

CHAPTER II

LITERATURE REVIEW

A. Description of Theory

1. Adobe Flash – Based Interactive Learning Multimedia

a. Adobe Flash

Adobe Flash (formerly called Macromedia Flash and Shockwave Flash) is a multimedia and software platform used for creating vector graphics, animation, browser games, rich Internet applications, desktop applications, mobile applications and mobile games. Flash displays text, vector and raster graphics to provide animations, video games and applications. It allows streaming of audio and video, and can capture mouse, keyboard, microphone and camera input.¹

In this research, the researcher used Adobe Flash CS3 Professional to develop interactive learning multimedia. Adobe Flash CS3 Professional introduced the Action Script 3.0 programming language, which supported modern programming practices and enabled business applications to be developed with Flash. This

¹ Wikipedia, “Adobe Flash”, https://en.wikipedia.org/wiki/Adobe_Flash, was access on Tuesday, October 27th, 2015 at 02.00 WIB

software is capable of producing sophisticated animation, so most of interactive tutorial application, games, presentation, etc. can be made by this software.

There are some advantages of developing interactive learning multimedia by using Adobe Flash Professional CS3 compared with the other software. First, Adobe Flash can create interactive buttons with a video or other object. Second, it can change the color transparency in the movie. Third, it can make animation changes from one form to another form and create animated motion by following a predetermined path. Next, it can be converted and published into several types, including .swf, .html, .gif, .jpg, .png, .exe, .mov. Files can be saved in .exe type without having to install flash, so it will run automatically once the CD is inserted in a computer. The last, flash vector-based animation program has flexibility in manufacturing vector objects without broken the when enlarged.

Here the interface elements of Adobe Flash CS3 Professional CS 3 can be seen in Figure 2.1.

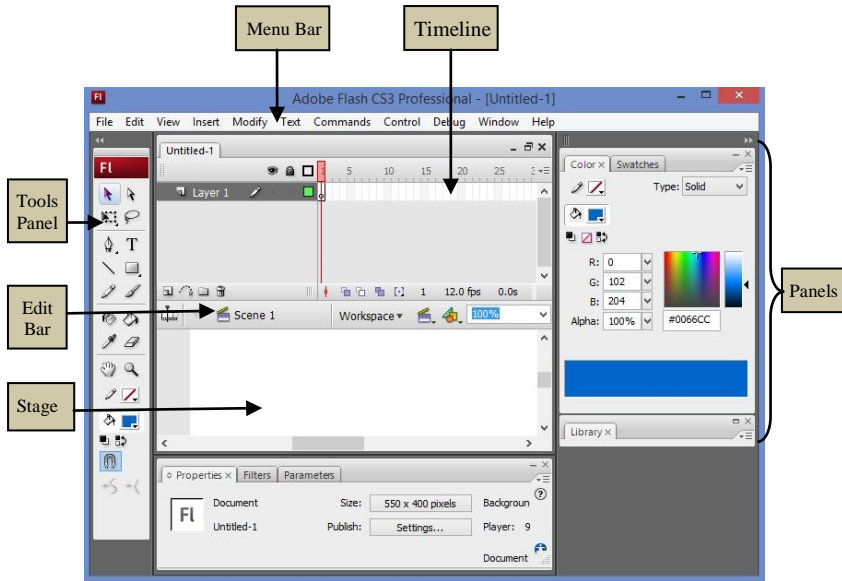


Figure 2.1 Interface elements of Adobe Flash Professional CS3

There are several interface elements of Adobe Flash Professional CS3.²

1) Quick Start Page

Quick start page provides easy access to the most frequently used actions.

² Adobe Flash CS3, <http://software.ucv.ro/./Laborator1.pdf> was accessed on Friday, December 4, 2015 at 22.10 WIB.

2) Menu Bar

Menu bar contains a collection of menus or commands that are used in the manufacture of interactive learning multimedia with Flash.

