

THE DEVELOPMENT OF E-DICTIONARY FOR THE USE WITH *MAHARAH AL-QIRAAH* TEXTBOOK AT A MATRICULATION CENTRE IN A UNIVERSITY IN MALAYSIA

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ABSTRACT

This is an action research to develop an E-Dictionary for the use with *Maharah al-Qiraah* (Reading skills) textbook at a matriculation centre. The research attempts to answer four research questions: a) What is the database model for an electronic dictionary using Microsoft Access for the use with *Maharah al-Qiraah* textbook? b) What are the features of a user-friendly electronic dictionary? c) How suitable is an E-Dictionary for the use with *Maharah al-Qiraah* textbook? and; d) Is E-Dictionary suitable and easy to use? Two types of instrument are used for the research: the E-Dictionary itself and two sets of evaluation form filled by three experienced Arabic teachers and 3 computer experts. The data obtained from questionnaires are analysed using Statistical Package for Social Science (SPSS) version 11.0 to obtain the mean of the evaluation form. The results of the study indicate that an electronic dictionary model using Microsoft Access is valid and suitable. Presenting electronic dictionary in a CD-ROM with an attractive screen is the major feature of a user-friendly electronic dictionary. E-Dictionary is also valid in terms of the *Maharah al-Qiraah* textbook content and it is convenient to use. The findings of this study is hoped to provide information on the development of Arabic electronic dictionary.

INTRODUCTION

Language proficiency can be measured through the ability to acquire the skills of a language. These skills include listening, speaking, reading and writing (Mansur, 1982, To'aimah, 1985). Reading skill is one of the key components in mastering a language. Hence the ability in acquiring this skill becomes one of the tools to assess upon learning a certain language.

Reading skill refers to the ability to spell or translate a symbol or a letter, as well as the ability to understand the overall content of the reading material. This understanding depends upon the knowledge of a student on the definition of words i.e. mastery of the vocabulary. Thus, students with a wider range of vocabulary have a better understanding of the language rules and techniques.

As mentioned by Dahan (2005) in his research, most of the religious stream students in Malaysian universities still face the problem to understand Arabic despite their exposure to the language for several years during their school time. It also showed that the understanding of the language among them were still very weak.

Widening ones vocabulary goes hand in hand with mastering the dictionary. This signifies that students can increase their vocabulary and at the same time enhance their understanding by referring to the dictionary thus improving their reading skill. In general, these showed the importance of dictionary in language learning process as well as serving the means to improve students' reading skill. This is very essential to ensure that the students understand the content of the material.

Dictionary is one of the tools to assist students' understanding as well as enlightening the skill of reading. Reading would be interesting if students can understand the material, and this is when the dictionary plays its role as a medium to facilitate the students in reading. Hence, this overcomes the difficulties in understanding the reading material.

Nonetheless, several researches have revealed that students would prefer a teacher rather than dictionary. (Hassan, 1999 Mohamad, 2003). This is due to the attitude of the students and the physical form of the

dictionary which is big and thick. This requires more time to search for the definition of a word compared to asking for the teacher's assistance.

Apparently, with the development of science and technology, computer is seen as one of the effective teaching and learning aid. With the existence of this technology, an electronic dictionary would certainly give ease to the teaching and learning process as well as benefiting both teachers and students. This dictionary is created in a database with colourful texts and attractive interface loaded with graphic and sound which hopefully will increase the interest of the students to use the dictionary, thus improving their reading skill.

STATEMENT OF PROBLEM

Previous studies on dictionary focused on the aspect of its application and implication towards teaching and learning process. The results showed that frequent use of dictionary have actually improved students' learning process. (Hassan, 1999 and Mohamad, 2003). However, this study also showed that the use of dictionary among the students was still unsatisfactory. This is due to several factors such as the nature of the dictionary i.e. big and heavy. Referring to the dictionary is considered as tedious due to students' insufficient knowledge of the root word. As a consequence, the word search takes up a lot of time and they end up in boredom.

The development of technology has contributed to the improvement of education process. Such technology has to be maximized if this were proved to increase the interest of students and improved their performance (Saad, 2003:95). This said, it can be implied that the development of computerized dictionary would attract students' interest in using dictionary.

