



## Way of Improving Learning Effectiveness on Educational Supervision Course in Covid-19 Pandemic: Development of E-Learning-Based Teaching Materials

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**Abstract:** This research is motivated by the need of the availability of teaching materials for students as supporters of online/virtual learning during the Covid-19 pandemic. Availability of E-Learning-based teaching material is expected to overcome the problems faced by students, especially how they understand teaching material on the Educational Supervision Course. This study was designed to produce E-Learning based teaching materials for Educational Supervision as an effort to improve the effectiveness of learning. Development of teaching materials for Educational Supervision course is using ADDIE Model with the steps to apply this model sequentially include: (1) analyze, (2) design, (3) development, (4) implementation, and (5) evaluation. The result of this study is the implementation of using E-learning method requires instrumental support which includes the device or media used, readiness and the ability of lecturers to implement a virtual learning system, including teaching material as a single component in the learning system.

**Keywords:** learning effectiveness, educational supervision, e-learning based teaching materials, Covid-19 pandemic

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### INTRODUCTION

Determination of Covid-19 pandemic as national disaster since March 11, 2020 had a significant impact on implementation of education in every education unit at all levels. Therefore, the government through the Ministry of Education and Culture has issued "Surat Edaran Nomor 3 Tahun 2020" (Azhar et al., 2020) concerning in prevention of Covid-19 in all education unit, from basic education to higher education level. Learning process that is using e-learning materials requires instrumental support which includes the device or media used, readiness and the ability of lecturers to implement a virtual learning system, including teaching materials as a component in the learning system. Without ignoring other components in the learning system, teaching materials are learning components that have big impact in achieving learning effectiveness, especially in supporting student to understand the course material. The availability of teaching

materials supports students engaging virtual learning. Based on preliminary study that was conducted at the Universitas Pendidikan Indonesia, the result of virtual learning shows that: (1) 82.4% students experienced difficulties; (2) only 38.9% lecturers developed learning materials; (3) and 36.1% modified the teaching materials for virtual learning (Tegeh & Kirna, 2013). It suggests that the implementation of virtual learning will experience a lot of problems and will not work effectively when it is not supported by the readiness of lecturers in providing teaching materials. Lecturers need to develop it continuously according to the needs of students in the virtual learning process.

Educational Supervision course is a part of Educational Management area that discuss about professional assistance provided by supervisors to educators and education staff to improve professionalism. It takes theoretical and practical learning to understand. Results of preliminary studies

note that: most of students experience difficulties in understanding supervision material both theory and practice. Most students assume that the availability of information and supervision material that can be accessed on the internet is less effective in supporting understanding students in the learning process.

Based on the rational, this research is designed to solve problems through product development. The main product is e-learning based teaching materials in Educational Supervision course as an effort to increase the effectiveness of virtual learning. Therefore, the objective of this study is to find out: (1) the steps for developing e-learning based teaching material of Educational Supervision course; and (2) the results of its implementation. In particular, this study aims to: (1) increase students' knowledge and understanding towards the Educational Supervision material; (2) provide guidelines for students to practice supervision techniques; (3) provide knowledge, skills, and attitudes that must be mastered and manifested by students as learning outcome; and (4) developing educational supervision materials according to the development of teaching profession needs.

## METHODS

The development of Educational Supervision teaching materials is using the ADDIE (Analysis Design Development Implementation and Evaluations) Model. This model is developed based on the theoretical foundation of learning design. This model is oriented towards solving problems in a systematic and planned manner relating to the suitability of the needs and characteristics of students with Learning Resources. Methodological practice for the design and development of texts, audio-visual materials, and computer-based learning materials are the embodiment of level of the learning material design and development, systematics aspect as procedural systems development (Darmawan, 2014). The ADDIE Model can be seen on the Figure 1 below.

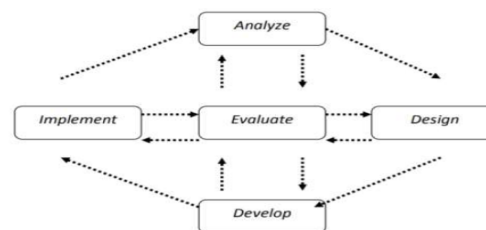


Figure 1. ADDIE Model

Figure 1 above shows the steps for applying this model include: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation. The analysis stage is the first step; researchers mapped the scope or material of educational supervision and matched them with certain platform to make students easier in accessing learning materials. The second stage is designing the development of appropriate teaching materials with syllabus or *Rancangan Pembelajaran Semester* (RPS). It has been analyzed and adjusted based on the needs of virtual learning. Next stage is developing teaching materials of Educational Supervision course. The development of teaching materials is student textbook or *Buku Ajar Mahasiswa* (BAM). Furthermore, after Educational Supervision BAM has been developed and completed, it needs validation from course expert and learning design expert. Experts' validation is important to find out how is the feasibility of Educational Supervision BAM.

