

# The Response of Fashion Design Study Program Students of Universitas Negeri Malang on Multimedia Learning of Basic Grading Course

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**Abstract**—This research was conducted to see the response of fashion design study program students of Universitas Negeri Malang on multimedia learning of basic grading course. Multimedia learning of basic grading course has been through the process of validation, both from media experts, materials and linguists. This research includes descriptive research with quantitative approach. Its population is S1 student of Fashion Design Department which have just finished grading course, the sample used is saturated sample or all the population is sampled, that is 50 students. The result of the research shows that multimedia learning of basic grading course is very good or feasible to use. Thus, multimedia learning of basic grading course is suitable to use for lecturing in grading course, especially in Fashion Design Department of Universitas Negeri Malang.

**Keywords**—*fashion, design study, multimedia learning*

## I. INTRODUCTION

Grading course is a course of pattern-making practice; it is one of the techniques to change the pattern from small size (S) to large size (XL). All this time, the teaching is done manually through the white board, so many obstacles are found. To overcome the problems, it requires multimedia that can facilitate the teaching of the course. One of the multimedia that has been developed and has been through the process of validation is multimedia learning of basic grading course. This multimedia learning includes archetype grading, skirt archetype grading, and arms base grading.

Research on the responses on multimedia learning of basic grading course has not been done yet, because the researchers themselves who developed the multimedia. This study was conducted on the Fashion Design students of Universitas Negeri Malang which has taken the Grading course. Indeed, there has been research on the production of multimedia grading previously but using Microsoft Power Point software, the result is feasible to use. The research that has been done was using adobe flash software that has advantages over Microsoft power point, which can create two-dimensional animation, so it looks more interesting. To see the student's response on the multimedia that has been developed, then research on the responses of Fashion Design Students of Universitas Negeri Malang on multimedia learning of grading course has been conducted.

multimedia learning of basic grading course is including one type of media learning. In Arabic, the media is the intermediary or messenger of the sender to the recipient of the message [1]. If the media carries messages or information that is instructed or contains instructional purposes, the media is called Media Learning. Hamalik in [2] suggests that the using of media in the teaching and learning process can arouse new desire and interest, arouse motivation and stimulation of learning activities, and even bringing psychological influences on students.

As it is known, type of learning media is quite alot, especially with the development of the growing world in all fields. As mentioned, Shola, *et al.* in [3] learning is changing as well, especially the technologies of learning. From many sources, it is mentioned a lot about the types of media that essentially complement each other. From some opinions about the type of media from some experts it can be concluded that learning media consists of visual media, audio media, silent projection media, motion projection media and audio visual, multimedia, and objects.

This article is more focused on the use of multimedia in learning. Multimedia was taken from the word *multi* and *media*. Multi means many and media means media or intermediaries. Multimedia is a composite of some elements of text, graphics, sound, video and animation that produce excellent presentations. According to Salih and Okurb in [4] multimedia is defined as "a computer program consisting of texts, graphics, sounds and images and animations". Having different tools to link various parts of the software and interaction with users and giving them feedbacks are the properties of multimedia. Umara and Aziza in [5] said that multimedia can also attract students' attention and make them concentrate on learning. In addition, by using multimedia, students can also own their own capabilities and enhance their creativity. Multimedia is very necessary today. For this reason, teaching and learning digital signal processing is becoming an important component in tertiary education. Flash is more suitable for integrating and delivering animations for Internet applications such as radiologic electronic presentations. For this reason, detailed step-by-step instructions for creating Flash slide shows with common features such as text, images, arrows, buttons, movie loops and transitions are provided [6].

Multimedia-based learning has many advantages compared to whiteboards and chalk. Multimedia-based

learning involves almost all the sensory elements. The use of multimedia can facilitate learners in learning, as well as time spent more effectively and efficiently. In addition, learning by using multimedia will greatly improve student learning motivation. With a high motivation of achievement will be achieved more optimally.

