

## **The Interactive Multimedia Innovation Assisted by Flash Player**

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### **ABSTRACT**

Interactive Multimedia Innovation is a learning medium that provides animation with audio and visuals that are interesting so that it adds to the attraction of students to study literature. This innovation is expected to be a solution for introducing the world of special education in Indonesian language and literature. That Interactive Multimedia that will be designed has the ability to improve writing skills and listening skills of users in literary learning. Interactive users will make it easier to extract information / material presented in the Interactive Multimedia menu. In addition, the menu is equipped with a controller that can be provided by the Interactive Multimedia user created using Flash Player software.

**Keywords:** Innovation, multimedia, interactive, flash player.

### **INTRODUCTION**

The implementation of Visual Arts Education (PSV) lessons at school or tertiary level makes an important contribution in improving the quality of young people in the 21st century (Rusman & Pd, 2009) done to address this need so that the quality of critical and creative thinking can be mastered among students. More serious and designed emphasis through education lessons in order to help produce quality human resources with character (Kamaruddin Yusof, 2004)

For the sake of advancing quality human resources needed the development of information technology occurs in various fields. Both in terms of software and computer hardware, especially multimedia. One of the software developed and supports multimedia applications aided by flash player. The software can be used to create fictional literary menus on novel material and audio novel story telling (Noviyanto, Fiftin, Tedy Setiyadi, 2014). Multimedia can develop the sensory capacity and attract attention and interest. Computer Technology Research (CTR), states that people are only able to remember 20% of what is seen and 30% of what is heard. But people can remember 50% of what was seen and heard and 80% of what was seen, heard and done at once. (Alfabeta, 2012)

According to Arief (2008), multimedia is the use of computers to present and combine text, sound, images, animation and video with tools and connections (links) so that users can navigate, interact, work and communicate (Gilakjani, 2012). The interactive means to involve the user's response actively. Setiyono (2008) explains interactive multimedia as a suggestion in learning that is equipped with a controller that can be operated by interactive users in this case having the understanding that there is a two-way communication or more than the communication components. The components in question are human (as user or user of the product) and computer (software, application or product in file format).

There is an increase in awareness among educators, researchers, and administrators that the introduction of multimedia into educational institutions is a call for change in teaching and learning patterns. For example, 73% of the experts surveyed for the Delphi Study conducted by the German Federal Ministry for education and research, believe that multimedia will cause major changes in teaching and learning culture. Therefore, the purpose of using interactive multimedia is to find the best way for students to learn effectively and efficiently for lecturers in teaching and to support the

development of Science and Technology and Social Culture (Science and Technology-SOSBUD) in a superior, intelligent and trusted UMSU environment in the future.

### **Interactive Multimedia**

Etymologically multimedia comes from the Latin language, namely from the word "multi" which means "many", "various" and "medium" which means "something" or "means" used to convey or carry messages or information. Like text, images, sound and video. So, in multimedia language is a combination of many or several media such as text, images, sound or video. (Darmawan et al., 2017)

The concept of "information literacy" was first introduced by Paul Zurkowski, President of the information industry association in his proposal addressed to the National Commission on Libraries and Information Science (NCIS) in the United States in 1974. Zurkowski argues that to face the abundance of information the public must be a literate person information. (Mufiedah Nur, 2002)

Visuals or images here can be actual images such as photos of original objects and films / videos. Visuals can also be in the form of animations, graphics, charts and other illustrations. While audio is sound. Sounds here can be people's voices, animal sounds, other natural sounds. The sound here can also be in the form of music, songs and other sounds in the form of sound effects. Its function is to clarify and reinforce the description of the material, so that the description of learning materials becomes younger understood, easier to remember and more interesting for students. While the text is in the form of writing whose function is to clarify and reinforce the description of the material presented through visuals and sounds. Its function is to help students' memory in remembering learning material, both currently and what they have learned. (waldopo, 2011)

Interactive multimedia program is a multimedia program that is designed in such a way that it can interact with its users (students). Interaction here mainly in terms of providing good response, feedback, or feedback on the tasks done by users. (waldopo, 2011)

A media that will be designed must meet several criteria. Thom (in Novaliendry, 2013) proposes six interactive multimedia criteria, namely:

1. The first assessment criteria is ease of navigation. An interactive CD must be designed as simple as possible so that students can learn it without having to have complex abilities about media.
2. The second criterion is cognitive content. In the sense of a clear knowledge content.
3. The third criterion is the presentation of information that is used to assess the contents and interactive CD program itself.
4. The fourth criterion is media integration, where media must integrate aspects of knowledge and skills.
5. The fifth criterion is artistic and aesthetic. To attract learning interest, the program must have an attractive appearance and good aesthetics.
6. The last evaluation criteria is the overall function in other words the program being developed must provide the learning desired by the learning participants.

