

DESIGN PROCESS: 2D INTERACTIVE VIDEO ANIMATION DEVELOPMENT FOR COSMETIC AWARENESS AMONG WOMEN

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Received: 02.05.2020

Revised: 01.06.2020

Accepted: 25.06.2020

Abstract

Cosmetic products refer to any substances or treatments intended to improve appearance. Women apply many different types of cosmetic products on their face daily. Cosmetic products contain different types of ingredients that can be harmful or bring good effect on human skin. However, consumers do not know about their skin sensitive from cosmetic products. This current research is aimed to develop 2D Interactive Video Animation for ladies to choose their cosmetics preference based on the ADDIE (Analysis, Design, Development, Implementation and Evaluation) model and framework. This study aims to increase awareness among ladies in Malaysia against the effect of using cosmetics and the cleanliness of the cosmetics tools such as brushes and sponges.

Index Terms--Awareness, ADDIE model, cosmetic, hygiene, ingredients, interactive video, women, 2D animation

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DOI: <http://dx.doi.org/10.31838/jcr.07.08.189>

INTRODUCTION

In Malaysia, the manufacturing sector which emphasizes on cosmetics and toiletries industry has contributed to approximately RM13 billions of sales in 2003 and imparts 13 per cent growth rate per year (Mustafar et al. 2018).

Today, cosmetics product is part of the essential element in our daily life. However, most of the cosmetic users are still lack of awareness on the ingredients of certain products that they have consumed. Women nowadays use many kinds of different beauty products on their face every day.

Cosmetics products are available through retail stores such as supermarkets, personal care stores and drugstores. By looking at the context, approximately more than 60,000 types of cosmetics available in the local markets. The social media advertisements and magazines are the most efficient way to increase the purchasing rate of cosmetics products among the people (Azmi Hassali& Al-Tamimi, 2015).

The beauty and health markets in Malaysia are growing fast rapidly. Consumers' expenditure rate on cosmetics has increased significantly during the last few years to be 40%; from Malaysian Ringgit (MYR) 1.4 billion in 1995 to MYR 1.9 billion in 2007 projecting sales volume to hit \$1.1 billion by 2010. According to the Malaysian Department of Statistics, the total spending cosmetics was about US\$407 million in 2013.

Malaysian consumers tend to obtain beauty products among the well-known brands in market specifically in terms of enhancing youthful appearance (Azmi Hassali& AL-Tamimi, 2015). Furthermore, in the cosmetics and personal care sectors, the makeup and skincare products are deemed to be the most significant (Cheong et al., 2016).

COSMETIC PRODUCTS INFORMATION PLATFORM

Nowadays, cosmetic products are also part of the factor that connects people. While the usage of cosmetic is at the increasing trend, some users are not very concerned about the implications of cosmetics to their bodies such as skin and physical outlook. Some customers do not put greater emphasis on the advantages and harmful effects of cosmetic products.

For some users, they randomly pick products without thoroughly investigating the usefulness and the negative adverse outcomes of the usage. It is deemed necessary to study the ingredients, understand what they are and what they can do to users' skin (Mansor& Yaacob, 2010).

Cosmetics products bring an adverse effect for the long term to consumers without they realize. For example, it can bring several skin diseases, allergies, cancer, and fasten the pre- ageing process in younger ages. Women who regularly been using cosmetic products daily mostly do not care much on the ingredients label as they opt for straightly using those.

Everyone has different skin types, in which certain products might not be suitable on their skin. Consumers are even having issues in comprehending the terms stated in the ingredient labels. Hence, this will lead to confusion in using those cosmetic products.

COSMETICS PRODUCT INGREDIENT AND TOOLS

According to Krishnan et al. (2017), cosmetic products used as it enhances ones' confidence. Cosmetics products are vital and have become a priority to consumers. Besides, the growing consumers are also concern about the harmful chemicals exposure to human beings as well as the earth's environment, and natural products sector has been the fastest- growing segment of the cosmetics market even during the recession period.

While for the cosmetics tool's hygiene, it is advisable to use together with the makeup products, to not sharing makeup sponges, brushes, eyelash curlers et cetera with friends or family. It will help to avoid the infection.

