CHAPTER IV

DEVELOPMENT OF INSTRUCTIONAL DESIGN PROTOTYPE MODEL AND EVALUATION

4.1 Introduction

This chapter focuses on the development and evaluate of the instructional design prototype model. The purpose of this research is to rivet attention on design schemes that causes the prospect to considerably enhance outcomes achieved through multimedia applications of learning medium. The inquiry shows the value gained from studying the implementation multimedia learning strategies as part of the design process and the quality of instructional materials cannot be considered independently of the manner in which they are engaged.

The proposed Multimedia Instructional Design to teach primary school students to learn Qur'anic recitation with Tajweed is termed as Almoneer. The researcher takes great effort to introduce the background, theory involved; technology used for development the prototype, Almoneer development road map and the design & development of the proposed instruction design prototype accordingly step by step. In additional the evaluation of Almoneer instructional design model to examine the impact of the proposed instructional courseware, which evaluates the system design and its performance.

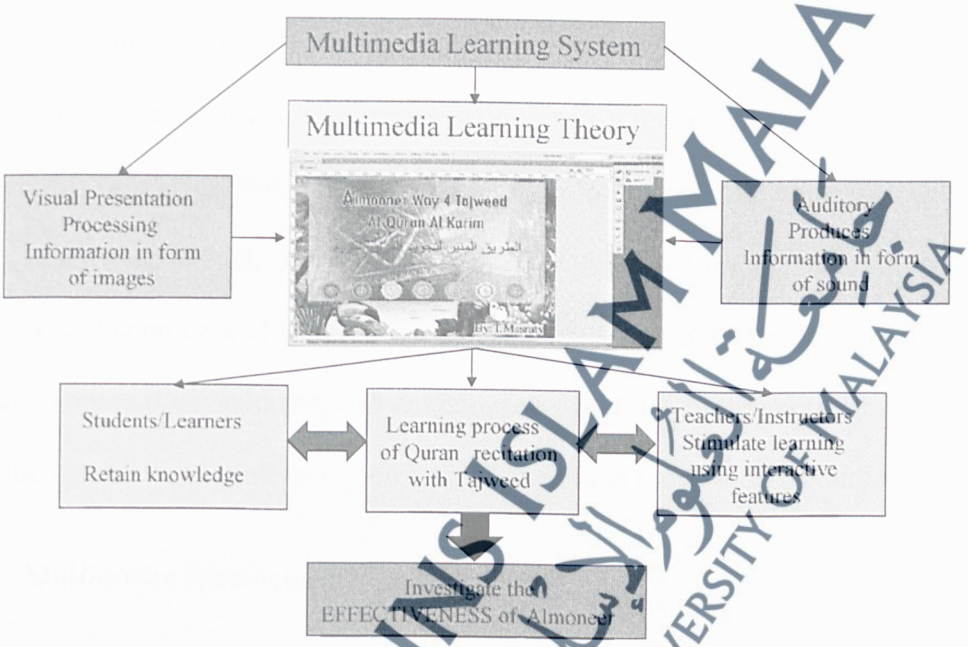
4.2 Almoneer Background

The research framework of the present study developed based on previous literature studies that consistently emphasized that Qur'anic teaching and recitation in Malaysian school has some weakness to follow the correct order (Bashir et al., 2003; Gibbs et al., 1994; Ramlan & Yusop, 2013; Tabbal et al., 2006). However, the present study confined to addressing the problems pointed out by Farahi (2008) that Qur'an teaching over the years has been faced with numerous challenges especially the recitation based on Tajweed. (Hashim et al. (2008); Noraini et al. (2007)) reported that schools in Malaysia are weak to observe the correct pronunciation of the Qur'anic words due to difficulty in Learning Arabic Language with vowels, which is the language of the Holy Qur'an. A studies conducted by (Ramlan and Yusop (2013); Tabbal et al. (2006)) that primary schools students were unable to pronounce and recite the Qur'anic words. Considering the importance of teaching the right pronunciation of Qur'an recitation based on Tajweed primary schools will enable the students to improve their pronouncing of Qur'anic recitation with Tajweed. This prompted for the development of Almoneer multimedia instructional learning system to facilitate a Holy Qur'an teaching and recitation in primary schools in Malaysia. To ensure that student are impacted with the correct words, the framework of this study confines to understanding the strength and weaknesses of learning system used for Quran practices. The performance of Almoneer program developed in this study compared with the traditional learning method and evaluated based on the student's to recite a Holy Qur'an with Tajweed fluently using the multimedia instructional learning system.

4.3 Underpinning Motivation of the Multimedia Learning System

The fundamental and the underpinning motivation of the multimedia learning system is summarized for the benefit of all readers through a diagram as shown in figure 20.

FIGURE 20: Underpinning Motivation of the Multimedia Learning System



The multimedia learning system entails the use of visual presentation and auditory materials used as video through computer (Chen et al., 2015; Clark & Ruth, 2002). Multimedia learning theory presented in this study confines to determining the effectiveness of using multimedia instructional learning system to enhance the processing of information and the entire learning processes of Qur'anic recitation with Tajweed. The Almoneer auditory system produces the information in form of sound that is heard while the visual system focuses on processing information in form of images. The visual presentation is used for illustration and to demonstrate certain characters based on the learning context. The combination of the visual and audio information via multimedia instructional system enables learners to retain knowledge.

Multimedia learning enables teachers and instructors to stimulate learners using interactive features such as game and these results in better performance.

4.4 Programing Language

The development of Almoneer was accomplished by the researcher using Adobe Flash, Director, Adobe Photoshop, Aforge record sound combined with others supporting softwares. It is a challenged us to improve the development of Almoneer, so that will be aligned with the vast evolving technologies. We hope that with this insturcture design model, students and Teacher could take the opportunity to doing their best in the process of learning Almoneer subjects in recitation based in Tajweed. We are hoping that students and others who want to know more about Arabic Alphabets with vowels and recitation with Tajweed can have better a courseware.

