

MANAGEMENT MODEL FOR TRAINING OF PEDAGOGICAL COMPETENCE FOR LECTURERS WITH NON-TEACHER TRAINING BACKGROUND AT STAIN IN CENTRAL JAVA

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Abstract :

The Law of the Republic Indonesia number 14 2015 requires teachers - including lecturers- to have -among others- pedagogical competence. It has been said that a large number of lecturers at higher education institutions show low level of the competence. Although several training programs are conducted to improve their pedagogical competence, the result shows little significance. This calls for serious handling in the management of these training programs, especially ones designed for those with non-teacher training background. This study employs Research and Development approach. Data analysis was conducted using a descriptive model (interactive model) and paired t test/wilcoxon. This research results in a management model for pedagogical training programs for lecturers with non-teacher training background along with its practical manual. The management phases consist of planning, organizing, actuating, evaluating, and monitoring followed by follow-up programs. The research shows that the management model used for training of pedagogical competence is considered effective in enhancing the pedagogical competence of lecturers with non-teacher training background at STAIN in Central Java.

Keywords: Management model for training, Lecturers' pedagogical competence, Lecturers with non-teacher training background

A. Introduction

Lecturers play a vital role in an educational system of higher education. This role, task, and responsibility fundamentally contributes to the realization of national education objectives, which is to enrich the life of the nation, improve the quality of Indonesian people; quality of their faith, noble character, and the mastery of science, technology, and art in order to realize the prosperity, justice, and morale of Indonesian people.

Barakat (1998:121) states that lecturers serve as the heart of higher education that determine the quality of its education and graduates. The government regulation number 37 year 2009 states that lecturers are professionals and scientists whose tasks are to transform, develop, and disseminate science, technology and art through education, research and community service. This necessitates lecturers to exercise specific competence in managing learning process, which is pedagogical competence. This competency assures lecturers to have capacity in managing learning process. It includes: 1)an understanding of basics of education, 2)an understanding of learners, 3)curriculum development, 4)instructional design, 5)implementation of humanistic learning, 6)use of learning technology, 7)evaluation of learning process and outcome, and 8)providing learners with capacity for self-actualization.

Preliminary research to 58 respondents (29 lecturers with non-teacher training background at STAIN Pekalongan, and 29 lecturers with non-teacher training background at STAIN Purwokerto) shows that there are 15 respondents -25,86%- with adequate pedagogical competence, 18 respondents -31,03%- with inadequate pedagogical competence, and 25 respondents -43,10%- without pedagogical competence. Need analysis conducted to lecturers with non teacher training background at all STAINs in central Java shows 85,2% of the respondents greatly need pedagogical training

Additionally, initial finding shows a number of shortcomings and ineffectiveness of the management of the training of pedagogical competence at STAIN across central Java. This lays the background of this research that focused on development of management model for pedagogical training to resolve the problem)

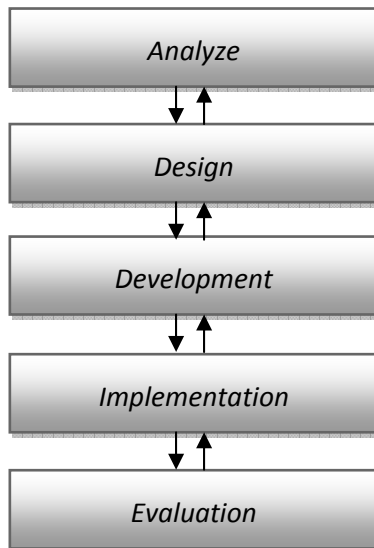
B. Literature review: Management model for training and Pedagogical competence

Experts have defined what management and training is. Terry defines the term management as a process or framework that involves guidance and direction for a group of people aiming at realization of organizational objectives and real goals. Jams AF. Stoner defines management as processes of planning, organizing, directing and controlling the work of member of an organization and the use of other organization resources to realize the objectives of the organization. Harsey and Blanchard defines it as a process to achieve organization objectives through leadership.

Simamora defines training as a systematic process of changing the behavior of workers to improve operational goals. Hamalik states that training aims at giving special instructions to execute tasks in accordance with on e's position and job. Drummond defines training as guiding and directing participant's capacity development through knowledge, skills and attitude to meet a required standard. The aforementioned discussion above concludes that management of training can be defined as activities comprising processes of managing collective efforts of members of training organization in order to realize its objective effectively and efficiently

Therefore, a management model discussed in this research is a model of managing training program that consists of identification of needs and objectives, planning of training design, determining training methods, developing training

materials, executing training, evaluating and determining follow-up actions. In addition to that, to implement management of training requires a model that can describe not only its training model, but also functions of management consisting of planning, organizing, directing and controlling. ADDIE is considered an appropriate model for this research. This model comprises a cycle of five components, namely ‘analyze’ training needs, ‘design’ desired competences to achieve in training, ‘develop’ materials, media and methods to be used, ‘implement’ training sessions, ‘evaluate’ training process and results for improvement. The scheme of this ADDIE model is as follow:



Picture 1 : ADDIE training model
(*Analyze-Design-Development-Implementation-Evaluation*)
(Molenda & Pershing, 2003:2)

ADDIE model was introduced in 1990s by Reiser and Mollenda. It functions as guidance in developing tools and

structure of effective training program to help trainers in managing the learning process.