Most composition in the ingredients contains that will influence the skin of cosmetic users. According to Krishnan et al., (2017), he stated that the two common active ingredients in skincare and beauty products are AHA (alpha hydroxyl acid) and BHA (beta hydroxy acid). In this present study, investigation of 42 cosmetic products based on natural ingredients for the content of 11 fragrance substance.

Some of the ingredients are natural and do not have other additional preservatives. Besides that, it also has some harmful chemical in cosmetics product that affect skin and health.

INTERACTION TO INCREASE HUMAN AWARENESS

People commonly like to remember things presented in the videos. With the interaction included in the videos, thus it will attract viewers to watch and consume it. Interactive videos also let users control the story they want it to go. The interaction is much more than an interface, describing the question-answer or demand-response dialogue between human users and digital objects completed through a computing device.

An interaction is broader than the interface, describing the two-way question-answer or request-result dialogue between a human user and a digital object mediated through a computing device (Roth, 2017). Roth (2017) also mentioned that women, while using the interface, they also experience interaction, and it is the experience that determines the success of the interactive products.

With regards to this, hence this research is aimed to increase the knowledge among the women about beauty products. The objective for this study is to study the information regarding the Malaysian cosmetics through 2D Interactive Video Animation and to create such awareness through 2D Interactive Video Animation for people to choose their cosmetics based on their preferences.

THE PURPOSE OF DEVELOPMENT

PSA is a short form for Public Service Announcement. It is a platform to deliver awareness to society. Animation is not just for children. It will attract the audience to play the videos and understand the content of videos. Without animation, a certain type of videos would be tedious.

The purpose of this cosmetics awareness is to create awareness for ladies to choose their cosmetic products wisely. This project will spread cosmetic awareness on the effects of using those products among women in Malaysia, specifically in terms of the safety elements upon using it as daily routines. The project was developed due to the problem as mentioned below:

A. Thousands of different cosmetic products on the market.

Majority of the cosmetic products have different combinations of ingredients. The critical ingredients presented in most cosmetics include water, emulsifiers, preservatives, thickeners, moisturizers, colours and fragrances. Ingredients can be naturally occurring or artificial, but any potential impact on our health depends mainly on the chemical compounds.

B. Users are not aware of the hygiene of taking care of the cosmetic tools

Women have not become aware of the hygiene of taking care of cosmetic tools such as brushes and sponges properly. Washing hands properly before applying the cosmetics products is the basic step in using any beauty products.

C. Lack of platforms to provide knowledge and information

In social media, they only show how to use it without explaining more to consumers about the effect of using the product. Sometimes all the info about the product unclear then it will confuse the user to gain the knowledge.

METHODOLOGY

According to Thim-Mabrey (2006), ADDIE model is one of the most commonly used models in the field of instructional design as a guide for practical design. It is an approach that helps designers to create effective teaching and design. Phases in

ADDIE model used in any environment. Each phase is related and interacts with each other.

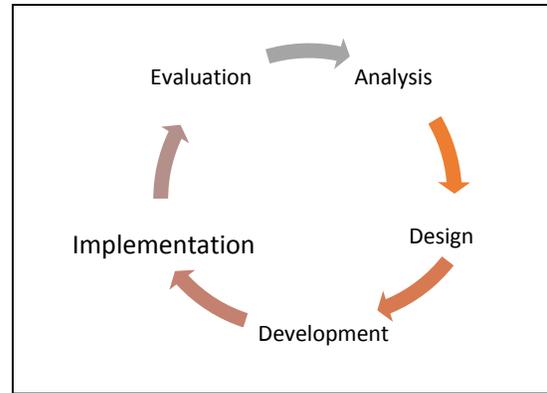


Figure 1. ADDIE Model Cycle

Figure 1 shows the ADDIE model cycle. It is continuing to be one of the most popular ISD (Instructional System Design) model that stays updated and being used in many large organizations. It is a popular term used to describe a systematic approach to teaching development, so ADDIE does not have strict linear development across its steps. Each phase of the model consists of different steps of the procedure (Idris et al., 2018). Figure 2 shows the activity and output of project development based on ADDIE model.

