Expert Evaluation On E-Module For Arabic Language Learning In A Blended Learning Environment

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Abstract: The rapid development of technology has impacted the education field when the application of technology became one of the more important agendas. The development of technology-based teaching and learning materials is actively carried out in various disciplines, including the learning of Arabic language. The development of this electronic learning material or e-module will be able to bolster the aspirations towards the use of technology in teaching and learning. In the e-module development process, various procedures need to be followed to ensure that the quality and the objectives of the module can be achieved. One of the important steps in the development process of this e-module is expert evaluation. This study aimed to examine the evaluation of experts in the development of e-module for Arabic language. A total of nine experts were appointed and delegated into three categories; namely Language and Content experts, Educational Technology experts and Blended Learning experts. Each category involved 3 experts in the field. These experts had evaluated the developed e-modules and provided suggestions for improvements. In general, the developed e-modules were suitable to be implemented in a Blended Learning environment.

Keywords: Arabic - Blended Learning - E-module - Expert evaluation

1. Introduction (Times New Roman 10 Bold)

The arrival of Islam in Malaysia has led to the development of the Arabic language in Malaysia. Arabic is the official language of Islam. On the notion of its importance, the Arabic language began to be applied in various fields including education. Arabic has become one of the subjects taught since primary school up to the institute of higher learning. With this development, various efforts and initiatives have been undertaken to further strengthen and ensure the continuation of the Arabic language in the field of education. Among the efforts were; to provide Arabic language learning materials in line with current developments.

Current technological developments had brought major changes to the national education system. The application of technology in the teaching and learning process has become one of the important agendas in education policy. For higher education, universities are actively enhancing the use of technology to ensure the cohesion of education (Maulani, et. al 2021). Furthermore, students need customized and personalized learning environment since they have different needs (Al-Kindi & Al-Khanjari, 2021).

In the Malaysia Education Development Plan 2015-2025 (Higher Education), there are 10 paradigms shifts that have been presented. The 9th shift is embracing globalised online learning. Based on this shift, Blended Learning has become the main pedagogical approach of all IPTs. Among the various benefits that students will be able to enjoy include a well-established cyber infrastructure. With this, learning materials will be easily accessible online. According to Al Salhi et. al (2021) blended learning has learning has a positive effect on students' academic success.

Generally, Blended Learning defines a combination between face-to-face learning and online learning. The developed e-module is the material used when classroom sessions take place online. Blended Learning occurs within 30%-80% of the total learning time in online classes as outlined by the Malaysian Ministry of Education.

Therefore, the development of materials is actively carried out to achieve the aspirations of learning on a global level. The development of these technology-based materials or e-modules is based on the Design and Development Research approach (DDR) [4] . This DDR is a systematic form of study and has 4 main phases. The phases are; the needs analysis phase, the design and development phase, the implementation phase, and the evaluation phase. The needs analysis phase is the first phase aimed at obtaining basic information before a material is developed, while the second phase is where material development will take place based on data obtained through the first phase. The second phase is also one of the most important phases as the developed material will go through various procedures including expert evaluation to ensure the quality of the material and meet the objectives. The third and fourth phases are which the developed material will be implemented and tested for its effectiveness.

Expert evaluation is one of the most important procedures in the material development process. Specialists will be appointed based on their respective areas of expertise to further evaluate and determine whether the developed material is suitable or requires more modification to suit the development objectives of the module.

2.Significance Of The Study

The use of technology in education is growing rapidly with various approaches in technology-based teaching and learning being implemented. However, based on previous studies, it is reported that the usage of technology in learning Arabic is still not at its optimal state. This was discussed by Abdul Majid and Ismail (2018) who reported that the level of educators' skills in using technology was at a moderate level. This is because educators prefer to use other methods that do not use technology during teaching and learning sessions (Al-Muslim & Zamri, 2012; Ayyad, Basha & Ahmad, 2011; Ghazali et. al., 2012; Lubna Seewen & Wan Azura).

Materials for teaching support are seen as inappropriate, unattractive, and is one of the constraints that occur in the teaching and learning of Arabic. This situation requires improvement in the provision of support materials for teaching and learning Arabic (Zainur & Rosni, 2012; Abdul Hakim, Ab. Aziz, Wan Ismail, 2015). Meanwhile Rahimi, Zawawi & Wan Nordin, (2005) stated that better quality materials are needed to build the software content. The developed technological materials were also reported to be of poor quality which in turn led to unsatisfactory level in the R&D of Arabic e-learning and does not reach the optimal level for usage or distribution.

