Development of Instagram and YouTube Content Videos' for Online Learning

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Abstract
Instructional videos uploaded on Instagram and Youtube for online learning media teachers are facing a problem regarding the student's complicity in the learning process. To captivate the student's interest in the learning activity, the teacher needs to use innovative media. The study aims to develop an instructional video that is uploaded on Instagram and YouTube. The research used educational design research. The research procedure is 1) analysis of practical problems by the researcher; 2) development of prototype solutions informed by existing design principles; 3) testing and refinement. The study used questionnaires and interviews as the instrument. The number of subjects is 40 students The study results show that the video that was developed meets the criteria relevance, consistency, practicality, and effectiveness. The average score of the study is >3. The conclusion of the research is the instructional video uploaded on social media can improve students' activities in online learning. Recommendation for future study is to pay more attention to the urgency of instructional media in online education
Keywords: online learning, instructional video, social-media, online-learning, covid-19

Pengembangan Konten Video pada Instagram dan YouTube untuk Pembelajaran Daring

Abstrak
Salah satu kendala pelaksanaan pembelajaran secara online adalah rendahnya keterlibatan mahasiswa. Pembelajaran dengan memanfaatkan media sosial diharapkan dapat meningkatkan minat belajar mahasiswa. Tujuan dari penelitian ini adalah untuk mengembangkan video pembelajaran yang dapat diunggah di media sosial Instagram dan YouTube. Metode penelitian yang digunakan pada penelitian ini adalah educational design research. Prosedur penelitian yang dilakukan meliputi 1) penelitian pendahuluan; 2) tahap pengembangan atau prototipe; 3) tahap asesmen/evaluasi. Instrumen penelitian yang digunakan adalah kuisioner dan pedoman wawancara. Jumlah subjek pada penelitian ini adalah 40 mahasiswa. Hasil dari penelitian ini adalah video pembelajaran yang dikembangkan memenuhi kriteria relevansi, konsistensi, kegunaan dan keefektifan yang ditunjukkan dengan rata-rata skor penilaian produk >3. Kesimpulan dari penelitian ini adalah media berupa video yang diunggah di media sosial, efektif membantu pelaksanaan pembelajaran daring bagi mahasiswa. Penelitian ini memberikan rekomendasi kepada peneliti selanjutnya terhadap urgensi penggunaan media pembelajaran yang menarik minat mahasiswa sehingga penelitian yang lebih mendalam tentang media pembelajaran perlu dilakukan.
Kata kunci: pembelajaran daring, video pembelajaran, media sosial, online-learning, covid-19.

INTRODUCTION

The covid-19 pandemic affected educational activities. The educational programs should be delivered using an online approach (Aji, 2020; Dewi, 2020). The turnover in online learning is causing many problems, both to the teacher and to the student. The research found that issues in online education such as minimum learning application, lack of internet access, less device availability, learning management system, learning assessment, and supervision (Handayani, 2020; Rigianti, 2020). From the student's point of view, online learning requires a high level of self-learning (Hutauruk, 2020; Intania & Sutama, 2020). This contrasts with the research result that found that guidance and counseling students in Indonesia are less independent in self-learning and lack learning motivation (Astuti, 2019). In that sense, the teacher needs a creative method in learning to improve student's motivation.

The urgent issue in online learning is learning methods that do not make interactive for the students. This issue come from the teacher, whereas only give the students homework and project (Wahyono, Husamah, & Budi, 2020). Homework and task are the solutions for teachers in case they could not provide interactive online learning. Besides that, many teachers cannot prepare videos about learning materials that can be accessed by the students anytime (Riyanda, Herlina, & Wicaksono, 2020). Those studies prove that in online education, teachers are not using creative learning methods and media. A teacher needs to improve their technology literacy to provide effective online learning (Khoiroh, 2017; Kohnke, 2021).

The interactive learning media will stimulate students to learn with fun. Other than that, the creative learning methods influence student's learning motivation. Previous research has proven that media that can be accessed on their phone is catchy for the students (Sulata & Hakim, 2020; Rachmat & Krisnadi, 2020). The lecturer must prepare instructional media that the students can easily access based on the research result.

