

## Developing Microsoft Sway-Based Interactive Media in Pigmented Facial Care to Increase Motivation and Outcomes

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### Abstract

The suboptimal use of learning media and students' difficulty in understanding the material are the reasons why Microsoft sway-based interactive media is developed. This research aims to increase motivation and learning outcomes through interactive multimedia using Microsoft sway. The research applied the ADDIE model (Analysis, Design, Development, Implementation, Evaluation) because it is structured, rational, and complete steps for developing learning media. The result showed that 1) the step of developing interactive multimedia using Microsoft Sway was according to the students' and teachers' need analysis which required audio-visual media. The interactive multimedia design using Microsoft sway was systematically depicted in the flowchart and the development was illustrated in detailed capture. The evaluation from material and media experts said that this interactive multimedia was feasible. 2) The implementation of Microsoft Sway-based interactive media was according to the schedule, 3) The students' learning outcomes taught with Microsoft sway-based interactive multimedia were better than taught with conventional media, 4) Microsoft sway-based interactive multimedia improved student motivation. The result of this study described that this developing interactive media was effective to improve learning outcomes and it can be beneficial for teachers as the alternative media in beauty class.

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## INTRODUCTION

Tourism Vocational School holds the beauty makeup program that study anatomy and physiology, skin and hair anatomy, skincare and face make-up to produce professionals which can compete internationally. In addition, the graduate of this vocational school is expected to enhance the tourism in Semarang. To achieve that, the teaching and learning process in vocational high school applies 30% of theory and 70% of practice based on the graduates' competence standards (Risma, 2012).

Learning is a series of activities involving information and environments arranged to facilitate students' learning (Suprihatiningrum, 2014). The environment mentioned is not only a learning method but also a media that is needed to convey information so that learning objectives are achieved. To support this statement, an effective and efficient learning plan is needed. Learning strategies are a comprehensive approach to manage learning activities to achieve predetermined learning objectives effectively and efficiently (Nasution, 2017).

Learning objectives can be achieved by planning the material; in addition, the utilization of learning facilities can help teachers interact with students in understanding theory, achieve learning outcomes according to minimum graduation requirements, attract attention to encourage a focus on learning, and motivate learning. Furthermore, the role of learning media is to convey information from teachers to students. Sukiman (2012) claimed that media has essential functions and uses to assist the learning process.

The results of preliminary studies, fieldwork and observations described that the learning process should be pleasant to achieve high learning outcomes and motivation. There were 30% out of 34 students who scored under the minimum graduation requirement in their daily theoretical score in pigmented facial care. In practice, the students' score was still in the low category. The understanding of pigmentation facial care and diagnosis is vital because it is related to the readiness of students in the beauty program to

become beauty operators (Agustin et al., 2017). Learning media which facilitate the explanation of pigmented facial care materials is crucial to improve student learning outcomes and motivation. Therefore, the development of interactive learning media is needed.

Learning media is initially conveyed through oral communication; as times goes by, it uses print media, visual media, audiovisual media and computer-based media. Interactive Multimedia needs to be used because it has benefits such as being attractive media, increasing learning motivation, providing a clear picture of abstract material, and becoming a more interesting learning media than a book. It is worth using (Widayat et al., 2014).

Generally, the presentation is used in one direction; students listen to the explanation from the teacher followed by taking notes. There is a technological development in education, which includes online presentation media. It has become one of the alternative learning medias. Asmara (2015) stated that learning media occupies a strategic position in the learning process because it mediates knowledge information from teachers to their students.

Office 365 Sway provides online presentations. Kress and Bezewr cited in (Huda, 2017) said Sway is an internet-based presentation tool with various features. It can combine text, images, videos, and sounds while delivering a presentation. Sway can deliver engaging, interactive presentations with the addition of images, audiovisuals, and animations.

Based on the explanation above, the research aims to develop interactive multimedia using Microsoft Sway for students in SMK 6 Semarang by implementing the ADDIE model. Besides, the development also notices the implementation, effectiveness, and influence on motivation and learning outcomes.

This study is expected to corroborate the theory that attractive media can improve the quality of learning. Moreover, the media developed here is expected to be used as a learning source or a reference to another research.

## METHOD

The method used in this study is research and development (R&D). It is a research method used to produce specific products, test the effectiveness of existing products, and develop and create new products (Sugiyono, 2016b). This study used ADDIE model. The stages of developing the media were analysis, design, development, implementation, and evaluation (Sugiyono, 2016a).