3) Stage

Stage is the medium used to create and put down objects. Stage is work area, like a blank piece of paper and we can write, draw, and modify images and writings that we made.³

4) Tools Panel

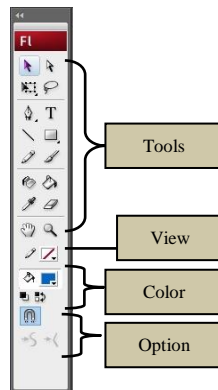


Figure 2.2 Tools panel displaying the four sections

The Tools panel provides the tools used to create and manipulate objects on the stage. It is divided into four sections. First, Tools section

³ Bunafit Nugroho & Mahar Fauji, *Aneka Kreasi Animasi dengan Adobe Flash CS3*, (Jakarta: PT Elex Media Komputindo, 2008), p. 8.

contains drawing, painting, and selection tools. It can be used to draw, paint, select, and modify artwork, as well as change the view of the stage. Next, View section contains zooming and panning tools. Then, Colors section contains tools for setting stroke and fill colors and Options section displays options for the selected tool that affect the tool's painting or editing operations.

5) Panels

Panels are Flash screen elements that give easy access to the most commonly used features in Flash. Panels help to view, organize, and change elements in your Flash document. Panels can have different appearances or states and are categorized into different types based on function.

6) Edit Bar

It tells what are currently working on and gives the ability to change the magnification level of the stage. The panels provide access to a wide variety of authoring tools.

7) Timeline

It represents different phases, or frames, of an animation.

b. Developing Adobe Flash – Based Interactive Learning Multimedia

Adobe Flash is open-source software that primarily used to design graphics and animation, but supports Action Script scripting and debugging. In software development, there is a standard process called SDLC. SDLC is the acronym of Software Development Life Cycle. SDLC is a process followed for a software project, within a software organization. It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software. The life cycle defines a methodology for improving the quality of software and the overall development process.⁴

There are various software development life cycle models defined and designed which are followed during software development process. These models are also referred as “Software Development Process Models”. Each process model follows a series of steps unique to its type, in order to ensure success in process of software development. Following are the most important and popular SDLC models followed in the industry: Waterfall

⁴ tutorialspoint.com, *Software Development Life Cycle (Sdlc) Simply Easy Learning By Tutorialspoint.com*, p.1.

Model, Iterative Model, Spiral Model, V-Model, and Big Bang Model. The most popular one is Waterfall Model.⁵

Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project. In “The Waterfall” approach, the whole process of software development is divided into separate phases. In Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially.⁶

⁵ tutorialspoint.com, *Software Development Life Cycle (Sdlc) Simply Easy Learning By Tutorialspoint.com*, p.3.

⁶ tutorialspoint.com, *Software Development Life Cycle (Sdlc) Simply Easy Learning By Tutorialspoint.com*, p.4.

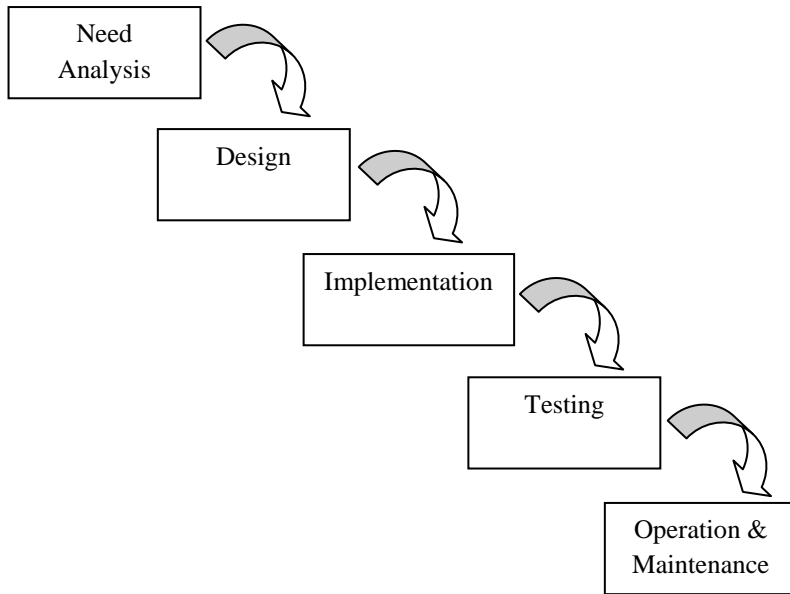


Figure 2.3 The waterfall SLDC model.⁷

The phase set of activities carried out during the development of a software product is explained below.

1) Need Analysis

All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification doc.⁸

⁷ Youssef Bassil, “A Simulation Model for the Waterfall Software Development Life Cycle”, *International Journal of Engineering & Technology (iJET)*, ISSN: 2049-3444, Vol. 2, No. 5, 2012, 2012, http://iet-journals.org/archive/2012/may_vol_2_no_5/255895133318216.pdf was accessed on Sunday, October 25th, 2015 at 08.00 WIB., p. 2.