Conducting a research is necessary to analyze the effectiveness of an Arabic electronic dictionary in enhancing the command of language especially in relation to reading skill. This research focuses on developing a database for electronic dictionary. There are a lot of database programmes such as *Microsoft Access*, *Oracle*, and *Dbase*. One of the most common and easy to learn is *Microsoft Access* (Fewell and Gibbs, 2003:113).

This research does not compare the effect of using a manual to an electronic dictionary but rather more on the benefit of using an electronic dictionary with user friendly features.

It is hoped that the electronic dictionary would consist of these two elements: a) suitability and accuracy from the design of an electronic dictionary b) easy to use and user friendly features.

The development of electronic dictionary is hoped to attract students' interest to fully utilize the electronic dictionary as less time is needed to locate the meaning of a word. It will also help to reduce teachers' difficulties in understanding the teaching materials as well as to accomplish the lesson objectives. From the management point of view, it is hoped to realize the mission of the matriculation centre to become an excellent academic institution.

RESEARCH OBJECTIVES

The objective of this research is to develop a database for an electronic library to help students to accurately identify the meaning of a word in a short period of time. The research focuses on the following aspects:

1. To produce a database using *Microsoft Access*
2. To develop an E-Dictionary with user friendly features for the *Maharah al-Qiraah* textbook.
3. To evaluate the suitability of E-Dictionary with *Maharah al-Qiraah* textbook.

RESEARCH QUESTIONS

Specifically, this research is hoped to answer the following questions:

1. How should the design of the database using *Microsoft Access* in the development of E-Dictionary, used with *Maharah al-Qiraah* textbook?
2. What are the features needed in the E-Dictionary to make it user friendly?
3. How accurate is the E-Dictionary for the *Maharah al-Qiraah* textbook?
4. Is the E-Dictionary reliable and easy to use?

SIGNIFICANCE OF RESEARCH

This research is very important for the improvement of teaching aids in the Arabic reading skill while, the E-Dictionary will help teachers and students in the matriculation centre to use the *Maharah al-Qiraah* textbook. Moreover, the use of E-Dictionary will benefit other higher learning institutions depending on the students' language proficiency and the content of the book they use.

This research will be fundamental for other researchers to develop a computerize database system in the process of teaching and learning Arabic language.

This research also serves as a prototype database system so that other researchers can evaluate the database towards improving its contents, approach and development. In addition, this will also develop an attractive, user friendly and an improved teaching tool.

LIMITATIONS OF RESEARCH

As an engine for the electronic dictionary database, the development of E-Dictionary is only limited to *Microsoft Access* although there are many other programs available such as *Oracle*, *Macromedia* and etc.

Because the primary concern of the research focuses on the development of material to develop the E-Dictionary, i.e. planning, design and data input; it does not involve any experiment on any group of students.

This computerized data software is limited to *Maharah al-Qiraah* published by Centre for Language and Pre-University Academic Development (CELPAD), International Islamic University Malaysia (IIUM). The book is used specifically to improve reading skill. The content of this book is divided into ten units. Each unit consists of comprehension texts and exercises.

This research comprises data or words only from the comprehension texts without words from the exercise unit. This is due to the wide range of content and the words were repeated in the exercise unit. It also includes on structuring and designing an attractive electronic dictionary features.

This research concentrates on the development of the database system. So there will not be any voice and sound aspect being introduced. It focused on the clear text presentation and the use of attractive colours only.

The data used a single language dictionary which only applies for Arabic language. The entry words and the explanations were only used using the same language. The entry words were referred to '*Al-Mukjam Al Arabi al-Asasi*' (Basic Arabic Dictionary) as the main reference material. This approach is suitable for the teaching techniques using '*tariqah mubashirah*' (direct approach) which is not using the mother language for the translation. Direct approach is more effective compared to translation and grammar (Dahan, 2005:71).

For evaluation purposes, only experienced Arabic teachers and computer experts were assigned to assess the suitability of E-Dictionary to be used with *Maharah al-Qiraah* textbook. The opinion from these two groups was considered adequate to evaluate the effectiveness of this program.

The data developed from this research was obtained from the evaluation forms. Therefore, the data obtained depend upon the items from this particular form. The researcher has to ensure that the items in the evaluation form were valid and reliable to answer the research questions.

GLOSSARY

Dictionary – refers to a book that explains words like spelling, intonation, word category, definition, method, the use of word, etymology and others depending upon precisions of the dictionary.