According to Munir (in Novaliendry, 2013) multimedia has advantages not possessed by other media. Among the advantages are:

1. Multimedia provides an interactive process and provides easy feedback.
2. Multimedia provides learners in determining the topic of the learning process.
3. Multimedia provides the ease of systematic control in the learning process.

### **Interactive Multimedia Packaging Innovation**

An educational product is both a technical work and a work of art. Therefore, this interactive multimedia innovation also needs to be added to the art element to be enjoyed. In this interactive multimedia innovation, researchers are trying to create products that are attractive to users by structuring displays that use puzzle themes and brick backgrounds with a variety of colors. The type

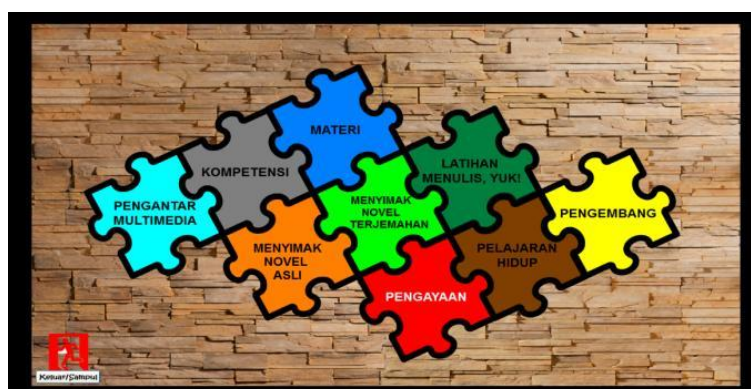
of harus used also varies greatly according to the contents of menus in the media. In addition, this media is also equipped with instrumental music and voice narration.

The systematic presentation of menus in interactive multimedia that was developed, namely (1) Introduction to Multimedia, (2) Competencies, (3) Materials, (4) Listening to Original Novels, (5) Listening to Translation Novels, (6) Writing Training, Come on! (7) Enrichment, (8) Life Lessons, and (9) Developers. In the material menu, there are six submenus, namely (1) What is Teen Novel ?, (2) Intrinsic Elements of Teen Novels, (3) Catalog of Teen Novels, (4) Language Info, (5) How to Write Teenagers, (6) How to Write Diary. On the menu listening to the recording of the original novel and listening to the translated novels, each of them has five submenus, namely (1) Question and Answer Regarding the Novel, (2) Synopsis of the Novel, (3) Time to Listen, (4) Exercise to Analyze, (5) Exercise to Evaluate. In the enrichment menu there are four submenus, namely (1) Flow Training, (2) Character Training, (3) Background Training, (4) Theme Training.

In this interactive multimedia packaging process, researchers as designers and developers need to try alternatives and solicit input through the testing of experts, and practitioners. All input from the expert team and prospective product users are discussed and used as a reference for reference to revise the draft product repeatedly.

### **Determination Of Flash Player Specifications Media**

The media used in this innovation are computer applications that can support the expected product results. The process of making this interactive multimedia innovation involves the use of applications, among others (1) Microsoft Word 2007 is used to make all material in the form of pdfs, flip books, and writing about information on each menu, (2) Audacity 2.0.3 is used to edit all audio in multimedia, (3) Wondershare QuizCreator 4.1.0 is used to make all tests used to test the ability of students, (4) Ncesoft Flip Book Maker 2.5.3 is used to package material in the form of book animation, (5) Aleo Flash Intro Banner Maker 4.0 is used to create cover animation and banner animation on each page, (6) Adobe Reader 11 is used to open pdf files in multimedia, (7) FormatFactory 3.1.0 is used to change the types of files in multimedia as needed, (8) PhotoScape v3.6.3 is used to edit images and design information in each menu, (9) FastStone Capture 4.8 is used to crop images as needed, (10) CorelDRAW X4 is used to design covers in the user manual, and (11) AutoPlay Media Studio 8 is used as a place to process all components of multimedia



### **Research Urgency And Product Specification**

This research is very useful in increasing motivation to learn to write and listen to novels to tell students. Interactively, students operate on their own, guided by the lecturer in teaching. In addition, this interactive multimedia innovation will make students more creative and independent as well as

knowing the extent of its impact in the simulations menu available in interactive multimedia. Thus, learning literature that was conventional in nature with lecturers and using textbooks or novels that are determined is very monotonous and boring. Plus the classroom atmosphere that does not support the situations and conditions in the study of literary arts. So, through Interactive Multimedia literary learning is no longer monotonous, because it will be more colorful by providing fictional material menus namely novels, writing novels and listening to novels to tell stories. In addition to the class, students can of course continue studying literature using this product at home or anywhere, because this product can be installed on each student's computer.