Steps in ADDIE model can be described as follow: first, *analyze*. This step is a process that defines materials to be mastered by trainees, which is commonly called needs assessment, challenges identification, and task analysis. The outcome of this process is profile of trainees, gap identification, needs identification, and detailed task analysis based on the identified needs. Second, *design*. In this step, objectives of training are determined. This step is also known as making a training plan that is followed by developing test based on the objectives. Third, *development*. This step is a process to realize the plan into implementation. One crucial phase in this process is experiment prior to implementation. This experiment mirrors the 'evaluation' steps in ADDIE because it function as formative evaluation whose result will be used to improve management system under development. Fourth, *implementation*, which is the real action or execution of training. Fifth, *evaluation*, which is a process to determine the success of the training. In fact, evaluation can take place at each step of ADDIE, which is a formative one that fix problems found at all steps.

C. Research Methods

The design of this research employs the one developed by Borg and Gall. To them (193:775) there are ten steps in research and development, namely: (1) Research and information collection, (2) Planning; (3) Develop preliminary form of product, (4) Preliminary field testing; (5) Main product revision, (6) Main testing field, (7) Operational product, (8) Operational field resting, (9) Final product revision, (10) Dissemination.

Based on this design, this research categorises three main steps used along the process, namely (1) phase of preliminary study, (2) phase of developing a management model for training,

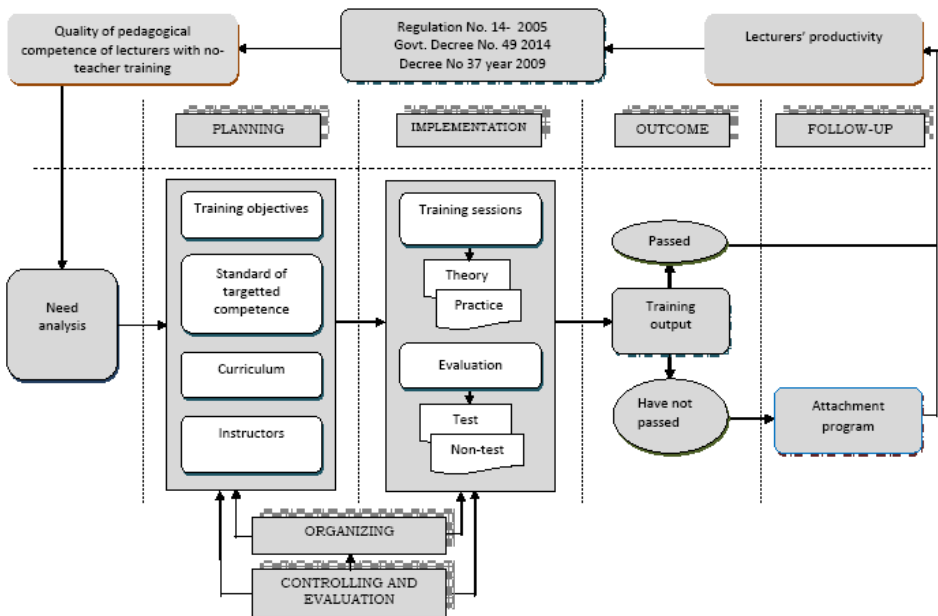
(3) phase of evaluation. These three phases are described in the table below:

Procedure	Data Source	Data collection methods	Instrument	Validity test	Analysis methods
Phase of preliminary research	(1) 58 lecturers (study on level of lecturers' pedagogical competence) and 40 lecturers (need assessment for management model for training), (2) organizers of the training at two STAINs, Pekalongan and Purwokerto, and (3) documents and records of number of trainings held at STAIN Pekalongan and Purwokerto.	<i>Questionnaire, interview, document, study of literature</i>	<i>Closed questionnaire, interview guide, camera and documents.</i>	Prediction and content validity	Quantitative analysis (Descriptive statistics) and qualitative analysis.
Phase of development	(1) 10 lecturers to test research instruments, (2) 11 lecturers for limited experiment, and (3) 21 lecturers for extended experiment	<i>Questionnaire, observation, document, test</i>	<i>Closed and open questionnaire, observation guide, camera and test items.</i>	Prediction and content validity	Quantitative Analysis (t-test /wilcoxon) and qualitative analysis
Phase of Evaluation	Model designers and team of experts.	Questionnaire	Closed and open questionnaire	Prediction and content validity	Qualitative Analysis

D. Research result and discussion

1. *Final management model for training of pedagogical competence for lecturers with non-teacher training background*

The final management model for training of pedagogical competence for lecturers with non-teacher training background was produced from a hypothetical model that has been experimented and validated by experts. The result of parametric t-test before and after the training in a limited experiment was $p=0,00$, $p < 0,05$, and the result of wilcoxon test before and after the training in an extended experiment was $p = 0,00$, $p < 0,05$. Since p-value is smaller than $\alpha = 0,05$, it is concluded that the score of the participants' pedagogical competence after the training is better than the one before the training. This final model is expected to be a management model for such training that can help to improve pedagogical competence of lecturers with non-teacher training background at STAIN in Central Java. The picture of the model is described in picture 4.5.