Database – refers to a group of information about a systematically arranged data in a media to be used as reference, normally computerized. (*Education Technology Glossary*, 1995:58).

Microsoft Access – refers to related data management system used to manage the information system, from simple address book to complex inventory management system (Rashid and Ismail, 2002:19).

Electronic Dictionary – refers to a dictionary used in electronic background whether in a compact disc or online. The difference between printed and electronic dictionary is that the latter can handle a larger amount of data and operate translation. This efficiency found in the electronic dictionary has made it more practical and feasible to combine sound, visual and text (Al-Rabi'i et.al. 2001:146).

LITERATURE REVIEW

This research is to develop an electronic dictionary. It is carried out based on the continuous upgrading to the traditional dictionary. The researcher has observed the views and findings from previous researchers on matters affecting upon developing a dictionary.

Development of Dictionary

Dictionary plays an important role in learning a language. A good dictionary consists of the various parts of speech and it also acts as a reference for the purpose of an excellent and accurate language (Deraman, 1994:3).

The development of a language can be observed through the dictionary. The creation of dictionary reflects the progress and expansion of a language and knowledge. Its development has been going on for several eras from traditional book to the use of technology such as computerized dictionary or electronic dictionary (Karim, 1994). The field of lexicography or dictionary development has already achieved its advanced maturity stage.

Advantages of Using Dictionary

Dictionary can serve a lot of purposes especially in providing the definition of words. Omar and Mansor (2005) stated that the main use of dictionary is to provide the meaning of a word, to check on correct spelling, correct pronunciation and vocabulary.

Using dictionary can improve students' learning ability. Mohamad (2003) has done a research on the use of dictionary and it was found that the students' ability to learn Arabic has increased. The result also showed that the students' achievement in answering comprehension questions has increased when using the dictionary.

The use of dictionary does not only improve students' proficiency in second language but also helps to increase the command of their mother language. Ghazali (2000:92) in her research found that the students that use single language have shown good result in word expansion activity compared to students that did not have the skill to use the dictionary.

The dictionary can also improved self learning activity and would also motivate the students to read more materials according to their interest.

Problems When Using Dictionary

Mohamad (2003:115) in her research found that the use of dictionary in high school was unsatisfactory. It was also found that the Arabic teacher did not make full use of the dictionary when teaching in class.

The purpose of the dictionary is to help users to get the information accurately. However, students do not refer to the dictionary due to several problems. According to Hassan (1999:114), the reasons are; there were too many meaning of the root word, difficulty in searching for the root word and classic word. He also stated that similar problem occurs in the use of English dictionary especially on pronunciation.

DEVELOPMENT OF COMPUTERIZED DICTIONARY

Computerized dictionary is one of the ways to develop teaching tools using modern technology. Generally, it was known that the use of modern technology has given a positive impact in the teaching and learning process. According to Ahmad (1994:81), the use of computer in dictionary has started since the 19th century. However its development was only active since the past 50 years. It was initiated at the time when the research on computer aided translation (CAT) or machine translation was carried out.

According to Deraman (1994:8), a memorandum of understanding between *Dewan Bahasa dan Pustaka* (DBP) - *Universiti Sains Malaysia* (USM) was made on 27th October 1993 and a corpus system was established. Ahmad (1994:85) added that this early cooperation had established a memorandum of understanding in order for USM to develop three main computerized systems which include Corpus System, Dictionary Database System and Arrangement System.

The development of science and technology has encouraged education technology. According to Omar and Mansor (2005:81), this development has inspired the invention of several communication and technology tools to further improve the development of mass and rapid information. This information has been produced in different format and media. Eventually this has spillover effect and has helped to the development of electronic dictionary which is also known as E-Dictionary.

TYPES OF ELECTRONIC DICTIONARY

According to Al-Rabi'i et.al.(2001:146), electronic dictionary can be divided into two different types:

1. An online electronic dictionary – This dictionary is provided on the World Wide Web also known as internet dictionary. The dictionary is directly used from the internet. Some of the websites offered are free and some of them imposed an annual fee. The advantage of using this dictionary is that it can be used at any place as long as there is internet connection. However, it takes up a lot of time caused by the busy internet connection.
2. Offline dictionary – It is in the form of compact disc. This type of dictionary can be used with a computer or a personal data assistant (PDA). The advantage of using this type of dictionary is that users are free from the interruption of internet connection and the disadvantage is that it requires an expensive tool.