Validation questionnaire is using four-point Likert scale with the description: 4 indicates "very good", 3 indicates "good", 2 indicates "poor", and 1 indicates "very poor". The validation calculation formula is as follows.

$$N = \frac{X}{\sum X}$$

Description:

N : feasibility

X : score

$\sum X$  : maximum score

After the score of the feasibility conducted by the expert, it will be continued with the analysis using validation questionnaire criteria for the feasibility of teaching materials as shown at Table 1 below.



**Table 1.** Criteria for the Feasibility of Teaching Materials

No	Score	Validation Criteria
1.	75% < N ≤ 100%	Very Good
2.	50% < N ≤ 75%	Good
3.	25% < N ≤ 50%	Poor
4.	0% < N ≤ 25%	Very Poor

## RESULTS AND DISCUSSION

The development of Educational Supervision BAM is resulted by ADDIE model. Here are the descriptions below.

### Analyze

The initial stage of this research is to conduct need assessment by observing the student learning process and interviewing students who were taking Educational Supervision courses in the Department of Educational Management, Faculty of Education, Universitas Negeri Surabaya. They were taking online class because of physical distancing as the effect of Covid-19 pandemic, in the middle of the semester, March 2020. The purpose is to determine the conditions and needs of the target. Result shows that students have difficulty in understanding educational supervision topic, especially educational supervision approaches and models. This is reasonable because to understand the approaches and models of educational supervision requires real or practical activities. It leads to one of the learning outcomes of Educational Management Department: students are able

to implement approaches and models of educational supervision.

Based on the results of the needs assessment, e-learning-based BAM are needed to help students understand the topics in educational supervision courses. This book contains topic descriptions attached with links and references in educational supervision practices. This makes students are easier to access learning resources so that they are able to understand the topic better.

### Design

We conduct an analysis of what topics will be included in the e-learning-based BAM, this is based on need assessment and what learning objectives are to be achieved. Highlight of the topics are: educational supervision description, teachers and staff's prototype, supervision stages, approaches, models, and educational supervision issues in Industrial Revolution 4.0 Era.

### Develop

At this stage of development, e-learning-based BAM was made in accordance with the flowchart and storyboard that had been made at the design stage. The main activities in this development stage are gathering materials, making e-learning-based BAM and accompanying materials.

In this section, the results of validation test will be presented. The validation results obtained through the feasibility test of teaching materials can be shown below.

**Table 2.** Course Substance Expert Assessment

No.	Criteria	Score
1.	The accuracy of chapter titles with the content of the material in each chapter	85
2.	Conformity between key concepts and course content	90
3.	Clarity of content framework	87
4.	Conformity between competency standards and learning objectives	85
5.	The operational learning objectives	87
6.	Conformity between learning objectives and material exposure	85
7.	Clarity of material description	90
8.	Clarity of examples given	87
9.	Fit between tables, charts, pictures / illustrations and materials	90



10.	The accuracy of selecting the summary content	87
11.	Conformity between the final chapter test and learning objectives	90
12.	The accuracy of the bibliography that can be used as a reference for finding sources relevant reading material	85
N		87%

Based on the instrument filled out by the substance expert, the score is 87% or very good. The advice obtained from the substance expert is to develop the material according to the learning objectives and the

bibliography needs to be improved so that the reader understands more deeply. The next assessment is the learning design carried out by related experts as shown on the table below

**Table 3.** Learning Design Expert Assessment

No.	Criteria	Score
1.	Cover quality	90
2.	The charm of the cover design	87
3.	The accuracy of the typing layout	87
4.	Consistent use of spacing, title, subtitle, and typing of material	90
5.	Clarity of writing / typing	90
6.	Completeness of the components in each chapter of teaching materials	87
7.	The accuracy of the presentation of the material	85
8.	The accuracy of placement of charts, tables or illustrations	90
9.	The clarity of the order in which the material is presented	90
10.	The accuracy of the illustrations used in the cover	85
11.	Compatibility between the material and media used	85
12.	Quality of charts, tables, or images used	85
13.	The exact size of charts, tables or figures	87
14.	The correct placement of charts, tables or figures	87
15.	Text quality	88
16.	Quality of binding	88
N		87,5%

Based on the instrument filled out by the learning design expert, the score is 87,5% or very good. The advice given by the learning design expert is that illustrations and media can be better adapted to the material so that readers understand the practice of supervision. The conclusion of the assessment is that e-learning BAM is worth trying to use in educational supervision course especially in the online learning process.