The same opinion states that with interactive multimedia learning, the learning process is more interesting, more interactive, the amount of teaching time can be reduced, the quality of student learning can be improved, and the learning process can be done anywhere and at any time, and the motivation of learners increasing. As written by Sukmawijaya [7], the current learning media has been developed with the incorporation of multimedia. This is expected to attract more students to be more active. An interactive media is developed in order to be a good media that must meet several criteria. There are some opinions of experts who describe the quality of multimedia criteria before being used by the user. The first opinion put forward, which states that to know the quality of multimedia learning should pay attention to the criteria: 1) Material quality and objectives, including: accuracy, importance, completeness, balance, reasonableness, and appropriateness with student situations, 2) Quality of learning, including: providing learning opportunities, providing assistance to learn, motivation quality, instructional flexibility, relationships with other teaching programs, test quality and assessment, can impact teachers and the teaching, and 3) Technical quality, including: limitations, ease of use, display / display quality, quality of student response handling, program management quality, documentation quality, and other more specific technical qualities. In line, according to Thorn in Hasrul [8], there are six criteria to assess interactive multimedia, namely: 1) Ease of navigation. An interactive multimedia should be designed to be as simple as possible so that students can learn it without having to have complex knowledge about the media, 2) Content of cognition, in the sense of a clear knowledge content, 3) Presentation of information. Information presentation is used to assess the content and interactive multimedia program itself, 4) Media integration. Media must integrate aspects of knowledge and skills, 5) Artistic and aesthetic. To attract the interest of learning, then the program must have an attractive appearance and aesthetics are good, 6) The overall function, in other words program developed should provide learning desired by the learners.

Based on the explanation of several theories about multimedia quality criteria above, it can be seen that the criteria about the quality of interactive multimedia in learning, can be categorized in three aspects, namely: learning aspects, content / material aspects, and media aspects. Aspects of learning are: the use of interactive multimedia learning process to be practical, efficient, and interesting. Aspects of content / material that is: by using interactive multimedia, subject matter becomes easier and clearly understood learners, and the last aspect of the media that is: by using interactive multimedia, media used to facilitate the process of delivering information to learners. These three aspects are the main aspects that make up the interactive multimedia and is a unity that support

each other and can not be separated from each other. If all three aspects have been met then the multimedia is said to be feasible as a learning medium because it has been valid from the aspects of the material, practical of ease of use, and effective because it is able to achieve the learning objectives [9].

Thus, the response of Fashion Design students of Universitas Negeri Malang on multimedia learning of basic grading courses will be viewed from three aspects, namely aspects of learning, material aspects, and aspects of the media. Therefore, the response in this research is a visual or visible response or that can be viewed. In other words, it is responding visually from the multimedia learning grading course that is shown.

The rest of this paper is organized as follow: Section II describes proposed research method of this work. Section III presents the obtained results and following by discussion in section IV. Finally, Section V concludes this work.

## II. PROPOSED METHOD

This research is using descriptive research with quantitative approach. It is aimed to know the response of Fashion Design Department students of Universitas Negeri Malang on multimedia learning of basic grading course.

Population in this research is the students who have finished following the grading course which amounts to 60 students and come from the A offering class (29) and offering B (31). The test is taking 10 students from each class randomly. Thus the sample of the study amounted to 50 students, then using saturated samples, so that all populations are sampled.

The instrument used is in the form of a questionnaire. Scale used for the measurement in this research is using Likert scale, with the answer of very good, good, enough (not good), and not good (bad).

Test of content validity is consulted with the validator of instructional media. The test of item analysis in this research uses Correlation Pearson with the help of computer program SPSS for windows version 16.0. The result shows 19 items declared all valid. To test reliability, it uses SPSS for windows version 16.0 with Cronbachs Alpha analysis. The results of the reliability test show that the results are reliable.

The data analysis in this study includes preparation, scoring, determining the interval class length. The interval class length can be done by the formula of:

$$P = \frac{R}{K}$$

In which:

- P: Length Class Interval, and
- R: Span (Total Score - Lowest Score).
- K: Number of Classes / Classification

Furthermore the data of the research are analyzed by percentage technique with the formula of:

$$P = \frac{F}{N} \times 100\%$$

In which:

- P: Percentage
- F: Frequency of the answer of question
- N: Number of respondents

**III. RESULTS**

The Result of the study with title "The Response of Fashion Design Study Program Students of Universitas Negeri Malang on Multimedia Learning of Basic Grading Course" is obtained based on questionnaire given to the respondents consisting of 3 aspects namely learning, materials, and media. Respondents from this research are S1 students of Class of fashion Design Department which has covered Grading course for 50 students, consisting of A (24 students) and of B (26 students). Based on the research design, it will be described that the results of research using quantitative data in the form of percentage.

