Learning Application Soft Skill for Facial with Computer Assisted Instruction Model

by Toni & Sriadhi Unimed

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ABSTRACT

This development research is to develop a soft skill learning application as an out of school learning media in nonformal education for women salon especially face makeup. The development model used is referring to the ADDIE development model that is analysis, design, development, implementation and evaluation. The development result is a computer-based learning application that contains learning materialals, exercises, simulations and games and evaluation.if someone make up the face without knowing the proper makeup techniques, it will be difficult for salon workers to apply makeup to their customers properly, consequently the makeup will not look maximal,Therefore it takes a facial makeup learning that can help the community in arranging the right makeup based on the forms of the face. Application of facial makeup learning is made by using Computer Assisted Instruction (CAI) model. Where the application of this learning will give result in the level of understanding of learners will make the properly to facial makeup.

Keywords : Makeup, Learning, Softskill, Computer Assisted Instruction (CAI)

I. INTRODUCTION

Shown beautiful is the desire of every woman, with the beauty of a woman will be more confident in interpreting his existence. Makeup is one way for women to highlight the beauty that is itself, using cosmetics increases the perception of attractiveness (Jones AL, Kramer RSS : 2016).

To following the learning at the beauty salon can help people who want to learn facial makeup techniques, but the problem is the inefficiency of learning because it must pay lessons with less expensive price, then the distance to be taken to where to les salon and the utilization of time is not small will be disturbing other activities. For that with the learning of computer-based, enabling the efficiency of time, cost, distance, and space required. (Limbong, T, Parasian, S : 2016).

The use of software as a task-based instruction tool using computers is more effective than computer-assisted human language instruction (Arslanyilmaz, A. :2013). Learning software can be developed with the model Computer Assisted Instruction (CAI) namely a method of learning that uses computer media. Based on the background of the problem, then the problem formulation in the development of learning applications this facial makeup is about: 1).

How is the process of learning makeup the right one based on the forms of the face; 2.) How to apply Computer Assisted Instruction (CAI) model on facial makeup learning applications; 3). How to design a

561

facial makeup application using the model Computer Assisted Instruction. Scope of discussion This learning application is: 1.) Learning application of facial makeup is intended for the layman; 2.) The makeup will be given just giving shading and highlight on the forehead, cheekbones, nose, and chin; 3). Output system is the result value learning development which has been performed by the user through testing. 4). Application designed discuss about shading-shading face and makeup application in makeup.

The benefits of this research are for learners or community who want to develop talent and his hobby for the field of makeup, among others.1). easier to understand proper facial makeup technique based on its shape; 2). With the latest learning method with Graphic User Interface which varied and interesting to become the main attraction for the user to deepen the makeup. 3). With the Computer Assisted Instruction (CAI) model, user will more easily learn the makeup and do not need to follow the learning at the salon with a fairly expensive cost.

II. REVIEW OF LITERATURE

A. Learning
In addition to the learning environment in the classroom, collaborative conventional learning, with the growing use of information and communication technologies in learning allows individuals worldwide to participate in collaborative learning processes, Michelle Nicolson & Kiyoko Uematsu (2013).

Learning is a system, which consists of various components that are interconnected with each other. These components include: objectives, material, motives, and evaluations. The four components of learning must be considered by teachers in choosing and determining what learning models will be used in learning activities (Sri Wahyuni : 2016).

B. Facial Makeup
Facial makeup is an activity to change the appearance of the original shape is done to cover the face is less than perfect. This makeup also makes a person look more beautiful and look more proportional to be more confident. In a way disguise the face is not perfect and accentuate the perfect face, with the technique of shading (dark effects) and tingting (light effects) on the face and face shape that is considered less proportional.

Makeup can be useful to divert others' views to people who have acne or on skin disease. Can help change the behavior and psychological effects on the person, makeup can be useful to divert the views of others from the original form (Murakami-Yoneda, Y., Hata, M., Shirahige, Y., Nakai, K. and Kubota, Y. : 2015).