At the moment, social media such as Instagram and YouTube had been used as an effective instructional instrument in online learning (Irwandani & Juariyah, 2016; Kamhar & Lestari, 2019; Sari & Lubis, 2017; Sindang, 2013; Wijaya & Arismunandar, 2018). Learning materials delivered using social media are attractive for the students. Social media application in online learning is efficient because it is handy and can be easily accessed. Instructional video uploaded on social media is both attractive and practical to improve student's understanding of the learning materials (Batubara, 2016; Iqbal, Latifah, & Irwandani, 2019; Wahid, 2018).

Much previous research confirms that using Instagram and YouTube in online learning is applicable. But study regarding the development of the learning video to be uploaded on Instagram and YouTube is less. The reliability of the learning video is essential because it is affecting the student's knowledge. The study aims to develop an instructional video as the content of Instagram and YouTube in the guidance and counseling learning activities. The development of social media's content refers to the research procedure to produce a high-quality learning video that improves students' knowledge. By implementing Instagram and YouTube, the researcher expects the online learning activities to be more attractive and practical.

METHODS

The research method used in the study is educational design research (McKenney & Reeves, 2018; Plomp, 2013). The subject of the study is the students in the guidance and counseling department, Yogyakarta State university. The number of subjects is 40 students; seven students are male; 33 students are female. The research was conducted in September-November 2020.

The research procedure is adopted from an educational research design (Amiel & Reeves, 2008; Plomp, 2013). The procedures are 1) analysis of practical problems; 2) development of product prototype; 3) product testing and refinement; and 4) reflection of the product. Figure 1 is ilustrated the research procedure.

In the analysis of the practical problems stage, the researcher observed the learning process in the class of guidance and counseling media. The researcher was also reviewing works of literature concerning the application of social media in the learning process. The primary activity in this stage

was a discussion with a colleague. This stage aims to gather a comprehensive view of the need for instructional media in the guidance and counseling class.
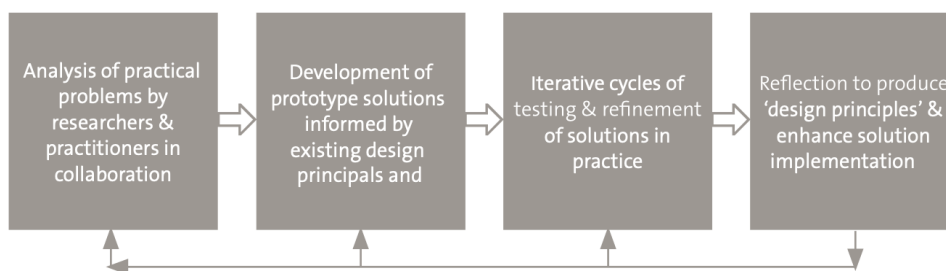

Figure 1. Research procedure

In the development of the product prototype stage, the researcher focuses on the video recording process. The step started by preparing the materials then discussed the materials with a colleague. The next phase is testing and refining the product—testing and refining product conducted by the expert in the instructional media and the students. The expert and the students evaluated the video, whether it was relevant or not. In the last stage, the researcher reflects whether the product needs to be revised or not. The reflection is based on the judgment of experts and students. In this stage, the researcher discussed with the colleague what aspects of the product should be revised.

The study used a scoring scale and interview. The scoring scale was used to collect the judgment from an expert regarding the relevancy of the video based on three criteria: applicability, consistency, and utility. The scoring scale was using 1-4 scales. The interview was used to collect the opinions of experts and students.

Data were analyzed by calculating the average score from an expert. The description of each score is described in Table 1.

Table 1. *Scoring Scale Criteria*

Score	Description
0-1	Does not meet criteria
1,1-2	Almost meet the criteria
2,1-3	Meet the criteria
3,1-4	Meet the criteria

Table 1. shows the score and the description of each score. A score of 0-1 means that the video does not meet the criteria. Score 1.1-2 means that the video almost meets the requirements. Score 2,1-3 means that the video meets the criteria and score 3,1-4 means that the video meets the criteria.

Data from the interview were analyzed by grouping the statement and opinion from an expert, student, and colleague. Then, those data concluded into a judgment in what aspect the video must be revised.