**A. Learning Aspect**

TABLE 1. FREQUENCY DISTRIBUTION OF LEARNING PROCESS ASPECTS.

Interval	category	Frequency	Percentage
20 – 24	Very good	2	4%
15 – 19	good	42	84%
10 – 14	Not good	6	12%
5 – 9	Bad	0	0%
		50	100%

Based on the data presentation in Table I, it can be said that the frequency or the greatest number to measure aspects of learning in the response of Fashion Design Student of Universitas Negeri Malang on Multimedia Learning of Basic Grading Course "is in the high category of 42 responden (84%). If the results are interpreted, the percentage of 84% indicates that most respondents stated that the learning aspect is good. The diagram is presented in Figure 1 below:

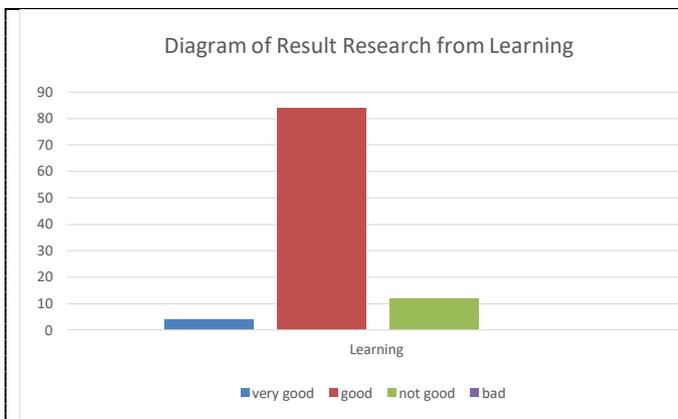


Fig. 1. Diagram of research results of learning.

**B. Material Aspect**

TABLE II. FREQUENCY DISTRIBUTION OF MATERIAL ASPECT INDICATOR.

Interval	Category	Frequency	Percentage
23 – 28	Very good	48	96%
17 – 22	good	2	4%
11 – 16	Not good	0	0%
5 – 10	Bad	0	0%
		50	100%

Based on the data in Table II, it can be said that the frequency or the most amount to measure the material aspect indicator in the research " The response of Fashion Design Student of Universitas Negeri Malang on Multimedia Learning of Basic Grading Course " is in very high category with 96% percentage. So if the results are interpreted, it means that almost all respondents stated that the material used is very good. The following Figure 2 is a diagram picture of the data above:

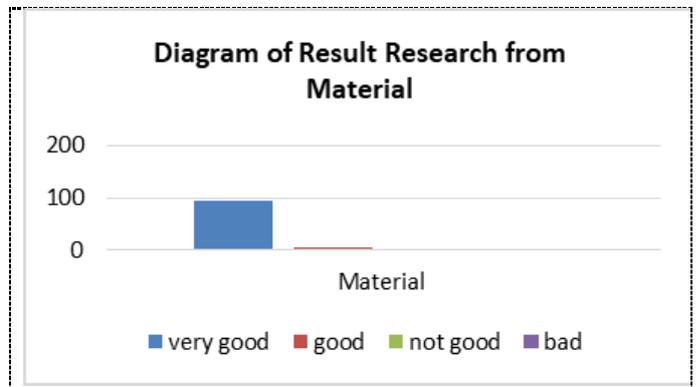


Fig. 2. Diagram of research results from materials.

**C. Media Aspect**

TABLE 3. FREQUENCY DISTRIBUTION OF MEDIA ASPECT INDICATOR.

