**ABSTRACT**

Acquiring knowledge, either individually or in a team, is known as learning. The mode of learning may be either supervised or unsupervised. Language learning develops communication ability in a second foreign language, such as the Malay language... Malaysia is among the countries that students around the globe visit for undergraduate and postgraduate studies. But, the international students faced communication challenges with both the local students and the academic staff due to language variations. The local students lack confidence in English, while the international students don't understand the Malay language. The communication The Gap was pointed out as the major problem for the international students to carry out their academic activities as most lecturers deliver their classes using Bahasa Melayu (Malay language). It is expected for the international students to learn the Malay language, but the local students are communicatively shy due to their lack of confidence in English. The present study investigates the Malay language learning difficulties of the international students at Universiti Sultan Zainal Abidin and Universiti Malaysia Terengganu. The researcher adopted quantitative analysis with a structured questionnaire.
as the research tool. The experiment was carried out with the IBM SPSS version tool, and hardware components such as the Intel Celeron quad core processor (2M cache, 2.0GHz), 4Ghz RAM, and 500GHz HDD. One hundred and seventy (170) with eighty-five (85) of equal size between the two universities were considered as the sample size. Findings reveal that most of the respondents disagreed that it was easy to learn Malay with the traditional system that presented a frequency of 41.8%. In addition, 43.5% of the respondents believed that learning Malay with the traditional system was time-consuming. Finally, respondents disagreed that traditional learning systems are easy to read. As such, most of the respondents suggest a mobile application as a substitute to the traditional mode of Malay language learning that will enhance learning anywhere at any time, regardless of the location.

Keywords: Traditional learning; qualitative analysis; interview; participant; Malay language.

1. INTRODUCTION

Learning is explained as desired changes that occur in individual behaviour that yield a result as a result of being an expert. Learning means acquiring knowledge either individually or in a group. Furthermore, learning is done by supervision (teachers) or unsupervised learning (training set in artificial intelligence). In the present research, supervised learning is considered. Teachers impart knowledge or skills to their students. Many students in higher education find learning difficult, especially when it comes to understanding the contents of the course [1]. Traditional teaching and learning, which was the dominant teaching mode a century ago, have been influenced by modern teaching such as internet teaching and learning, as described by [2]. Research has been conducted to compare the learning of students who were involved in active teaching and learning activities with those students who were not involved [3]. Learning is induced by undertaking certain ethical tasks or activities. Teaching and learning can be classified into formal and non-formal. In formal education, a teacher is responsible for the entire educational process. In non-formal education, a facilitator is intentionally responsive to the learner. Active learning comprises several models of instruction. It focuses the responsibility of learning on the learners. [4] discussed a variety of methodologies for promoting active learning. Literature indicates that to learn, students must do more than just listen. The students must read, write, and discuss the methods for solving problems. It relates to the three learning domains called taxonomy, referred to as cognitive, psychomotor, and affective. Active learning provides a powerful mechanism to enhance the depth of learning and get learners involved in the learning process instead of passive action [5]. In addition, active learning can be described as a learning paradigm that actively acquires extra information and actions in order to achieve a gain/goal [6,7]. Active learning happens when students are given the opportunity to have a more interactive relationship with the subject matter of a course. From the younger age of a student in a primary school up to a tertiary institution, language learning is important in every society. That is what prompted educators to incorporate the language into courses for students as young as kindergarten. In most countries in the world, English has become their official language, apart from their mother tongue. Due to this fact, the traditional learning system was employed for these languages' learning, but some countries maintained their mother tongue for their educational studies. Everyday life has been affected by language; there are differences between languages spoken by human beings in the world with other nationalities, since we do not speak the same language [8].