4.5 Multimedia Instructional Learning Model

For the purpose of this study, all the learning theories discussed above will be combined and used as the underlying learning theory for the proposed multimedia instructional learning model to teach Qur'anic recitation with Tajweed. The choice of these learning theories is conceptualized by the fact that the teaching and learning of Qur'anic recitation based in Tajweed is a difficult task. That requires more than prior experience and knowledge of the learner in Arabic language but also involves understanding how these information or knowledge is formed, absorbed, processed, retained and used by the students during learning process in order to conform to the Tajweed rules (Maimun et al., 2011; Tabbal et al., 2006).

This is a major limitation for traditional learning approached such as classroom learning, where the teacher is the sole custodian of knowledge. It also addresses the

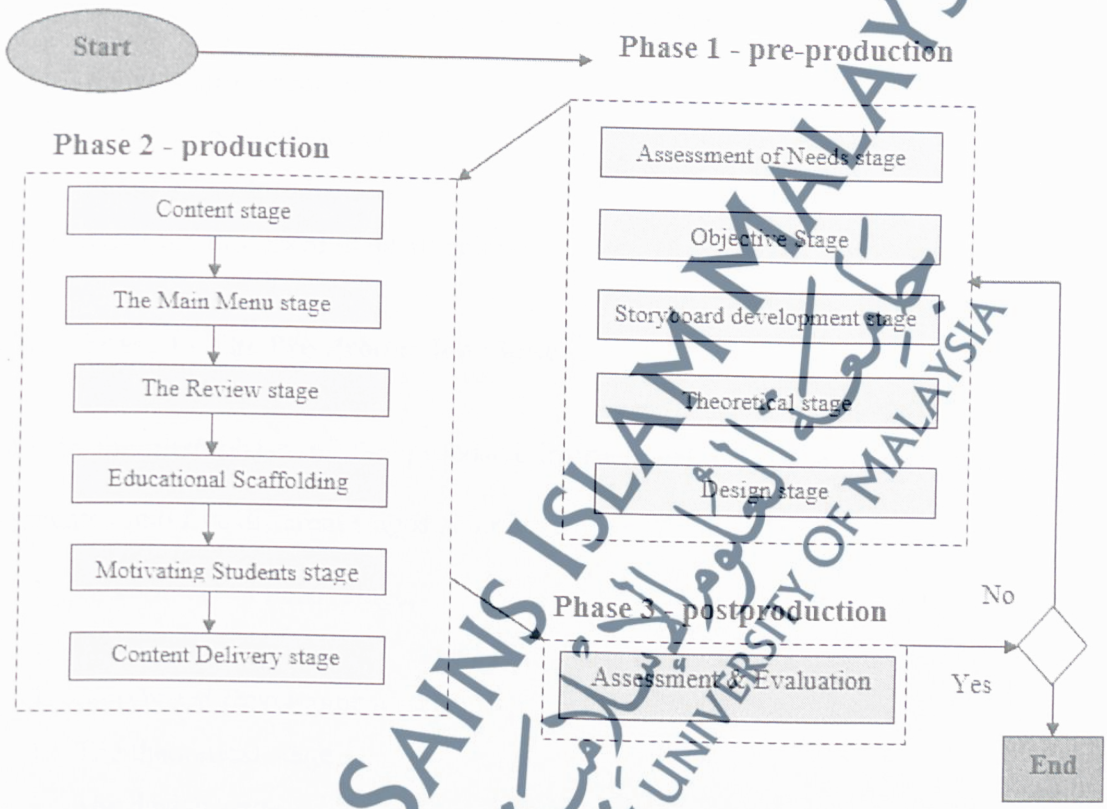
current limitations of other multimedia instructional learning design by incorporating self-centric learning with these learning theories in the development of the proposed framework or learning model. An instructional design model provides a learning pattern of instructional problem, enabling the instructional designer to customize the instructional design with a semblance of conscious apprehension (Hricko, 2008). This helps designers address current learning and teaching problems faced by students and teachers by separating the problem elements into distinct and concise units (Kareem et al., 2008). The integration of self-centric learning with these learning theories helps increase learners' motivation to learn at their pace and time, engage them as active participants in the learning activity and make learning more attractive and understandable to them. The proposed multimedia instructional learning theory explains the students' behavior during the learning activity by relating their learning activity and requirements to the learning environment. In Qur'an recitation, the human behavior and the complexities associated with human memory should be related by the learning theory. Learners' ability to learn is to a great extent dependent on their knowledge and comprehension of that knowledge and as such, the knowledge acquisition process should be structured. Therefore, the proposed multimedia instructional learning model will enable Qur'anic teachers to directly observe, guide, support and assess students' performance during the learning process as well as motivate the students to learn at their own pace and time while helping them develop new concepts based on their individual perceptions of the acquired knowledge.

4.6 Almoneer Road Map Design

The researcher has taken into consideration every step to ensure that whatever is proposed is evaluated carefully to get the maximum output of the instructional

Module. Figure 21 discusses the road map of the proposed instructional model Almoneer:

FIGURE 21: Almoneer Road Map Design



The Figure 21 shows Almoneer roadmap, which has been developed, based on the constructive concepts, which was developed in three phases from Phase 1 to Phase 3, which are discussed in the section below. Each phases has a numerous stages in it where each stage has its own significance. The following paragraphs discusses the proposed three phases and the corresponding stages in developing the instructional model.

4.7 Design and Development of Almoneer

In this section, the researcher discusses the use of blended model and instructional design theories in design and development of Almoneer system. The design and development of the system are broadly classified into three main stages namely,

1. Phase 1 - pre-production,
2. Phase 2 - production and
3. Phase 3 - postproduction.

These phases are discussed in detail below.

4.7.1 Phase 1 - The Pre-Production phase

This is the first phase of the proposed instructional design Almoneer which is segmented into five different stages namely:

1. Assessment of needs stage,
2. Objective stage,
3. Storyboard Development stage,
4. The theoretical stage,
5. The design stage.

The following paragraph explains each of these stages in detail.

4.7.1.1 Assessment of Needs Stage

The audiences are analyzed taking into consideration their personal skills, attitude towards, grade, expectations, learning environment, and learning outcome, accomplishment, new skills and performance. Considering these aspects, in this courseware the specific audiences are standard 4 and 5 grade learners from SK school formative evaluation conducted to examine the reliability of the needs assessment.