RESULT AND DISCUSSION

Result

The study results are two instructional videos, one for teaching simple animation and one for learning posters for guidance and counseling services. The two videos were uploaded on Instagram and YouTube. The students who used the videos state that the videos helping. More explanation of the result are below.

The Result of Analytical Problem Stage

From analyzing the practical problems, the researcher concludes that the guidance and counseling media course needs to set an instructional video to help the student understand the material during online learning. The discussion was done by the researcher and the colleague-other another

lecturer who teaches the guidance and counseling media course. The description of the result in this stage is described in Table 2.

Table 2. *The Result of Analytical Problem Stage*

No.	The Conclusion of Context Analysis and Literature Reviews	
	Context analysis	Literature review
1.	The number of media in online learning is a little	The maximum duration of the videos is eight minutes
2.	The student needs media that can be easily accessed using the phone	One video only for one material
3.	Instagram dan YouTube can be brought through as an instructional media platform	Use simple and easy listening language
4.	An instructional video is possible to be developed as media	Use a piece of music and pictures as a variation

Table 2 shows that there is a problem concerning instructional media in the guidance and counseling media course. The course needs interactive media both in quantity and quality. From the analytical problem stage, we know that we need a video that can be uploaded on Instagram and YouTube as the learning media. The students give a lot of attention to instructional videos and social media. The videos that will be developed must be meet the criteria: not more than eight minutes, focus on one material only, using a simple and easy listening language, and use music and picture as a variation.

The Result of Development Prototype Stage

The development of the videos consists of two recording sessions-the first recording for the instructional video about making simple animation using Microsoft PowerPoint. The second session is to record a learning material about using a poster. Both materials are for guidance and counseling services.

In the recording process, the researcher collaborates with a videographer. The result of this stage describes in Table 3. The judgment concluded from the assessment done by one expert, two colleagues, and five students.

Table 3. *The Result of Development of Video 1*

Evaluator	The Average Score			
	Relevancy	Consistency	Utility	Effectivity
Colleague	3,8	3,7	3,8	3,6
Expert	3,7	3,5	3,7	3,8
Students	3,6	3,8	3,6	3,8
Average	3,7	3,76	3,7	3,7

Table 3 explains the average score of criteria: relevancy, consistency, utility, and effectivity of video 1. The average score for relevance, utility, and effectivity is 3,7. The moderate score consistency is 3,76. If the minimum score to judge the product meets the criteria is 3,1, then the product developed meets the requirements.

Table 4. *The Result of The Development Video 2*

Evaluator	The Average Score			
	Relevancy	Consistency	Utility	Effectivity
Colleague	3,8	3,7	3,8	3,6
Expert	3,7	3,5	3,7	3,8
Students	3,7	3,8	3,8	3,8
Average	3,73	3,76	3,77	3,73

Table 4 shows the average score of videos 2. The average score for relevance and effectivity is 3,73. The average score for consistency and utility is 3,76 and 3,77. In that sense, we can conclude that video 2 meets the criteria of good instructional media because the minimum score should be 3,1.

The result from the focus group discussion with a colleague is (1) the sound in the video is

noise, so the developer must edit it, (2) the preface speech in the video is too long. The video was edited based on notes from a colleague. After that, the video is ready to upload.

The Result of Testing and Refining Stage

In this stage, the researcher was testing and refining the videos modified based on the judgments from an expert. After the videos were uploaded on Instagram and YouTube, the researcher asked the students to watch the video then give feedback to the researcher. The number of students who give feedback is 42 students. They fill a questionnaire to evaluate the video. The average score of the questionnaire is in Table 5.

Table 5. *The Average Score of Questionnaire*

Evaluator	Average Score			
	Relevancy	**Consistency**	**Utility**	**Effectivity**
Colleague	3,8	3,7	3,8	3,7
Expert	3,7	3,6	3,7	3,7
Students	3,7	3,7	3,7	3,8
Average	3,7	3,7	3,7	3,7

Table 5 shows the average score of relevance, consistency, utility, and effectivity of videos from the testing process. The average score for all criteria is 3,7. That means the testing result is showing that the video is meeting all requirements. Based on the testing result, both videos are appropriate for the guidance and counseling's media course.