⁸ tutorialspoint.com, *Software Development Life Cycle (Sdlc); Simply Easy Learning By Tutorialspoint.com*, p.5.

Related to developing Adobe Flash-based interactive learning multimedia, need analysis was conducted of analyzing both functional and non-functional requirements. Usually, functional requirements are defined by means of use cases which describe the users' interactions with the software. They include such requirements as purpose, scope, perspective, functions, software attributes, user characteristics, functionalities specifications, interface requirements, and database requirements. In contrast, some of the non-functional requirements refer to the various criteria, constraints, limitations, and requirements imposed on the design.⁹

2) Design

It is the process of planning and problem solving for a software solution. One type of this process is interface design.¹⁰ It would be interface design of Adobe Flash-based interactive learning multimedia.

⁹ Youssef Bassil, "A Simulation Model for the Waterfall Software Development Life Cycle", ..., p. 2.

¹⁰ Youssef Bassil, "A Simulation Model for the Waterfall Software Development Life Cycle", ..., p. 2.

3) Implementation

It refers to the realization of business requirements and design specifications into a concrete executable program, database, website, or software component through programming and deployment.¹¹ In developing of Adobe Flash-based interactive learning multimedia, it is the concrete executable program (media) which can be used.

4) Testing

It is also known as verification and validation which is a process for checking that a software solution meets the original requirements and specifications and that it accomplishes its intended purpose.¹² It is validation experts and field trial of Adobe Flash-based interactive learning multimedia.

5) Operation and Maintenance

It is the process of modifying a software solution after delivery and deployment to refine output, correct errors, and improve performance and

¹¹ Youssef Bassil, “A Simulation Model for the Waterfall Software Development Life Cycle”, ..., p. 2.

¹² Youssef Bassil, “A Simulation Model for the Waterfall Software Development Life Cycle”, ..., p. 2.

quality.¹³ It is revision process of developing Adobe Flash-based interactive learning multimedia.

From the definition above, it can be concluded that Adobe Flash-based interactive learning multimedia has many varieties contents and types. One reason that makes it interesting which is because the developer can modify the features based on his/her need. Although it has copyright from the formal institution, as developer, we also have a copyright for it. Those what makes the media different from other and those reasons are what underlie the researcher choice.

2. Interactive Learning Multimedia

a. Definition of Interactive Learning Multimedia

Interactive multimedia can be defined in many views. Vaughan defines multimedia as combination of digitally manipulated text, photographs, graphic art, sound, animation, and video elements. When those elements are organized into a multimedia presentation that allows the students to direct what and when the

¹³ Youssef Bassil, "A Simulation Model for the Waterfall Software Development Life Cycle", ..., p. 2.

elements are delivered, then it is categorized as interactive multimedia.¹⁴

The term “multimedia” is sometimes defined as content presentation using combination of media (sound, images, animation, video and text). The presentation involves the use of face-to-face teaching, video recorder and a slide show. There is an element of “interactivity” presents. Allow an individual to control the pace of presentation and to make a choice about which pathways are followed to move through the content, and the ability of the system to accept input from the user and provide appropriate feedback to that input.¹⁵

Clark and Mayer state multimedia presentation refers to any presentation that contains both words and graphics. The word itself can be in the form of printed texts and spoken texts while the graphic can be in the form of static illustrations such as drawing, charts, graphs, maps or photos and dynamic graphics such as animations or videos. Multimedia presentation can encourage the learners to engage in active learning by

¹⁴ Tay Vaughan, *Multimedia: Making It Work Ed.8th*, (New York: McGraw-Hill Osborne Media, 2010), p. 1.

¹⁵ Sanjaya Mishra & Ramesh C. Sharma, *Interactive Multimedia in Education and Training*, (USA: Idea Group, 2005), p. 26.

mentally representing the material in words and in pictures and by mentally making connection between the pictorial and verbal representations.¹⁶

Considering the definition above, it can be concluded that interactive multimedia in learning context is the combination of texts, graphics, animations, sounds and videos to present the learning materials that can encourage the learners to engage in active learning.

b. The Advantages and Disadvantages of Interactive Learning Multimedia

The use of interactive multimedia in the teaching and learning process gives the teachers and students a number of advantages and disadvantages.