An evaluation is made on the e-module to assess the strengths and weaknesses of the instructions or information in phase 2 which is the design and development phase of the material. The evaluation will help to improve the effectiveness of the material. According to Flagg (2013) and Tessmer (1993), this evaluation is carried out with instruction-related data collection procedures from a variety of sources through various collection methods and tools.

Based on the highlighted issues, quality supplementary materials for Arabic language learning are necessary to be developed. Therefore, e-learning modules are developed according to material design and development procedures. To ensure the quality of the e-modules development, a joint evaluation of experts was conducted. The appointed experts are chosen based on their mastery and experience in their specific field.

3.Objectives Of The Study

This study aims to examine the evaluation of experts during the development process of Arabic e-learning modules based on Blended Learning. The objectives of the study are as follows:

1) What are the Language and Content experts' views on the development of Arabic materials based on Blended Learning?

2) What are the Blended Learning experts' views on the development of Arabic materials based on Blended Learning?

3) What are the Educational Technology experts' views of on the development of Arabic materials based on Blended Learning?

4.Methodology Of The Study

This study highlighted the development of teaching and learning materials in a Blended Learning environment. Generally, the study consisted of 3 main phases; Needs Analysis phase, Design & Development phase, and Evaluation phase. In this study, emphasis was given to the 2nd phase which is the Design and Development phase. In phase 2, although there were several procedures that needed to be met -- this study only discussed on the expert evaluation of the developed e-modules.

In the module development process, the role of an expert is crucial due to their extensive experience in a particular field. Thus, an expert's opinion will be able to contribute to the effectiveness of e-module development. According to Booker & McNamara (2004), a specialist or expert is someone who is experienced and has qualifications for practice, training, and experience. In addition, an expert is also someone who has specialised knowledge and is able to express a multi-dimensional perspective on critical aspects of the product being created (2007). According to Norasyikin (2017), experts have specific knowledge, skills and experience related to the content, characteristics and audience of instruction. The role of this expert is to evaluate the accuracy of the content and technical quality.

A total of 9 experts were appointed to evaluate the prototype of the e-module that had been developed. These experts had been divided into 3 categories namely; Language and Content experts, Educational Technology experts, and Blended Learning experts. This number corresponded to the number of experts recommended by Mohd Najib, (1999) in that the evaluation of the module usually requires 6 to 9 experts.

The expert evaluation is one of the procedures in the formative evaluation process of the module as suggested by Tessmer (1993) and Flagg (2013). Table 1 displayed the list of experts who had been appointed to evaluate the e-modules that had been developed. Language and Content experts consisted of lecturers from UMK and UniSZA, while Blended Learning experts were lecturers from UKM, UITM and IIUM. Apart from that, Educational Technology experts were appointed from UKM and INSTEC lecturers. All the appointed experts command specialisation and expertise in their respective fields.

Table 4.14 List of Expert Assessors

Expert Category	**Position**	**Institution**	**Total**
Language and Content experts	1) Associate Professor	UMK	3
	2) Senior Lecturer (Dr.)	UniSZA	
	3) Senior Lecturer (Dr.)	UniSZA	
Blended Learning experts	1) Associate Professor	UKM	3
	2) Associate Professor	UITM	
	3) Associate Professor	UIAM	
Educational Technology experts	1) Associate Professor	UKM	3
	2) Associate Professor	UKM	
	3) Senior Lecturer (Dr.)	INSTEC	

Questionnaires were distributed to the experts in the e-module evaluation process. The questionnaire was an adaptation from the study of Kamaruzzaman (2011) and Zulkifli (2013). Experts will first observe at the developed e-modules and then provide comments or suggestions for improvement. All comments and suggestions are recorded and were then refined based on the experts' recommendations.

The evaluation process from experts was one of the procedures that needed to be done in developing a module. Tessmer (1993) had suggested a formative evaluation process of the developed modules and suggested several procedures that needed to be followed. Figure 1 showed the evaluation procedure that took place when developing the module. However, this study only focused on the evaluation from the experts.