Conceptual Framework

E-Dictionary is developed according to 4 steps:

1. Data
Collecting and entering the input data - The *Maharah al-Qiraah* has been chosen to be the first raw data whereas 'Al-Mukjam Al-Arabi Al-Asasi' will be the second. Both of them will be arranged and processed suited to the database software.
2. Database
Identifying the software using a systematic arrangement and data processing - *Microsoft Access* is chosen as the database software. A few steps needed to be taken to arrange the data, such as building tables, queries and reports.
3. Evaluation
The program needs to be evaluated according to its accuracy and suitability - Groups of evaluator which consist of experienced teachers and computer experts were chosen to evaluate the E-Dictionary. Their proposal will also be considered for the purpose of improvement of the dictionary.
4. Improvement
The improvement work is made based upon the proposal of the evaluator whilst restricted to the objective of this research.

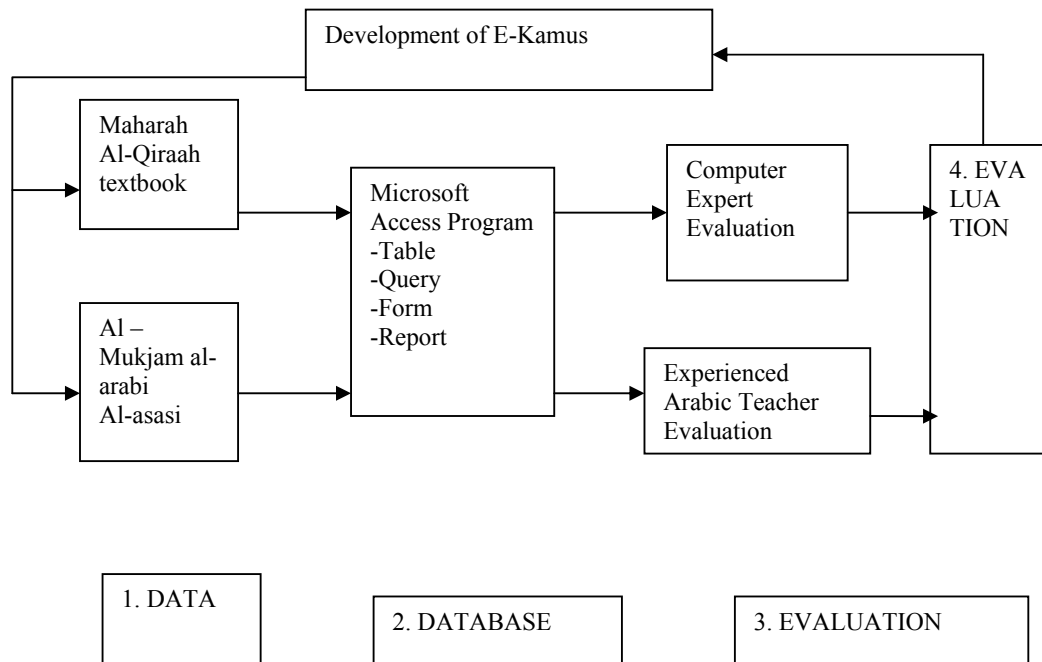


Figure 1: The Framework of E-Dictionary Development

RESEARCH METHODOLOGY

Research Design

This is an action research to create an electronic dictionary database for E-Dictionary using *Microsoft Access* together with *Maharah al-Qiraah* textbook at a matriculation centre. The evaluation program is carried out by two groups of evaluators consisting of experienced Arabic teachers and computer experts. The computer experts will look at the suitability of *Microsoft Access* and the user friendly features, while the experienced teachers will look from the aspect of suitability and the application of E-Dictionary to the *Maharah al-Qiraah* book.

Sample Evaluator

This research involved two sample evaluators to answer the research questions. The first group consists of three experienced Arabic teachers with five years experienced in teaching *Maharah al-Qiraah*.

