

Development of Basic English Learning Application (Easy English)

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DOI: <https://doi.org/10.30880/ritvet.2022.02.02.015>

Received 24 July 2022; Accepted 09 August 2022; Available online 30 September 2022

Abstract: The Malaysian government's policy is to make English as the second language after national language. However, the use of English is still not widespread among students at the primary school level. Therefore, the purpose of this study is to develop a basic learning application of English as one of the teaching and learning materials in English subject. This study aims to design the content, interactivity, interfaces, as well as to develop application and test the functionality of basic English learning application namely as Easy English. The ADDIE model was chosen as the design model to develop this application because it is suitable for multimedia development. The model has five phases namely analysis, design, development, implementation and evaluation. The software used to develop this application is Unity and Adobe Illustrator. A set of expert checklists form was used to assess the level of functionality of the application by three (3) experts from the Creative Multimedia Department and one (1) expert from the Center of Language Studies. Data were obtained, analyzed, and presented in the form of frequency, percentage of acceptance and feedback remarks. Overall, Easy English learning application was successfully developed and received positive reviews and views from all four experts.

Keywords: Basic English Learning, Application Development

1. Introduction

In this current of modernity, the use and proficiency in English is very important in the era of globalization. Malaysia needs to emphasize their community to master the English language in order to be more advanced and competitive. English is not only needed in everyday life but also in the field of education and employment also emphasizes on the mastery of English. The definition of English is 'the language as spoken by the English'. English language is widely used in the fields of tourism and hospitality, science and technology, medicine and more (Rahmathbee, 2016). Therefore, it is a necessity especially for students to learn English so that they can seize job opportunities out there later. At the same time mastery more than one language provides many advantages in daily life and their career. The development of Easy English application is based on the ADDIE model. The processes involved in ADDIE model make it easy for developers to develop and evaluate this application.

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1.1 Research Background

Currently, English is the most important and number one language in the world. It is seen as a language that allows our society to interact easily and more effectively. Therefore, it is important for the community to master English well to produce a community that is proficient and knowledgeable in English. One of the problems is that English proficiency among students is currently weakening and reaching alarming levels. The problem of English language use is becoming more serious among students regardless of primary school, secondary school, or tertiary level. Most students fail to master English well, especially rural Malay students (Surif et al., 2006). Most of them lack in knowledge from the aspect of grammar. When they do not master in grammar, they will not be able to write sentence or speak in English. Students also find English difficult to understand and difficult to use in daily life.

1.2 Problem Statement

English is a compulsory subject for all students regardless primary or secondary level. Based on the background of the problem, it can be seen is that the usage of English language is still not widespread among students at the primary school level and show low performance (Cheng et al., 2016). With the development of Easy English application, it is to some extent able to encourage the younger generation, especially students at the primary level to learn more about English and be able to master and use English correctly. Learning using mobile applications in education is believed to stimulate students' motivation to learn independently (Razali and Khalid, 2021) and following current trend in learning English using technology (Raine, 2018).

1.3 Objectives

This study proposes three (3) objectives as listed below:

- i. To design an Easy English application for learning basic English
- ii. To develop an Easy English application for easy and simple basic English learning
- iii. To evaluate the functionality of the Easy English learning application to experts.

2. Methodology

The ADDIE model was chosen as the design model to develop this application because it is suitable for multimedia product development. The ADDIE model is an instructional model that consists of five phases, namely the analysis phase, design phase, development phase, implementation phase, and evaluation phase (Rossett, 1987; Rahmat, 2019). According to Kurnia, Lati, Fauziah and Trihanton (2019) ADDIE model is an effective and relevant model to be used in developing a product. The phases of the ADDIE model are depicted in Figure 1 below.

