Improvement Model of Lecturer Ability in Preparation of Assessment Instruments Civic Education in Higher Education

Wijianto, Winarno, Rini Triastuti

Faculty of Teacher Training and Education, Sebelas Maret University, Surakarta, Indonesia.

Keywords: Model; Assessment Instruments; Civic Education; Higher Education

Abstract: This study aims to produce a model for improving the ability of lecturers in the preparation of assessment instruments for civic education in universities. The method used in the form of ADDIE instructional design development model with stages of Analysis, Design, Development, Implementation, Evaluation. Resarch involves lecturers of civic education in the city of Surakarta. The results showed that the model of improving the ability of lecturers in the preparation of assessment instruments for civic education in higher education at the stage of needs analysis found problems, not reflecting the characteristics of students, not oriented to the assessment component of civic education, there is no instrument for assessment of civic dispotision and civic skill.

1 INTRODUCTION

In Learning analytics can improve learning practice by transforming the ways we support learning processes (Olga, Mathias, Olof, Anna, 2018). The learning process in higher school or universities is highly expected to use innovative learning models, which did not develop cognitive aspects only, but can achieve affective and psychomotor aspects. The implementation of Civic Education in universities is realized in the form of learning, which are includes planning, implementing, and evaluating. These three stages are designed towards that they cannot be separated from each other to achieve a learning goal (Liu, Kang, Zou, Lee, Pan, Corliss, 2017)

The planning stage is the initial stage in learning activities that are very important as signs in the implementation of learning itself. In-depth analysis is needed to design learning plans. So that learning planning is obtained which accommodates the three expected competencies, namely cognitive, affective, and psychomotor aspects (Jivet, Scheffel, Specht, Drachsler, 2018)

The education paradigm is related to 4 (four) things that are the basis for the implementation of education, namely students, lecturers, materials and education management. In implementing education, there are at least two poles of paradoxical paradigm, namely the feudalistic paradigm and the humanistic paradigm. The feudalistic paradigm has the assumption that educational institutions (universities) are a place to train and prepare students for the future. (Rienties and Toetenel, 2016) Therefore, students are placed as objects only in learning, while lecturers as the only source of knowledge of truth and information, behave authoritarian and bureaucratic. Learning material is structured rigidly so that it encapsulates the creativity of students and lecturers. (Rubel and Jones, 2016) Meanwhile, education management including learning management is centralistic, bureaucratic and monolithic. In applying the learning strategy, it is very dogmatic, indoctrinative and authoritarian.

Meanwhile the humanistic paradigm based on the assumption that students are human beings who have different potential characteristics. Therefore, in this view students are placed as subjects as well as objects of learning, while lecturers are positioned as facilitators and student dialogue partners. (Brickhouse, 1990) Learning materials that are prepared based on the basic needs of students, are flexible, dynamic and phenomenological so that the material is contextual and has relevance to social demands and changes. Also the management of education and learning emphasizes on a decentralized, non-bureaucratic dimension, recognizing plurality with the use of varied and democratic learning strategies. Observing the

direction of change and refinement of the signs for the implementation of the Civic Education Course that has been determined by the Directorate General of Higher Education, has indicated using the humanistic paradigm. (Hancock and Gallard, 2004)

However, the learning process is closely related to the evaluation system. To be able to know the success of a learning process, the evaluation system prepared must be in accordance with the paradigm and characteristics of learning civic education. Therefore, the planning of assessment instruments is very important and must be truly mastered by the lecturer in preparing the instructional design course. This article discusses the data of model for improving the ability of lecturers in the preparation of instruments for assessing civic education in universities..

2 LITERATUR REVIEW

There are several stages of the design process which are divided into four activities, namely: constructing criterion referenced test, media selection, selection format, initial design. Activities carried out at this stage include: 1) Compile the criteria test, as the first action to find out the initial ability of students, and as an evaluation tool after the implementation of the activity. 2) Selecting learning media that is in accordance with the material and characteristics of students. 3) Selection of the form of presentation of learning adapted to the learning media used. If the teacher will use audio visual media, at the time of learning, of course students are told to see and appreciate the audio visual media show. 4) Simulate the presentation of material with the media and the learning steps that have been designed. When the learning simulation takes place, assessment is also carried out by peers (Oster, Lonn, Pistilli, and Brown, 2016)

In the design stage, researchers have made a prototype or product design. In the context of the development of teaching materials, this stage is carried out to make modules or textbooks in accordance with the content framework of the results of curriculum and material analysis (Nistor, Demtl, and Klamma, 2015) In the context of developing learning models, this stage is filled with activities to prepare the conceptual framework of learning models and tools (material, media, evaluation tools) and simulate the use of the learning models and devices in a small scope (Banta and Associates, 2002)

Before the product design continues to the next stage, the product design (models, textbooks, etc.) needs to be validated. Product design validation is carried out by peers such as lecturers or teachers from the same field of study/expertise (Rienties, Toetenel, Bryan, 2015) Based on the results of the peer validation, there is a possibility that the product design still needs to be corrected according to the validator's advice.