4.7.1.2 Objective Stage

In this stage, the main objectives of the proposed Almoneer system are established. The outcomes of student's are also identified. Learners' accomplishment, application of new skills, motivation and performance are considered.

4.7.1.3 Storyboard Development Stage

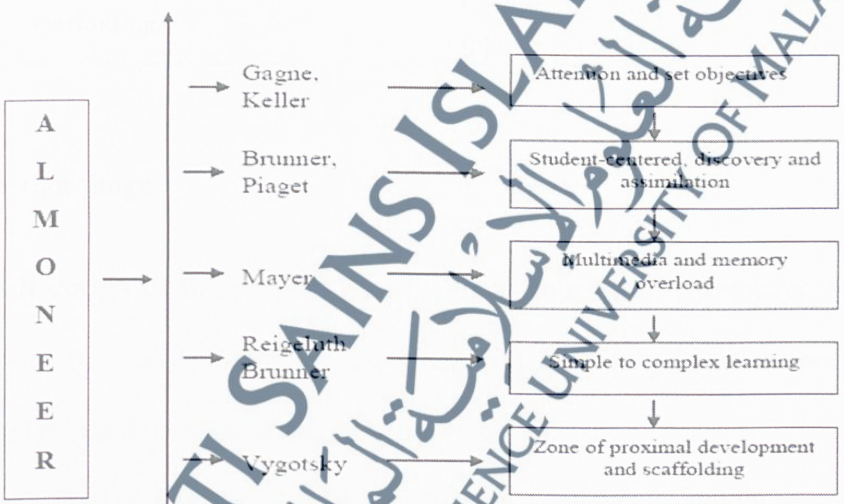
A storyboard method was deployed in the development of Almoneer in order to ensure that the researcher had the full control over the content, which was being shown on the main page screen. The main reason of using this technique was to ensure that only quality information is displayed on the screen such as the text, audio, images, video and other animations purely related to Qur'anic recitation. The courseware is broadly classified to understand the needs of the users with easy navigation such as lesson plan, puzzles, and other hyperlink to make the interaction more fun and meaningful. The following Figure 22 portrays the main page screen through storyboarding chart of the proposed Almoneer coursework.

FIGURE 22: Almoneer Storyboarding Main Page Screen

4.7.1.4 Theoretical Stage

Almoneer instruction system developed based on the principles of constructivist paradigm of teaching, which was initially introduced by three great legends of Jerome Brunner, Jean Piaget and Vygotsky. The researcher in this study also considered other later constructivist methodology as proposed by Gagne Keller, Brunner Piaget, Mayer and Reigeluth. The following figure 23 narrates the theories being applied in the proposed system.

FIGURE 23: Theories Applied to Almoneer



The application of the theories to Almoneer is described in Table 13.

TABLE 13: Application of Theories in the Design and Development of Almoneer

Theorists	Principles	Application in Almoneer
Gagne, Keller	Clear objectives, Attention and Motivation.	Familiar pictures of student's school gain their attention. Clear objectives are provided in every step.
Brunner, Piaget	Discovery learning and Student-centered. Practice and critical thinking.	Relevant activities allow learners to discover patterns in the language. Students learn with little assistance from the teacher.
Mayer	Multimedia and memory overload icon and symbol.	Sound, pictures, icons, symbols and graphics carefully placed. Memory overload is avoided by eliminating background noise.
Reigeluth	Simple to complex learning	Starts with Alphabets and slowly vowels, rules of Tajweed and Recitation.
Vygotsky	Zone of proximal development and scaffolding.	Symbols and icons assist continues learning. Low-ability students learn through symbols. Interaction with friends and teacher.

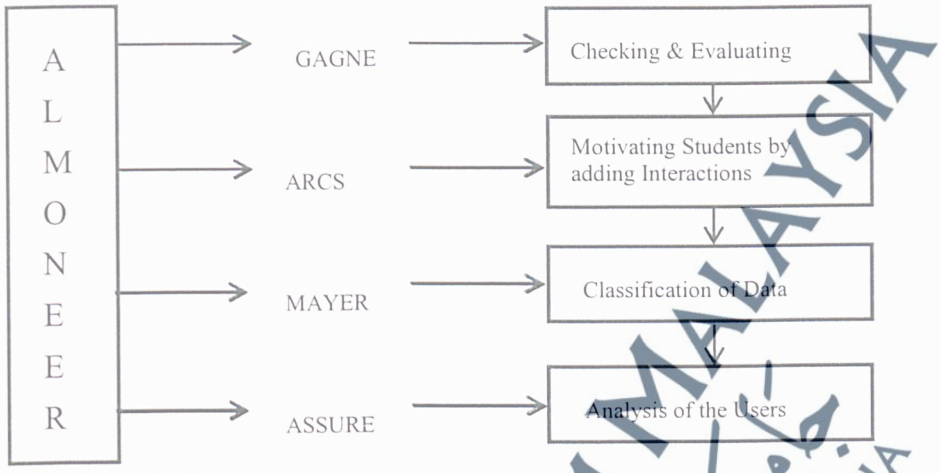
4.7.1.5 Design Stage

The overall design of the proposed instructional courseware Almoneer system is a combination of concepts and deployment of certain principles proposed by educational psychologists such as:

1. *Gagne's (1992), Nine Principles of Effective Learning, evaluate the learners to determine if the lesson has been learned.*
2. *Keller's Arc's (1988), model of learning and teaching, along with the identification of various methods of teaching.*
3. *Mayer (2003) Nine ways to reduce Cognitive Load in Multimedia learning*
4. *Assure model of instructional design proposed by (Heinich et al., 1999).*

The following narrates summary of the models being deployed in the design stage and their purpose of developing instructional design prototype model. The models used to develop the instructional design prototype model are explained diagrammatically in Figure 24.

FIGURE 24: Almoneer and the Models Utilized



In the next stage of development, the researcher explained the relationship of the models deployed and the instructional design proposed for development in this study. The relationship and useful and beneficial of the features in Almoneer are discussed and presented in Table 14.