Malaysia is among the countries that foreign students around the world visit for their study career. These studies may be either undergraduate or postgraduate level. Most of the international students faced a series of challenges that led to a lot of stress. Some of the stressors affected the students academically due to communication obstacles. Most international students believe that Malaysians are very friendly, but local varieties make it possible for the local students to create a serious gap between foreign and local students. Initially, when a foreign student registers as a student, there is a need for that student to attend Bahasa Melayu classes, which are normally taught using the traditional mode of learning (teacher and student mode of study). But, most of the time, international students find it difficult to learn because most of the lecturers present their lectures based on their respective native language (Malay). The students find it difficult to
understand what the course lecturer is thinking. The present research is a subsidiary of the M-Lang usability and functionality evaluation. The researcher used two (2) questionnaires for the pre and post test. The present study is illustrated as the pre-test that was expected to discover the Malay language learning difficulty based on the traditional system. However, the findings of the pre-test motivated the development of the additional mobile learning tool for Malay language learning by international students. The mobile learning tool was developed based on the GUMSA mobile learning framework [9]. In addition, the researcher evaluated the GUMSA framework in a recent published research [10] based on expert feedback and research interest in e-learning and m-learning within UNISZA and UMT.

1.1 Paper Organization

The research is classified into a series of sections. Most of these sections are embedded with corresponding sub-sections. The introduction was the first section that was presented with no sub-section under it. Section 2 discussed related works, which explained the previous related research and also highlighted the drawbacks of the respective research works. Section 3 presents the research method with at least six (6) sub-sections, namely: Target Population; Sample Size; Research Instrument; Pilot Study; Procedure of Data Collection; Method of Data Analysis. Section 4 explains the result and discusses the outcome of the research by challenging the previous results of some research publications in the same area. Section 5 summarizes the overall paper, the contribution of the present research, and makes recommendations for future work. Finally, references and researcher (s) bio-data were presented.

2. RELATED WORK

In 2016, [11] introduced research on the implementation of culture in Malay language teaching. The researcher adopted a qualitative approach by utilizing interviews as a data collection method with Universiti Tenega National (UNITEM). The findings of the research reveal that the students understand the language being taught. In addition, it is believed that activities can increase student interest in learning a language. The limitations of the research were that the sample size was not stated, the procedure of data collection was not discussed, and the researcher did not use any software for the data analysis. The researcher suggested that the method should be adopted by any other institution to implement an aspect of language learning. Similarly, [12] investigates the challenges that Syrian refugees and Syrian asylum seekers face in learning the languages of the countries where they are welcomed. The researcher used a sample of 45 participants as the sample which addressed the limitations of the earlier research. An open-ended interview was the research tool. Findings reveal that the participants of the research faced difficulties in pronunciation, forming sentences, grammatical errors, and long, complex words. The drawback of the research was that the interview was done via Facebook. As such, it may be interrupted due to income phone calls or the interviewer may be busy. The generated data was manually analysed. Furthermore, [13] adopted a qualitative approach with five postgraduate international students from public universities in Peninsular Malaysia. A semi-structured interview was utilized for the data collection. But, no software was utilized for data analysis. The result reveals that the respondents cannot understand the lectures being taught by their academic staff or supervisors. Lots of times, the participants find it difficult to learn Malay. However, the sample size was insufficient to make a decision.

In 2020, Mohammed [14] analysed the challenges and adjustments of international students in Malaysia. A qualitative approach was adopted with 25 international students from 7 countries. Audio recordings of interviews were used at six universities. The result shows that it is difficult to learn Malay due to the communication differences between international students and local students. International students find it difficult to communicate with supervisors due to language variations. But, the researcher used manual analysis with a weak sample. In 2021, a discussion based on ESL learners’ challenges in speaking English in a Malaysian classroom was presented by. The researcher adopted qualitative research with 25 respondents. An open-ended interview was utilized at six universities in Malaysia. The findings of the research showed that Malaysians are good but find it difficult to communicate in a foreign language, such as The academic staff explained in Bahasa Melayu, which is difficult for international students to understand. The limitation of the research was the use of manual analysis and weak samples. However, Yusop and Fan [15] utilized a qualitative approach with
Participants have positive attitudes towards the use of data collection. The challenges encountered by the use of technology in team meetings. In 2020, [16] introduced a quantitative study with 311 grade students from IMITIAZ religious school in Kuala Terengganu as the sample. The study's findings revealed that the students' language skills were low, with a level of understanding of 10%; they were able to answer correctly, while 635 failed. In addition, the result of the study suggested that weaknesses in understanding multiple levels of questions in language learning have been identified by educators and teachers. Since the level of application was very poor, there is a need for motivation in using mobile technology in language learning.