The stages of using ADDIE model were as follows. (1) Analysis: the researchers conducted the observation to find the problem in using media. From the observation it was found that teachers still used one way presentation method. In this stage, the researchers found that there was no explanation in diagnostic sheet. Therefore, the students' grade in pigmented facial care lesson was still low. Hence, to overcome those problems, the researchers developed the media to improve the students' competence. (2) Design: the researchers created a media design by adjusting to the analysis result. The content of developing the media was depicted in flowchart (3) Development: the researchers determined the method in developing the media and the media was validated by media experts and material experts. (4) Implementation: the researchers implemented a learning program by applying the results of the product. (5) Evaluation: the researchers evaluated the learning program, learning outcomes and learning motivation.

The research was located at SMK N 6 Semarang. The non-test instruments were also used in this research, such as interviews, documentation, observations and questionnaires for material experts, media experts, teachers and students. Researchers conducted interviews on beauty class teachers and 2nd-grade students of beauty majors. The Likert scale was used to measure the attitudes, opinions, and perceptions of a person or group of people about social phenomena (Sugiyono, 2016b).

## RESULTS AND DISCUSSION

### The steps in developing interactive media using Microsoft Sway Analysis

#### A. Analysis

#### 1. Media Analysis

Teachers still use PowerPoint as teaching media in one-way communication. The presentation is displayed on a projector, and the teaching-learning method is teacher-centered learning.

#### 2. Material Analysis

The material in pigmentation facial care and diagnostic sheets emphasise students to understand the types of pigmentation that will be filled on the diagnostic sheets. Thus, the learning of pigmentation facial care theory should be as enjoyable as it is so that the students understand the material quickly.

#### 3. User Analysis

Teachers and students are used to operating computers, smartphones, and the internet.

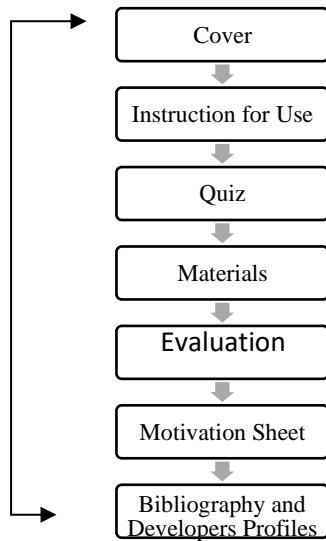
#### Analysis of Facilities and Infrastructure

The facilities and infrastructure owned by the school are adequate such as classrooms equipped with LCD; moreover, students and teachers have laptops or smartphones that can be used for learning.

Based on the results of the analysis, students in pigmentation facial care lessons need a learning medium that can be used themselves with the audio-visual form to improve motivation. The students also need the media, which can be used anywhere. The teachers find difficulties in delivering material and diagnostic sheets in pigmented facial care because they have not found a suitable medium. Besides, there is no images and explanations of the diagnostic sheets in the guidebook. Therefore, it is necessary to develop interactive multimedia using Microsoft Sway.

#### B. Design

The media was developed based on the flowchart design below.



**Figure 1.** Flowchart of Microsoft sway for pigmented facial treatment

At this stage, the learning media was created according to the flowchart. The interactive multimedia using Microsoft sway for pigmented facial care class includes cover, instructions for use, quizzes, materials, evaluation questions, motivation sheets, bibliography and profiles. In addition, there are arrow keys; right arrow keys to see the next page, left arrow keys to return to the previous page, and navigation keys to view the table of contents.

**C. Development**

The stages of developing learning media started with typing a material, making quizzes, creating evaluation questions, attaching images, and providing audio-visuals. Then, the Interactive media using Microsoft sway was reviewed by assessing the compatibility of the content and validity of the media. The experts who assessed the content and the media were material experts and media experts.

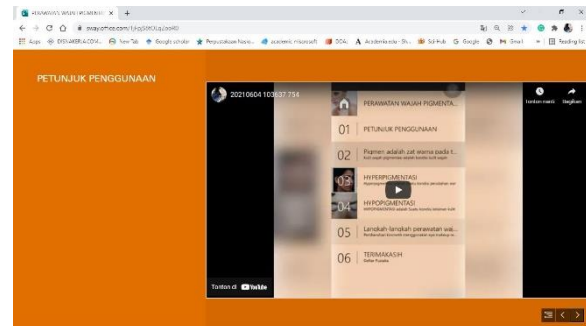
**1. Material expert validation**

The content revision was adjusted to the input, suggestions, and criticisms given on the developed learning media. The revision from the material experts was to revise the explanatory sentence so that it is easy to understand. Furthermore, the material expert suggested adding a bibliography.

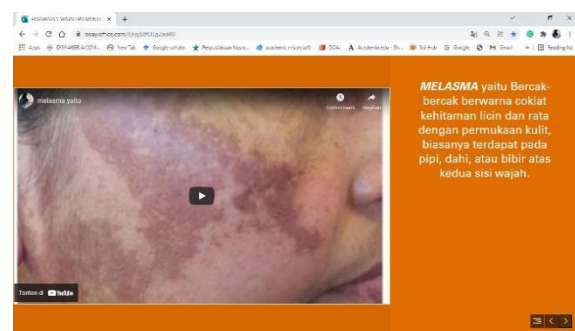
**2. Media expert validation**

The content revision was adjusted to the input, suggestions, and criticisms given on the developed learning media. The media expert advised to correct errors in writing and the use of letters. Media experts suggested adding audio-visuals to each page and instructions for use.