TABLE 14: Summary of the Models in the Design Stage of Almoneer

Models	Principles	Almoneer
Gagne Model	This Model focuses more on the evaluation of the learners who intend to use the proposed system.	This is one of the important feature that Interactive activities in Almoneer allow students to review and self-correct.
ARCS Model	This model used for motivating the students and to improve their performance in education.	Almoneer provides different puzzles, which are very interesting and motivate the students to use the proposed instructional courseware.
Mayer Model	This Model broadly classifies the information and interactivity of the proposed system.	The manner in which the content is arranged in Almoneer is very simple based on a lesson format easy for any student to get comprehension and reinforcement.
Assure's Model	The main principle of this model is to analyze the learner's characteristics.	Almoneer had identified the main needs of the users of the system initially and based on this the proposed instructional design was developed.

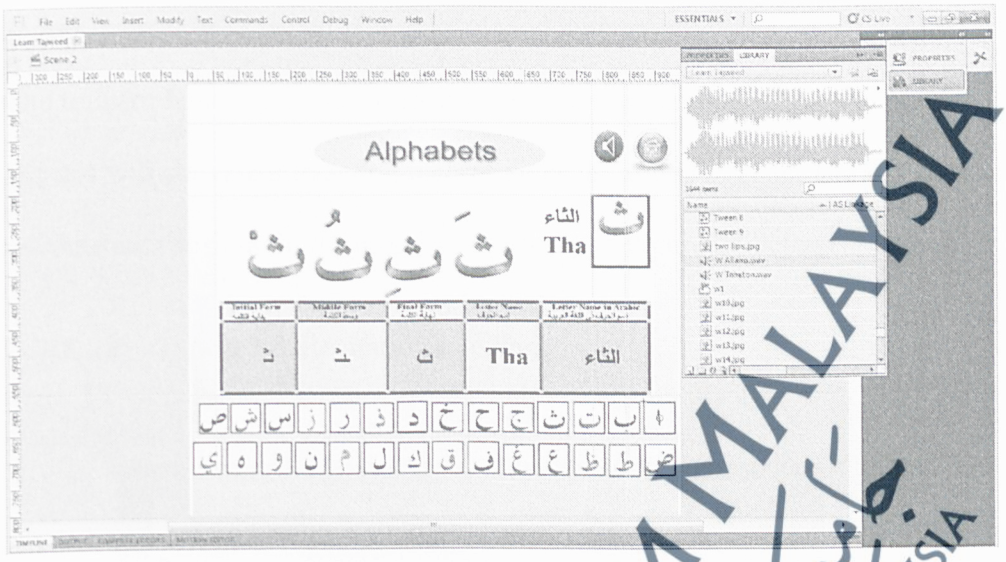
4.7.2 Phase 2 - The Production Phase

Islamic textbook for teaching a Holy Qur'an (Al- mushaf colors) and Bahasa Arab syllabus are selected as the main content of the courseware *(appendixK)*, in many links and integrated with sound, pictures, sour of Qur'an, animation for better learning outcomes. The contents were divided into the following sub-section such as some words of the Holy Qur'an with sound, understanding, alphabets with vowels, for motivation, satisfaction, matching, review, puzzle, and more activities. Formative evaluation is conducted to examine the quality of the graphics. Figure 25.

FIGURE 25: Main Page for Almoneer Courseware

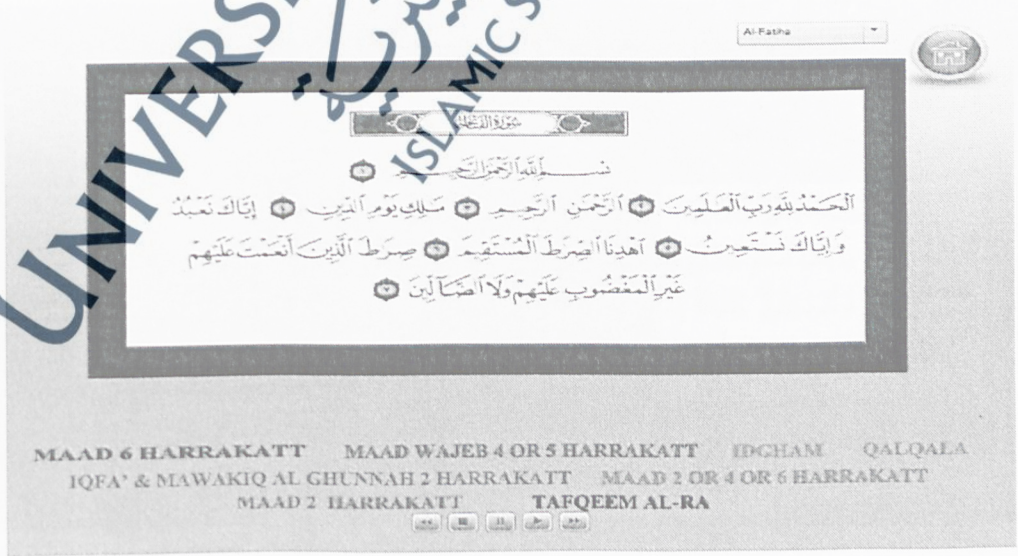
The Almoneer were developed based on the constructivist method from 3 vowels to 4 vowels *AppendixK,* as shown in Figure 26.

