



Developing Contextual Learning Videos on Course of Administration Education Research Methodology

Muhyadi[✉], Sutirman, Isti Kistiananingsih

DOI: 10.15294/dp.v14i1.18150

Universitas Negeri Yogyakarta, Sleman, Indonesia

History Article

Received February 15, 2019
Approved April 04, 2019
Published June 30, 2019

Keywords

Video of Learning; Contextual Learning; Research Methodology

Abstract

This study aimed to produce and determine the feasibility of contextual learning video on course of Administration Education Research Methodology. The research method was research and development of ADDIE model. The stages of this research and development consisted of Analysis, Design, and Development. The data collection techniques in analysis stage were interview and observation, while questionnaire was used in development stage. Data collection instruments were inventory questionnaires with rating scales. Data analysis technique was descriptive analysis with quantitative and descriptive approaches. Descriptive techniques were used to analyze the results of problems and learning components of Office Administration Education Research Methodology. Quantitative techniques were used to analyze data from experts. Validation of developed contextual learning media involved media expert and material expert. The conclusions of the particular study are: 1) this study has produced a contextual learning video on course of Administration Education Research Methodology with material of research proposal in topic of Introduction; 2) according to the assessment of media experts and material experts, the developed learning video has a criteria of very feasible.

How to Cite

Mulyadi, Sutirman, & Isti, Kistiananingsih.(2019).Developing Contextual Learning Videos on Course of Administration Education Research Methodology. *Dinamika Pendidikan*, 14(1), 37-46.

© 2019 Universitas Negeri Semarang

[✉] Correspondence Author:

Jl. Colombo No.1, Karang Malang, Caturtunggal, Kec. Depok, Kabupaten Sleman, Daerah Istimewa Yogyakarta 55281
Email: muhyadi@uny.ac.id

p-ISSN 1907-3720
e-ISSN 2502-5074

INTRODUCTION

Today, some of structured research methods training are incorporated into undergraduate and graduate education. In the past, most social science graduates might had expected a career as a social researcher, but today graduates are less likely to follow such career paths (Nind, M., Kilburn, D. & Luff, R.: 2015). Students of office administration education study program are required to have the ability to conduct research to write their thesis. Aiming to equip the students' abilities, the curriculum of office administration education study program has provided course of Administration Education Research Methodology. The subject aims to provide knowledge and skills in writing proposals, conducting the research, and writing research reports. The students' ability to write proposals, conduct the research, and write research reports are a prerequisite for writing thesis.

The learning activities of Administration Education Research Methodology subject was not optimal. An example of the problems was the low participation of students in learning. The students were more passive during the learning. The students rarely asked or gave respond. Another problem was students' understanding on learning material was low. More than 50% of students who take research methodology courses find it difficult to understand the material being studied. The low level of students' understanding can be seen from the inability of the most students in explaining the concepts when the lecturer asks them. Moreover, the students' ability to write research proposal was also low. The quality of research proposals written by students was less of good in general. The problems related to the learning media (lack or inadequate) to facilitate the students in understanding the learning material.

In learning research methodology, the principles and illustrative examples generated can form the knowledge and understanding required to enhance pedagogic culture and practice (Lewthwaite, S. & Nind, M.: 2016).

An effort is needed to solve the problem in order to improve the quality of learning on course of Administration Education Research Methodology. An effort of problem solving is developing media to facilitate students in understanding the material of Administration Research Methodology. Media is all types or kinds form that able to transfer the information from senders (informant) to receivers (Prastati, 2005: 3; Heinich, 1996: 8). If the media contains messages or information with the purpose of learning, then the media is called as learning media (Heinich, 1996: 8). In the context of education, media is commonly referred to learning facilities – transfer material or messages to students (Wang & Cheung, 2003: 217). Thus, the media is component of learning resources or physical means contain instructional material in student environment to stimulate students in learning.

Learning media is developing constantly along with the development of science and technology. The development of learning media also follows the demands and needs of learning, in accordance with the situations and conditions. Arsyad (2007: 29) classified the learning media into four groups; the media produced by printing technology, the media produced by audio visual technology, the media produced by computer technology, and the media produced by the combination of printing and computer technology. Media is very important in learning because it can clarify the presentation of messages, solve the limitations of space, time, and sensory power, solve the problem of students' passive, and the students become more enthusiastic and more independent in learning, and provide stimuli, experiences, and perceptions to learning material (Sadiman, 2006: 17-18).