Moreover, [17] employed quantitative analysis with a five Likert questionnaire and 143 male students as a research sample. Data was analysed using SPSS ANOVA, P-Value. The result shows that students feel difficulty in English learning. But, there is a need for Malaysian teachers to pay more attention to students with lower proficiency. In 2011, [18] determined the reading and writing difficulties among ELS postgraduate students at Australian universities. The researcher adopted a mixed-mode approach with a 5-Likert scale questionnaire and an interview as methods of data collection. The results reveal that most of the students have several reading and writing difficulties. But, the researcher failed to investigate listening and speaking, and there is a need to discuss academic difficulties in detail. In 2014, [19] carried out research on speaking difficulties in EFL young learners that solved the earlier research paper. The researcher employed a qualitative approach, with lesson observation; interviews, and curriculum analysis as the research instruments. Oman's grade five teachers and students were considered the population. The result reveals that linguistic difficulty, mother tongue use, and inhibition were the major difficulties encountered by the respondents. In addition, [20] conducted research to discover academic difficulties in New Zealand. The study used a mixed method of data collection that included a 30-minute interview and a questionnaire, with twenty students from East Asian University serving as the sample. SPSS and Amos 6.0 were considered the research tools for the data analysis. The result of the research reveals that EAI students encounter a number of difficulties in terms of language. Drawback, students' academic performance was not included. However, [21] presented results and discussed teaching concepts for collaboration skills from both engineering and psychological points of view. The researcher employed a qualitative approach with an interview as the method of data collection. The respondents were forty (40) participants working in an agile, collaborative company. Results show that agile teams value self-organization very highly, with the process of self-organization being regulated and monitored through team meetings. There is a need to extend the agile process to software projects that could enhance the student learning effect.

3. METHODOLOGY

The researcher in this part of the paper discussed the assisted method of the research findings regarding the M-Lang usability test. The present research was carried out based on quantitative analysis with a structured questionnaire as a data collection tool. The data collected by the researcher was simulated with IBM SPSS version 23 software and an Intel Celeron quad core processor (2M cache, 2.0GHz), 4RAM, and 500 HDD hardware components. The researcher believed that a hundred and seventy (170) with eighty-five (85) of equivalent size between the two universities was considered the sample size. This section of the paper deals with the target population, research instrument, pilot study, procedure of data collection, and method of data analysis.

3.1 Target Population

The target populations for the present study are the international postgraduate students of Universiti Sultan Zainal Abidin (UNISZA) and Universiti Malaysia Terengganu (UMT) [22] in research reveals that a researcher has to draw a possible collection of intended elements or objects for the study.

3.2 Sample Size

A total of 156 international postgraduate students at UNISZA were recorded, UMT has an evaluation of 106 international postgraduate students. Therefore, the researcher records a
target populace of 256 international postgraduate students from UNISZA and UMT. Krejcie and Morgan [23] introduced a table where the sample size of research was generated with a 95% certainty factor. The present research has a total of 256 target populations. As such, the 170 international postgraduate students were considered the research sample. The researcher believed that a hundred and seventy (170) with eighty-five (85) of equivalent size between the two universities was considered the sample size. The present research chooses all faculties from both universities at random. The sample is chosen from the population as each member of the target population has an equal chance of being included, and no part of the population has been omitted deliberately except by chance.

3.3 Instrument

A four-likert scale questionnaire was developed and utilized as a data collection instrument in the present research. The respondents have the chance to answer the given questions by ticking one of the alternatives. The researcher used a questionnaire to test the acceptance of the M-Lang System by international students as an additive tool for Malay language learning.