Munir states there five advantages of using interactive learning multimedia. The first is the teacher will always be required to be more creative and innovative in seeking learning breakthrough. Second, it able to combine text, graphic, sound, animation and video elements in a single unit in order to achieve the learning aims. Third, it increases the student's motivation during teaching learning process to reach the learning aims.

¹⁶ Ruth Colvin Clark & Richard E. Mayer, *E-Learning and the Science of Instruction; Proven Guidelines for Consumers and Designers of Multimedia Learning 3rd Ed.*, (California: John Wiley & Sons, 2011), p. 70-71.

Next, it able to visualize the material which is difficult to be taught by giving explanation or conventional learning aids. Interactive learning multimedia also trains the students to be more independent in acquiring the knowledge. Whereas the disadvantage of multimedia is it can alienate the students from their environment.¹⁷

c. Elements of Interactive Learning Multimedia

Multimedia combines five basic elements of multimedia into the learning environment: text, video, sound, graphics and animation, thus providing a powerful new tool for education.

1) Text

Text has the most impact on the quality of the multimedia interaction. It provides important information. Text can be presented in a graphic multimedia system and can have a powerful effect. Text in multimedia can be combined together with other elements such as pictures, animations and sounds to present certain information in interactive way. Munir states that texts used in multimedia should use the appropriate typeface and font,

¹⁷ Munir, *Multimedia; Konsep & Aplikasi dalam Pendidikan*, (Bandung: Alfabeta, 2013), p. 113-114.

consistent the choice of font and concept, and clear font style and color.¹⁸

2) Video

Video (motion or sequences of still graphics) can be used to show action and processes and to illustrate events that users cannot see directly or clearly in real time.¹⁹ Motion video is the element of multimedia that can draw gasps from a crowd at a trade show or firmly hold a student's interest in a computer-based learning project. By using video elements, it can effectively present the messages and reinforce of story, and viewers tend to retain more of what they see.²⁰

3) Sound

Sound is the most sensuous elements of multimedia. It can provide the listening pleasure of

¹⁸ Munir, *Multimedia; Konsep & Aplikasi dalam Pendidikan*, (Bandung: Alfabeta, 2013), p. 225-226.

¹⁹ Sanjaya Mishra & Ramesh C. Sharma, *Interactive Multimedia in Education and Training*, (USA: Idea Group, 2005), p. 5.

²⁰ Tay Vaughan, *Multimedia: Making It Work Ed.8th*, (New York: McGraw-Hill Osborne Media, 2010), p. 164.

music, the startling accent of special effects, or the ambience of a mood-setting background.²¹

4) Graphic

Graphics are any images or information in the computer that are presented via pictures. They are the most commonly used elements in multimedia. Graphic elements can usually be scaled to different sizes, colored or patterned or made transparent, placed in front of or behind other objects, or be made visible or invisible on command.²²

5) Animation

Animation makes static presentations come alive. It is visual change over time and can add great power to the multimedia projects and web pages. Animation is more than wipes, fades, and zooms. Animation is an object actually moving across or into or out of the screen.²³

²¹ Tay Vaughan, *Multimedia: Making It Work Ed.8th*, (New York: McGraw-Hill Osborne Media, 2010), p. 104.

²² Tay Vaughan, *Multimedia: Making It Work Ed.8th*, (New York: McGraw-Hill Osborne Media, 2010), p. 68.

²³ Tay Vaughan, *Multimedia: Making It Work Ed.8th*, (New York: McGraw-Hill Osborne Media, 2010), p. 140.

d. Criteria of Interactive Learning Multimedia

Mayer E. Richard states seven basic principles in designing interactive multimedia. They are as follow. (1) Multimedia principle. Students learn better from combination of words and graphics than from words alone; (2) Split-attention principle. Students learn better when the corresponding words and graphics are placed closely to one another than separately; (3) Modality principle. Students learn better from graphics and narration than graphics and printed text; (4) Redundancy principle. Students learn better when the same information is not presented in more than one format; (5) Segmenting, pretraining, and modality principles. Students learn better when a multimedia message is presented in learnedpaced segments rather than as a continuous unit, students know the names and characteristics of the main concepts, and the words are spoken rather than written. (6) Coherence, signaling, spatial contiguity, temporal contiguity, and redundancy. Students learn better when extraneous material is excluded rather than included, when cues are added that highlight the organization of the essential material, when corresponding words and pictures are presented near rather than far from each other on the screen or page or in

time, and people learn better from graphics and narration than from graphics, narration, and onscreen text; (7) Personalization, voice, and image principles. Students learn better when the words of a multimedia presentation are in conversational style rather than formal style and when the words are spoken in a standard-accented human voice rather than a machine voice or foreign-accented human voice; but people do not necessarily learn better when the speaker's image is on the screen.²⁴