The second group consists of three computer experts in database and programming. Two of them are involved in teaching *Microsoft Access* as one of the core subject in a matriculation centre and one of them has a vast

experienced in developing program using *Microsoft Access*. He has developed several programmes using the *Microsoft Access* for University of Malaya (UM); a human resource information system, pension information system and ACATIS (Automated Computer-Aided Time-Tabling System) for the Islamic Study Academy.

Research Instrument

The researcher used two instruments to collect the data:

1. E-Dictionary: Electronic Dictionary Database.

An electronic dictionary database is developed. The data collected is based on the *Maharah al-Qiraah* book. The development of the database is constructed based on the systematic instructional design ADDIE (Analysis, Design, Develop, Implement, and Evaluate) which involved the following steps: Figure 2:

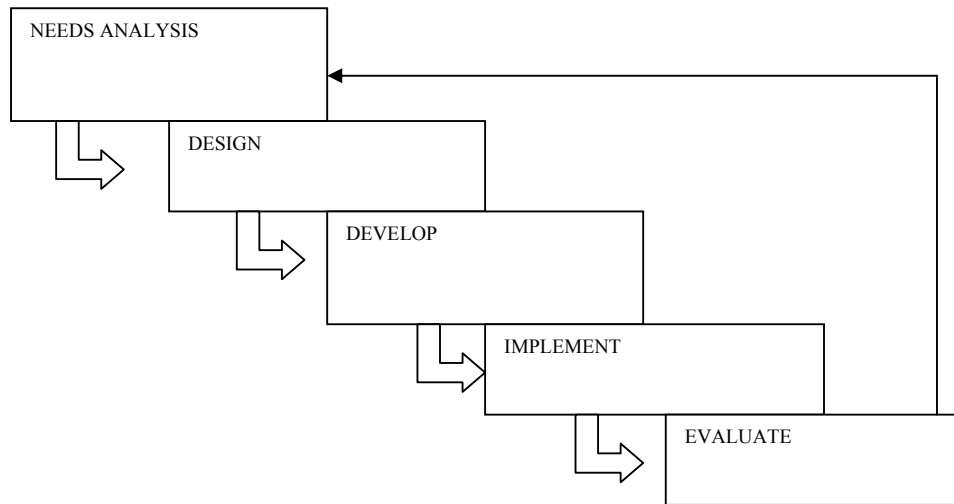


Figure 2: Systematic Instructional Design Model (ADDIE)

2. Evaluation Form

Two sets of evaluation form were designed to answer four research questions. The entire instruments used in this research are developed and suited based on instruments suggested by Ahmad (1993), while the items in the instrument are based on previous researches by Abas (1993) and Kadir (2002). Instrument items concerning the features of electronic dictionary are developed and suited to the methodology suggested by Al-Rabi'i et.al., (2001).

DATA ANALYSIS

Data collected from the survey is analyzed in the mean form using descriptive statistics. The information is tabulated in an easy format so that the reader may understand easier. The mean is shown in the table below:

Mean	Level
1.00 – 2.33	Low
2.34 – 3.66	Medium
3.67 – 5.00	High

Source: Khamis, Masni (2001)

Table 3.2: Level based on Mean

Data Analysis Techniques

The data collected is analyzed using descriptive statistic procedures suitable for the four questions asked. Data from both groups and their evaluation forms are coded to be analyzed using SPSS.

RESULTS AND DISCUSSIONS

Results

Both the experienced teacher and computer experts showed positive feedback from their evaluation. The computer experts have agreed on the use of *Microsoft Access* as an electronic dictionary database. They also have agreed from the aspect of design, interactive and user control, presentation techniques, stability of the program and its application. The results showed that the electronic dictionary is preferred in a compact disc format with an attractive screen presentation and colours.

The experienced teachers agreed that the E-Dictionary is suitable based on several aspects such as its contents, educational and user friendly features, the systematically arranged documents application technique and the ease of understanding the whole application.

Discussions of the Result

The discussions can be divided into four sections (a) design of electronic dictionary database using *Microsoft Access*; (b) user friendly features; (c) suitability of E-Dictionary for *Maharah al-Qiraah* book and (d) the suitability of E-Dictionary on application.

Design Of Electronic Dictionary Database Using Microsoft Access

The main focus of this section is to determine that the design of electronic dictionary database using *Microsoft Access*. The results are simplified into six situations: 1) reliability and accuracy of *Microsoft Access* as a database for the E-Dictionary; 2) the design of E-Dictionary; 3) interactive features and control of E-Dictionary by the end user; 4) robustness of the E-Dictionary; 5) accepted application method of E-Dictionary.