3.4 Pilot Research

A pilot study is directed at a small scale that begins a study while keeping in mind evaluation goals such as practicality, time, cost effect, size, and unfriendly occasions (measurable variability). The goal of the present research was to analyze suitable respondents’ estimates, and the study arrangement was built before the full scale examination was executed. The researcher is expected to distribute the questionnaire to some parts of the target population. Ideally, pilot samples are not expected to be included in the normal evaluation process of the study, keeping in mind that the end goal is to eradicate any unfavourable impact on the research findings. The legitimacy of the study was tested through a pilot study using the research instruments. As a result, any insignificant inquiries were removed, and any questionable inquiries were disposed of.

3.5 Data collection procedure

The target population at UNISZA was international postgraduate students. The researcher visited the graduate school for an interview to get the actual population of the international postgraduate students within the university from various faculties. 156 students were recorded as an estimated number of international postgraduate students. Similarly, an estimated number of international postgraduate students needs to be known for UMT. A letter of identification was presented to the graduate school of UMT by the researcher from UNISZA Graduate School that consists of the researcher’s name; pass_no; matric_no; nationality; faculty; mode of study; program, year of admission, and current semester. The letter was presented to have the total estimate of international postgraduate students and to gain access to research conducted at UMT. A highly motivated student accompanied the researcher to meet most of the international students. Eighty respondents were selected at random. Therefore, a questionnaire was distributed to fill in before the demonstration of the M-Lang system.

3.6 Data Analysis Method

Data analysis reveals the results of every survey, future improvements, and plans for new research activities. A researcher carries out an investigation, summarizes and represents collected data in a reliable; correct, and accurate manner through data analysis. A researcher summarizes the findings generated from data analysis. The data collected by the researcher was simulated with IBM SPSS version 23 software and an Intel Celeron quad core processor (2M cache, 2.0GHz), 4RAM, and 500 HDD hardware components.

4. RESULTS AND DISCUSSION

4.1 Analysis of Socio Demography Information

The sample size used in the present study comprises one hundred and seventy (170) respondents for each category of respondents (male and female). The sample involves international post graduate students from both Universiti Sultan Zainal Abidin and Universiti Malaysia Terengganu. The respondents' demographic information includes age, gender, and university. The demography information was analyzed in the tables below.

4.2 Ages

Table 1 above, shows the distribution of the respondents’ ages. It is grouped in ascending order with a corresponding frequency and percentage. Of 170 respondents, 29 are aged
19–24 years old, which constitutes 17.1%. Of the 170 respondents, 84 are between 25 and 29 years old, which constitutes 49.4%. While 30-34 years old, which constitutes 27.1%, has a frequency of 46. But 6 respondents (3.5%) are between 35 and 39 years of age. Furthermore, 4 of the respondents are aged 40–44 years, which constitutes a percentage of 2.4%. Finally, the age of 1 respondent out of 170 was considered missing, with (0.6%) as the percentage.

4.3 Gender

Table 2 shows the respondents’ gender distribution, which shows 138 respondents with an average percentage of (81.2%) are male students, while 32 are female with an average percentage of (18.8%).

4.4 University

Table 3 shows the respondent’s university distribution, 107 respondents, with a percentage of 62.9%, are international postgraduate students from UNISZA, while 63 are from UMT, which constitutes a percentage of 37.1%.