Contextual learning as a learning strategy widely discussed among the education communities. There a lot of opinions associate with the definition of contextual learning. Johnson (2012: 58) argued that contextual learning is a suitable learning system to brain that produces meaning by connecting the academic content with the real context of students' life. Sanjaya

(2009: 255) defined contextual learning as a learning strategy involving students to find the material and connect it into real life situations in order they can apply the learning material within their lives. Contextual learning has positive impact on learning outcomes (Putnam & Leach: 2007). Kholifah (2016) concluded that contextual learning based video media is suitable for learning in higher education. The purpose of the particular study is to produce a contextual learning media of learning video on course of Education Administration Research Methodology and to determine the feasibility of contextual learning media based on the experts.

METHODS

The research method was research and development of ADDIE model. The ADDIE model is one of the most common models used in the instructional design field as a guide to produce an effective design of leaning. This model is an approach that helps instructional designers, any content developer, or even teachers to create an efficient and effective teaching design by applying the processes of the ADDIE model on any instructional product (Aldoobie, N.: 2015). The stages of this research and development consisted of

analysis, design, development, implementation and evaluation. The analysis stage consists of problem analysis and analysis of learning components. The design stage consists of making the structure of learning materials and storyboards. The development stage consists of making the scenarios for learning video, making the learning video and expert validation.

The data collection techniques in analysis stage were interview and observation, while questionnaire was used in development stage. The questionnaire was used to obtain data on expert's assessment toward the developed product. The questionnaires were inventory questionnaires with rating scales. The aspects on expert's validation are feasibility of media and feasibility of material. The data analysis in the particular study included analysis of problems, components of learning and analysis of expert validation results. The data analysis technique was descriptive analysis with quantitative and qualitative approaches. Descriptive techniques used to analyze the results of problems and learning components of Office Administration Education Research Methodology. Quantitative techniques used to analyze data from experts. The criteria to determine media feasibility is presented in Table 1.