FIGURE 26: Developed of Almoneer Based on the Constructivist Method



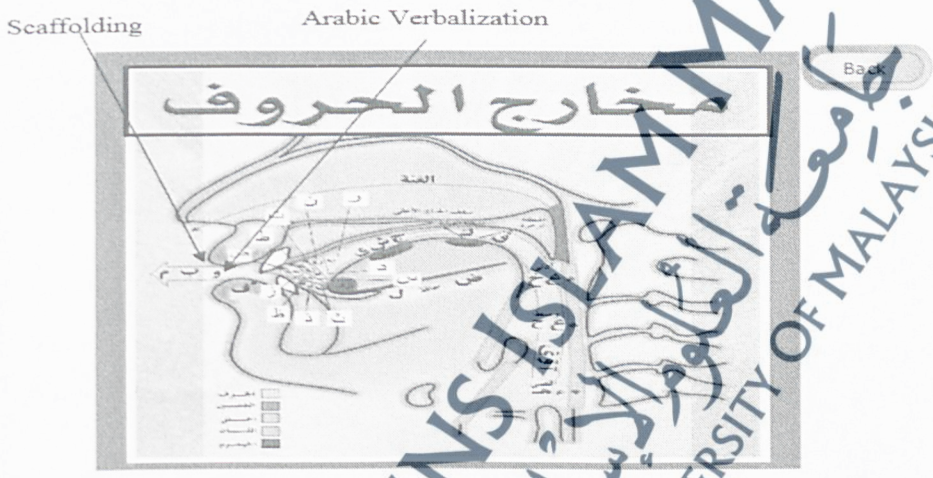
The Almoneer courseware is based on the Holy Qur'an with Mushaf and sound being developed based on the constructivist method. Choosing any "Sura" from the list, and clicking on the sound button, the system will call recorded audio. Each 'Sura' had deferent color of Tajweed rules for Example (Maad 6 Harrakatt had brown color) and the system enables user in fully control the audio file of recorded Tajweed for each of the selected Sura, as evidenced in Figure 27 blow.

FIGURE 27: Almoneer and Mushaf Color with Sound Interface



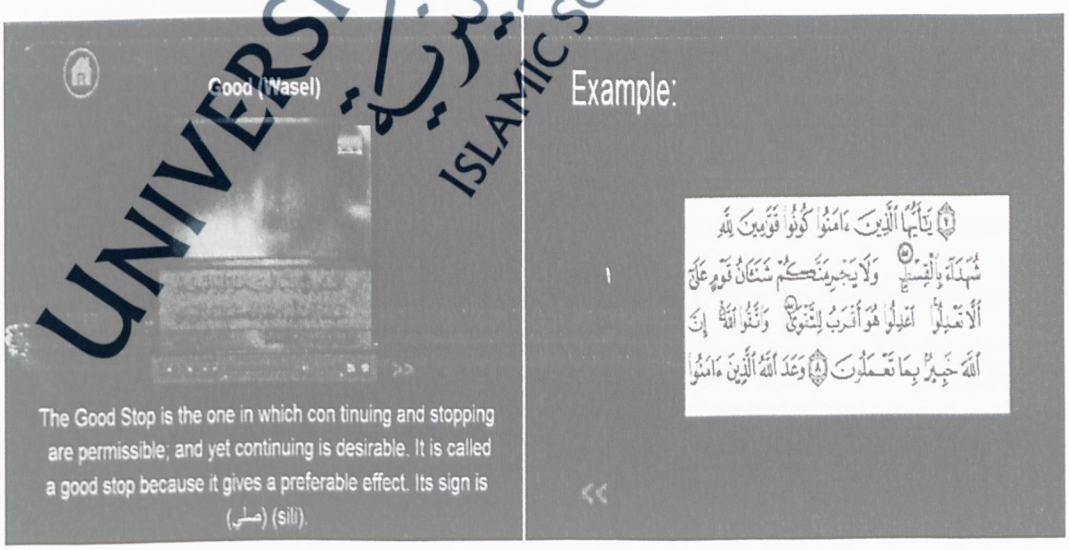
The researcher, provides further details of Tajweed and Recitation rules, one of the Almoneer courseware method being developed with sound based on the constructivist method to learn how to pronounce each letter; the user can select the articulation from the list this will activate interacting picture gives the sound of letter and highlight how it can come out (position in the mouth), As shown in Figure 28 below.

FIGURE 28: Tajweed & Recitation rule Page



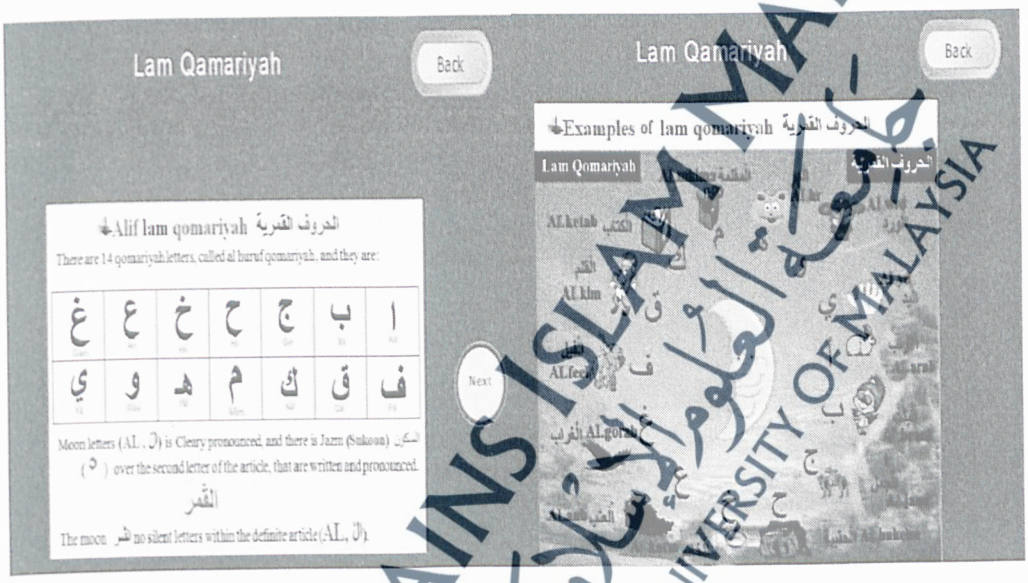
In this section, the student will know the recitation rules (7 rules) and will show each rule selected with video and example of the Recitation rule see Figure 29.

FIGURE 29: Recitation Rules Page



The important issue in Arabic language there are some alphabets for the rules of Lam Shamsyiah and Lam Qamariyah. Interface designed for this purpose with Figures and recorded examples of words, to enable the student to distinguish between *Lam Shamsyia* and *Lam Qamariyah*. One of Almoneer courseware being developed based on the constructivist method as shown in Figure 30.

