# Design of Interactive Learning Graphic Design Based Tutorial Classic

Asrul Huda, Kasman Rukun, Suryo Hartanto, Ulfa Hasyanah Lubis
Electronic Engineering Department
Padang State University
Padang, Indonesia
asrulhuda@gmail.com, kasman.rukun@gmail.com

*Abstract*—**The function of education is to develop ability of potential and transform the character of students, therefore various aspects and efforts made to improve the education quality. One of way to improve learning result is by using information technology such as used interactive learning media tools. This final project aims to develop interactive learning media that can increase student learning interest in graphic design subject. In addition, as a media support of module and to improve efficiency time and energy a lecturer or teacher. Material designing in learning media used Classic tutorial. Classic tutorial is a method that includes pretest before the material and conclusions and posttest after material is finished. This interactive learning media designed used Camtasia Studio 6 software, Adobe Flash CS6 and Quiz Creator. The result of learning media in form a Compact Disc (CD) so that it can be run on a computer device. After testing toward learning media, it can be concluded that 100% media can run well and appropriate with design.**

*Keywords—learning media; interactive CD; graphic design; classic tutorial*

## I. INTRODUCTION

Education is an activity stage that characterized institutional is used to completely individual development in mastering of knowledge, habits, and attitudes and so on. According to law national education system in 2003 states that: Education is a conscious effort and planned to create a learning atmosphere and learning process so that students actively develop their potential they self to reach religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by them, society, nation and state.

Through education in various aspects are developed and various efforts to improve education quality that continue. Various problems in learning process need to be synchronized and alternatives to solve these problems optimally. Submission of material on graphic design subject used conventional methods and guided practice. This causes students only attempt to memorize steps in designing and not motivating them to find out and apply them in their daily lives. These learning conditions cause passivity for students during learning process.

Besides that, students are only given a module in learning material so that the practical activities carried out by students cannot be followed properly that caused lack of understanding material contained in module. The modules are less attractive because they do not have an interaction system. The lack of companion media for self-study at home also caused students miss the material are given by lecturer. Lecturers also find out difficulties including limited time to inform a lot of material. Therefore, it is expected that learning process must be more interesting, interactive and fun.

According to Hamalik, teachers must have knowledge and experience about learning media which include [1]:

- Media as a communication tool to make teaching and learning process more effective.
- Media function in order to achieve educational goals.
- Learning process details.
- The relationship teaching methods and educational media.
- Value or benefits of educational media in teaching.
- Selection and use of educational media.
- Various types of educational media tools and techniques.
- Media education in each subject.
- Innovation effort in educational media.

Based on problems above, needed solution such as use interactive learning media to resolve them so that it is expected to increase students learning interest and student achievement index Graphic design subject. That used interactive learning media will be able to provide more experience and understanding than other media because when media used there are two senses that play a role simultaneously: vision sense and auditory sense.

Sudjana and Rivai suggested the benefits of learning media in learning process, namely [2]:

- Learning will attract students' attention so that increase they learning motivation.
- Learning materials will be defined more clearly so that students more understand and enable in mastering and achieve learning goals.

- Teaching methods will be varied, not only verbal communication through expleation by teacher, so that students are not bored and teacher is not exhausted, especially if the teacher teaches at each lesson hour.

- Students can do more learning activities because they not only listen the teacher's explanation, but also other activities such as observing, practicing, demonstrating, acting, and so on.

Therefore, this media is suitable to be applied in graphic design material that contains lots of materials and conducts practical activities, so that it can help students to be able to independently learn and understand steps to design, and produce learning result of graphic design so as to provide flexibility and freedom for students.

## II. SYSTEM ANALYSIS AND DESIGN

System analysis is a problem solving technique by describing component parts to find out performance and interaction between components to achieve goals [3]. The purpose of the analysis of this system is to identify the problems that exist in the system on the system and provide a clear picture of the system to be built.

The needs that needed in designing process this learning media is need hardware specifications, minimum required as follows: Intel 1.6 Pentium IV Intel processor, 512-megabyte RAM, minimum 40 GB hard drive, mouse, keyboard, speakers for sound, 1024 x 600-pixel monitor resolution with 32-bit color depth for the best display.

While software specifications that support in making this graphic design learning media, include following: x7 Corel draw, adobe Photoshop cs6, adobe flash cs6, creator 4.5 quiz, Camtasia studio 7, Nero 7, Microsoft office word 2010, and Microsoft Power Point 2010.

System design is to describe, determine, and sketch or arrangement of several elements that are separated into a unified form. This design is the result of transformation from analysis into design that will be implemented. The stages of interactive concept CD design include 3 stages, are the pre-production stage, the production stage, and the post-production stage. The designing stages and manufacturing interactive CDs generally be described as the following flowchart:
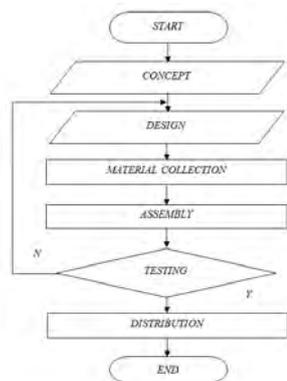


Fig. 1. *Flowchart* general design of interactive CD.