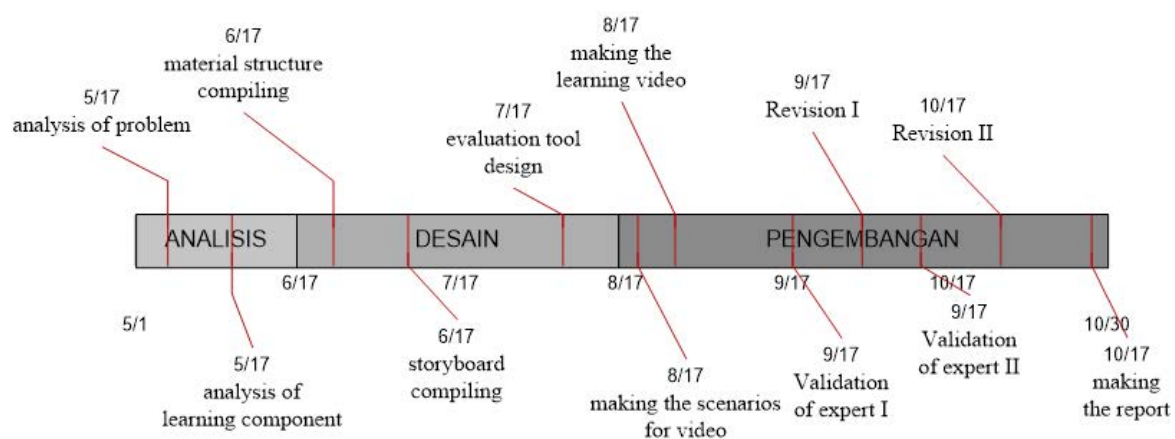


Figure 1. Scheme of learning media development procedures

Table 1. Criteria of Media Feasibility

Formulas of Range	Score	Criteria
$\bar{X} > \bar{X}_i + 1,8 S_{bi}$	>4,2	Very Feasible
$\bar{X}_i + 0,6S_{Bi} < \bar{X} \leq \bar{X}_i + 1,8 S_{bi}$	>3,4 – 4,2	Feasible
$\bar{X}_i - 0,6S_{Bi} < \bar{X} \leq \bar{X}_i + 0,6 S_{bi}$	>2,6 – 3,4	Sufficient
$\bar{X}_i - 1,8S_{Bi} < \bar{X} \leq \bar{X}_i - 0,6 S_{bi}$	>1,8 – 2,6	Poor
$\bar{X} \leq \bar{X}_i - 1,8 S_{bi}$	$\leq 1,8$	Very Poor

Source: Processed Primary Data (2018)

RESULT AND DISCUSSION

The first stage on ADDIE Model is problem analysis. The analysis stage consists of problem analysis and analysis of learning components. The data in analysis stage obtained through interviews with respondents, consisting of students of Office Administration Education Study Program of Economic Faculty, Yogyakarta State University who has taken the course of Office Administration Education Research Methodology. The numbers of interviewed respondents were 5 students consisting of students from batch 2012 and batch 2013. The respondents were randomly selected. Based on the results of interviews, it obtained data of problems in learning of Office Administration Education Research Methodology. Problems according to the students' version are: 1) the difficulty to understand the material of research methodology; 2) the poor variety of learning methods; 3) the non-contextual of material in media.

Table 2. Problems of Research Methodology Learning

Problems	Num. of Respondents	%
Difficult to understand the material	5	100
Poor of variety learning methods	5	100
Non-contextual of material in media	3	60

Source: Processed Primary Data (2018)

Furthermore, based on observation to students who are writing thesis, it obtained data about the poor of students' understanding on the research methodology material. Observations were conducted to 4 (four) students who currently conduct thesis guidance and 4 (four) students who have passed thesis examination.

Table 3 shows most of students have the poor understanding in the chapter of introduction. There is only one student who have a good understanding both in the chapter of results and discussion and the chapter of conclusion. Most of students (75%) have a sufficient understanding in the chapter of literature review, research method, result and discussion and conclusion. Furthermore, it can be concluded that based on the result of observation, students do not have an appropriate understanding in writing their thesis.

Based on problem analysis stage, there are three problems in learning of Administration Education Research Methodology. They are: (1) students are difficult to understand the material of research methodology; (2) poor of variety learning methods; (3) non-contextual of material in media. All respondents stated that material of Administration Education Research Methodology is difficult to understand. This statement is supported by observation results to students who are writing thesis and have passed thesis examination. Students' understanding is on poor category, especially in writing the chapter of introduction.

The introduction is an urgent part and it is a foundation to the next chapters in rese-

Table 3. Students' Understanding Toward Research Methodology Material

Research Methodology Material	Students' Understanding	Number of Students	Percentage (%)
Chapter of Introduction	Poor	7	87,5
	Sufficient	1	12,5
	Good	0	0
Chapter of Literature Review	Poor	1	12,5
	Sufficient	7	87,5
	Good	0	0
Chapter of Research Method	Poor	2	25
	Sufficient	6	75
	Good	0	0
Chapter of Result and Discussion	Poor	1	12,5
	Sufficient	6	75
	Good	1	12,5
Chapter of Conclusion	Poor	1	12,5
	Sufficient	6	75
	Good	1	12,5

Source: Processed Primary Data (2018)

arch proposal. The errors or mistakes in formulating the components of introduction will result in errors and difficulties in making research proposals. Therefore, an understanding to components of introduction chapter which consists of background of the problem, problem identification, problem limitation, problem formulation, and research objective, must be well taught within students. One of the solutions) is by presenting material through media with contextual material (Nind, M., Kilburn, D., & Luff, R.: 2015). Lewthwaite, S. & Nind, M. (2016) stated that practical learning strategies are also very necessary.

The next analysis is learning components analysis. Based on analysis of learning components of Office Administration Education Research Methodology, the data obtained is presented in Table 4.