From discussion and interview, the students express their opinions that the video is helping. They feel enthusiastic during online learning also able to repeat the videos in their free time. Even though the videos had been uploaded, the role of the teacher to make sure that the students could understand the content is essential. The teacher also needs to make sure that all students have access to the videos.

Discussion

Two videos were developed in this research-the videos used as instructional media in the guidance and counseling's media course. The result of the study shows that the videos are effective in being applied in online learning. The students feel more motivated and helped by using the videos. The videos are also proof as an efficient media. This is in line with previous research that found that instructional videos uploaded on YouTube effectively help students understand the materials (Moghavvemi, Sulaiman, Jaafar, & Kasem, 2018; Orús et al., 2016). Besides, other studies found that Instagram is an effective platform to upload instructional media.

The study proves the videos meet the criteria: relevance, consistency, utility, and effectivity. The videos are helping students to understand the context of the materials also optimizes the online learning activities. Previous researches have been found that videos are effective in helping students increase their learning outcomes (Batubara & Batubara, 2020; Conners, 2003; Iqbal et al., 2019; Prasetiawan & Alhadi, 2018; Risqiyain & Purwanta, 2019; Wahid, 2018). Other researchers prove that instructional videos could increase learning satisfaction, empathy, learning interest, and results (Mamin & Arif, 2019; Ramadhan & Aminatun, 2019; Rasagama, 2019). Add to this, research by Kim & Thayne (2015) explain how videos positively influence collaboration between lecturer and their students.

One of the criteria that makes the videos effective in helping students is the videos' duration that does not exceed four minutes. Video durations determine the student's interest to watch and follow the content of videos. Criteria about instructional video's duration should be no more than six minutes (Batubara & Ariani, 2016; Batubara & Batubara, 2020; Kristanto, 2018). Besides, the founder explains that the videos give the students the chance to study flexibly. The funding related to the previous research explained that instructional videos uploaded on social media give students a lot of time to check the videos anytime and anywhere (Dumford & Miller, 2018). Another study demonstrates that the students show more positive responses to the learning activities that use videos than those that do not (Dewanti, Ramli, & Rahmawati, 2018; Rahmawati, Santoso, & Andajani, 2017).

The characteristic of the videos developed is the lecturer as the presenter in the video. The students can see their lecturer in the video; therefore, they feel like listening to the explanation in the

classroom. By doing so, the learning engagement between student and lecturer is maintained. The research found that watching the video of the teacher explaining learning materials gives students a better meaningful experience than watching videos by others (Dumford & Miller, 2018) and watching instructional videos without the teacher's appearance (Kizilcec, Bailenson, & Gomez, 2015).

The videos were developed regarding the instructional goals, so the relevance and consistency of the videos are assured. This process matches the previous research that stated that instructional videos must conform to instructional purposes (Wahid, 2018). In the end, the aim is to help the students achieve instructional goals.

The product of this study has been uploaded on Instagram and YouTube. Social media effectively increases students' motivation in online learning because Instagram and YouTube are popular with the teenager. They spent much time on screen using social media. This is in line with the previous research that proves the effectiveness of YouTube as a learning platform (Iwantara, Sadia, & Suma, 2014; Luhsasi & Sadjiarto, 2017; Pratiwi & Hapsari, 2020; Yusri, Rosida, Jufri & Mantasiah, 2018). Another study also found that using Instagram in online learning is helping both the students understand the learning materials. Social media prevents students from feeling boring (Irwandani & Juariyah, 2016; Sari & Lubis, 2017; Utami, Probosari, & Fatmawati, 2015). Besides, the video that uploaded on social media can be accessed using a Phone (Suwarno, 2017). It is handy and easy to access.

CONCLUSION

Based on the procedure research that has been applied, the result of the study is videos that help the student achieve learning outcomes. The videos meet the criteria relevance, consistency, utility, and effectivity. From the research, we found that the video positively impacts the students and is appropriate to be applied in online learning. The limitation of the study is using a small number of subjects, only 42 students. Besides, the videos that were developed are only two videos for two learning materials. To optimize the utilization of instructional videos using Instagram and YouTube, the researcher suggests; (1) the future researcher and teacher should develop a video that does not exceed eight minutes, (2) the appearance of the teacher in the videos should be noticed when developing instructional video, (3) language is an important aspect in the instructional video.

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