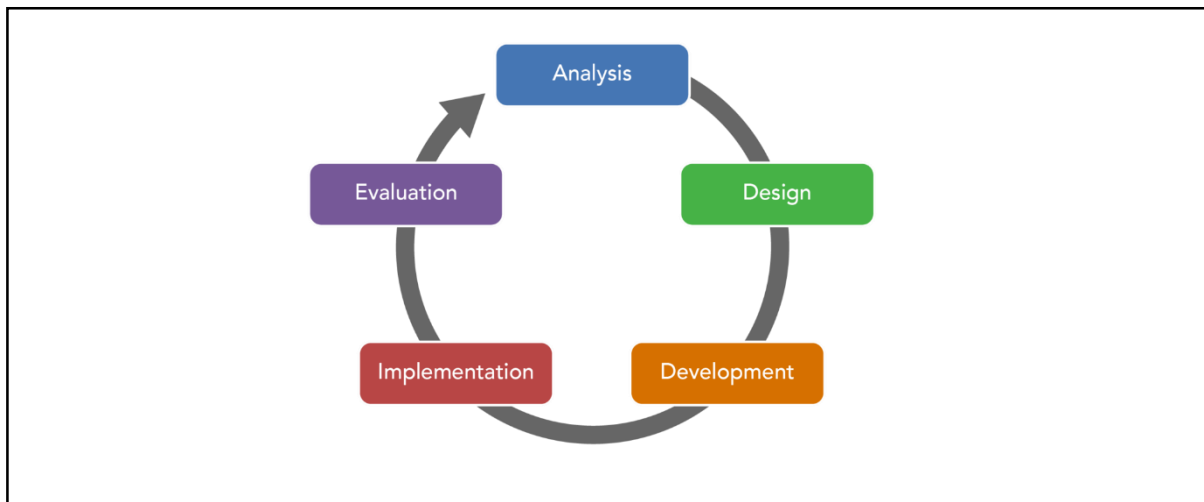


Figure 1: ADDIE MODEL (Rossett, 1987)

2.1 Analysis Phase

The analysis is the first phase in ADDIE model. This phase involves several tasks. In the early stages of the development of this application, analysis is carried out to identify problems that arise, determine the goals and objectives of application development, product scope and target users. The developer has gathered and collected the information and learning content required in the presentation of this application. The developers have compiled accurate and concise content so that students can understand every message and information used in this interactive application.

2.2 Design Phase

The next phase in ADDIE model is the design phase. The design phase is implemented after the analysis phase is completed. This Easy English learning application was produced with some preliminary work such as content design, interface design and presentation design. Early sketches such as storyboards and flow charts were designed at this phase. These storyboards will be used as a reference and guide for developers in application development process during next phase. Interactive elements such as text, audio, video, animation and graphics are used to deliver the learning content.

2.3 Development Phase

After the design phase is completed, the development phase will be implemented in the ADDIE model. In this phase, the developer will develop the product according to the storyboard that was developed in the design phase. This application is developed using existing software such as Unity and Adobe Illustrator.

2.4 Implementation Phase

In this phase, the completed application will be presented to experts to test the functionality and detect the possible emergent error. If there are problems occurred, a process of improvement will be implemented. This testing is done to find out the functionality and improvements that can be made by developers to this learning applications.

2.5 Evaluation Phase





Evaluation Phase is the last phase in ADDIE model. At this phase, the evaluation of the content and interface is done by experienced experts. The assessment was performed using an expert checklist form. Feedback from experts will be taken which emphasizes evaluation of content, animation, graphics, audio, interface and so on.






3. Result and Discussion



3.1 Development of Easy Application

This section will discuss the result of the development of Easy English application. Table 1 shows the result of the interfaces resulting from the development process in ADDIE model.

Table 1: Development Of Basic English Learning Application (Easy English) Interfaces

Application Interfaces	Description
<p>Homepage Screen</p> 	<p>The homepage shows the use of text, graphic and audio.</p> <p>The homepage contains of attractive interface equipped with on and off sound button, title and ‘Start’ button to start the navigation.</p>
<p>Main Menu Page Screen</p> 	<p>The main menu screen shows the use of text, graphic and audio.</p> <p>The main page screen consists of four (4) menu buttons which are:</p> <ol style="list-style-type: none"> 1. Pronunciation 2. Grammar 3. Quizzes 4. Fun Zone
<p>Pronunciation Menu Screen</p> 	<p>The Pronunciation menu screen shows the use of text, graphic and audio.</p> <p>The Pronunciation menu screen consists of six (6) menu buttons which are:</p> <ol style="list-style-type: none"> 1. Animals 2. Foods 3. Colors 4. Shapes 5. Sports & Hobbies 6. Body Parts
<p>Pronunciation Subtopic Screen</p> 	<p>The Pronunciation (Colors) content screen show the use of text, graphic and audio.</p> <p>The subtopic Colors shows the list of colors with its pronunciation.</p>

<p>Grammar Menu Screen</p> 	<p>The Grammar menu screen shows the use of text, graphic and audio.</p> <p>The Grammar menu screen consists of six (6) menu buttons which are:</p> <ol style="list-style-type: none"> 1. Adjective 2. Adverbs 3. Pronouns 4. Nouns 5. Present Tense 6. Past Tense
<p>Grammar Note Screen</p> 	<p>The Grammar (Past Tense) menu screen shows the use of text, graphic and audio.</p> <p>The subtopic Past Tense shows the notes about the past tense</p>
<p>Grammar Quiz Screen</p> 	<p>The Grammar Quiz screen shows the use of text, graphic and audio.</p> <p>The Grammar Quiz section consists of several simple and short questions for comprehension.</p>
<p>Quizzes Screen</p> 	<p>The Quizzes screen shows the use of text, graphic and audio.</p> <p>The Quizzes section consists of several simple and short questions for comprehension including graphical style questions.</p>
<p>Short Stories Screen</p> 	<p>The Short Stories screen shows the use of text, graphic and audio.</p> <p>The Short Stories section consist of animation videos of the short stories.</p>