FIGURE 30: Lam Qamariyah Words with Pictures and Sounds



In this, section also the components of Almoneer such as content stage, main menu stage, review stage, educational scaffolding stage, motivation student's stage, and content delivery stage provided below:

4.7.2.1 Content Stage

This is the most crucial stage of the whole system design and the proposed methodology. The content is mainly focused based upon the requirements of the users using the proposed instructional method so that all their needs can be catered and mainly focusing upon areas such as the alphabets, recitation, reading Qur'an,

vocabulary and Ayat, puzzles and various other interactive activities to learn Qur'anic recitation.

4.7.2.2 Main Menu Stage

The main menu of Almoneer as shown in Figure 25 above is a piece of art to watch with amazing high end background and has presents the users with various options related to their course of study. The application makes sure from the start that it motivates the learner, which is as proposed by (Keller et al., 2004). In the main menu it is clearly illustrated what the ultimate objective the system is being proposed. The main screen of the system introduces the students towards the following:

1. Arabic Alphabets with four vowels: to teach the student the shapes of letters in different places of the word, and the pronunciations of each letter with different type of "Harakatt".
2. Iqra: this level for learning Qur'anic recitation based on Tajweed.
3. Quran Tajweed: In this section, we used interactive process to achieve the best learning method for the student by teaching the student the correct rules of pronunciation Tajweed and Recitation rules.
4. Lam Shamsiyah & Lam Qamriyah: this considers an important issue in Arabic language wish is the rule of Lam Shamsyiah and Qamariyah. The interface designed for this purpose with images and recorded sound examples of words, to enable the student to distinguish between Lam Shamsyia and Qamariyah.
5. Ablution & Prayer: for farther benefit and because the ablution (Wudu) and Surat (Praying) is core of the Islam we add this command to learn the students.

6. Interactive Puzzles: this level of the instructional designed system enables the student to assess his level by introducing Puzzle based on cross word game to generate the correct word.

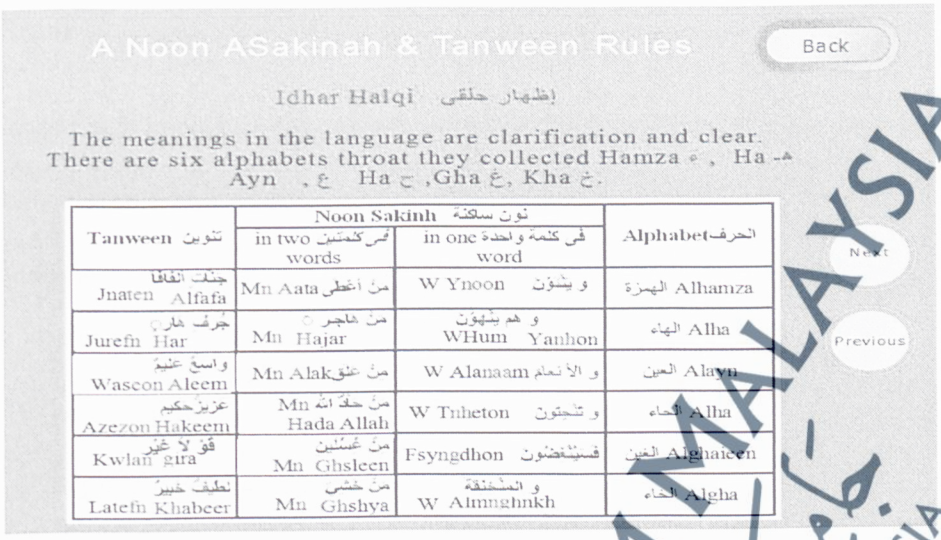
The lessons presented in a systematic way based on the syllabus used in the school. But with developing interaction and fun, which can motivate students in learning the Recitation with Tajweed that is roots easily and systematically.

Since Almoneer has been developed for young students some of the most important factors in the application were the ease of use and the navigation and the instructional module has ensured to make the navigation as easy as possible so that younger students can make the maximum use of this model. According to Howell (2006) instructional courseware should be customized in a way that the learner has the rights to control the courseware completed and Almoneer has viewed this aspect seriously and managed to deploy it within the proposed system.

4.7.2.3 Review Stage

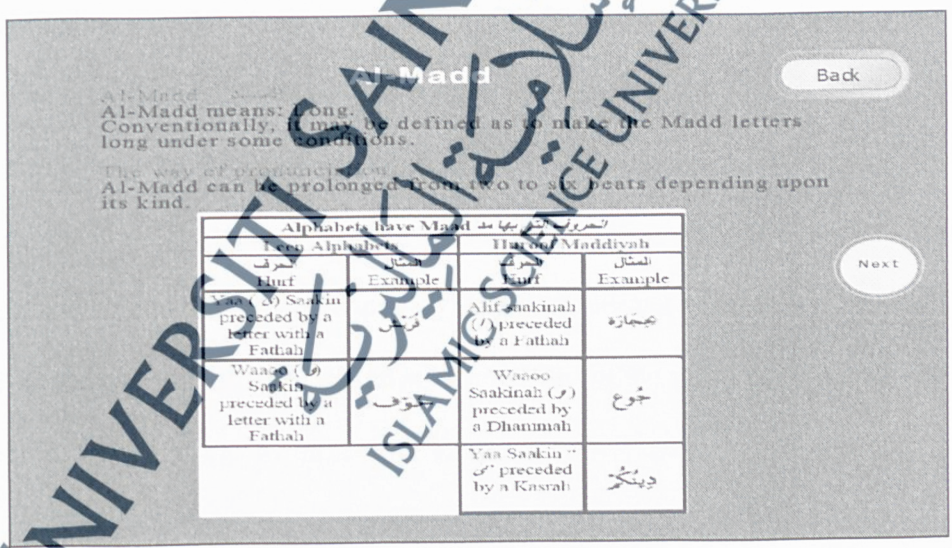
In the application, there are a number of sections, which are highly associated with great graphics and sound with frequent repetitions. According to a study by Webb (2007) it was found that repeating things help students to learn and grasp ideas more easily and this finding has been applied in various parts of the proposed closure. For example, in the following Figure 31 the words of Anoon Asakinah and Tanween have been repeated quire a number of times to make sure that the student grabs and understands them quickly.