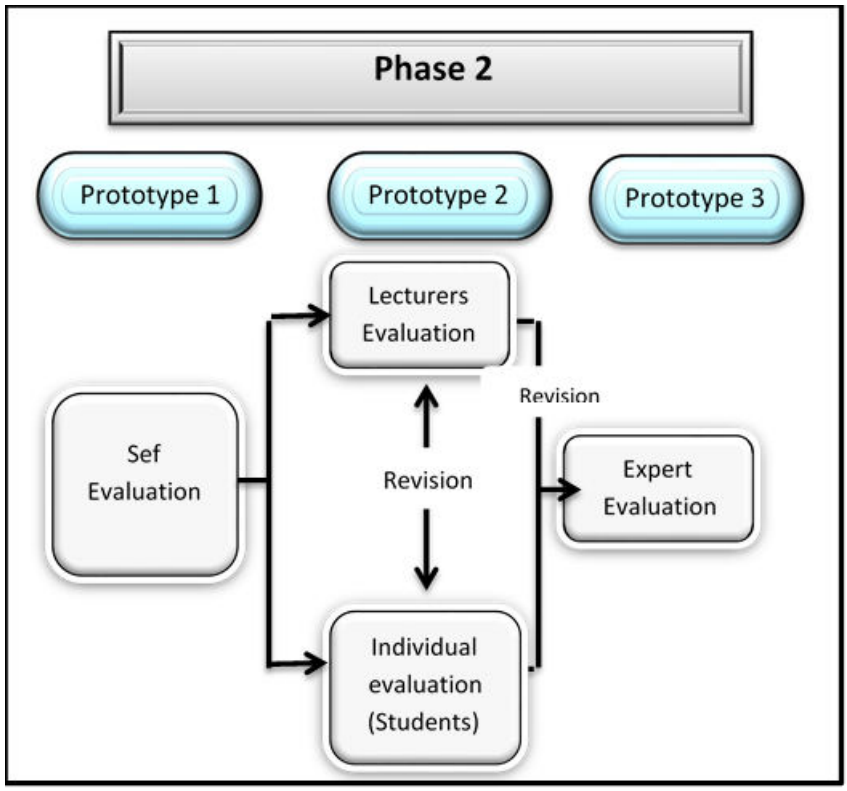

Figure 1 Evaluation Procedure (Adaptation, Tessmer 1993)

5. Findings & Discussion

The developed E-Module had used the Moodle platform which is one of the learning management systems or also known as the Learning Management System (LMS). The content of this module was generally divided into several main sections namely; comprehension and grammar. Content was displayed in the form of videos as well as PDF files to facilitate access to students. The PDF files made it easier for students to print the material. On its base, the materials were conveyed in the form of video with multimedia elements including audio, images, and animation. The audio available in this video is a voice recording that emphasises reading of words and text for students to know and understand the correct pronunciation, while the graphics used were specially drawn so that it fits the content. In addition, each section included comprehension questions to strengthen students' mastery of the learned topics.

The prototype evaluated by experts was the 3rd prototype module after being evaluated at the self-review stage, students, and lecturer stage. Evaluation from experts was an important aspect that needed to be done to ensure the quality of the material developed. Experts had reviewed the developed e-modules and provided feedback for improvements. A total of 9 experts were appointed to evaluate the e-modules -- comprised of Language and Content experts, Technology experts and Blended Learning experts.

The evaluation of each expert was conducted separately. Experts were asked to make detailed evaluation of the module. For evaluation purposes, experts were provided with questionnaires. The experts were also asked to provide comments and suggestions for improvement from various angles not fully covered in the questionnaire.

Language and Content Experts

Language and Content experts examine the language and content aspects of the developed e-modules. Among the content elements assessed were the accuracy of the content as listed in the proforma (course information document), the suitability of the training with the level of the students, the use of understandable language, and multimedia presentations that help students to better understand the content.

Table 1 showed the overall mean score of the content construct evaluation by the Language and Content expert (4.24) which was at a high level. The majority of experts had agreed that in general, the Language and Content of this module conformed to the proforma appropriate to the level of the students and helped the students to strengthen their understanding in learning Arabic.

Table 1 Mean score of the content construct evaluation by the Language and Content expert

No.	**Item**	**Mean Score**
1.	The content of the module conforms to the proforma of the course	4.00
2.	The training provided is appropriate to the level of the students	4.33
3.	The language used is easy to understand	4.00
4.	Content is presented in the form of video, animation, audio, and images according to the level of the students	4.33
5.	Content presented in the form of video, animation, audio, and images can help students to easily understand it.	4.33
6.	The additional link content provided helps students to further strengthen their understanding	4.33
7.	The discussions available in the forum provide an opportunity for students to interact and express ideas	4.33
	Total	**4.24**

Based on the findings, it could be concluded that Language and Content experts agreed that the language and content aspects of this developed e-module were suitable for use in a Blended Learning environment. However, there were still some improvements that needed to be made. Among the improvements include aspects of terminology and spelling errors.