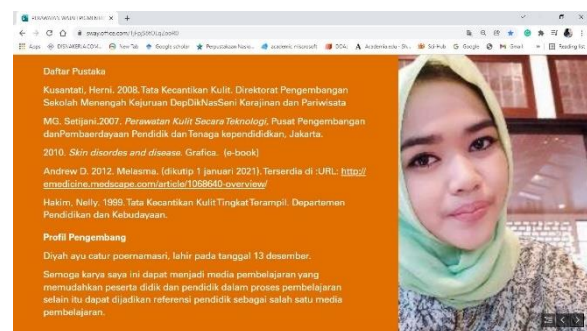
The revised final product (capture) of interactive multimedia using Microsoft sway for facial pigmentation treatment is as follows:



**Figure 2** Instructions for Use



**Figure 3** Correcting the explanatory sentence to make it easy to understand



**Figure 4** List of Bibliographies

In figure 2, the instruction for use was completed by audio-visual. Then in, Figure 3, revised the explanatory sentence so that it is easy

to understand. Figure 4 added the list of libraries used in the materials.

#### D. Implementation

The researchers prepared all the requirements for the trial. The researchers checked the link before distributing it to social media groups.

#### Small-scale trial

The researchers tested 12 beauty students. Four students from each class were chosen according to high ability, medium ability, and low ability. The results of the small-scale trial showed that the experimental group experienced an improvement in learning outcomes with a difference of 8.

#### Large-scale trial

Sixty-six students participated in this research. They were divided into control and experimental group. The result of this large-scale trial showed an improvement of the average learning outcome in the experimental class with a difference of 8.

#### E. Evaluation

##### 1) Validation by material expert

The material evaluation was conducted after the completion of media development. The result of the material evaluation was presented in table 1.

Table 1 Result of material experts' validation

Aspect	Score
Feasibility of contents	41
Language	21
Presentation components	29
Total score	91

The result of material validation was categorised in a good category with a percentage of 91%.

##### 2. Validation by media expert

The media evaluation was conducted after the completion of media development. The result of the media evaluation was presented in table 1.

Table 2 Result of media expert validation

Aspect	Score
Feasibility of display	25
Feasibility components	17
Technological feasibility and renewability	11
Total score	53

The result of media validation was in a good category with a percentage of 81,5%.

#### The implementation of interactive multimedia using Microsoft sway.

The implementation of interactive multimedia using Microsoft sway was scheduled in table 3

Table 3 Implementation of interactive multimedia using Microsoft sway

Date.	Activities	Description
1 January 2020	Proposal preparation	Preparation
8 August 2020	Observation	Implementation
20 May 2021	The product was validated by experts Evaluation	Implementation
20 July 2021	Product trials	Implementation
28 July 2021	Implementation of the product	Implementation

#### Effectiveness of implementing interactive multimedia using Microsoft sway on learning outcomes.

In the comparison test, two averages showed Sig values of  $0.00 < 0.05$ . It means that the average learning outcomes through interactive multimedia using Microsoft sway are better than the average learning outcomes treated with conventional learning.

#### The effect of using interactive multimedia using Microsoft sway on motivation.

The effect of interactive multimedia using Microsoft Sway on learning motivation before and after being given the paired T-test obtained Sig (2-tailed) value of 0.000. It can be said that learning with Microsoft Sway-based interactive multimedia is effective on student motivation.

### Discussion

This study concerns the development of interactive multimedia using Microsoft Sway in pigmented facial care material. Media innovation is needed to optimize learning in this emergency condition. In this current situation, technology is essential for learning. According to Ahmadi et al., (2017) the development of learning media is the appropriate alternative in maximizing the quality of education, especially learning in schools. The result of teachers' need analysis found that the innovation of the learning media is expected to have a positive impact on students who have difficulty understanding pigmented facial care materials. Besides, using this media can increase diagnostic sheets and improve learning motivation. This research is supported by the head of the department and beauty class teachers who conveyed that interactive learning media is needed in this emergency condition because the media becomes a prominent role in transferring material to students. Monotonous media creates a lack of understanding of the material and lack enjoyment, leading to the activeness in learning activities. In addition Aslamiyah et al., (2017) showed that learning using media is easier to understand and it is more interesting than books. Based on the needs analysis result, the researchers found that it is necessary to innovate learning media by utilizing the Microsoft Sway platform.