FIGURE 31: Review Section



The following Figure 32 also illustrates the word Al Maad being used frequently to ensure that the basic principles of previous studies are applied to the courseware to produce the best and desired outcomes from the students.

FIGURE 32: Almaad Rules



4.7.2.4 Educational Scaffolding Stage

Instructional scaffolding is a studying procedure built to encourage a deeper amount of education. Scaffolding is the assistance given through the learning procedure that's

tailored to the requirements the pupil with the intent of assisting the student reach his or her learning targets (Sawyer, 2014).

Educational scaffolding is the supply of adequate support to market learning when theories and abilities are being first released to pupils. These supports might contain the following:

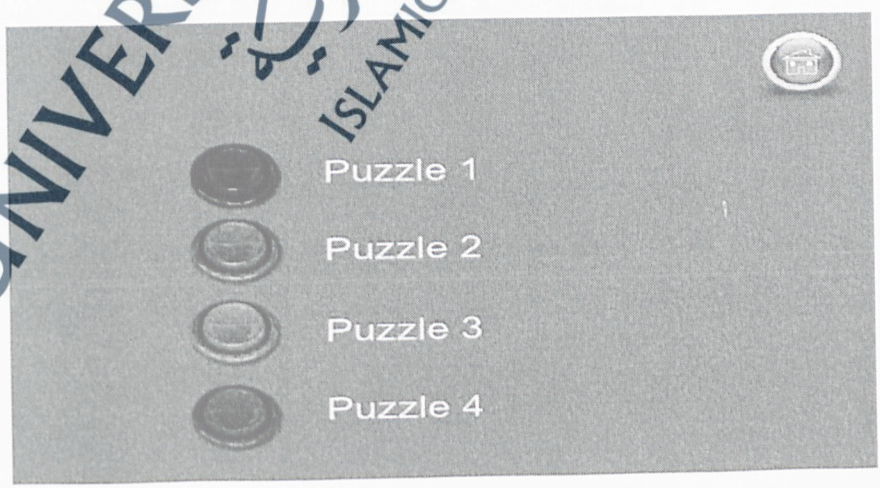
1. Resources
2. A powerful job
3. Templates Use and guides
4. Guidance to the evolution of social and cognitive abilities

The best as well as more reliable usage of educational scaffolding aids the student find out the project at hand by themselves. It is wise to think about using educational scaffolding in a powerful learning atmosphere as you might think of the significance of scaffolding in the assistance of the development of a brand new building. Educational scaffolding is best when it leads to the educational environment within a powerful learning atmosphere; scaffolding eventually removed based on the requirements the student, subsequently changed, and is slowly added. Eventually, educational scaffolding will disappear. This understanding procedure should not be in place forever. At some point, the target should be for the pupil to no longer want the educational scaffolding. In the below Figure 33 the example of Scaffolding is well shown by means of Mouse over effects and by sound when the students give the wrong answer, hear the word Cuba lagi has a mouse over effect with a background sound which is a kind of scaffolding being used in this instructional design model.

FIGURE 33: Scaffolding in Almoneer

One of the important recommendations of major theories related to instruction design or to ensure that the curriculum design motivates the students and this can be achieved by providing excellent amount of interaction and allowing students to get results like pass or fail or providing a score for their accomplishments. Providing such activities as suggested by Bembenutty (2007) ensures that the students participate in the activity more efficiently. Almoneer makes use of a puzzle games to attract the interest of the students, which are again make use of amazing graphics and sounds such as, move and pick items from the screen and background sound effects on correct and wrong answers as shown in Figure 34.

FIGURE 34: Puzzle Game



4.7.2.5 Motivating Students stage

To add more to the interactivity Almoneer provides an amazing drag and drop feature in the application. The puzzle section has amazing features where the drag and drop section are provided along with the answers straight away where the evaluation also takes place. Apart from the drag and drop feature simple graphics and sounds adds more to the existing interaction of the system as shown in Figure 35.

FIGURE 35: Puzzle Section

4.7.2.6 Content Delivery stage

The proposed Almoneer system is an interactive instructional system and is suitable for classroom based learning environment whereby interactive sessions can be handled between both teachers and the students. The proposed system is highly rich in graphics, images, texts, animations and other sound effects to attract more attention of the users and make their learning activity fun based.

4.7.3 Phase 3 - The Post – Production Phase

The researcher ensures that formative evaluation is performed at each and every one stage of the development of the proposed closure for the purpose of fidelity.

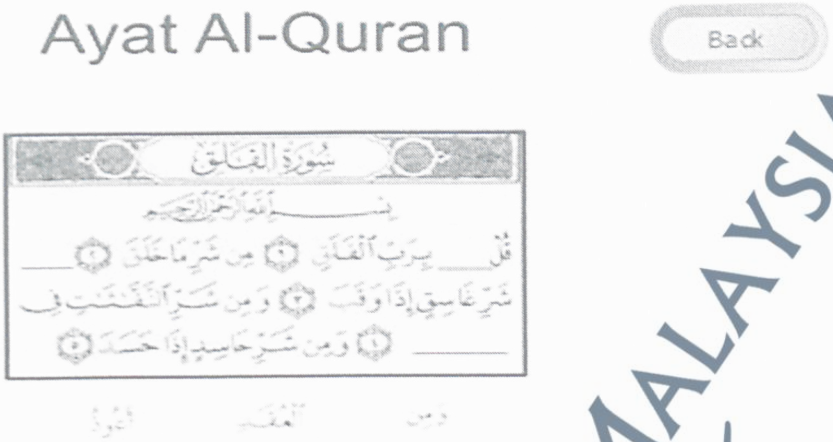
As mentioned earlier Almoneer instructional system is evaluated for every step in where ever it is applicable and a formative method has been applied for the purpose of evaluation of the proposed courseware to teach Qur'anic recitation among school students in Malaysia.