Another important process within instructional design is a division of the development stage which is devided in two activities, namely: expert appraisal and developmental testing (Wise, Vytasek, Hausknecht, and Zhao, 2016) Expert appraisal is a technique to validate or assess the feasibility of product design. In this activity an evaluation was conducted by experts in their fields. The suggestions given are used to improve the material and learning designs that have been compiled. Developmental testing is the activity of testing product designs on the real target subject. At the time of this trial data was searched response, reaction or comment from the target user of the model. Test results are used to improve the product. After the product has been repaired, it is re-tested until it has effective results (Williams, 2017)

In the context of instrument development, the development stage is carried out by analyzing instrument requirements and then testing the instrument products to the experts involved during design validation. The test results are then used for revision so that the instrument really meets the needs of users.

3 METHODS

This research was conducted at the Sebelas Maret University, Surakarta, in the general subject of Citizenship Education. The object of the research study is the design instructional learning plan made by all Lecturers of the General Lecture on Civic Education at the Sebelas Maret University, Surakarta. To construct a learning assessment design model, researchers dig up information through Focus Group Discussion with experts who have expertise and experience within Civic Education Subject at Sebelas Maret University, Surakarta.

This research used ADDIE instructional design development model. ADDIE was Analysis, Design, Development or Production, Implementation or Delivery and Evaluations. ADDIE model developed by Dick and Carry (1996) an explanation of ADDIE, as follows:

3.1 Analysis

At this stage, the main activity is to analyze the need to develop new learning models/methods and analyze feasibility and the requirements for developing new learning models / methods. The development of new learning methods begins with an internal problem learning model / method that has been applied.

3.2 Design

In designing learning models/methods, the design phase has similarities with designing teaching and learning activities. This activity is a systematic process that starts from setting learning goals, designing scenarios or teaching and learning activities, designing devices learning, designing learning materials and learning outcome evaluation tools. The design of the model/learning method is still conceptual and will underlying the next development process.

3.3 Development

Development in the ADDIE model contains design realization activities product. In the design stage, a conceptual framework for implementation has been prepared new learning model/method. In the development stage, the framework it is still conceptualized into a ready product implemented. For example, if the design stage has been designed use of new conceptual models/methods, then at the stage development is prepared or made with learning tools new models/methods such as lesson plans, media and subject matter.

3.4 Implementation

At this stage the design and methods have been implemented developed in a real situation that is in class. During implementation, the design of the model/method that has been developed is applied to conditions which are actually. The material is delivered according to the new model/method developed. After applying the method then an initial evaluation is carried out to provide feedback on the application of the next model/method.

3.5 Evaluation

Evaluation is carried out in two forms, namely formative and summative evaluation. Formative

evaluation is carried out at the end of each meeting (weekly) while summative evaluation is carried out after the activity ends in its entirety (semester). Sumative evaluation measures the final competency of subjects or learning objectives to be achieved. Evaluation results are used to provide feedback to parties user model/method. Revisions are made in accordance with the evaluation results or needs that have not been met by the new model/method. The table bellow showed ADDIE process in this study:

Table 1. ADDIE Development Design

The Procces of ADDIE in Improvement Model		
A	**Analysis**	*Analyze the lack of instructional design courses for civic education in universities*
D	**Design**	*Make a mapping design of instructional design courses for civic education in universities*
D	**Develop**	*Develop a model of instructional design courses for civic education in universities*
I	**Implement**	*Implementing a model of instructional design courses for civic education in universities*
E	**Evaluate**	*Evaluating the model of instructional design courses for civic education in universities*

4 RESULT AND DISCUSSION

Based on document review and focus group discussion, researchers found that the majority of instructional design for civic education in higher education made by lecturers was oriented to the cognitive/knowledge aspect, which reached 80% of the total 92 Classes. Of the total 80% of cognitive-oriented instructional design, 60% have low cognitive levels. This data showed that the thinking orientation of the lecturers of civic education is dominated by cognitive orientation, thus the assessment process will only lead to cognitive evaluation only.

As for more detailed data regarding instructional design courses on civic education are as follows:
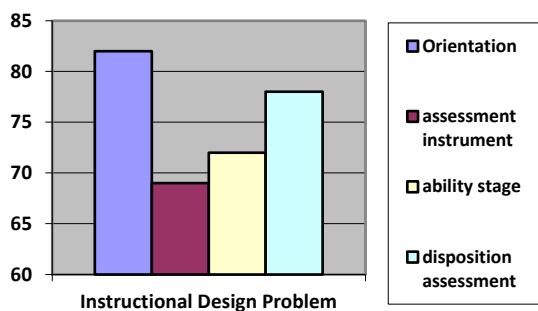
Figure 1. Instructional Design Problem Civic Education in Universities

Based on the chart above, we know that instrukctional design problem within civic education learning process in higher education are 82 or about 90% of the 92 instructional designs studied were found not to be oriented towards Civic Disposition and Civic Skill. 69 instructional designs (75%) out of a total of 92 instructional designs found errors in the use of operational verbs in the learning process. 72 or about 78% of the 92 instructional designs studied, found that there were no measurable ability stages so that the target of learning achievement was not known and what. 78 or about 85% of the 92 instructional designs studied, are not known or not included about the formulation of attitudes in the learning process.