3. Narrative Texts

a. Definition of Narrative Texts

Narrative is one of the genre text forms. Mark Anderson states narrative is a piece of text which tells a story. Its purpose is to present a view of the world that entertains or informs the reader or listener.²⁵ There are many types of narrative text, including: humor, romance, crime, real-life fiction, historical fiction, science fiction, fantasy, mystery, diary-novels and adventure.²⁶

²⁴ Richard E. Mayer, *The Cambridge Handbook of Multimedia Learning*, (Cambridge: Cambridge University Press, 2005), p. 6.

²⁵ Mark Anderson & Kathy Anderson, *Text Types in English 1-2*, (Australia: Macmillan Education Australia PTY. LTD, 2003), p.8.

²⁶ Mark Anderson & Kathy Anderson, *Text Types in English 1-2*, (Australia: Macmillan Education Australia PTY. LTD, 2003), p.18.

R.R. Jordan defines narrative text as a piece of academic writing contains some some kinds of historical background or development that usually in the form of account or description of events in the past which entails following a time sequence or chronological order.²⁷

Shlomith Rimmon-Kenan defines narrative fiction as the narration of succession of fictional events.²⁸ Narrative fiction is organized around issues such as events, time, focalization, characterization, narration, the text and its reading rather than individual theorists or approaches.

Seymour Chatman states that each narrative has two parts: a story (histoire), the content or chain of events (actions, happenings), plus what may be called the existents (characters, items of setting); and a discourse (discours), that is, the expression, the means by which the content is communicated.²⁹

²⁷ R.R. Jordan, *Academic Writing Course; Study Skills in English Ed. 3rd*, (UK: Pearson Education Limited, 1999), p. 27.

²⁸ Shlomith Rimmon-Kenan, *Narrative Fiction; Contemporary Poetics Ed. 2nd*, (London: Routledge, 2005), p. 2.

²⁹ Seymour Chatman, *Story and Discourse; Narrative Structure in Fiction and Film*, (USA: Cornell University Press, 1978), p. 19.

Considering the definition above, it can be concluded that narrative is a piece of text which tells a story. Narrative fiction is organized around issues such as events, time, focalization, characterization, and narration. Its purpose is to present a view of the world that entertains or informs the reader or listener.

b. Generic Structures and Language Features

One way in understanding narrative text is by identifying the generic structures and language features of the text.

According to Anderson, the steps for constructing the narrative including (1) Orientation, the narrator tells the audience about who is the story, when the story is taking place, when the action is happening and what is going on; (2) Complication that sets off a chain of events that influence what will happen in the story. These events will affect one or more of the characters. The complication is trigger; (3) Sequence of events is where the characters react to the complication. It includes their feeling and what they do. The events can be told in chronological order (the order in which they happen) or the flashback. The audience is given the narrator's point of view; (4) Resolution in which the characters finally sorted out the complication or the problem is solved; (5)

A coda that provides a message or moral based on what has been learned from the story.³⁰

Moreover, the language features that are usually found in a narrative according to Anderson are specific characters, time words that connect events to tell when they occur, verbs to show the actions that occur in the story, and descriptive words to portray the characters and settings.³¹

The language features of the narrative text are using nouns and pronouns. It is used to identify people, animal or thing involved. Specific participant is special characteristics object. The other language feature is adjectives using. It is useful to shape noun phrase. The next language feature is adverbs and adverbial phrases using. It indicates place and time. Using action verb in past for and using saying verbs which sign to pronounce something are other language feature of narrative text.

c. Teaching Narrative Texts in Junior High School

As an international language, English is also taught in Indonesia as a foreign language. The goal of English

³⁰ Mark Anderson & Kathy Anderson, *Text Types in English 1-2*, (Australia: Macmillan Education Australia PTY. LTD, 2003), p. 12.