Interval	Category	Frequency	Percentage
21 – 25	Very good	22	44%
16 – 20	good	23	46%
11 – 15	Not good	5	10%
6 – 10	Bad	0	0%
		50	100%

Based on the data showed in Table III, it is known that the frequency or the most amount for measuring indicators of assessment on aspects of media in research entitled "Development of Multimedia Using Adobe Flash on Grading Courses in Fashion Design departmeny of Universitas Negeri Malang" is at a high with a percentage of 46%. So if the results are interpreted, meaning that almost half of all respondents stated that the material used in the development of Adobe Flash multimedia in grading courses is good. Figure 3 is a diagram of the above data:

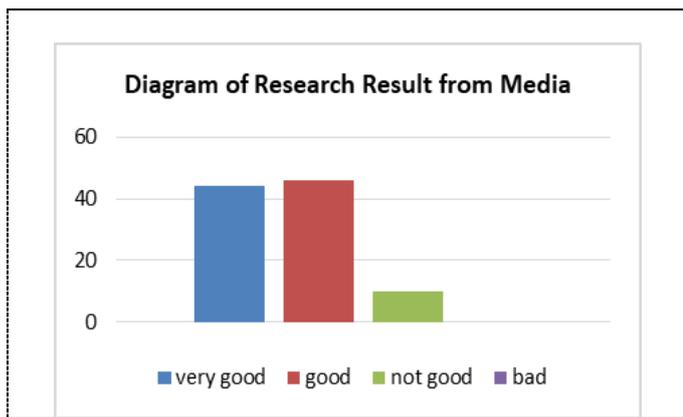


Fig. 3. Diagram of research results from media.

The results of the recapitulation of the overall response of the respondents is as follows.

TABLE IV. FREQUENCY DISTRIBUTION OF MEDIA ASPECT INDICATOR.

Interval	Category	Frequency	Percentage
64 – 78	Very good	23	46%
49 – 63	Good	27	54%
34 – 48	Not good	0	0%
19 – 33	Bad	0	0%
		<b>50</b>	<b>100%</b>

Based on the data presented in Table IV, it can be interpreted that the majority of respondents stated that "Multimedia Development Using Adobe Flash in Grading Courses of Fashion Design Department of Universitas Negeri Malang "is in good category with a percentage of 54%. While the rest, almost half of respondents said good with a percentage of 46%. The diagram is presented in Figure 4 below:

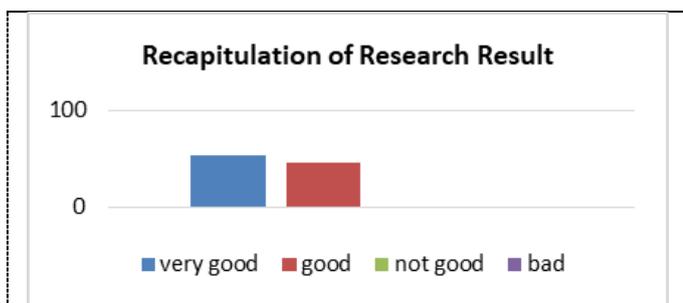


Fig. 4. Diagram recapitulation research results.

#### IV. DISCUSSION

The results of the research on student responses to learning compact disk grading course based on multimedia include 3 aspects, that is learning aspect, material aspect, and media aspect. Overall, the result of the research shows that from the result of the students' evaluation on the three aspects, the learning media of grading program is good or feasible to be used for grading lecture. Further it will be explained one by one the results of these three aspects.

#### D. Learning

Learning is a process to help learners to learn well. To be able to learn properly, media is required for delivery. Learning by manual, as done so far in the course of grading is quite difficult, it is in accordance with the results of interviews that have been done.

As for the types of media nowadays has been found this happens because of the rapid development of technology, so that learning must also adjust to the condition. As mentioned by Shola, *et al.* [3] learning is changing as well, especially the technologies of learning. Multimedia is very necessary today. For these reason, teaching and learning digital signal processing is becoming an important component in tertiary education. One of the media that suits the current technological development is multimedia which has many advantages over other media.

Based on the results of research seen from the aspects of learning generally shows that cd learning of grading course makes learning more interesting, increase interest in learning, and provide motivation in learning. This is in accordance with the opinion of Umara and Aziza [5], Multimedia can also attract students' attention and make them concentrate on learning. In addition, by using multimedia, students can also assess their own capabilities and enhance their creativity. Flash more suitable for integrating and delivering animations for Internet applications such as radiologic electronic presentations. For this reason, detailed step-by-step instructions for creating Flash slide shows with common features such as text, images, arrows, buttons, movie loops, and transitions are provided [2].