Table 4. Results of Learning Components Analysis

Learning Components	Description
Goal of learning / learning objectives	Fulfilled and Clear
Learning material	The scope is clear Theoretically / contextually
Media	PowerPoint
Lecturer	Incredible competent
Students	Poor of active Poor of autonomous / independent

Source: Processed Primary Data (2018)

Table 4 shows the results of learning

components analysis which states that the goal of learning in Research Methodology course has been explained clearly. The learning materials have been discussed theoretically and contextually during the meetings. Most of learning media used was the powerpoint, there was no other innovative media used so far. All of Research Methodology lecturers have an incredible competency, while students identified less active in the learning process and have not had a proper independency.

Furthermore, based on analysis of learning components, there are components that are less support to learning. Among five components (see Table 4), two components need to improve; material and students. Learning material is poor of contextual, as the impact, students are difficult to understand. Moreover, students are also more passive and poor of independent learning, so they have not good material understanding.

The second stage of ADDIE model is the design stage. The design stage produced material structure, storyboard, and instructions of media evaluation instrument. (1) Material Structures; based on the results in analysis stage, the main problem is poor of material understanding in topic of writing the chapter of introduction. Therefore, the developing of learning video focused on the material of chapter of introduction. The material structures of chapter of introduction included concept of problem, background, problem identification, problem limitation, problem formulation, research objectives, and research significances.

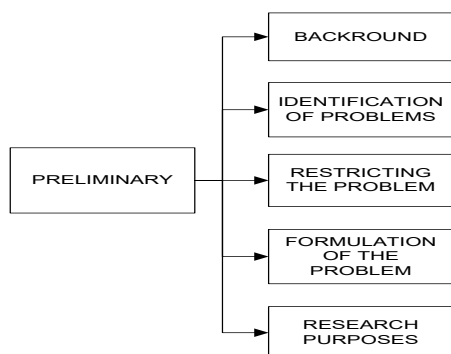


Figure 2. Learning Material Structures

The next stage in design stage is (2) Storyboard; storyboard made in design stage is a descriptive storyboard. The descriptive storyboard contains subject materials, video scene scenarios, and cast of learning video scenes. The scenario scene videos are designed on four dialogue scenes and a narration. The learning video storyboard is attached in attachment section. (3) Instructions of Evaluation Instruments; The instructions of evaluation instruments consist of media evaluation instrument by material expert and media evaluation instrument by media expert. The instructions of media evaluation instruments by material expert consist of indicators of concept authenticity, material factuality, material actuality, sequences of material presentation, video conformity to clarify the material, and language use. The instructions of media evaluation instruments by media expert consist of video title indicators, letter use, text readability, display attractiveness, object layout, color composition, and presentation sequences.

Development stage is the third level on ADDIE Model. This stage consists of making the scenarios for learning video, making the learning video and expert validation. (a) Evaluation Instruments; The developed of media evaluation instruments consists of evaluation instruments by media expert and material expert. The developed of media evaluation instruments are presented in appendix section. (b) Media Products; The developed of learning media product was learning video. The developed of learning video consists of a scene of problem occurring in learning activities of office administration in Vocational High Schools and narration explaining the material based on the video scene. The video duration is 20 minutes 59 seconds, 1920 X 1080 pixel frame size, and 1.8 GB file size.

The developing media of learning video is conducted based on the results of needs analysis and learning problems (Widiati, Irawati, Basthomi, et. al: 2013). Based on analysis stage, the learning media are the learning video. The developed learning video focused on material of introduction chapter. Learning

video used a contextual approach. It means, the content of learning video is real problem demonstration in order students are easily understand the material. Contextual learning is a learning concept that helps teachers associate the material with the students' real situations, and encourage the students to make connections between the knowledge and its application in their lives as family members and society (Hadiyanta: 2013). Based on research conducted by Irwandi (2013), contextual learning has a positive effect on cognitive learning outcomes. Contextual learning can facilitate the students' understanding to the material being studied (Shamsid-Deen & Smith: 2006). Thus, the developing of contextual learning media in learning video is in accordance with the needs and supported by the findings of previous research. Kholifah (2016) concluded that contextual learning based video media is suitable for learning in higher education.