<p>Tongue Twister Screen</p> 	<p>The Tongue Twister screen show the use of text, graphic and audio.</p> <p>The Tongue Twister screen consists of listening practices of English words.</p>
<p>User Manual Screen</p> 	<p>The User Manual screen show the use of text, graphic and audio.</p> <p>The User Manual screen consists of explanation of the graphical icons or symbols that are used in this application. The purposes of the manual is as the guidance to the user.</p>
<pre> 01 public void MuteButton() 02 { 03 if (MusicBackground.BgInstance.BackgroundMusicAS.isPlaying) 04 { 05 MusicBackground.BgInstance.BackgroundMusicAS.Pause(); 06 // MuteBtn.SetActive(false); 07 // UnMuteBtn.SetActive(true); 08 } 09 return; 10 } 11 12 public void UnmuteButton() 13 { 14 if (MusicBackground.BgInstance.BackgroundMusicAS != null) 15 { 16 MusicBackground.BgInstance.BackgroundMusicAS.Play(); 17 // MuteBtn.SetActive(true); 18 //UnMuteBtn.SetActive(false); 19 return; 20 } 21 } </pre>	<p>Example coding of mute and unmute function button</p>
<pre> 1 using System.Collections; 2 using System.Collections.Generic; 3 using UnityEngine; 4 using UnityEngine.SceneManagement; 5 6 public class GameManager : MonoBehaviour 7 { 8 public void GoHomePage() 9 { 10 SceneManager.LoadScene("HomePage"); 11 } 12 13 public void GoMainPage() 14 { 15 SceneManager.LoadScene("Main Page"); 16 } 17 18 public void GoPronunciationMenu() 19 { 20 SceneManager.LoadScene("PronunciationMenu"); 21 } 22 23 public void GoAnimalsScene() 24 { 25 SceneManager.LoadScene("Animals"); 26 } 27 28 public void GoColorsScene() 29 { 30 SceneManager.LoadScene("Colours"); 31 } </pre>	<p>Example coding of navigation page function button</p>

3.2 Functionality Test of Easy English Application

This section will discuss the result obtained from functionality test by the experts. It involves result in form of percentage of acceptance and the comments from the experts.

3.2.1 Interface Expert Demographic Analysis

In the expert evaluation of the interface design, the developer selected three (3) experts namely experienced lecturers who teach in the field of Creative Multimedia. The reason for choosing three (3) experts is to get sufficient feedback to get clear comments and views. Table 2 is the demographics of the experts that have been acquired.

Table 2: Interface Expert Demographic

No.	Gender	Educational Status	Field of Specialization	Work Experience	Position	Sector
1.	Male	Bachelor Degree	Multimedia	More than 15 years	Assistant Instructor	Government
2.	Female	Doctor of Philosophy	Information Technology	More than 15 years	Senior lecturer	Government
3.	Female	Doctor of Philosophy	Instructional Design	More than 15 years	Senior lecturer	Government

3.2.2 Content Expert Demographic Analysis

In the evaluation of content experts, the developer selected an expert who is a lecturer from the Center of Language Studies who is skilled and experienced in the field of English. The feedback obtained can provide a clear picture of the evaluation given in relation to the content of Easy English.

Table 3: Content Expert Demographic

No.	Gender	Educational Status	Field of Specialization	Work Experience	Position	Sector
1.	Female	Masters	TESL	More than 15 years	Senior Language Teacher	Government

3.2.3 Interface Expert Assessment Analysis

In the expert checklists form, the interface evaluation analysis is done based on the aspects of interface design found in the developed android application. There were twenty-five items in the checklist. There are several sections on the assessment on this form namely text, graphics, audio, video and interaction design.