4.5 Analysis of Traditional Malay Language Learning

Table 4 above presents the reliability test of the questionnaire on Malay language learning difficulty for international students. A reliability test is required for every analysis, in order to test the reliability of the specified questions. If the reliability result of the Cronbach’s Alpha is less than 0.7, meaning the questions are not reliable, the researcher is required to re-organize them and test them again for reliability before moving to the field. In the present research, the reliability test for the questions yielded a Cronbach’s Alpha of 0.778 and a Cronbach’s Alpha Based on Standardized Items of 0.783. In the questionnaire, 10 items were tested. Therefore, if the questions are said to be reliable and consistent, the researcher can move forward with the data collection.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>19-24</td>
<td>29</td>
<td>17.1%</td>
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<tr>
<td>25-29</td>
<td>84</td>
<td>49.4%</td>
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<tr>
<td>30-34</td>
<td>46</td>
<td>27.1%</td>
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<tr>
<td>35-39</td>
<td>6</td>
<td>3.5%</td>
</tr>
<tr>
<td>40-44</td>
<td>4</td>
<td>2.4%</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td>Total</td>
<td>170</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Male</td>
<td>138</td>
<td>81.2%</td>
</tr>
<tr>
<td>Female</td>
<td>32</td>
<td>18.8%</td>
</tr>
<tr>
<td>Total</td>
<td>170</td>
<td>100%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>University</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNISZA</td>
<td>107</td>
<td>62.9%</td>
</tr>
<tr>
<td>UMT</td>
<td>63</td>
<td>37.1%</td>
</tr>
<tr>
<td>Total</td>
<td>170</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Cronbach’s Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.778</td>
<td>.783</td>
<td>10</td>
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</table>
According to the findings of the present research, the traditional learning system of Malay is based on the responses, it was determined that, in contrast to the traditional system, the majority of international students preferred to use mobile learning systems to learn Malay. The researcher administered questionnaires to 170 respondents, both from UNISZA and UMT, which are international postgraduate students. Table 5 shows the frequency and percentage of respondents for the traditional learning system. Out of 170 respondents, 34 strongly disagree that it is easy to learn the Malay language using the traditional system; 71 out of 170 disagree, 50 agree (29.4%), and 15 strongly agree. But 78 of the respondents disagree that it is easy to learn Malay using the traditional system, while 40 (23.5%) agree, 16 strongly disagree, and 36 (21.2%) strongly disagree. In addition, 74 out of 170 (43.5%) agree that the traditional system is time-consuming, while 28 (16%) strongly disagree, 49 agree (28.8%), and 19 strongly disagree. 33 respondents strongly disagree that the system provides collaborative learning, 40 (23.5%) disagree, 76 (44.7%) agree; and 21 (12.4%) strongly agree. Out of 170 respondents, 14 strongly disagree (8.3%) that traditional learning feedback is time consuming, while 43 strongly disagree (i.e., 26.6%). 61 agree with a percentage of (36.3%) and 50 strongly disagree (29.8%). Furthermore, 31 out of 170 strongly disagree that information needed using traditional learning systems is easy to find, 86 out of 170 disagree, 43 agree (25.3%), and 10 strongly agree, which constitutes (5.9%). Findings reveal that most of the respondents are not comfortable with the current learning system of the Malay language (traditional system). As shown in Table 5, 114 respondents disagreed that the system was easy to learn, 102 agreed that the system was time consuming, 121 agreed that it is time consuming to complete a given task, and 105 out of 170 (61.7%) percent are not comfortable with the system. Most of the respondents suggest having an electronic Malay learning system, which would be an additional tool to the current system.

5. CONCLUSION

The paper discussed the evaluation process of the Malay language. Learning Difficulty by International Students at UNISZA and UMT, which was part of the evaluation of the M-lang system. In 2018, Shawai et al. [23] developed the M_Lang system as an added tool for Malay language learning. The researcher adopted quantitative analysis with software components.
such as IBM SPSS version 23 software and hardware components such as Intel Celeron quad-core processor (2M cache, 2.0GHz), 4RAM, and 500 HDD. A five-likert scale was utilized as the research instrument with 10 questions. A participant was expected to tick off one of the following: strongly-disagree, disagree, agree, and strongly-agreed. The target population of the research was the international postgraduate students of both UNISZA and UMT, with a total of one hundred and seventy (170), that is, eighty-five (85) of equal size between the two universities, were considered the sample size of the research. The researcher distributed the questionnaires physically to the respondents with the assistance of motivated students. The research was part of the evaluation of the M-Lang system; the pre evaluation was to test the effect of using traditional modes in learning Malay, while the post-evaluation was carried out to test the acceptability of Malay Mobile Learning (M-Lang). The participant student believed that learning using the traditional system was not easy, time consuming, and did not provide easy readability. The research's contribution was to demonstrate how international students faced Malay language difficulty using the traditional system; as a result of the stated challenges, the majority of respondents proposed a mobile application that would overcome the limitations of the traditional mode of learning. Future, the evaluation can be extended beyond simple descriptive analysis. The sample should be extended, as well as the target populace of the research [24,25].

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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