C. Computer Assisted Intruction.
At this time educators have begun to gain access to use various technologies to improve the effectiveness of the learning and teaching process. Computers as one of the technologically value products appropriately used as teaching aids.A variety of intructional approaches are packaged in the form of computer-assisted teaching programs or CAI (Computer Assisted Intruction) such as Drill and practice, simulations and game can tutorials obtained by computer. In the last twenty-five years the development of CAI especially in developed countries is very rapid. Many experimental studies on CAI have been conducted to evaluate the effectiveness of various CAI programs (Limbong, T., Pardomuan.,M , Efendi, N. : 2017).

When compared with traditional teaching approaches, CAI is very effective and efficient. The students will learn faster, master the subject matter more and remember more of what has been learned. Teaching programs such as CAI can be effective but by simply putting the subject matter into the computer originally, will not improve the effectiveness of teaching. There fore that CAI-making should be well

incorporated and current efforts should focus on the use of CAI for specific situations and for special subjects as well (Sri Wahyuni : 2016).

Computer-based learning (CAI) has aspects that can improve the effectiveness of learning. These aspects include: Feedback, branching, assessment, progress monitoring, hints, and views. Computers can quickly interact with individuals, store and process various information. In supporting the achievement of computer learning objectives compiled with programs that various types of terminals can control the interaction of independent learning to learn the information presented. Computers can be directly used to convey the subject matter of the participants of the lesson, provide the exercises and give the learners progress test lessons. by using the computer, the work of the first tutor can be incorporated into the appropriate computer language technical system so that the tutoring participants can call the data at any time.

D. Principles of Computer Assisted Instruction Program Development

In principle the first step in developing the CAI program is to determine what method to use. Determination of this method depends on the type of subject itself, the level of konitif will be achieved, and the kinds of learning activities.

Computer Assisted Instruction (CAI) model is divided into four types of presentation method (Sri Wahyuni : 2016), namely:

1. Tutorial

Tutorial purpose to convey or explain certain material where the computer conveys materialal to learners. In presenting the materialal, the tutorial can be divided into linear tutorials and branched tutorials. The linear tutorial presents a topic into the next topic in the order set by the programming, so learners can not choose the learning materialals according to their desires and abilities. Thus, each learner must learn the same materialal, the linear tutorial ignores the

differences in individual abilities. In contrast to the tutorial branching individual differences are noticed by giving the freedom to learners to learn the materialal as desired and the ability of learners. In this case the branching tutorial has advantages over linear tutorials because:

a. Learners can determine the materialal to be studied
b. learning is more interesting, creative, and flexible
c. Learning is more effective

2. Drill and Practice (Exercise and Practice)

Drill model is a model in learning by way of training students to the lesson materialal that has been given (Limbong, T. , Pardomuan , M, Efendi, N. : 2017). With continuous practice, it will be embedded and then it will become a habit. In addition to instilling the habit of this model can also increase the speed, accuracy, perfection in doing something and can also be used as a way to repeat the materialal that has been presented. Computer Based Teaching is basically one of the learning model that aims to provide a more concrete learning experience through the provision of exercise questions that purpose to test the ability of learners through the speed of completion of training questions provided programmer general stages of presentation materialal drill model is as follows:

a. Presentation of problems in the form of exercise questions
b. Learners do the exercises
c. If the students answer is correct the program displays the value and if the students answer is wrong the program provides the facility to repeat the exercise and can see the discussion or the key answer material matter.

3. Simulation

Model the simulation model is basically one of the learning strategies that purpose to provide a more concrete learning experience through the creation of imitations of near-risk-free experiences. In this model displays the subject matter is packaged in the form of animations, images, and harmonious blend of colors.

The simulation model is basically one of the learning strategies that aims to provide a more concrete learning experience throughthe creation of artificial forms of experience which approached the atmosphere without risk.In this model displays the subject matter is packaged in the form of animations, images, and harmonious blend of colors.

4. Instructional Games

Model Instructional Games is one form of model in computer-based learning, which is designed to generate motivation in learners. The purpose of Instructional games is to provide an atmosphere (environment) that provides learning facilities that enhance the ability of students. Type Instructional Games or Educational Games is a program that creates skills in the game. Games are given as a tool to motivate and make learners through game procedures meticulously to develop their abilities.