Developing media as innovation is essential to optimize the teaching and learning process. In addition Ahmadi et al., (2017) described that the development of learning media is a pertinent alternative in the process of maximizing the quality of education, especially learning in schools. For that reason, the research resulted in the development of interactive multimedia based on Microsoft Sway for pigmented facial care.

ADDIE model was used to develop the media. All stages in ADDIE had been conducted. Media development had been tested and evaluated by media experts and material experts. It aims to get input, advice, and direction for the media's perfection. Subsequently, the media was revised according to experts' input, advice, and direction. It was also equipped with an evaluation questionnaire that determines the media's validity. After the media was valid and feasible, the media was tested on teachers and students to find out the quality and response of the learning media to the learning outcomes and learning motivation of students in beauty program.

The implementation of the development of interactive media using Microsoft Sway can be seen in table 3. The schedule described on table 3 told every stage in developing the media from creating the proposal, conducting observation, doing the analysis, creating design up to developing, implementing, and evaluating.

The effectiveness of using media can be seen from the average of students' learning outcomes. Students taught with Microsoft Sway-based interactive multimedia resulted better learning outcome than the student taught with a conventional learning method. The result is supported by Magdalena, (2018) conventional learning is teacher-centered learning and one-way communication from teacher to student.

Sway has an interesting object display to generate interest in learning. The features presented in Sway can also stimulate students' brains to have a continuous interest in learning material that has been saturating. Microsoft Sway provides several features such as combine online video, image, visual video and text for submission. Sway makes the teaching and learning process fascinating so that students can easily understand the material. The statement is in line with Junaedah & Nafiah, (2020); Sudarmoyo, (2018); Suherman et al., (2019) that using self-based interactive multimedia effectively improves student learning outcomes.

Microsoft Sway-based interactive multimedia is completed with audio-visual and it influences students in the learning process. The teaching and learning process using the media

ease the students to understand the material. Microsoft sway stimulates the five senses such as hearing, sight, and feeling since it presents images, video, audiovisual, etc. In addition Istiqomah et al., (2015) supported audiovisual media to improve students' learning activities, students' learning skills, and understanding that provide improvements in learning outcomes and motivation. In addition Husein et al., (2015); Isnaeni & Hildayah, (2020); Sapriyah, (2019) mentioned that the five senses stimuli provide new experiences, increase student activeness, increase learning concentration and decrease boredom during learning.

Learning with interactive multimedia using Microsoft sway is effective on student motivation. Interactive learning media provides opportunities for students to learn faster. It has variations of interactive media; therefore, it does not cause boredom in learning as the communication with the media is established. Innovative multimedia using Microsoft sway has an attractive design that stimulates the brain and students' interest; thus, it creates fun learning conditions and motivates students in learning. Engaging learning media creates positive emotions that can increase students' interest and motivation. That statement is also reinforced Kurniawati et al., (2020); Raharjo et al., (2020); Widiasih et al., (2018) The attractive display presented in Microsoft sway-based interactive multimedia stimulates the brain and provides positive emotional stimulation to create pleasant learning conditions.

New nuances during interactive learning are presented from the use of interactive multimedia. Media which gives students opportunity to learn happily, combines a variety of interactive media and creates a two-way interaction between students and the media is vital in learning environment. According to Sugiyo et al., (2019) the media and the sense of pleasure strategically bridge the optimal relationship of motivation with cognitive performance in processing information during learning. In addition Jamilah et al., (2012); Muhasim, (2017); Raztiani & Permana, (2017) declared that learning with interactive electronic

media makes students more active, increasing learning motivation and good communication.

Microsoft sway gives essay access by clicking the link that has been prepared; the display is also flexible because it can be displayed on mobile phones and laptops. This ease allows students to learn anywhere, anytime, through a laptop or mobile phone to have a lot of learning time. The fact that interactive media using Microsoft sway can motivate the students is supported by Zutiasari, (2021). This research mentioned that user responses indicate that students are interested in teaching materials that are easily accessible through URLs.

## CONCLUSION

The result showed that 1) developing interactive multimedia using Microsoft Sway was based on the students' and teachers' need analysis, which requires audio-visual media Furthermore, there were no image in guidebook and no explanation in diagnostic sheet. The design of Microsoft sway-based interactive multimedia was depicted in the flowchart systematically; therefore, the development was illustrated in detailed capture. Then, the implementation results in small and large class trials showed that the development of interactive multimedia can improve learning outcomes and motivation. The evaluation from material and media experts said that this interactive multimedia was feasible. 2) The implementation of interactive multimedia using Microsoft sway is according to schedule. 3) The student learning outcomes using interactive multimedia based on Microsoft sway are better than conventional media. 4) Learning with Microsoft sway-based interactive multimedia increases student motivation. The benefits of this study strengthen the theory of interesting media that can improve the quality of learning.

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