#### E. Material

Learning material is knowledge, skill, and attitudes that must be mastered by learners in order to meet the established competency standards. Based on the results of the research shows in terms of material generally states that the material displayed using multimedia facilitate the understanding of the material, giving clear samples, help understanding the material, the material is easy to understand, the ease of language, the presentation is easy to follow.

Thus, the learning material contained in multimedia on the cd learning of grading course has met the criteria of the principles of the determination of learning materials, so it can be declared that material displayed in multimedia compact disk learning of grading courses is worthy to use or is in accordance with the expected material demanded on grading course. It is in accordance with the demand expected the learning subjects, that is, the element of relevance, consistency, and adequency.

#### F. Media

Learning Media means anything that can be used to stimulate the mind, feelings, attention and ability or skills of learners so that it can encourage the learning process. Learning media is a physical means to deliver the content / learning materials such as: books, movies, videos and so on. It is also said that the learning media is a means of communication in the form of print and hearing-sight,

including hardware technology. Understanding the learning media is all the teaching tools used to help convey the subject matter in the process of teaching and learning so as to facilitate the achievement of the objectives of learning objectives that have been formulated. The word media comes from the Latin *medius* which literally means 'middle', 'intermediary' or 'introduction'. In Arabic, media is the intermediary or messenger of the sender to the recipient of the message [1]. The use of learning media in the teaching and learning process can arouse new desires and interests, emerging [1].

The practical benefits of instructional media in teaching and learning process as follows: 1) Learning media can clarify the presentation of messages and information so as to facilitate and improve the process and learning outcomes, 2) learning media can improve and direct the attention of children so that it can lead to learning motivation, more direct interaction between students and the environment, and the possibility of students to learn individually in accordance with the ability and interest, 3) Media learning can overcome the limitations of the senses, space and time, and 4) Learning media can provide students with similar experiences about events in their environment, as well as allow for direct interaction with teachers, communities and the environment e.g through works of tourism. Visits to museums or zoos [1].

There are many sources mentioned about the types of media that essentially complement each other. From some opinions about the type of media from some experts it can be concluded learning media consists of visual media, audio media, silent projection media, motion projection media and audio visual, multimedia, and objects.

This research is more focused on multimedia. Multimedia is taken from the word *multi* and *media*. Multi means many and media means media or intermediaries. Multimedia is a composite of some elements of text, graphics, sound, video and animation that produce excellent presentations. Thus the elements contained in multimedia include text, graphics / images, sound, video, and animation.

Based on the results of students' responses from the media aspects, they generally state that it is easy to use, clear text, display quality images, and very supportive video. This shows that multimedia learning grading courses already meet for multimedia requirements are good or true. This is in accordance with the requirements that must be met in multimedia, namely: 1) easy and familiar operation, 2) easy to install to the computer that will be used, 3) interactive learning media and communicative, 4) self-pursuit system meaning students can learn independently both at school and home without guidance from the teacher, and 6) wherever possible with the low cost and affordable.

Likewise from the interviews show that the use of multimedia in grading courses has a lot of benefits, namely 1) the effectiveness in time, easier understood, practical easy to use, interesting motivating. This is the result of the question about "After you see the display of multimedia impressions for the Grading course, what do you think about multimedia?".

Based on the results of the research as a whole showed that the use of multimedia learning grading course in the

learning process is very helpful in teaching and learning process grading courses, because it meets the criteria for aspects of learning, material aspects and aspects of media. It shows multimedia learning grading courses worthy of use. This is reinforced also from the results of interviews conducted that states that multimedia learning grading course is very worth using. This is the result of an interview about "Do you think that multimedia Grading is very suitable for use in Grading course?"

#### V.CONCLUSION

The results of the study indicate that multimedia learning of basic grading course is considered feasible to be used in Grading course. With the multimedia learning on grading course, the teaching and learning process can run smoothly, both from the faculty and students. Suggestions that can be given are: 1) for all educational institutions to provide facilities for multimedia development, 2) Providing knowledge to educators about the benefits of multimedia and motivating to use it in the learning process, 3) can be advanced research for larger scope, for example for all educational institutions that have grading course.

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