The characteristic of *Microsoft Access* program made the computer experts agree that it can be used as a database for the electronic dictionary with highest mean score of 4.33. This result supports a research by Lockard and Abrams (2004:145) that database program should be encouraged to support an effective teaching and learning process. For improvement, the form should be updated and the display setting should be made more attractive.

From the design aspect, they have agreed that the E-Dictionary ability to receive and respond have the highest mean score of 4.67.

Interactive features and controllability by the end user have received a score of 4.67. With simple use of menu and search method, it is shown that the E-Dictionary is suitable and easy to use.

The presentation techniques of E-Dictionary via easy-to-read features, consistent screen arrangement, and appropriate font have received a notably high mean score of 4.33. It shows that the presentation of E-Dictionary is attractive and acceptable by the users.

The computer experts have given the highest mean score to reliability through a nonstop application or failure having a score of 4.67. There are no technical errors reported while an excellent system flow further supported the reliability of E-Dictionary with a score of 4.33 score.

From the documented application techniques of E-Dictionary, the information with easy-to-read features and simple instructions have received a score of 4.67. This shows that the techniques are clear, accurate and simple to follow.

User Friendly Features of Electronic Dictionary.

This research proves that the capability of electronic dictionary to be used in a compact disc form with attractive display and colours have a fairly high mean score of 4.67. This shows that in order for the electronic dictionary to be user friendly, the aspects above are compulsory and need to be satisfied. The result is supported by the research done by Keong (2000:57) where he claimed that the CD-ROM capacity to store up to 650MB has become one of the significant medium of information. The result is further supported by Zain (2002:81) where the CD-ROM has become one of the media that can be utilized in teaching and learning process.

A flexible search method is one of the extra features to find the meaning of a word based on the requirement of users. This feature is considered important with a score of 4.33.

Combination of audio and visual are also considered essential where these features can help users to pronounce the word correctly as well as to understand the word further (Mean = 4.33). Although the features from the internet dictionary has a lower value compared to other features (Mean=4.0), it is still considered relevant to the research. This is supported by a research done by Keong (2000) stating that the internet plays a role in computer based teaching and learning process. The use of internet dictionary is hoped to help users to search the definition of a word faster regardless of place and time. This can be realized with the existence of internet centers all over the country.

Suitability of E-Dictionary for Maharah al-Qiraah Book

This section focused on the application of E-Dictionary on *Maharah al-Qiraah*. The results are divided into two sections: (a) the content of E-Dictionary (b) education values.

Generally, the experienced Arabic teachers stated that the contents of E-Dictionary are suitable to be used with *Maharah al-Qiraah* in several aspects: (a) accuracy (mean = 5.0); (b) appropriate language expression (mean = 4.67); (c) minor spelling error (mean=4.67) and (d) significance to education needs.

However, the aspects of minor spelling error have received a score of 3.67 compared to others. This means that the researcher needs to make some correction on the spelling errors for the *Maharah al-Qiraah* book.

On educational values, the experienced Arabic teachers evaluated the E- Kamus into several aspects: (a) encouraging students' interest to utilize the dictionary (mean 5.0), (b) increasing the student's motivation (mean 5.0), (c) maximizing the teachers' needs for training skills (mean 4.67) and (d) it would help the students to develop their reading skills. The result is supported by Abas (1996:129); computer based teaching and learning process could help students to understand the lesson better. It is also supported by Ashaari (1999:140); that the use of teaching can ignite students' interest.

The Suitability of E-Dictionary on its Application

The main focus of this section is to evaluate the appropriateness of E-Dictionary from the aspect of application. The main result from this research is divided into several factors: (a) ease of use or user friendly features (mean 5.0); (b) clear instruction (mean 5.0) and (c) time-saving (mean5.0) while the presentation factor received a score of 4.33, which shows that the E-Dictionary needs improvement on the presentation or display to make it more attractive.

From the documented application techniques of E-Dictionary, the experienced Arabic teachers evaluated that the E-Dictionary is easy to use according to the following reasons: (a) systematically arranged data (mean5.0); (b) easy to understand (mean5.0); (c) simple instruction and (d) complete data (mean 4.33). The results are supported by the guidelines provided by Mahmud and Ahmad (2004:370).