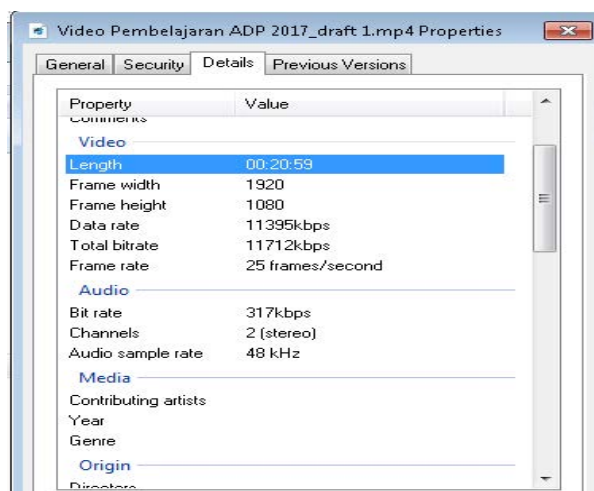


Figure 3. Metadata of learning video

The quality of learning video was validated by media expert and material expert. Media expert was Mrs. Muslikhah Dwihartanti, SIP, M.Pd. She is the lecturer in Technology

of Administration Learning. She graduated from Learning Technology of Postgraduate program at Yogyakarta State University. The validation of media in its many and varied forms has necessitated the development of tools and indicators capability of providing an insight into the condition. Validation of media quality consisted of 8 aspects of assessment. The results of validation by media expert were presented in Table 5. Based on the assessment by media expert, the average score was 4.25. Besides providing assessments, media expert also provide suggestions and insight for improvement. The suggestions and insights by media expert are to keep the consistency in letters use and numbering. Also, media expert provides recommendation to revise the product before applied into the learning process.

Table 5 was Mr. Ali Muhson, M.Pd. He is an expert in the field of research methodology and statistics. He graduated from master degree and doctoral candidate in the field of Educational Research and Evaluation of Postgraduate program at Yogyakarta State University. Validation of material quality consisted of 7 aspects of assessment. The results of validation by material expert were presented in Table 6. Based on the assessment by material expert, the average score was 4.28.

Besides providing assessments on the Table 6, material expert also provide suggestions and insight for improvement. The suggestions and insights by material expert are the reasons of research importance should be written in a text, the explanation of problem identification should be interrelated among the problems, problem formulation is question (s), not statement (s), and needs to add material of research significances. Meanwhile, material expert provides recommendation to revise the product before applied into the learning

Table 5. Validation Results of Media Expert

No	The Assessment Aspects	Very Poor	Poor	Sufficient	Good	Very Good
1	The clarity of title				4	
2	Font type selection				4	
3	Font size selection			3		
4	The legibility of text				4	
5	Video display					5
6	Layout				4	
7	The balance of background color and text					5
8	The consistency of display among sections					5
Total of score				3	16	15
Total of score				34		
Average				4,25		

Source: Processed Primary Data (2018)

Table 6. Validation Results by Material Expert

No	The Assessment Aspects	Very Poor	Poor	Sufficient	Good	Very Good
1	Concept authenticity				4	
2	Material factuality				4	
3	Material actuality				4	
4	Sequences of material presentation					5
5	Video conformity to clarify the material				4	
6	Accuracy of language use					5
7	Clarity of language use				4	
Total of score					20	10
Total of score				30		
Average				4,28		

Source: Processed Primary Data (2018)

CONCLUSION

In accordance with the research objectives, it has produced a contextual learning video on course of Administration Education Research Methodology with material of

research proposal in topic of Introduction. According to the assessment of media expert and material expert, the developed learning video has a criteria of very feasible. However, both media expert and material expert provide recommendation to revise the product be-

fore applied into the learning. The lecturer on course of administration education research methodology should consider using contextual learning strategy in order to make students easily understand the material. The students should actively ask if they do not understand the material, and diligently read the material independently without having an assignment from the lecturer.

