAM indicators: 19 **PU** indicators and 6 **BI** indicators.

Perceived Usefulness (PU)

Table 12: **PU**

Indicators	Item	Mean Score	Interpretation
PU1	Using the e-book *LMWR* is the right choice to learn Malay.	4.44	Highest
PU2	Studying through the e-book *LMWR* is a good idea	4.61	Highest
PU3	I like the experience of learning Malay using the e-book *LMWR*	4.5	Highest
PU4	After reading the e-book *LMWR* my interest increases to learn Malay	4.61	Highest
PU5	My confidence increased to speak Malay with Malaysians.	4.0	High
PU6	E-book *LMWR* inspired me to understand more about Malaysian culture.	4.67	Highest
PU7	**As a self-learning learner, using the e-book *LMWR* as a guidebook for beginners is**	**4.83**	Highest
PU8	As a self-learning learner, using the e-book *LMWR* provided me with the right amount of basic Malay grammar.	4.83	Highest
PU9	As a self-learning learner, using the e-book *LMWR* provided me with the right amount of essential Malay vocabulary.	4.78	Highest
PU10	As a self-learning learner, using the e-book *LMWR* provided me with the right number of common Malay greetings and phrases	4.0	High
PU11	**As a self-learning learner, using the e-book *LMWR* provided me the right number of common Malay conversations**	**4.94**	**Highest**
PU12	As a self-learning learner, using the e-book *LMWR* enhanced my effectiveness in learning Malay, and more quickly.	4.83	Highest
PU13	As a self-learning learner, using the e-book *LMWR* increases my Malay skills from one level to another.	3.83	High
PU14	As a self-learning learner, the contents in the e-book *LMWR* are effective in helping me to practice speaking Malay.	3.94	High
PU15	As a self-learning learner, I found the e-book *LMWR* a helpful tool in learning to speak casual Malay.	4.06	High
PU16	I like the author's style of writing in the e-book *LMWR,* which is expressive, direct and personal.	4.22	Highest
PU17	I found the organization of the e-book *LMWR* contents from one chapter to one chapter is well organized.	3.89	High
PU18	I like the e-book based on the similarity of values and social values underlying its use.	3.94	High
PU19	Other than learning the language, the e-book *LMWR* provided interesting information about Malaysian culture.	4.22	Highest

Perceived Usefulness (PU) the e-book as a self-learning Malay aid**,** Table 12 shows the value of the highest mean score of 4.94 in the item of PU7 *"As a self-learning learner, using the e-book LMWR as a guidebook for beginners is*" with

Excellent answer choices. This indicates that the respondent's perception is hugely positive that the interactive e-book *LMWR* is a useful guidebook or handbook for a beginner who wants to learn Malay. The other highest mean score value, between 4.22 to 4.83, includes the e-book providing a sufficient number of words and phrases, basic grammar, everyday Malay conversation, important vocabulary, phrases, common expressions, and self-replacement words.

The study's findings show that the interactive e-book *LMWR* is very effective for adult foreign speakers learning Malay on their own. The e-book also increases the interest and confidence of adult foreign speakers when interacting with Malaysians themselves. Respondents also stated that using the e-book as a guidebook for foreign speakers as well as a useful learning tool is the right choice based on a pleasant and satisfying experience when reading the e-book. They also stated that the interactive e-book *LMWR* is a well-organized chapter-by-chapter arrangement, and its unique writing style added to their attraction and interest in continuing to read it. Respondents also evaluated the content of the e-book meeting the needs of foreign speakers interested in learning Malay from the standpoint of basic grammar, important vocabulary, phrases, sayings, daily conversations, and Malaysian society culture. Studies in the past have shown that culture learning should accompany language study because it helps foreign speakers feel, experience, and appreciate the language they are learning (Kasdan, Junaini, et al., 2018).