The menu design for interactive CD programs for graphic design subject is as follows:
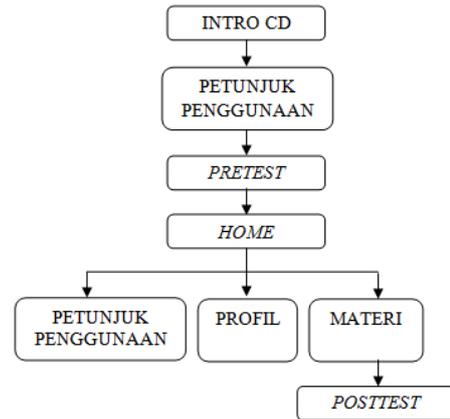


Fig. 2. Program menu design.

Interface design is an important part in application design, because the first time you see it when an application run in application interface.
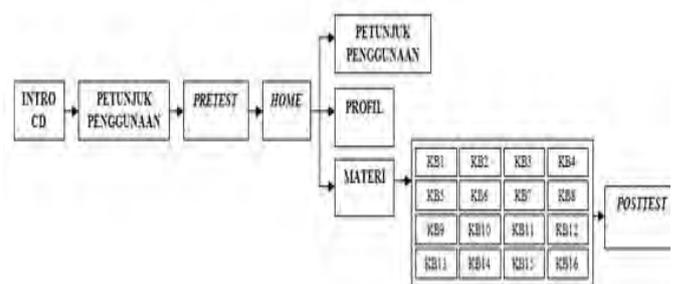


Fig. 3. Interface design.

The main menu design is interface design on main menu that will appear when the user presses home button. Here's a picture of home page design.
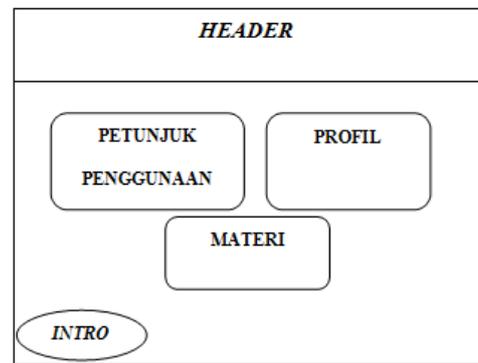


Fig. 4. Main menu design.

The design of material menu display is interface design on material menu that will appear when the user presses material button on main menu page. The following is a draft picture of material menu page view:
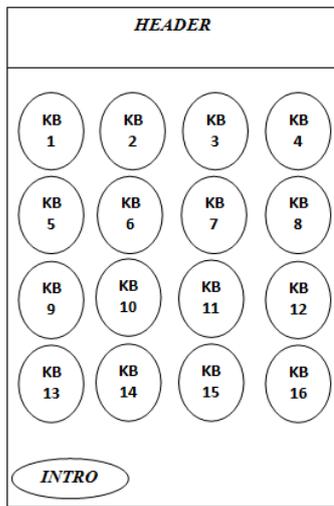
Fig. 5. Designing material menu.

Structural design is a grouping the different of data that is useful as data settings. The design learning media structure of graphic design subject on interactive CDs can be seen in the following figure 6:
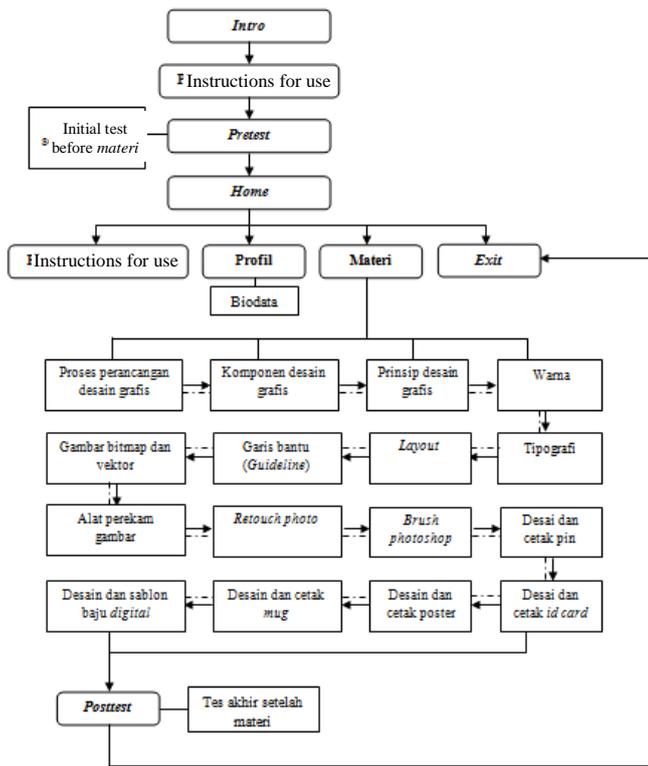


Fig. 6. Design of interactive CD material structure.