³¹ Mark Anderson & Kathy Anderson, *Text Types in English 1-2*, (Australia: Macmillan Education Australia PTY. LTD, 2003), p. 8.

language teaching in Indonesia, as stated in the December 12, 1967 decree of the Indonesian Ministry Of Education and Culture, is to give students a working knowledge of the English language with the following detailed objectives in order of importance are to give students on effective reading ability, to give students the ability to understand spoken English, to give students a writing ability, and to give students a speaking ability.

Narrative is the text which contents about a story like a story citizen (folktale), the story about animals (fable), legend, fairytales, romance, mystery etc. A narrative text contains story by presenting the sequence of events and actors which are characterized as heroes or cowards. It can be concluded that narrative text is a spoken or written text to communicate a message, which is used to interpret the meaning in the story. One way in understanding narrative text is by identifying the generic structures and language features of the text. That simple generic structure that is taught in Junior High School will be delivered into the following three elements, namely orientation, complication and resolution.

A teaching narrative is unique to each individual and should be a reflection of how that person sees her or himself as a teacher. Teaching narratives can be used for

formative purposes, in helping one improve one's teaching. In reflecting on one's philosophy and spelling out evidence as to how this philosophy gets implemented, a teacher can identify places where he or she is succeeding as well as areas where continued work is under way or needed. Furthermore, the narrative can serve as a guidepost for where one wants to take teaching as well as a reminder of where one currently is or previously was.³²

Teaching narratives can also be used for summative purposes in making decisions on tenure, promotion, and merit. In this way, teaching narratives need to provide evidence of one's teaching and to place this evidence in a larger context. This might mean linking examples to components of one's philosophy, describing the context of a particular course (e.g., it was the first time it was taught), or reflecting on idiosyncrasies in a course and course evaluations.³³

³² Loyola Marymount University, "Using and Writing a Teaching Narrative", <http://www.lmu.edu>, (Los Angeles: Loyola Marymount University, 2013), p. 1.

³³ Loyola Marymount University, "Using and Writing a Teaching Narrative", <http://www.lmu.edu>, (Los Angeles: Loyola Marymount University, 2013), p. 1.

B. Literature Review of Previous Researches

The research described some works that are relevant to this thesis in order to make this thesis arrangement easier.

Desta Devitasari (104014000289), *The Effectiveness of Using Pictures in Teaching Narrative Text (An Experimental Study of Eight Grade Students of Nusantara Plus Junior High School Ciputat)*. Background of this research was based on creating active teaching learning process in Narrative text by using pictures. She would like to know how the effectiveness of using pictures to teach students' narrative text at the eighth grade students of Junior High School Nusantara Plus in the academic year 2008/2009 is. So, he used three instruments. They are test, documentation and observation. In this research the researcher used random sampling technique to determine class of the research. The subjects of the study were VIII-4 class and VIII-5 class. The researcher only took 40 students, where 20 students were from VIII-4 (experimental class) and other students were from VIII-5 (control class). She conducted the experiment class was taught narrative text using Pictures, whereas the control class was taught narrative text without using Pictures. Based on her finding, she resumed that students are more interested in learning narrative text by using pictures.³⁴

³⁴ Dista Devitasari (Student Number: 104014000289), "The Effectiveness of Using Pictures in Teaching Narrative Text (An Experimental

Miftakul Nikmah (103411027). Developing Moodle-Based Interactive Online Media to Teach Narrative Reading (A Study at X Grade Students of SMA Negeri 13 Semarang in the Academic Year of 2014/2015). This study is a Research and Development (R & D) that adapted Borg and Gall model which is just took six steps in this research. The technique of collecting data includes questionnaires to the experts (material and online media experts). Based on data analyzed of test result, it was showed that there was difference of teaching narrative reading before and after using Moodle-Based Interactive Online Media developed. And based on questionnaires of experts conclude that the quality of the product is very good with ideal percentages respectively 87,5%, 94,4% and 78,0%.³⁵

Farida Nur Hikmah (09410006), Pengembangan Media Pembelajaran Fiqih Berbasis Macromedia Flash 8 Sebagai Sumber Belajar Bagi Siswa MTs Kelas VIII Semester 2 Materi Pokok Ibadah Haji dan Umrah). Skripsi Jurusan Pendidikan Agama Islam Fakultas Ilmu Tarbiyah dan Keguruan UIN Sunan Kalijaga, 2013. This study is a Research and Development using

Study of Eight Grade Students of Nusantara Plus Junior High School Ciputat)", *Thesis*, (Jakarta: UIN Syarif Hidayatullah, 2009).