Blending Learning experts

Blended Learning experts consist of experts who were experienced in conducting classes based on Blended Learning as well as extensive knowledge in this aspect. The aspect emphasised in this construct is the suitability of the e-modules to be developed within the Blended Learning environment. Besides, the interactivity aspects of the module were also assessed including; accessibility regardless of time and place, access and download notes easily, and lecturers being able to monitor student's engagement.

Table 2 displayed the findings of the questionnaire with Blended Learning experts. Overall, the mean obtained was high at a score of 4.73. Experts agreed that the approach had been successfully implemented in this module. Among the advantages were that the students could access the material regardless of time and place and the available material worked in tandem with what was learned and taught in class -- in turn could attract students' interest.

Table 2 Mean score of the Blended Learning construct evaluation by the Blended Learning experts

No.	Item	Mean Score
1.	This module is suitable for use in Blended Learning (combined) with classroom learning.	4.33
2.	The activities contained in this material have evaluations.	4.67
3.	Lecturers can monitor student's involvement in using this module.	4.67
4.	Topics covered in this module are also discussed in class.	5.00
5.	The use of this module can help students improve students' understanding after learning it in class.	5.00
6.	Students and lecturers can interact using this module.	4.67
7.	Students can access this material at any time regardless of time and place.	5.00
8.	The notes contained in this module can be downloaded to enable easier references for students.	4.67
9.	Students can find out the achievement of training through the feedback provided.	4.67
10.	The use of this module in a Blended Learning environment can attract students to continue learning Arabic	4.67
	Total	**4.73**

Apart from providing feedback through questionnaires, Blended Learning experts also provided comments for the improvement of the e-module. Their comments and suggestions were compiled and summarised in Table 3. Among the comments of Blended Learning experts were; the e-module needs to be clear with the form of Blended Learning to be implemented. In addition, experts also suggested that the university upgrade the Learning Management System that uses the Moodle platform. This was to ensure that the displayed materials were more interesting to students and various other additional menus could be used optimally. E-module was developed using entirely Arabic language at an early stage, but experts have suggested that the translation into English was also an important part of the e-module development. This was because the e-modules were used by students with varying basic knowledge of Arabic language. All comments and suggestions from experts were considered and refinements were done to ensure the best condition of the e-module development.

Table 3 Table of suggestions and comments from Blended Learning experts' evaluation

No	Suggestion	PBL 1	PBL 2	PBL 3
1.	It needs to be clear with the form of Blended Learning approach that is carried out	/		
2.	Emphasise the use of forums.	/		
3.	Utilise student's learning time outside the classroom session to use materials.	/		
4.	The university needs to upgrade the Moodle platform so that content can be displayed more attractively		/	
5.	Small font size		/	
6.	This module still requires monitoring and interaction with lecturers			/
7.	Instructions need to be more precise and concise			/
8.	Needs a menu translation for the first topic			/

/Past studies had also reported that students were interested in pursuing online learning. Among them, the findings of the study from Mohd Sabri et. al (2019) showed that the respondents strongly agreed with the use of portable electronic materials -- accessible anytime and anywhere.

Educational Technology Expert

Educational Technology experts are specialists with extensive experience in the use of technology in education. These experts had evaluated the e-modules from the aspects of design, interactivity, and usage of multimedia. The design construct consisted of 7 items, interactivity aspects consisted of 5 items and multimedia use consisted of 8 items.

Table 4 reported that the overall mean score for module design from technologists was at 4.0, which is at a high level. Design aspects include text, graphics, colours, clear and user-friendly instructions.

Table 4 Mean score of the Educational Technology construct evaluation by the Educational Technology experts

No.	Items	Mean Score

1.	The design of this material is easy to use	4.00
2.	The instructions stated in the materials are clear	4.00
3.	The design of the website is attractive	4.00
4.	The text contained in the material can be read clearly	4.00
5.	The graphics used are able to help students better understand the content	4.00
6.	The colours used are able to attract attention	4.00
7.	Students are free to access and exit this material at any time.	4.00
	Total	**4.00**

Table 5 showed that the mean score of the interactivity aspect was at a score of 4.0 which is at a high level. This aspect assessed how students were able to interact with modules, students and lecturers. Overall experts agreed that the interactivity aspect of e-modules is at a good level. Students can operate the e-module easily and effectively.