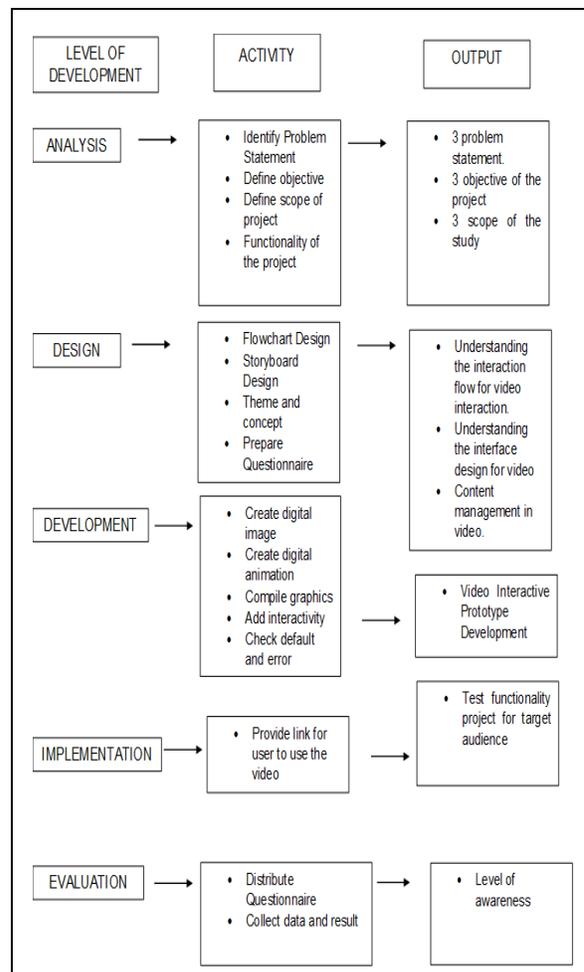


Figure 2. Framework of ADDIE MODEL

A. Phase 1: Analysis

The analysis phase is the beginning and the essential phase of this project as it will expose to the project’s problem. This phase determines the problem, identify the origin of the problem and determine the potential solution (Bhushan, 2006).

Furthermore, while in this analysis phase, the current study analyses the importance of interactive animated videos for users. This research also identifies problems in the use of cosmetics products. These product seven have the long-term adverse effects on consumers without their knowledge; for instance, skin diseases, allergies, cancer and pre- ageing symptoms.

B. Phase 2: Design

The design phase involves the use of outputs from the analysis phase to plan strategies for developing projects. During this phase, developers outline on how to achieve the goal during the Analysis phase. The current study has also included flow charts and storyboards to design projects before the development phase.

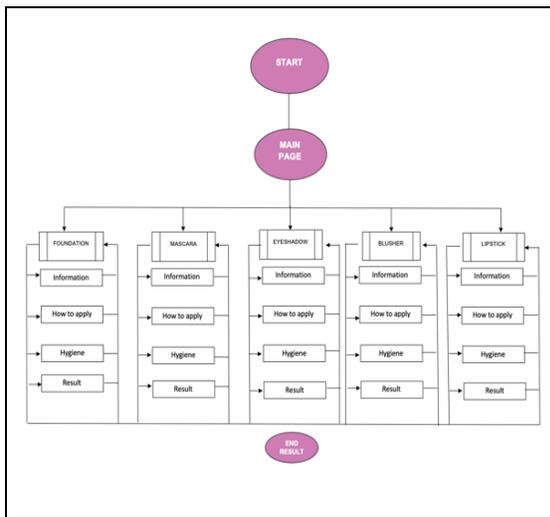


Figure 3. Project flowchart

Figure 3 shows project flowchart. It created to show the steps in the current project by using the storyboards to explain what the project looks like. By using flow charts and storyboards, the project will become more organized.