³⁵ Miftakul Nikmah, (Student Number: 103411027), "Developing Moodle-Based Interactive Online Media to Teach Narrative Reading (A Study at X Grade Students of SMA Negeri 13 Semarang in the Academic Year of 2014/2015)", *Thesis*, (Semarang: UIN Walisongo, 2014).

procedural model. The technique of collecting data includes observation, interview, documentation and questionnaire to the material expert and media expert. Based on the data analysis, it is showed that the quality of the product from validation experts and students is very good with percentages respectively 83% and 85%.³⁶

The difference between the previous researches and this research was on the technique and the design. The first researcher focused on picture technique and using experimental study in her research. And for the second and third previous researches, they developed different product on material teaching. The similarity of the first researcher and this research was material of narrative text. And for the second and third previous researches, they used R & D method in their researches.

C. Theoretical Framework

The main purpose of this study is to develop an appropriate interactive learning multimedia of narrative texts for the eighth grade students of SMP Negeri 1 Brati. The reasons to conduct the study were there was no appropriate medium that were suitable for the students' condition. The source of the materials was only

³⁶ Farida Nur Hikmah (Student Number: 09410006), "Pengembangan Media Pembelajaran Fiqih Berbasis Macromedia Flash 8 Sebagai Sumber Belajar Bagi Siswa MTs Kelas VIII Semester 2 Materi Pokok Ibadah Haji dan Umrah)", *Thesis*, (Yogyakarta: UIN Sunan Kalijaga, 2013).

from textbook that were lent by the school. The learning process was still teacher center and there was no space for the students to study independently. Therefore, in the middle of the lesson, the students were bored, less motivation and sleepy. They needed something new that was interesting and motivating.

Interactive learning multimedia is the combination of well-arranged audio and visual media in the form of text, graphic, animation, sound and video to present the learning materials. It provides the students with opportunities to promote meaningful learning then receive comprehensible input and feedback. Besides, motivating the students to learn better, the advantages of the interactive learning multimedia are reducing learning time, reducing the cost of the materials used, and providing the students to learn independently everywhere and every time.

There were two roles of interactive learning multimedia in teaching learning process. They were interactive learning multimedia as a tool and a tutor. The role as a tool was the interactive learning multimedia is used to present the materials and do the exercises for the students. Meanwhile, as a tutor, it guided the students to learn step by step. The explanation above can be seen in Figure 2.4

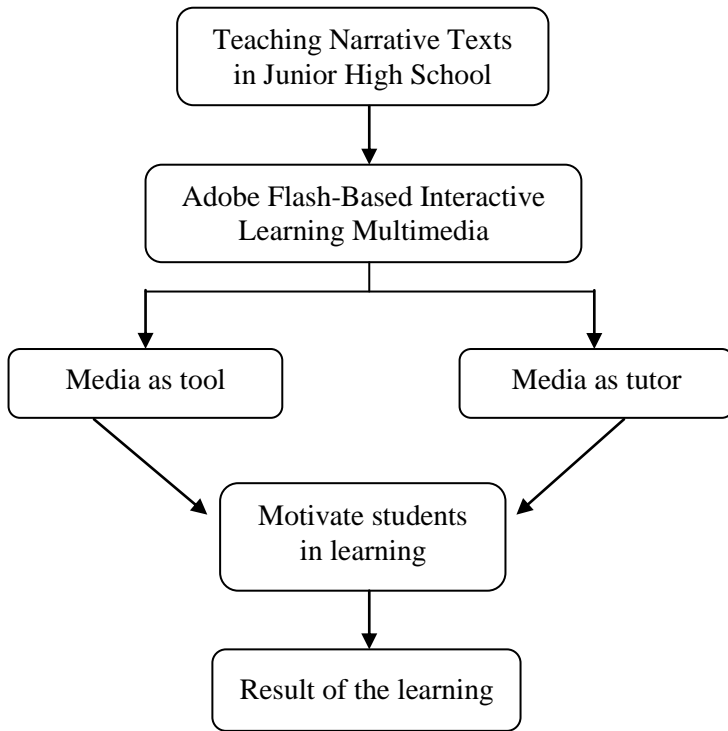


Figure 2.4 Theoretical framework