IMPLICATIONS OF RESEARCH

The results from this research have shown that the development of E-Dictionary is accurate, appropriate and easy to be used together with *Maharah al-Qiraah* book at the matriculation centre. However, the effectiveness of E-Dictionary depends on the facilities provided and users' behaviour towards the development of education technology.

Computer facilities are a major factor to determine the effectiveness of E-Dictionary. Without the use of computers in classrooms, this will result in an ineffective use of E-Dictionary. Therefore, it is suggested to the management of the matriculation centre to equip each classroom with computers and provide a personal computer to each lecturer to support the teaching and learning process. Other facilities such as LCD projector and screen are also considered important as teaching tools.

The users' attitude also plays an important role in the use of E-Dictionary. A positive attitude would help users to try the computer-based software. On the other hand, a negative attitude would isolate and hinder users from the development of education technology thus would affect the effort of the matriculation center to be an excellent academic institution.

The research has found that *Microsoft Access* is a suitable database program to be used for teaching and learning process. Hence, it is proposed that the management should conduct a course on *Microsoft Access* to educate and equip teachers in developing other type of database for educational purposes.

From previous research, the use of dictionary resulted in a positive effect to the students learning process (Mohamad, 2003:37). As a result, the students are advised to make full use of the E-Dictionary due to its user friendly and time-saving features. The management should encourage students to use computerized application such as E-Dictionary in teaching and learning process because this can help teachers to achieve the lesson objectives.

Suggestions for Improvement

From the result of this research, a few suggestions are proposed for the improvement of electronic dictionary in classroom application. This research has suggested a few actions that can be applied for the benefit of Arabic teaching and learning process.

Insertion of the Audio and Sound Elements

For researchers who want to conduct a study on developing an electronic dictionary, the audio and sound elements should be included. These elements can help users to pronounce the word accurately and encourage them to use the dictionary thus developing a broad command of vocabulary.

Bilingual Electronic Dictionary

It is recommended that the electronic dictionary would be bilingual i.e. Arabic to Malay. Even though it is sufficient to use single language electronic dictionary in learning a second language, the nature of electronic dictionary should be in bilingual format to help general users understand the word better.

Attractive Display

An attractive display can encourage the students to use the dictionary more frequently. It is proposed that the display of electronic dictionary should be presented in an interesting and attractive colour display. The application of menu selection display suited to users' choice will definitely attract their attention.

Provide Easy Internet Connection

The internet facilities should be used wisely. Providing online electronic dictionary would help users to find the definition of a word easier, at any place and anytime. This would take less time to retrieve information on a word in line with the advancement of technology which allows access on information at our fingertips.

Suggestions for Further Research

From the point of view of the researcher, studies on Arabic dictionary should cover all skills in Arabic language therefore a longer research period should be allocated for this purpose. This research is very crucial because it can contribute to the development of dictionary and motivation towards Arabic teaching and learning process. Further research should be done in order to identify other possible software besides *Microsoft Access* that can be used for electronic database for example *Oracle*, *Dbase* and *Macromedia*.

A comparative study can also be conducted between the use of conventional dictionary and electronic dictionary in the teaching and learning of Arabic. This is to find an effective approach by taking into consideration other significant factors.

Research on developing electronic dictionary in single or bilingual should be carried out to produce teaching aids which applies to the current education technology development.

CONCLUSION

This research has proven that the E-Dictionary developed for the *Maharah al-Qiraah* textbook at the matriculation centre has gained positive remark from computer experts and experienced Arabic Teachers. It is discovered that the *Microsoft Access* program is suitable to be used as a database for developing the electronic dictionary. The E-Dictionary adopts the design of an electronic dictionary with user friendly features in a CD ROM format using interesting and attractive colour display.

The research has also shown that E-Dictionary can help the teaching and learning process of the *Maharah al-Qiraah* with savvy, smooth and time-saving application. It also has educational values on inspiring the interest of students to learn and helping the instructors to achieve the objectives of lesson.

This research is a contribution to the quality of education in Arabic language corresponding with the development of education technology. Further research should be carried out either directly or indirectly by those who involved in the study of Arabic language. This is vital to ensure that Arabic language is highly valued and continues to be developed in future.

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