Other data found related to assessment instruments on civic education instructional design are as follows:
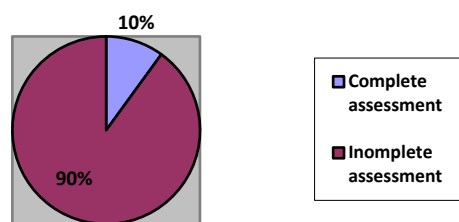

Figure 2. The Problem of Affective and Skill's Assessment

There are problems in the affective assessment planning process and skills in instructional design. 90% or around 83 of the total 92 RPS studied, there were no affective and skill assessments. That is, only 10% of the overall instructional design that has the completeness of the assessment process planning is

cognitive assessment, affective assessment, and psychomotor assessment.

The problem in the instructional design planning process carried out by lecturers in civic education courses in universities is dominated by immature planning problems at the planning stage of assessment instruments which are still difficult in compiling their assessment instruments. Lecturers find it difficult to develop operational verbs in the affective and skill assessment stages. As for the cognitive assessment stage, lecturers of citizenship education did not experience problems.

Based on the data, researchers have made an improvement model of lecturer ability in preparation of assessment instruments civic education in higher education bellows:
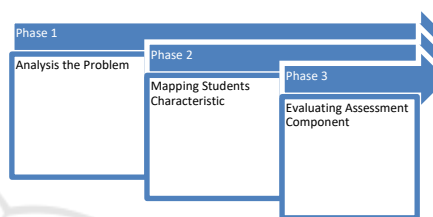

Figure 3. Improvement Model in Preparation of assessment instrument

5 CONCLUSIONS

The results showed that the model of improving the ability of lecturers in the preparation of assessment instruments for civic education in higher education at the stage of needs analysis found problems, not reflecting the characteristics of students, not oriented to the assessment component of civic education, there is no instrument for assessment of civic dispotision and civic skill. Lecturers find it difficult to develop operational verbs in the affective and skill assessment stages. As for the cognitive assessment stage, lecturers of citizenship education did not experience problems.

REFERENCES

Banta, T. W. & Associates. Building a Scholarship of Assessment. San Francisco: Jossey-Bass, 2002. Essays by leaders in the field, addressing practical issues, but focusing on developing a "scholarship of assessment." Bibliography provides recent references to more specialized works on designing and selecting assessment instruments and other topics.

Brickhouse NW. 1990. Teachers' beliefs about the nature of science and their relationship to classroom practice. J Teach Educ 3:53–62

Dick, W and Carey, J. O. 1996. The Systematic Design of Instruction. New York,Longman.

Hancock ES, Gallard AJ. 2004. Preservice science teachers' beliefs about teaching and learning: the influence of K-12 field experiences. J Sci Teach Educ 15:281–291

Jivet, I., Scheffel, M., Specht, M., & Drachsler, H. 2018. License to evaluate: Preparing learning analytics dashboards for educational practice. Proceedings of the 8th international conference on learning analytics & knowledge (pp. 31–40). ACM.

Liu, M., Kang, J., Zou, W., Lee, H., Pan, Z., & Corliss, S. 2017. Using data to understand how to better design adaptive learning. Technology, Knowledge and Learning, 22(3), 271–298.

Nistor, N., Derntl, M., & Klamma, R. 2015. Learning Analytics: Trends and issues of the empirical research of the years 2011-2014. In G. Conole et al (Ed.). Design for teaching and learning in a networked world: Ec-tel 2015, LNCS 9307 (pp. 453–459). Springer.

Olga Viberga,∗, Mathias Hatakkab, Olof Bältera, Anna Mavroudia. 2018. The current landscape of learning analytics in higher education. Computers in Human Behavior 89, pp. 98–110.

Oster, M., Lonn, S., Pistilli, M. D., & Brown, M. G. (2016, April). The learning analytics readiness instrument. Proceedings of the sixth international conference on learning analytics & knowledge (pp. 173–182). ACM.

Rienties, B., & Toetenel, L. 2016. The impact of 151 learning designs on student satisfaction and performance: Social learning (analytics) matters. Proceedings of the sixth international conference on learning analytics & knowledge (pp. 339–343). ACM.

Rienties, B., Toetenel, L., & Bryan, A. 2015. "Scaling up" learning design: Impact of learning design activities on LMS behavior and performance. Proceedings of the fifth international conference on learning analytics and knowledge (pp. 315–319). ACM.

Rubel, A., & Jones, K. 2016. Student privacy in learning analytics: An information ethics perspective. The Information Society, 32(2), 143–159.

Williams, P. 2017. Assessing collaborative learning: Big data, analytics and university futures. Assessment & Evaluation in Higher Education, 42(6), 978–989.

Wise, A., Vytasek, J., Hausknecht, S., & Zhao, Y. 2016. Developing learning analytics design knowledge in the "middle space": The student tuning model and align design framework for learning analytics work. Online Learning, 20(2), 155–182.