After determining the method, the next step is to consider some important aspects in the design of the CAI program (Sri Wahyuni : 2016), These aspects are:

a. Feedback

After give responding, the tutor should be given feedback. Feedback may be a comment, praise, warning or specific command that the participant's response is right or wrong. Feedback will be more interesting and increase the motivation to learn when accompanied by illustrations of sound, images and video clips.

b. Branching

Branching is some alternative path that needs to be taken by the participants of the lesson in learning activities through the CAI program, the program provides branching based on the response participants les. For example, the learner who is always wrong in answering certain materialal questions, then the program should recommend to review the section again. Or if the learner achieves a certain score, participants les les bias directly to the top or vice versa.

c. Assesment

A good CAI program must be accompanied by an assessment aspect. To find out how much the participants understand the lesson learned, in each sub topic the learner needs to be given a test or practice question.

d. View

Because the CAI program is done through the monitor screen, it is necessary to note the type of information, component display, and legibility types of information displayed can be text, images, sound, animation or video clips. Color illustration can attract the attention of the participants of the lesson, but if excessive will make the lesson participants do not focus on the program. One screen when possible contains ideas or subject matter only. An important display component is the identification of views such as page numbers, titles or sub-titles being studied, such as commands for forward, backward, pause and so on.

III. RESEARCH METHODOLOGY

A. Method

Stages of research conducted refers to the ADDIE development model developed by Dick and Carey (Hassan Bello and U. O. Aliyu : 2012), including Analysis, Design, Development, Implementation and Evaluation. Stages of research that have been done that is the stage of analysis (objective analysis, curriculum and materialal analysis, ability level analysis and user target characteristics), design (design of materialal items to be presented, preparation of materialal texts, drafting of materialal delivery in the form of flowchart, storyboard media, and the collection of materialals needed in media development), development (creation of media using Adobe Flash Professional CS6 software), implementation (assessment by media experts, materialals experts, field practitioners and implementation of limited trials), and evaluation (assessment of media developed, carried out during the previous four stages).

In this development study, validation of learning media is done in two stages. The first stage, namely validation to media experts and material experts (Spector J.M. : 2017). The second stage is validation to field practitioners and user targets involving a Les Salon teacher at Wella Bridal Salon in Medan and twelve new tutors who are studying the makeup salon. The data collected in the form of quantitative and qualitative data. Quantitative data is obtained from the results of assessment and response by expert validators, field practitioners and user targets. Meanwhile, the qualitative data is derived from the criticism, suggestions and responses provided by the test subjects. The data collection instruments used are closed questionnaires and suggestions. The assessment aspects used refer to the assessment aspects developed (Elissavet and Economides : 2000). Meanwhile, data analysis techniques using data analysis technique percentage. The formula used is:

$$P = \frac{\sum x}{N} x100\%, NA = \frac{\sum P}{n}$$

Data Processing Formulas
(Source : Elissavet and Economides : 2000)

Explanation:
P = percentage of score
NA = end value
ΣX = total score
N = maximum score
n = many questions

To determine the level of validity of learning media developed, we will use the criteria for qualification assessment according to shown in table 1 below.

Table 1. Validation Criteria Percentage Analysis

Percentage (%)	Validity Level	Explanation
80 – 100	Valid	Proper/do not need to be revised
60 - < 80	Quite Valid	Quite decent/In part revision
40 - < 60	Less Valid	Less Valid / In part revision
<40	Invalid	Invalid / Total revision

(Source : Elissavet and Economides : 2000)

To determine the level of practicality of learning media developed, will be used criteria of qualification assessment according to Elissavet and Economides , which is presented in Table 2 below Tabel 2.

Table 2. Criteria of Practicality

Percentage (%)	Level Of Practicality	Explanation
80 – 100	Practical	proper/do not need to be revised
60 - <80	Practical enough	Quite decent/In part revision
40 - <60	Less Practical	Less Valid / In part revision
<40	Not Practical	Invalid / Total revision

(Source: Elissavet and Economides : 2000)

B. Development Method

To simplify the use of Facial Learning Approach, the design of applications that have been made implemented using Macromedia Flash Professional 8 software.

