

IMPROVEMENTS IN VIDEO EDITING TECHNIQUES TO ACHIEVE HIGHER QUALITY

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ABSTRACT

The objective of this study is to improve video editing techniques, allowing The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University, Thailand, to create high-quality videos to be used as teaching materials, which could also be stored in a database and made available to interested persons. The Office of General Education and Innovative Electronic Learning is an office responsible for supporting teaching management of general education courses offered by Suan Sunandha Rajabhat University. The University has been publishing educational videos in its YouTube Channel for students and other interested persons to study in their own time. These videos could be shared on social networks or embedded on individuals' web sites. Google awards for videos could also be used to publicize the videos. Apart from educational videos, other activities conducted by the office could also be kept as video records, giving insights into ways to improve the teachings of the general knowledge subjects by using information systems.

The population of this study was 35,700 undergraduate students registered for general knowledge subjects in the 1st semester of the academic year 2020. Questionnaires were used to survey sample participants, and the collected data were analyzed using percentages, mean values, and standard deviations. The satisfaction of students in the educational videos produced by The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University in the academic year 2020 was found to be *high*, having a mean value of 22.4. When the constituent factors were examined, it was found that there was a *very high* satisfaction in the sequencing of the visuals, having a mean value of 4.52, followed by the effectiveness of the media in facilitating understanding of the contents, having a mean value of 49.4; the ability for the student to revise the materials later by themselves, having a mean value of 4.32; the appropriateness of the videos as teaching materials, having a mean value of 4.87; the clarity of the verbal narrations, having a mean value of 4.22; clarity of the contents, having a mean value of 10.4; the knowledge the videos provided, having a mean value of 4.05; the engagingness of the videos, having a mean value of 4.03; the appropriateness of the images, verbal narration, and contents, having a mean value of 4.00; and, lastly, the appropriateness of the lengths of the videos given their contents, having a mean value of 97.3.

Keywords: Video editing techniques, Teaching material

INTRODUCTION

The Office of General Education and Innovative Electronic Learning is an office that supports the organizations of the general education courses for Suan Sunandha Rajabhat University, Thailand. It is tasked by the University to organize the teaching for the general education courses for regular-program undergraduate students. Presently, The Office of General Education and Innovative Electronic Learning has organized the teaching of the general education courses, their timetables, dates, and venues for each semester, so students could attend correct classes. However, there has been a reduction and a downwards trend in the number of students attending classes.

The branch of the Office responsible for research and development of learning innovations has organized videos to be used as teaching materials. These were to be distribution on the Office's YouTube channel, for students or other interested persons to use at any time of their convenience. These videos could also be shared on social networks, or embedded in individuals' web sites. At the same time, Google Awards for Video has been tested as means to promote these videos. Apart from the videos, the Office has also organized other activities and store their records, which could be used as guidelines for developing teachings in the general education courses, using information technology.

Guidelines for organizing the development of videos used as teaching materials for general education courses

In accordance with policies of Suan Sunandha Rajabhat University, which called for organizations of exclusively-online teaching, The Office of General Education and Innovative Electronic Learning, having a role of supporting the organization of general education courses for the University, aims to support and organize teaching of the general education courses, as specified in its annual action plan, and in accordance with the mission of the University for the fiscal year 2021. It could be said that, nowadays, the use of technology and communication is an important part in media making, whether for a public or private organization, and in daily works. Selection of information technology that will be used to make an effective material, as well as another factor, influence the effectiveness of the teaching. The other factor was media production, both in terms of the use of electronic equipment, learning of the software used for the production process, and creation of an effective material, which can fulfill the needs of the students.

As a supporting office for organizing teaching of the general education courses, The Office of General Education and Innovative Electronic Learning recognizes the importance of media that are effective and that most engage the audience, and of the ability to adapt and use knowledge in computer technology in operations and management. According to the University's strategies for the fiscal year 2021, Area 3, in information technology and academic services (department level), the performance indicator in section 3.1.1, which was the percentage of success in plans regarding university ranking, the Office is required to produce no lesser than 30 multimedia materials.

The Office of General Education and Innovative Electronic Learning thus stipulates an action plan for developing videos as teaching materials for the general education courses for the fiscal year 2021, to improve and develop media materials to be more engaging and better fulfill the needs of the service users, as well as to modernize and raise the quality of education.

OBJECTIVES

To improve video editing techniques for making teaching materials for The Office of General Education and Innovative Electronic Learning, and to store the materials in a database for interested persons.

METHODOLOGY

The tool used were questionnaires about student satisfaction in videos used as teaching materials by The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University in the academic year 2020. Each questionnaire consisted of 3 parts.

Part 1 surveyed general information of the samples, including sex, age, affiliated faculty – namely Faculty of Education, Faculty of Science and Technology, Faculty of Industrial Technology, Faculty of Arts, Faculty of Humanities and Social Sciences, and Faculty of Management Science. The questions were presented as check lists.

Part 2 surveyed the student satisfaction in videos used as teaching materials by The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University in the academic year 2020. Likert Scale was used; each question asked for a ranking on a 5-level scale indicating the responder's satisfaction level, namely, *highly unsatisfied*, *unsatisfied*, *neutral*, *satisfied*, and *highly satisfied*.

EXPECTED OUTCOMES

1. Recognition of the opinions of the students on the videos used as teaching materials by The Office of General Education and Innovative Electronic Learning
2. To use the opinions of the student and their suggestions to improve the videos used as teaching materials by The Office of General Education and Innovative Electronic Learning so the latter are more up-to-date and engaging

METHOD

Questionnaires were used as tools to collect data. Each questionnaire consisted of 3 parts, as follows.