Behavioral Intention To Use Technology (BI)

Table 13: **BI**

Indicators	Item	Mean Score	Interpretation
BI1	**I can bring the e-book *Learn Malay with Rene* everywhere and anytime as a handbook while I interact with Malaysians.**	**4.33**	**Highest**
BI2	Considering my experience with the e-book *LMWR*, I will recommend it to my friends or colleagues.	4.06	High
BI3	I intend to continue reading the e-book *LMWR* series of Book 2 and Book 3.	3.61	High
BI4	I intend to read the e-book *LMWR* from time to time.	3.5	High
BI5	I intend to check out a new update from the e-book *LMWR*.	3.56	High
BI6	While reading the e-book *LMWR*, I immediately continue from one chapter to another.	4.17	High

Table 13 shows Behavioral Intention to Use Technology (BI) provided by the interactive e-book *LMWR* as a self-learning tool**,** a mean score of the high and highest mean score from 3.5 to 4.33 in details of BI1-BI5. The highest mean score with 4.94 in details of BI1, *"I can bring the e-book Learn Malay with Rene everywhere and anytime as a handbook while I interact with Malaysians"*, with *Agree* answer choices.

Respondents clearly have encouraged behaviour towards the interactive e-book *LMWR* as an effective self-learning tool. They agreed they could easily carry the e-book anywhere and anytime whenever they interact with local people. Despite the fact that the respondents among expatriates have limited time for learning due to work and responsibility, they still tend to read e-books from one chapter to the next and to continue reading the two series of e-books *LMWR*, namely Book 2 and Book 3. Since the e-book is "living" in that it can be updated from time to time online, then more some of the respondents plan to get the latest edition of the e-book *LMWR*. Based on the positive experience with the interactive e-book *LMWR*, respondents expressed their openness to recommend this e-book to their friends or other foreign speakers who are interested in learning Malay. In research by Kyong-Jee Kim (2005) on adult self-directed learners, they valued the ability to learn at their own pace in the self-directed e-learning environment because they were adult learners who typically had busy schedules and various obligations in their lives.

In terms of content, all respondents believe that this e-book is very comprehensive and contains basic and important information about the Malay language, such as grammar, vocabulary, phrases, idioms, and pronouns. Colloquial words and native language conversations that are actually used by native speakers, as shown in the video, are among the very interesting content in the e-book mentioned by respondents, and this helps foreign speakers interact with the local community. The content in each chapter is organized logically, simply, and methodically, making this e-book ideal for reference.

One respondent who had taken a class taught by the researcher and liked the writing style in this e-book said:
> *This e-book radiates your personality because that is how you teach, entertain, and have fun in the classroom. This e-book is like transporting me back to your class, where I remember your style, sound, and your captivating voice. Your writing style in this e-book is also entertaining, as if you were telling a story; however, it is sometimes necessary to be serious, as you do in class. Your e-book is not only a reference but also a "refresher," and it is both useful and enjoyable.*

All respondents agreed and admitted that they do not need or want another Malay language learning book because the content of the e-book *LMWR* is compact and comprehensive enough for beginners. They all agreed that the information they received from this e-book exceeded their expectations, especially given that the e-book *LMWR* is divided into three series, namely Books 1, 2, and 3, each with more extensive and useful content. They also stated that this e-book should be used as a guidebook or handbook because it is simple to read and accessible wherever and whenever they are.

During his six years in Malaysia, a Russian expatriate maintained a travel blog that was constantly updated and displayed interesting places in Malaysia. She agreed that the interactive e-book *LMWR* is a desirable reference or guide that is very necessary given that the content is very compact and full of information, and it is certainly very helpful to interact with the Malaysian community. This e-book is suitable as a Malay language learning aid because it can be accessed via a smartphone.

Kyong-Jee Kim (2010) conducted a self-directed e-learning study with working adults or people who did not attend formal educational institutions. Kyong stated that the most important aspect of online learning for self-directed adult students is the flexibility and convenience it provides. According to the Raptivity website's Adult Learning and Levels of Interactivity in eLearning study (2018), important things to consider when designing an e-learning course for adult learners are that adult learners must be actively involved in the learning process in order to create an enhanced learning environment for adult learners. Giving them control over their learning will keep them motivated and engaged. This is something that researchers took into account when designing the interactive e-book *LMWR,* which is intended as a learning tool for self-learning adult foreign speakers. The results of TAM indicators and interviews with respondents indicate that the e-book is an effective learning tool that will help them continue to learn Malay on their own.

Adult foreign speakers' motivation to learn malay language using the interactive e-book LMWR.