Table 5 Mean score of interactivity evaluation from Educational Technology experts

No.	Item	Mean Score
1.	Students are able to control the presentation of material well	4.00
2.	Students can interact with each other and also with the lecturer	4.00
3.	This material is easy to explore with a systematic menu	4.00
4.	Students will receive immediate feedback upon completion of the exercise.	4.00
5.	Additional links provided enable students to easily obtain additional information	4.00
	Total	**4.00**

Table 6 reported the mean score values obtained by each item under the multimedia construct. All items mean scores were at 4.0 which led to an overall value of 4.0 as well. Multimedia aspects were assessed include the use of images, animation, audio and background sound. Experts agreed that the aspects of multimedia used in the e-module could attract the attention of students as well as helping students to understand the content better.

No.	Item	Mean Score
1.	The use of images helps students to better understand the content	4.00
2.	The use of animation helps students to better understand the content	4.00

3.	The use of background voice helps students to better understand the content	4.00
4.	The use of images fits the content	4.00
5.	The use of animation fits the content	4.00
6.	Images and background sounds are played simultaneously without distracting students	4.00
7.	Animation and audio are played simultaneously helping students to better understand the content	4.00
8.	Videos contents can attract student's attention in learning Arabic language	4.00
	Total	**4.00**

The multimedia element played an important aspect that needed to be emphasised in developing e-modules. Mohd Fauzi's study (2020) reported that respondents agreed with the use of infographic materials in addition to similar designed materials so as to improve their understanding during the learning session.

8.Conclusion

Technology plays an immense role in improving the effectiveness of the teaching and learning process. Looking at the advantages and benefits it has, this situation sparked increasing activities of online learning materials development. To ensure that the field of education is in line with current technological developments, the development of online materials and its quality aspect is emphasised in order to match the objectives. To ensure the quality of the material developed is maintained, continuous evaluation must be conducted during the material development process. Among the elements that play a major role in material evaluation are experts in the field. Experienced experts are able to assess the strengths and weaknesses of a developed material. Therefore, the selection of experts must be accurate with regards to the aspects that needed to be evaluated. Materials that have gone through an evaluation process from experts are believed to have more credibility for use in teaching and learning sessions.

References (APA)

Ab Majid, M. R., & Ismail, Z. (2018). Pengetahuan Teknologi Guru Bahasa Arab Dan Hubungannya Dengan Kreativiti Pengajaran Di Malaysia. Jurnal Islam Dan Masyarakat Kontemporari, 18(1), 1-13.https://www.proquest.com/docview/2437115095?pq-origsite=gscholar&fromopenview=true

Abdul Hakim Abdullah, Ab. Aziz Sulaiman & Wan Ismail Wan Abdullah . 2015. Faktor-Faktor Yang Mempengaruhi Motivasi Terhadap Pembelajaran Bahasa Arab. Jurnal Islam Dan Masyarakat Kontemporari 10(2): 104-121.

Al-Kindi, I., & Al-Khanjari, Z. (2021). Exploring Factors and Indicators for Measuring Students' Performance in Moodle Learning Environment. International Journal of Emerging Technologies in Learning, 16(12), 169-185. https://doi.org/10.3991/ijet.v16i12.22049

Al-Muslim Mustapa & Zamri Arifin. (2012). Pengajaran dan pembelajaran Bahasa Arab: Satu Tinjauan Literatur. Prosiding Persidangan Kebangsaan Pengajaran dan Pembelajaran Bahasa Arab 2012(PKEBAR 12), hlm. 278-285.

Alsalhi, N.R, Eltahir, M. E.,Al-Qatawneh, S., Ouakli, N., Antoun, H. N., Abdelkader, A.F., Al Jumaili, L. (2021). Blended Learning in Higher Education: A Study of Its Impact on Students' Performance. International Journal of Emerging Technologies in Learning (iJET), 16(14), 249-268. https://doi.org/10.3991/ijet.v16i14.23775

Ashinida Aladdin. 2013. Demotivating Factors in the Arabic Language Clasroom: What demotivates non-Muslim Malaysian learners when it comes to learning Arabic?. Procedia-Social and Behavioral Sciences 93: 1652-1657.https://core.ac.uk/download/pdf/82026317.pdf

Ayyad Abdullah, Basha Abu Bakar, Ahmad Baghdawan. 2011. Ta'lim wa taallum alluhgotul arabiah fi malizia baina attahdiyyat wa attomuh Prosiding Seminar Antarabangsa Pengajaran Bahasa Arab 2011 (SAPBA'11): Wawasan dan Cabaran Malaysia-China.