### Implementation

In the trial process, e-learning BAM of educational supervision was tested on two groups of students, namely the small group and the large group. E-learning BAM is used in two lecture meetings. The result obtained is that students understand better the

educational supervision material being taught.

It is easier for students to understand the practice of educational supervision because there are some links that connects with the educational supervision practice video. Students can also practice online education supervision by making online learning settings. The conclusion of the assessment and testing conducted by students is that it is suitable for use in online learning.

### Evaluate

The evaluation stage is carried out in two ways, namely formative evaluation and summative evaluation. Formative evaluation is carried out at each stage to make e-learning BAM of educational supervision fit for use. The feasibility of the



media is known through the media and material validation process to material experts and media experts. Meanwhile, to determine the effectiveness of using e-learning BAM in learning, formative evaluation is carried out through tests to students, namely pretest and posttest. So that there is a significant influence between the use of e-learning BAM and student learning outcomes.

This research resulted in a product in the form of e-learning BAM of educational supervision for pre-service teachers or school staffs. e-learning BAM development uses the ADDIE development model with 5 stages of development, namely Analyze, Design, Development, Implementation, and Evaluation. By going through several stages of development and testing, the e-learning BAM is declared fit for use in the learning process. The following is a discussion of the results of the trials and revisions that have been obtained.

#### **The results substance expert's validation**

The assessment of substance expert of the e-learning BAM gets 87% score or "very good" predicate. The advice obtained from the substance expert is to develop the material according to the learning objectives and the bibliography needs to be improved so that the reader understands more deeply. This proves that it is suitable to be used for online education supervision learning.

#### **The results learning design expert's validation**

The assessment of learning design expert of the e-learning BAM gets 87,5% score or "very good" predicate. The advice given by the learning design expert is that illustrations and media can be better adapted to the material so that readers understand the practice of supervision. It shows that e-learning BAM is worth trying to use in educational supervision course especially in the online learning process.

#### **The results of students' trial using e-learning BAM**

Based on formative evaluation that is carried out through tests to students, namely pretest and posttest shows that there is a significant influence between the uses of e-learning BAM and student learning outcomes. It means that e-learning BAM is fit with students needs in studying educational supervision material. E-learning BAM helps students understand more easily the type of educational supervision even when studying online.

#### **CONCLUSION**

This research is designed to solve educational supervision course online learning problems through the development of e-learning BAM or educational supervision teaching material. It is an effort to increase the effectiveness of online learning in Covid-19 pandemic. The results of the preliminary study show that most students have difficulty understanding the supervision material and implementing educational supervision practices only with explanations from the lecturer through virtual classes. E-learning BAM of Educational Supervision is developed using ADDIE model and through this model e-learning BAM that is fit with students needs in online learning are made. There are some advices from substance and learning design experts for e-learning BAM of Educational Supervision: develop the illustration, improve bibliography, and adapt the learning material from educational supervision practices so that students understand better. E-learning BAM was also tried out on students and the result shows that help students understand more easily the practice of educational supervision even when studying online. There is a significant influence between the uses of e-learning BAM and students learning outcomes.

#### **REFERENCES**

- Azhar, E. I., Hui, D. S. C., Memish, Z. A., Drosten, C., Zumla, A., & Kemdikbud RI. (2020). Edaran Tentang Pencegahan Wabah COVID-19 di Lingkungan Satuan Pendidikan Seluruh Indonesia. *Infect Dis Clin North Am*, 33, 1–5.



Darmawan, D. (2014). *Pengembangan Elearning: Teori dan Desain*. Remaja Rosdakarya.

Pengembangan Bahan Ajar Metode Penelitian Pendidikan Dengan Addie Model. *Jurnal Ika*, 11(1), 16.

Tegeh, I. M., & Kirna, I. M. (2013).