Based on the combination of all TAM indicators, **PEOU, PE, PU,** and **BI**, are used to explain the findings. The results demonstrate that the interactive e-book *LMWR*'s characteristics are important in increasing adult foreign speakers' motivation to learn Malay. Its features include design friendliness and effectiveness as a self-learning tool.

According to one of the respondents from the UK who can only speak English, despite having no ability or finding it difficult to learn a foreign language, the e-book *LMWR* gives him new hope in learning a new language for him, which is Malay language. He is determined to push himself to learn Malay more diligently and earnestly by devoting more time to it.

Other respondents admitted to having purchased several books to learn Malay language but did not continue reading. The e-book *LMWR*, on the other hand, encouraged her to continue learning Malay. She stated:
> *Unlike other Malay language books, I've read that is extremely boring, such as manuals. However, your e-book is interesting to read, and there are videos that show the real way locals speak on a daily basis. I would recommend this e-book to anyone interested in learning a language because it is very good and interesting. It not only contains detailed information but also provides a glimpse into Malaysian culture, which I find fascinating.*

When asked what motivated them to learn Malay through the e-book *LMWR*, all respondents had the same answer: respect for the host country and making it easier for them to mix and communicate with locals. One of the respondents from the United Kingdom, a spouse of an expatriate, stated:
> *I believe it is incredibly rude to live in the host country but be unable to communicate in their language. My husband and I are constantly working on learning simple words like "terima kasih"*

and "selamat pagi". We must respect what they have, such as their language and culture. Your interactive e-book will undoubtedly teach me more.

Furthermore, all respondents agreed that other motivations to learn Malay language are very important, especially when visiting or travelling in rural areas and villages. They frequently encounter difficulties interacting with local residents. They also mentioned Malaysians' warmth and friendliness if they could only say one or two Malay words, and they agreed the interactive e-book *LMWR* is remarkably useful for this purpose. Bring back Juwairiah Osman's statement that interactive e-books are foreign speakers' preferred method of learning Malay language and that they have succeeded in increasing interest and motivation to continue learning (1984). She added the emphasis on technological software to increase motivation is critical in the context of Malay language learning. This is to ensure that learning Malay is simple and enjoyable (2021). Following these statements and the findings of this study, the interactive e-book *LMWR* is more than user-friendly, and it also motivates adult foreign speakers to learn Malay and communicate with locals.

Conclusion

Certainly, learning materials or reference materials in the form of digital technology are very necessary. In this era of globalization, the time has come for Malay language learning materials to be developed and expanded in the form of digital technology, such as interactive e-books, in order to dignify the Malay language in the eyes of the world. Language warriors and stakeholders, including Malay teachers and instructors, need to spend time and improve their skills to develop interactive e-books for students and foreign speakers. In the future, studies on the efficiency and effectiveness of interactive e-books as Malay language learning aids can be multiplied from various aspects, including a design with many more interactive elements and multimedia features.

The study's inspiring findings revealed that, like children, adult foreign speakers enjoy using creative and colourful audio-visual learning materials. The use of interactive links in e-book LMWR that included graphics, music, videos, cartoons, games, and quizzes was attractive among these expatriates who spoke other languages. According to Christopher Pappas (2014), visually appealing e-learning courses can help adult learners retain information and modules more easily, resulting in a more interactive and visually stimulating experience, including compelling and inspiring images, as well as colourful fonts and graphic elements that draw their attention to the modules' core features.

Limitations and Future Studies

There are several limitations or obstacles identified throughout the implementation of this study. The first is the lack of reference sources regarding past studies related to the use of e-books among adult foreign speakers who learn Malay on their own other than in formal institutions. So far, the researcher has not found previous studies involving adult foreign speakers, especially expatriates or commercial officers with their spouses. Second, the digital technology used in previous studies is in the form of full-text digital books without accompanying multimedia or click-through networks and does not involve studies on e-book design. Third, since the respondents in this study focused specifically on expatriates or their spouses, it is very difficult to get consistent attention from the respondents due to limited time and their busyness with work and daily affairs. The researcher also needs to have a close relationship with the respondents to get cooperation and feedback because they rarely or do not like dealing with strangers. Future research recommendations on the use of digital technology in Malay language learning. A study of designing and publishing interactive e-books for learning Malay language among adult foreign speakers in Malaysia, such as international students or expatriates, is required.

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