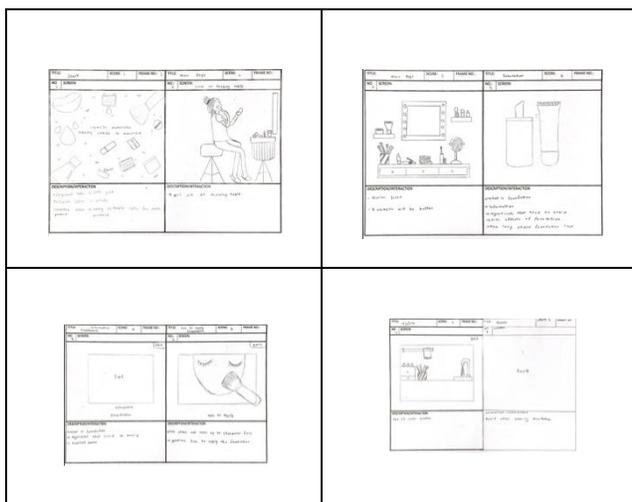


Figure 4. Storyboard in Design Phase for 2D Interactive Video Animation Development

Figure 4 shows the storyboard drawing for project development. After designing the storyline and storyboard, the study has determined the theme and concept for the project. The user interface design in this project focuses on the visual design elements such as colour, typography and layout. While, the user experience design concern with the user’s feeling with the interface design. Pink and yellow are the main themes of this project. Figure 5 shows the font types used in project development. It consists of New Vague, Tw Cen MT and Baby Doll.



Figure 5. Font Type

C. Phase 3: Development

The development phase is the process of project development where all processes will be based on the flow charts and storyboards to ensure the implementation run successfully. Designed criteria are based on what has been identified in the design phase. Figure 6 shows the project interface developed in form of 2-dimension design.

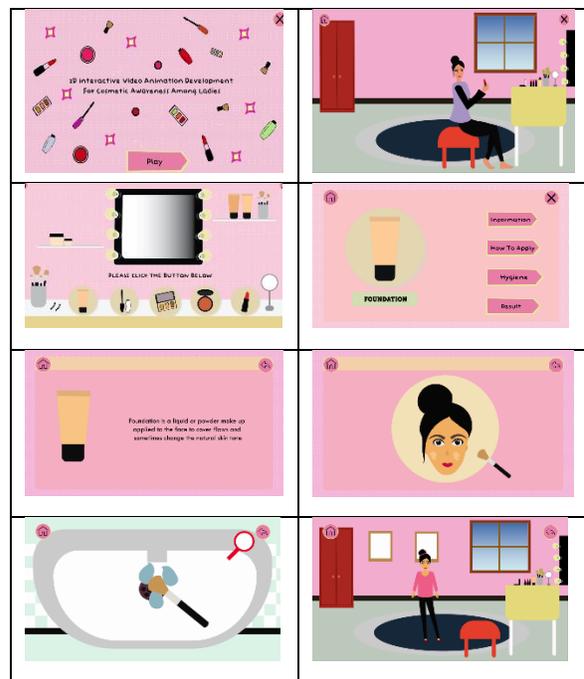


Figure 6. 2D Interactive video animation interface

Developers has created digital images using Adobe Illustrator CC 2018, while digital animations and graphs have been created by using Adobe After Effect CC 2018. This phase is based on encoding, animation and create video and text materials.

The hardware required for this project is Processor: Intel® Core™ i7-4500U CPU @ 1.80GHz 2.40 GHz. 8.00 GB RAM, System Type: 64 bit and Windows 8. Developer will use a formative assessment to test the project with an expert. This assessment using three lecturers in the field of multimedia. This test will focus on expert perspectives for content, user experience, and user interface design.

D. Phase 4: Implementation

The implementation phase refers to the actual delivery of the project. The purpose of this phase is to submit effective and efficient projects. Implementation includes more evaluation of

processes and designs than just presenting the material being developed.

For the implementation phase, the researchers will present the project to the target audience. This phase requires Universiti Kuala Lumpur students between 18 and 25 years of age who use makeup. Researchers will provide links for them to use and experience projects that have already been developed.

E. Phase 5: Evaluation

The Evaluation phase is a vital part of the end of the process. In this project, researchers evaluate the project using survey form and quantitative data analysis as a summative evaluation. Quantitative research methods are related to quantification variables, and the analysis part has been done to obtain results by distributing questionnaires. In this phase, the evaluation phase has been focusing on audience awareness by using a questionnaire survey to collect data.

CONCLUSION

2D Interactive Video Animation is one of the platforms for spreading cosmetic awareness among women in Malaysia. By using this concept of design process, it will assist to attract the audiences for receiving information about cosmetics. The process will go through the user interface design that will be focusing on the 2D interactive video animation while the user experience design concern on the user's feeling and behaviour in creating an awareness of cosmetics use.

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