REFERENCES

- Aini, S. N. (2015). Pengaruh strategi pembelajaran, gaya belajar, sarana praktik, dan media terhadap hasil belajar patiseri SMK se-Gerbangkertasusila. *Jurnal Pendidikan Vokasi*. Vol. 5, No.1.
- Aldoobie, N. (2015). ADDIE Model. *American International Journal of Contemporary Research*. Vol. 5, No. 6.
- Arsyad, A. (2007). *Media Pembelajaran (cetakan kesembilan)*. Jakarta: PT Raja Grafindo Persada.
- Dick, W., Carey, L., & Carey, J. O. (2005). *The systematic design of instruction (6th ed.)*. Boston: Pearson.
- Hadiyanta, N. (2013). Penerapan Model Pembelajaran Kontekstual Teaching and Learning untuk Meningkatkan Hasil Belajar PKN. *Jurnal Kependidikan*, 43 (1): 32-38.
- Heinich, R., at.al. (1996). *Instructional media and technologies for learning (4th ed.)*. New Jersey: Prentice-Hall.
- Irwandi. (2013). Pengaruh pendekatan kontekstual terhadap hasil belajar biologi siswa SMA. *Jurnal Ilmu Pendidikan*, Jilid 19, Nomor 1, Juni 2013, hlm. 100-105.
- Johnson, E. B. (2012). *Contextual Teaching and Learning: menjadikan kegiatan belajar mengajar mengasyikan dan bermakna. Diterjemahkan oleh Ibnu Setiawan*. Kaifa: Bandung.
- Kholifah, S. (2016). The Development of Learning Video Media Based on Swishmax and Screencast O-Matic Softwares through Contextual Approach. *Jurnal Dinamika Pendidikan*. Vol.11, No.1, hal. 50-55
- Lynch, R. L., & Harnish, D. (2003). *Implementing contextual teaching and learning by novice teachers*. Retrieved from <http://www.coe.edu/ctl/casestudy/Final.pdf>.
- Lewthwaite, S. & Nind, M. (2016) Teaching Research Methods in the Social Sciences: Expert Perspectives on Pedagogy and Practice, *British Journal of Educational Studies*, 64:4, 413-430, DOI: 10.1080/00071005.2016.1197882
- Nind, M., Kilburn, D., & Luff, R. (2015). The teaching and learning of social research methods: developments in pedagogical knowledge. *International Journal of Social Research Methodolog* Volume 18, 2015 - Issue 5, Pages 455-461.
- Prastati, T & Irawan, P. (2005). *Media sederhana*. Jakarta: PAU Dirjen Dikti Depdiknas.
- Putnam, A. R. and Leach, L. (2007). *Contextual Teaching with Computer-Assisted Instruction*. Department of Workforce Education and Development Southern Illinois University: Carbondale.
- Sadiman, A. S. (2006). *Media Pendidikan: Pengertian, pengembangan, dan pemanfaatannya*. Jakarta: PT Raja Grafindo Persada.
- Sanjaya, W. (2009). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Kencana Prenada Media Group: Jakarta.
- Shamsid-Deen, I. & Smith, B. P. (2006). Contextual teaching and learning practices in the family and consumer sciences curriculum. *Journal of Family and Consumer Sciences Education*, Vol. 24, No. 1, Spring/Summer, p.14.
- Sugeng, P., Heni, R., dan Achmad, T. (2013). Mobile Searching Objek Wisata Pekanbaru Menggunakan Location Base Service (LBS) Berbasis Android. *Jurnal. Politeknik Caltex Riau*. (Vol 1 hlm 177). <http://www.pdii.lipi.go.id/wp-content/uploads/2014/03/Seminar-Nasional-Infonnatika-SNIf-2013>. Diakses pada 12 Mei 2016.

- Sujana. & Rivai. (1992). *Media pengajaran*. Bandung: CV Sinar Baru.
- Wang Q. & Cheung W. S. (2003). *Designing hypermedia learning environments*. Dalam Chee, T.S & Wong, A.F.L (Eds.), *Teaching and Learning with Technology: An Asia-Pacific perspective* (pp. 216-231). First Lok Yang Road, Singapore: Pearson Education Asia Pte. Ltd.
- Widiati, U, Irawati, E, Basthomi, Y, et.al. (2013). Media video pembelajaran: methods of TEFL. *Jurnal Ilmu Pendidikan*, Jilid 19, Nomor 1, Juni 2013, hlm. 61-68