1. Assessment
2. Evaluation

4.7.3.1 Assessment Stage

As mentioned earlier the criteria of assessment is an important factor in Almoneer. Researchers such as Hargreaves (2007) have laid tremendous emphasis on the need for assessment and evaluation in an instructional design that can help the students' knowledge in the subject immediately and this is possible only through immediate assessment. If the system is observed carefully, there are certain areas where the student has to complete a task to move to the next level or he cannot move further. The puzzle screen is a good example where there is no next button until the objective of the puzzles not completed the student cannot move to the next section, which is portrayed clearly in the Figure 36.

FIGURE 36: Ayat Al-Quran



4.7.3.2 Evaluation Stage

This is one of the most crucial stages of any proposed system. Almoneer system is evaluated in each step to ensure that the system is 100% efficient in delivering the requirements to learn Qur'an recitation among students in Malaysia. A formative evaluation is carried out in each step to ensure the smooth running of the proposed instructional system.

4.7.4 Assessment and Evaluation of Almoneer Instructional Design Demo

For the purpose of evaluation of the proposed instructional system to examine the impact of the proposed instructional courseware, the evaluation of Almoneer is done based on 10 exclusive features. These are as follows;

1. The accuracy of the information being provided.
2. Definition of the objectives.
3. Presentation of media related files accurately.
4. Ease of use related to navigation.
5. Clarity in the proposed Text.

6. Attractiveness of the instructional system.
7. Functionality of the supported text, buttons and sounds.
8. Interactive and related animations and graphics.
9. Well-presented Screen resolution and
10. Well-presented texts using right fonts selection and size suitable to all eyes.

4.8 Methods of Evaluation

There are many methods used in evaluating Almoneer as listed below:

4.8.1 Comparison of Existing Market Products with Almoneer

In this section, the available Arabic and English products in Malaysian markets and schools are evaluated by experts in the school based on the latest literature and state of the art modalities of instructional design intervention. These products were compared with Almoneer. The evaluate created based on the modalities of instructional design such as Mayer Nine Ways to Reduce Cognitive Load in Multimedia Learning, Gagne's Nine Steps of Instructional Events and Keller's ARCS Model of Motivational Design. The comparison of the existing market designed product with the Almoneer instructional system is shown in Table 15.

TABLE 15: Comparison of Existing Markets products with Almoneer

	Criteria for Evaluation	Almoneer		Product1		Product 2		Product 3		Product 4		Product 5		Product 6		Product 7	
		Yes	No	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
1	Are the objectives clearly outlined in the course	√			√		√		√		√		√		√		√
2	Is the instructional design based on a field tested model	√			√		√		√		√		√		√		√
3	Are the outcomes of the courseware well identified	√			√		√		√		√		√		√		√
4	Is the content of the instructional design well validated	√			√		√		√	√			√		√	√	
5	Is there any redundant text in the instructional design		√	√		√		√		√		√				√	
6	Is there an effective use of media and graphics within the system	√			√	√			√	√				√			√
7	Does the instructional design encourage student participation	√			√		√		√		√		√		√		√
8	Are there any rewards at the completion of any module	√			√		√		√		√		√		√		√
9	Are the contents of the instructional design frequently repeated		√	√			√	√			√		√	√		√	

The Table 15 above is a comparison between the existing Arabic and English products (product1, product2, product3, product4, product5, product6 and product7) in the Malaysian schools and markets with Almoneer. This Table just forecasts the major advantages, which Almoneer has over the other existing products and why it is worth to use as an instructional design among school students in Malaysia.

4.8.2 Evaluation of Almoneer by the Experts

The researcher presented Almoneer to a panel of experts in instructional design intervention, Shariah & Sonah and Arabic studies for their critical evaluation of the contents such as presentation, graphics, sounds, repetitions, assessments, Tajweed, Recitation rules and usefulness of this courseware to Malaysian 4 and 5 grades school children of SK in Selangor.

The researcher categorized them as Expert 1, Expert 2 and Expert 3 their respectively (Appendix L). At the end of a 2 hours session with each one, the experts were given a predetermined checklist for their valuable feedback to measure Almoneer results, frequencies and descriptive statistics were used. These data were gained from three experts in multimedia field. Since the responses from the experts were nominal type, frequencies was utilized to determine collected data percentages. See Chapter 5 Figure 38, Tables 16 for Results.

4.8.3 Evaluation of the Pre-test and Post-test

The evaluation of the Pre-test was to establish the students' knowledge about the Arabic Alphabets with vowels, Tajweed and recitation rules before the experimentation. While the main objective of the post-test was to find out whether there is any statistically significant difference in the treatment and control groups' final grade. In this research the researcher administered the same identical questions to both groups (control and treatment) of the learners. The types of questions included are cconnecting words, filling the blanks, writing the missing words, comprehension and writing Ayat of Qur'an. The time allocated for both the pre and post-tests was only 45 minutes each. The researcher monitored the class and collected the answered

test papers personally as the results approved by schools' teachers. The pre and post-test papers were coded for analysis.

4.8.4 Evaluation of Almoneer by the Students

Upon completion of the post-test, the researcher distributed Questionnaires to the students for their honest evaluation of the courseware. Students happily and excitedly participated and marked the checklist of Questionnaires. Descriptive and t-test statistics was used to measure the evaluation of the courseware by the students. In this analysis of Questionnaires, pre-test and post-test predetermined evaluations, the student's responses were grouped as quality evaluation, design evaluation, activities evaluation, satisfaction evaluation and perception. As such, the mean scores from each evaluation were measured to determine which criteria is the highest or the lowest.

4.8.5 Evaluation of Almoneer by Teachers

The purpose of this evaluation was by in-depth interview with Quranic teachers in the school to investigate the fidelity of the Islamic and Arabic classes teachers in teaching the Holy Qur'an in the classrooms to find out students' perception, motivation and satisfaction in learning the Qur'anic Recitation with Almoneer in the classroom. Moreover, these interview were intended to find what extend these teachers were involved in the school matters which affect their students. Of particular interest was to find out how these teachers feel about the school environment, motivation and their students satisfaction to learn using Almoneer. (See appendix F).

4.9 Summary

This chapter discussed the various aspects of the developing proposed instructional design Almoneer and the methods of evaluation the system design and its performance features it has to offer in comparison to the other instructional design related to Arabic and English available in the Malaysian markets especially for school students.