1. general information of the responders, including sex, age, affiliation, income. This part consisted of a check list.
2. 5-level Likert Scale questions
3. opinions and suggestions. This part consisted of open forms.

RESULTS

Part 1 general information of the responders to the online questionnaires. There were 379 responders. Their general information was as follows.

Table showing frequencies and percentage values of general information of the responders to the online questionnaires

Personal information	Number (N=379)	Percentage
1. Sex		
Male	163	43.01
Female	216	56.99

Personal information	Number (N=379)	Percentage
Total	379	100
2. Age		
17 years old	50	13.19
18 years old	135	35.62
19 years old	107	28.23
20 years old and above	82	21.64
Not specified	5	1.32
Total	379	100
3. Affiliated faculty		
Faculty of Education	76	20.05
Faculty of Arts	22	5.80
Faculty of Science and Technology	39	10.29
Faculty of Humanities and Social Sciences	96	25.33
Faculty of Industrial Technology	82	21.64
Faculty of Management Science	64	16.89
Total	379	100.00

Analysis of general information of the 379 students who answered the questionnaires on student satisfaction in videos used as teaching materials by The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University in the academic year 2021 was as follows. Most of the responders – 216 responders (43 per cent) – were female. Most of the responders – 135 responders (36 per cent) – were 18 years old. And most of the responders were from the Faculty of Humanities and Social Sciences; 96 responders (25 per cent) were from that faculty. The second-largest group – 82 responders (22 per cent) – were from the Faculty of Industrial Technology. From the other faculties, 76 responders (20 per cent) were from the Faculty of Education; 64 responders (17 per cent) were from the Faculty of Management Science; 39 responders (10 per cent) were from the Faculty of Science and Technology; and 22 responders (6 per cent) were from the Faculty of Arts.

Part 2 Information regarding student satisfaction in the videos used as teaching materials by The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University in the academic year 2020 was as follows.

Table showing mean values, standard deviations, and descriptors of student satisfaction in the videos used as teaching materials by The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University in the academic year 2020

Student satisfaction in videos used as teaching materials	\bar{x}	SD	Satisfaction level
1. Engagingness of the videos	4.03	0.7218	satisfied
2. Ease of understanding of the contents	4.10	0.7132	satisfied
3. Appropriateness of the duration given the contents	3.97	0.8915	satisfied
4. Appropriateness of the images, sound, and content	4.00	0.9483	satisfied
5. Degree at which the images and narrations facilitated understanding	4.49	0.5651	satisfied
6. Appropriateness of the image sequences	4.52	0.5651	highly satisfied

Student satisfaction in videos used as teaching materials	\bar{x}	SD	Satisfaction level
7. Sound clarity and ease-of-understanding of the narrations	4.22	0.7146	satisfied
8. Degree at which the students could review the contents on their own	4.46	0.7239	satisfied
9. Appropriateness of the videos as teaching materials	4.32	0.7484	satisfied
10. Degree at which the videos provided knowledge	4.05	0.8102	satisfied
Total	4.22	0.1222	satisfied

Results from the analysis of student satisfaction in the videos used as teaching materials by The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University in the academic year 2020 showed that, overall, the students were *satisfied*, having a mean score of 4.22. Examining different factors, in order of descending mean scores, we found that the students were *highly satisfied* with the appropriateness of the image sequences, giving it a mean score of 4.52; the degree at which the images and narrations facilitated understanding was given a mean score of 4.49; the degree at which the students could review the contents on their own was given a mean score of 4.46; the appropriateness of the videos as teaching materials was given a mean score of 4.32; the sound clarity and ease-of-understanding of the narrations was given a mean score of 4.22; the ease of understanding of the contents was given a mean score of 4.10; the degree at which the videos provided knowledge was given a mean score of 4.05; the engagingness of the videos was given a mean score of 4.03; the appropriateness of the images, sound, and content was given a mean score of 4.00; and, lastly, the appropriateness of the duration given the contents was given a mean score of 3.97.

DISCUSSION AND CONCLUSION

The study found that

1. Teaching media in the general education courses had high quality, and were effective and engaging. We got a different perspective on images and colors of the teaching media, supporting the objective of this study.

2. Regarding the student satisfaction in the videos used as teaching materials by The Office of General Education and Innovative Electronic Learning, Suan Sunandha Rajabhat University in the academic year 2020, the students gave overall *satisfied* rating, giving an overall mean score of 4.22. Examining different factors, it was found that the students were *highly satisfied* with the appropriateness of the image sequences, giving it a mean score of 4.52. Other factors, in order of the mean scores, included the degree at which the images and narrations facilitated understanding was given a mean score of 4.49; the degree at which the students could review the contents on their own was given a mean score of 4.46; the appropriateness of the videos as teaching materials was given a mean score of 4.32; the sound clarity and ease-of-understanding of the narrations was given a mean score of 4.22; the ease of understanding of the contents was given a mean score of 4.10; the degree at which the videos provided knowledge was given a mean score of 4.05; the engagingness of the videos was given a mean score of 4.03; the appropriateness of the images, sound, and content was given a mean score of 4.00; and, lastly, the appropriateness of the duration given the contents was given a mean score of 3.97, in accordance with the study's hypothesis.

DISCUSSION

Presently, technology used in production of videos has gained popularity, whether in the fields of education, advertising, or even in verbal conversations. Therefore, it could be said that quality and effectiveness of media are important. The Office has improved techniques for editing videos used as teaching materials, to create high-quality and effective teaching materials that engages the audience, whether they be students, external visitors, or University staff.

RECOMMENDATIONS FOR FUTURE STUDIES

1. There should be continual training in techniques of making and using teaching material recording equipment for members of staff and professors.
2. Handbooks about techniques for making or using teaching material creation tools should be available

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