The specifications of Interactive Multimedia products are as follows:

1. This interactive multimedia software is packaged in the form of CDs (compact discs).
2. This interactive multimedia software is operated by using computer specifications. The minimum specifications of computer equipment needed for this software to operate properly are: (1) Intel Pentium IV processor, (2) 1 GB RAM (Random Access Memory), (3) VGA (Video Graphics Adapter) of at least 128 MB, (4) CD-ROM (Compact Disc Read Only Memory) 52X, (5) Monitor resolution of at least 1280 x 768, (6) Soundcard and videocard graphic resolution of at least 1072 x 648 pixels with 32 bit color, (7) Keyboard / Mouse / Touch Pad, (8) Audio speakers or headsets, (9) Adobe Acrobat Reader installed, (10) Flash Player installed, (11) Internet explorer or something similar.
3. This interactive multimedia creation process involves the use of computer applications including: (1) Microsoft Word 2007, (2) Audacity 2.0.3, (3) Wondershare QuizCreator 4.1.0, (4) Ncesoft Flip Book Maker 2.5.3, (5) Aleo Flash Intro Banner Maker 4.0, (6) Adobe Reader 11, (7) FormatFactory 3.1.0, (8) PhotoScape v3.6.3, (9) FastStone Capture 4.8, (10) CorelDRAW X4, and (11) AutoPlay Media Studio 8.
4. Systematic presentation of interactive multimedia menus developed in this study are (1) Introduction to Multimedia, (2) Competencies, (3) Materials, (4) Listening to Original Novels, (5) Listening to Translation Novels, (6) Writing Training, Let's!, (7) Enrichment, (8) Life Lessons, and (9) Developers. In the material menu, there are six submenus, namely (1) What is Teen Novel?, (2) Intrinsic Elements of Teen Novels, (3) Catalog of Teen Novels, (4) Language Info, (5) How to Write Teen Novels, and (6) How to write a diary. On the menu listening to the recording of the original novel and listening to the translated novels, there are five submenus each (1) Question and Answer Regarding the Novel, (2) Synopsis of the Novel, (3) Time to Listen, (4) Exercise to Analyze, and (5) Exercise to Evaluate. In the enrichment menu, there are four submenus, namely (1) Flow Training, (2) Character Training, (3) Background Training, (4) Theme Training.
5. The variety of languages used is a variety of consultative languages that are adjusted to the level of understanding and development of students. In addition it also uses effective and motivational sentence forms.
6. This interactive multimedia display uses puzzle themes and brick backgrounds with various colors. The type of font used is also very varied, adjusted to the contents of the menus in. Apart from that, it also comes with instrumental music and voice narration.
7. This interactive multimedia can be used for both independent and classical learning in accordance with the availability of the number of computers in college, while the use of LCD (Liquid Crystal Display) is required for classical learning.

## Interactive Multimedia Menu Components As Learning Media

### a. As Learning Materials for Listening Skills



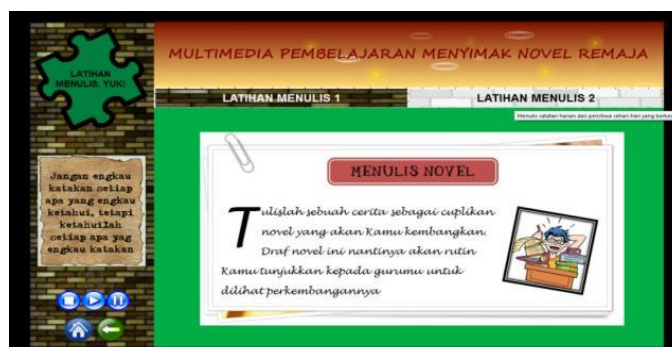
### b. As Learning Materials Novel Fiction Literature Material

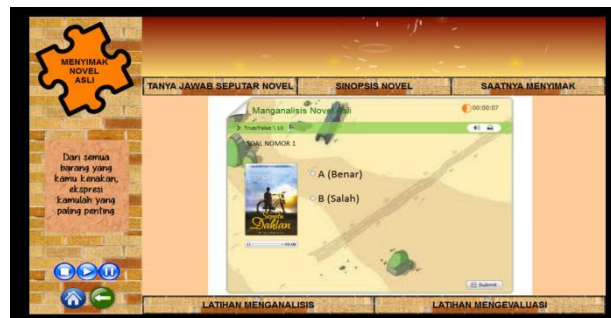


### c. As Learning Materials for Novel Fiction Writing Skills and Diary Writing



### d. As A Media Measuring Power Look User





## CONCLUSION

Based on the explanation mentioned in the previous section, this paper concludes: 1) Interactive Multimedia Innovation is designed to be solely a process of literary learning. Through the content of this material is expected to help and make it easier for teachers / lecturers, especially in higher education in increasing student interest in studying literature and avoiding saturated class atmosphere becoming more cheerful, colorful and fun. 2) interactive multimedia innovations can be done by utilizing situations and conditions wherever and whenever even at their respective homes, because the technology can be installed on each student's laptop device, so students can continue learning at home.

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