1). Initial Application View

The initial app view is the first view that appears when the Facial Learning Apparatus is executed. At the beginning of the application there are admin and user buttons

Figure 1. Initial Application View

2). User Menu Display

On the user menu there are several user submenu options such as materialal menu, exercise menu, tutorial menu, simulation menu, games menu, and menu about me.

Figure 2. User Menu Display

3). Content Menu Display

In this section will appear the navigation buttons for the submenu of materialal that consists of the basic materialals menu makeup, materialals and materialals, materialals and face shape.
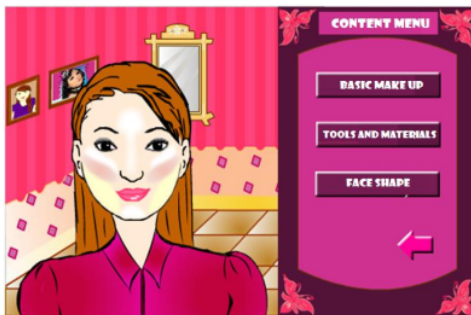

Figure 3. Content Menu Display

4). Display the Exercise Menu

On the exercise menu consists of several questions that must be answered by the user where the problem is a way to test the user about his understanding of the materialal that has been studied previously.
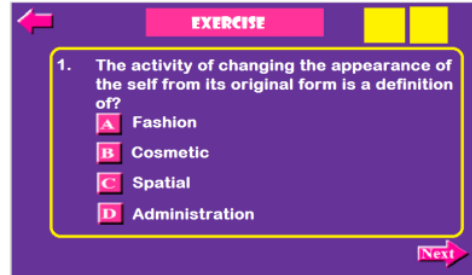

Figure 4. Display the Exercise Menu

5). Display Tutorial Menu

In the tutorial menu contains a video tutorial on facial makeup techniques based on the shape. The tutorial menu on the application of facial makeup learning as in picture 5 below:
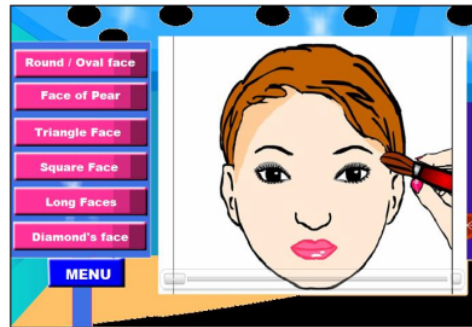

Figure 5. Display Tutorial Menu

6). Simulation Menu Display

In this simulation menu consists of several buttons that serve to change the makeup of the object, as in figure 6 below:

Figure 6. Simulation Menu Display

7). Display Games Menu

In the games menu, the user must customize the makeup with makeup on the sample object selected by the user. If the selected makeup is correct, then the score increases 30 points, if one then the score obtained is 0. For more details can be seen in picture 7 below:

Figure 7. Display Games Menu

The result of validity test is 92,43% for media expert, 82,21% for materialal expert. Based on these results, it can be concluded that the developed medium has been valid so it is feasible to use. Comments and suggestions obtained from media experts and materialal experts can be seen in Table 3. After validation to media experts and materialal experts, a second stage trial was conducted for field practitioners and media users target, namely Les Salon teacher and Basic Salon Lesion participants. Trial trials are conducted to test the level of practicality of media developed to further determine the feasibility of developed media. Selection of the participants is done by choosing 4 (four) people from 6 (six) people who take basic tutoring that understands basic computer operation.

Table 3. Comments and Suggestions by Validator of Media Experts and Material Experts.

Validator	Comments and Suggestions
Media Expert	In pretest and evaluation: a matter that has an animated visualization, preferably made of different colors equipped with hyperlinks. It should be equipped with sound.
Materialal Expert	The part of the materialal development of make upmaterialals with Computer Assisted Instruction model in terms of evaluation needs to be suitable in the form of match between the tool and the shape of the face.

The result of the experiment on the field practitioner obtained the percentage 82,82%, while the result of the trial to the les participant got the percentage 84,29%. Based on these results, then developed media fall into the practical category so it is feasible to use. Comments and suggestions obtained from field practitioners can be seen in Table 4. Meanwhile, comments and suggestions obtained from user goals can be seen in Table 5.