## III. RESULTS AND DISCUSSION

The results interface design are implemented in the graphic design interactive CD learning media application that can be run after the project is published in form * .exe file.

The system discussion is implementation of a process that translates design results into software form as a whole. Interface implementation is translating layout that has been made in interface design into a complete system interface form. The system interface implementation is apply to find out if the system that has been designed can run correctly in accordance with the design that has been designed before.

The usage instructions page is a page that displays instructions for using application buttons. The following is instructions menu for use.
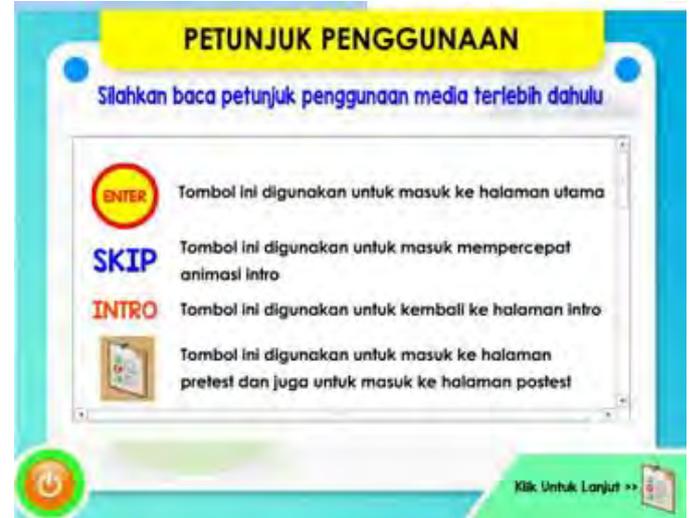


Fig. 7. Page of usage guide display.

The pretest page is initial test page before entering the learning material. The initial view of pretest page as following.



Fig. 8. Pretest page display.

Before entering on pretest page, the user first presses the start button. this a picture of pretest page:
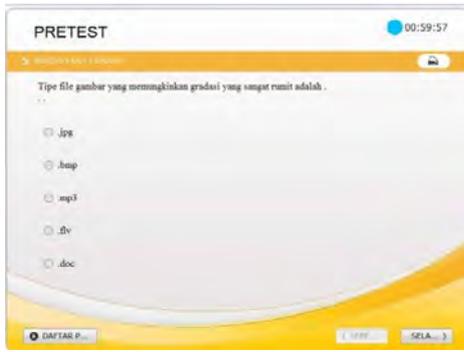
Fig. 9. Views of pretest page.

The main menu page is a menu that appears when the user presses the home button on pretest menu page. The following is the home page display in the figure 10.



Fig. 10. Main page display.

The material page is a page that displays graphic design materials to be studied. Next is the page view.



Fig. 11. Material page view.

The tutorial video page is a sub menu that will appears when material menu is selected. The video tutorial page display can be seen in figure 12.



Fig. 12. Tutorial video page display.

The learning activity page is a page that displays questions in each learning activity. The page view of learning activities can be seen in figure 13.
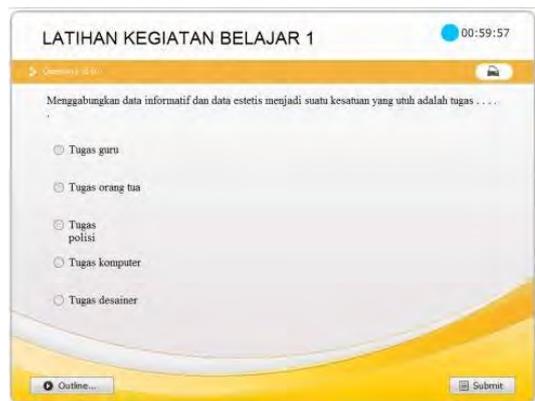


Fig. 13. Material menu page display.

The competency test page is a page that provides portable applications to support practical application of graphic design subject. The view of the competency test page can be seen in the picture below.



Fig. 14. Competency test page display.

The posttest page is an evaluation that is conduct to find out achievement of objectives and serve as input for analysis next situation. Posttest is applied at the end of learning after 16

learning activities are carried out. The following is the initial appearance of the posttest page in the image below.



Fig. 15. Posttest menu page display.

On each page that contains questions given duration of time to complete the answer, after the time is up, it is automatically unable to answer test. Next on the score page, the number of questions will appear, correct answers, wrong answers, percentages, values and final values. The following is the value shown in the figure 16 below.



Fig. 16. Score display.

## IV. CONCLUSION

Based on design and manufacture of interactive learning media graphic design can be summarized as follows:

- In interactive learning media there are graphic design material modules in each learning activity.

- Interactive learning media are designed and developed by used Classic tutorial method, and are designed to improve students' understanding, independent and as a supporting media or interactive learning resource for students.

- This interactive multimedia CD is designed by used several graphic design applications, such as Adobe Flash CS6 and Camtasia Studio applications in form

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