Booker, J. M., & McNamara, L. A. (2004). Solving black box computation problems using expert knowledge theory and methods. Reliability Engineering & System Safety, 85(1-3), 331-340.https://doi.org/10.1016/j.ress.2004.03.021

Flagg, B. N. (2013). Formative evaluation for educational technologies. Routledge.

Ghazali Yusri, Nik Mohd Rahimi, Parilah M. Shah, Muhammad Arsyad Abdul Majid, Wan Haslina Wah. (2012). Penggunaan bahan pembelajaran dalam kursus bahasa arab. GEMA: Online Journal of Language Studies 12(1): 215-233.https://ejournal.ukm.my/gema/article/viewFile/30/24

Kamaruzzaman Bin Ismail. (2011.) Pembangunan Dan Penilaian Perisian Bahasa Perancis Asas Berasaskan Web. Tesis Dr. Fal, Universiti Kebangsaan Malaysia.

Lubna Abd. Rahman, Seewen Ali Ismail & Wan Azura Wan Ahmad. (2008). Halangan dalam penggunaan peralatan teknologi dalam pengajaran bahasa Arab kepada penutur bukan jati: kajian di USIM, UIAM dan UKM. Laporan penyelidikan USIM PPPP(K)/2007.http://ddms.usim.edu.my/handle/123456789/4345

Maulani G.A.F, Hamdani N.A, Nugraha S, Solihat A, Sapril T.M, Mubarok. (2021). Information Technology Resources and Innovation Performance in Higher Education. International Journal of Interactive Mobile Technologies (iJIM), 15(4), 117-125. https://doi.org/10.3991/ijim.v15i04.20193

Mohd Najib , A. G.. (1999). Penyelidikan Pendidikan. Johor Darul Takzim: Penerbit Universiti Teknologi Malaysia.

Mohd Fauzi Abdul Hamid, Norasyikin Osman, Zulazhan Abdul Jalim, Mohd Firdaus Yahaya, Mohd Shahrizal Nasir, Shaferul Hafes Shaari, Nor Eliza Abd Rahman. (2020). Need Analysis for Infographic Application in Arabic Grammatical Learning. Universal Journal of Educational Research, 8(3), 936-941.https://doi.org/10.13189/ujer.2020.080327

Mohd Sabri Sahrir, Mohd Firdaus Yahaya, Mohd Shahrizal Nasir.(2019). Instructional Feedback Analysis of an Online Virtual Language Learning Platform Through EZ-Arabic among Malaysian Teachers of Primary Schools. International Journal of Asian Social Science, 9(2), 204-212.https://core.ac.uk/download/pdf/300472096.pdf

Nor Aziah Alias. (2007). Design and development of a 'learning console' to scaffold the adult online distance learners' motivational self-regulation and self-direction. Tesis Doktor Fal, Universiti Islam Antarabangsa Malaysia.

Norasyikin Osman (2017), Development Of E-Learning Support Materials Of Preliminary Arabic Language Course At Unisza. Unpublished Phd. Thesis. Faculty Of Education. Universiti Kebangsaan Malaysia.

Rahimi Md. Saad, Zawawi Ismail, Wan Nordin Wan Abdullah. 2005. Pengajaran dan Pembelajaran Bahasa Arab Berasaskan Web.

http://www.ipbl.edu.my/portal/penyelidikan/seminarpapers/2005/rahimiUM.pdf

Richey, R. C., & Klein, J. D. (2007.) Design and development research: Methods, strategies, and issues. New Jersey: Lawrence Erlbaum Associates.

Tessmer, M. 1993. Planning and conducting formative evaluation. London: Kogan Page Limited.

Zainur Rijal Abdul Razak, Rosni Samah. 2006. Cabaran dan halangan penguasaan bahasa Arab di kalangan pelajar. Prosiding Pendidikan Islam (siri 5), hlm.357-362.

Zulkifli Osman. (2013). Pembangunan Modul Pengajaran Bahasa Melayu Secara Bersepadu. Tesis Dr. Fal, UM.