Table 3: Interface Expert Assessment

No	Item	Yes	No	Percentage of Acceptance (%)
Text				
1.	The text size used is appropriate	3	0	100
2.	The type of text used is easy to understand	3	0	100
3.	The use of text colors is appropriate	3	0	100
4.	Text size is consistent	3	0	100
5.	Use of easy -to -read text	3	0	100
Graphic				
6.	The graphics used are appropriate to the topic of learning.	3	0	100
7.	Use of easy -to -understand graphics	3	0	100
8.	The graphic color used is in accordance with the graphic background	3	0	100
9.	The layout arrangement used is appropriate	3	0	100
10.	Use graphics that have a clear resolution	3	0	100
11.	The graphic size used is appropriate	3	0	100
Audio				
12.	Use of audio appropriate to the content	3	0	100
13.	Audio can be heard clearly	3	0	100
14.	The selection of background audio is interesting	3	0	100
15.	The background music used is appropriate	3	0	100
Video				
16.	Videos can be played and stopped by the user at any time	3	0	100
17.	Video length size is appropriate	3	0	100
18.	The control buttons on the video work fine	3	0	100
19.	The videos provided can attract the interest of users	3	0	100
Interaction Design				
20.	The navigation buttons used are interesting	3	0	100
21.	The position of the navigation buttons is consistent	3	0	100
22.	The position of the navigation buttons is appropriate	3	0	100
23.	The size of the navigation buttons is appropriate	3	0	100
24.	The text on the navigation buttons is appropriate	3	0	100

25.	The graphic symbols on the navigation buttons are easy to understand	3	0	100
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From the data obtained, all experts agreed that the interface design and presentation of multimedia elements used in this application are appropriate and attractive that is suitable to the target users. In addition, the use of graphics in this application also attractive. Apart from that, all experts agreed that the size of the buttons and the color of the button is appropriate. While the type of text in this application is also suitable. Next, the use of background music on the main page is also able to attract users. In the notes section, on the fourth item two experts have commented on the text. The first expert commented that the size of the text used in this application is dependent on the page while another expert suggested that the text be customized using clusters on notes. Based on the analysis that has been conducted, all three interface experts agree on items 1 to 25 with a percentage value of 100%. Experts gave an overall positive response to the functionality of this interactive application.

3.2.4 Content Expert Assessment Analysis

The evaluation for content experts is based on the content design aspects found in the developed applications. In the expert evaluation of content design, the developer selects an expert i.e. a senior language lecturer who teaches in the field of English. The content in this application is evaluated whether it meets the learning objectives or not. Also it evaluates the content whether the content is in accordance with the target user or not. The content included in the application is related to learning the basic of English subject for primary school, namely pronunciation and grammar.

Table 4: Content Expert Assessment

No	Item	Yes	No	Percentage of Acceptance (%)
1.	Contents The basic English learning application (Easy English) gives a clear picture			
	i. <i>Pronunciation</i>	1	0	100
	ii. <i>Grammar</i>	1	0	100
	iii. <i>Quizzes</i>	1	0	100
	iv. <i>Fun Zone</i>	1	0	100
2.	Content The basic English learning application (Easy English) is appropriate to the title of the study			
	i. <i>Pronunciation</i>	1	0	100
	ii. <i>Grammar</i>	1	0	100
	iii. <i>Quizzes</i>	1	0	100
	iv. <i>Fun Zone</i>	1	0	100
3.	Contents Contents The basic English learning application (Easy English) is easy to understand			

	i. <i>Pronunciation</i>	1	0	100
	ii. <i>Grammar</i>	0	1	0
	iii. <i>Quizzes</i>	0	1	0
	iv. <i>Fun Zone</i>	1	0	100
4.	Contents The basic English learning application (Easy English) explains information correctly			
	i. <i>Pronunciation</i>	1	0	100
	ii. <i>Grammar</i>	1	0	100
	iii. <i>Quizzes</i>	1	0	100
	iv. <i>Fun Zone</i>	1	0	100
5.	The Easy English learning app is interesting	1	0	100
6.	The quiz questions are easy to understand and appropriate to the learning topic	1	0	100
7.	Every pronunciation on the pronunciation in this app is clear	1	0	100

Based on the data obtained, experts agreed that the content in this developed application relates with the learning objectives, relevant to the target user and interesting. However, there are some parts of the content that need to be improved according to expert recommendations, especially the use of sentences on 'Grammar' notes. Another suggestion for improvement by experts is to improve the structure of notes on the Grammar page in more interesting manner and the use of sentences that are easier to understand. Next, there are some word, sentence and grammar errors on the Grammar and Quizzes page that need to be corrected. Therefore, overall, the expert evaluation of the application content provided positive feedback in performing the evaluation based on the items in the distributed content expert checklists form but needed to make improvements suggested by the experts.

4. Conclusion

This study was implemented with the aim of developing a basic English learning application namely Easy English. Based on the results of the analysis obtained from the expert validation shows that the developed product successfully achieved the objectives and answered the research questions that have been stated. The results of this study meet from two aspects, namely the aspect of interface design and content design. Thus, overall, the developers have successfully developed a basic English learning application which is Easy English application supported by positive feedback from four experts.

Acknowledgment

Author would like to thank Universiti Tun Hussein Onn Malaysia for giving opportunities to publish this paper in RITVET proceeding.

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