Table 4. Comments and Suggestions by Practitioner Validator

Validator	Comments and Suggestions
Practitioners	For exams or evaluations especially Exercise (drill) is equipped with an answer key and better also include the sound

Table 5. Comments and Suggestions by Users (tutors)

No	Test Subject	Comments and Suggestions
1	A	Recommend adding funny animations so it's more interesting to learn.

2	B	Added animations are funny.
3	C	Very helpful to learn using facial makeup tools in accordance with the face shape.
4	D	Learning using Computer applications is very effective to use and interesting.
5	E	Animation moves too fast so it should hit the 'back' and 'next' buttons to repeat the animation
6	F	It should be made like a game (can be squeezed-push) so it becomes more interesting, fun and more exciting.
7	G	The program is good only I think it looks less interesting. If the font can be replaced with a funny form and given animation cartoon for users not saturated.
8	H	The learning is interesting, the medium is fun, easy to understand.
9	I	Applications are made good, because it is also pretty difficult / medium. The picture / animation is pretty smooth. Trying to make an application like this with different materialal.
10	J	should more improved again the learning media to be more should interesting participants les. It also developed for all smartphones. Also added some solutions to the problem that has no solution, then added also the application to zoom images so that no trouble when using via smartphone.
11	K	If using the mobile media, the text can not be zoomed so read it too difficult.
12	L	The use of learning media on the computer is not difficult, especially in the select menu and buttons, because it can be in the "zoom".

C. Results And Discussion

Learning media developed in the form of computer-based applications that can run on a computer device with a minimal operating system software Windows 7, which is equipped with Flash Player applications, or using VCD Player So that developed learning media can run anytime and not in the classroom. Learning media is included in the category of computer-based learning media, which is a learning learner (learner) does not stay in one place or learning activities that occur when the learner utilize the device information technology. In this application there are several main menu, namely Admin and User menu, materialal, practice, Simulation, Games, and about application. The "Admin" menu works to add materialal, questions or more by the teacher.

The existence of these menus allows users to choose content to be learned. About some criteria that make mobile learning effective. Based on the results of experiments that have been done, obtained the results of learning media applications developed by the author is feasible to use. This is in accordance with the criteria of quality instructional media based on the criteria proposed by Elissavet and Economides (2000).

Applications developed in this study can run on all types of computer devices that have Windows operating system and all VCD Player, but still in offline form considering this application can only run in Offline model. Therefore, it is expected to develop similar applications that can run on devices with different operating systems and on different materialals. With the development of learning applications on mobile devices is expected to increase the benefits of mobile devices in the field of education and provide motivation to learn les participants. In addition, the existence of applications

like this can provide an exciting and new learning experience for participants les.

IV. CONCLUSIONS AND SUGGESTIONS

A. Conclusions

Based on the description and the results of the analysis that has been done during the work of facial makeup application, can be drawn the following conclusions:

1. The feasibility test result is 92,43% for media expert, 82,21% for materialal expert, 82,82% for field practitioner, and 84,29% for user target. Therefore, the developed application is suitable for use as a medium of learning on three dimensional materialal.

2. The process of makeup is done after passing through several stages namely the stage of knowing the skin type face first, the goal for the user can choose the tools and materialals suitable cosmetics based on skin type face. Then after knowing the type of facial skin and choosing the right cosmetic tools and materialals then done the process of makeup.

3. Application of Computer Assisted Instruction method ie with the presentation of Drill and Practice,then presents a tutorial in the form of a video applying makeup based on face shape, then presents a simulation in the form of artificial facial makeup which is close to the actual makeup, then presents the games in the form of appropriate makeup matching in accordance with the example.

4. The design of facial makeup learning application is done by using Macromedia Flash 8 and Camtasia Studio 5 to create tutorial video..

B. Suggestion

As for suggestions that can be conveyed author who is expected to be useful and useful for further development on the application of facial makeup learning with CAI method, is as follows:

1. Can be developed again by using other learning methods such as web-based learning is the method of learning WBL (Web Based Learning).

2. Able to be applied not only to PC or laptop devices, but also to mobile devices such as Tablets, Smartphones, and all sorts of Computer and Mobile Operating Systems.

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