Picture 4.5. Final Management Model for pedagogical training of lecturers with non-teacher training background

Description of this final management model for training of pedagogical competence of lecturers with non-teacher training background is as follow:

The final model of management for training of pedagogical competence of lecturers with non-teacher training background resulted from a hypotethic model that has been tested and validated by experts. The result of paremetic t-test prior and after the training shows that $p=0,00$, $p<0,05$. The wilcoxon test prior and after the training shows $p=0,00$, $p<0,05$. Since p -value is lower than $\alpha = 0,05$, it is cocncluded that the score of pedagogical competence of lecturers with non-teacher training background after the training is higher than that of prior to the training. This final model is expected to become a model that can improve the pedagogical competence of this group of lecturers at STAIN across Central Java. The scheme of the model is described in picture 4.5.

a. Planning

This phase comprises setting training objectives, standard of targetted competence, curricula, and instructors.

b. Training objectives

The objectives of the training are to improve the pedagogical competence of lecturers with non-teacher training background at STAIN across Central Java. The quality of pedagogical competence of lecturers influences the quality of learning activities and the production of qulity students

c. Standard of targetted copetence

this training is expected to produce individuals with competence in curriculum development and management of learning activities. The following are the sub-competences that should be mastered by participants: (1) capability of developing curriculum, which means able to comprehend

fundamental concepts of curriculum and its development, (2) capability of designing creative and innovative syllabus, (3) capability of designing lesson plans, (4) capability of designing evaluation instruments, and (5) capability of implementing the evaluation results.

d. Curriculum

The curriculum of the training consists of two main components, which is the structure of curriculum and training programs. The former contains materials to be delivered in the training, which includes (1) curriculum and syllabus development in higher education institution; and (2) management of learning activities. The latter consists of methods, media, evaluation, and allocation of training sessions

e. Participants

The participants in this training are lecturers with non-teacher training background. The responsibilities of the participants are: (1) attending the training and ensuring the accomplishment of given tasks, and (2) attending a session delivered by center for quality management provided they failed the training.

f. Educators (Instructors)

Educators or instructors are those with expertise in pedagogical and professional competence required by a lecturer. The qualification of instructors in this training are (1) an expert with doctorate qualification in education, (2) an experience of more than ten years of teaching, (3) an experience of participating in seminars on education domestically and globally, (4) a fine capability of communication with participants. In addition to that, instructors must have a broad understanding about pedagogical competence required by a lecturer.

In this training, educator or instructor are responsible for (1) delivering materials set in the curriculum, (2) giving tasks to participants, (3) evaluate and provided inputs regarding the given tasks to participants, (4) evaluate learning simulation performed by the participants.

g. Implementation and organization

Core activities in this training consist of (1) delivery of materials and simulation practice, and (2) evaluation, both test and non-test. The test was carried out to identify participant's understanding of the materials, while the non-test one was performed to identify participants' skill to produce syllabus, lesson plan, and teaching practice.

The Description of each step of this training is as follow:

1) Ice breaking

At the beginning of the training, the participants took part in *Ice breaking* activity, which is one where everyone – trainees and trainers- get to know each other. The instructors were free to choose appropriate strategies. The main objective of this activity is that everyone knows all other members in the program so as to help goal achievement in its best result.

2) Delivery of materials

The materials deal with pedagogical competence that focus on curriculum and syllabus development and management of learning. The materials comprise (1) theories and concepts of curriculum development; and (2) creating syllabus. Materials on management of learning contain (1) designing a lesson plan which consists of theory and practice, (2) simulation of teaching activity, (3)

evaluating students' outcome, and (4) ensuring follow-up activities resulting from evaluation process.

The delivery of training materials employs a number of methods, namely interactive lecturing, small group discussion, drill, and peer-teaching practice. These methods should be used in a such a way that ensuring the effectiveness of delivery.

3) Simulation

After delivery of materials, the participants were required to take part in a simulation where they can practice the theories being learned. The simulation takes form in developing syllabus, designing a lesson plan and teaching practice.

4) Reflection

After the simulation, the participants perform reflection with the guidance from instructors. Through simulation, participants were expected to identify their strengths and weaknesses which afterwards work on the weaknesses and develop the strengths.

The organizer of this training is a unit for quality assurance of each institution (STAIN in Central Java). The organizer is responsible for: (1) facilitating the execution of the program within the institution, (2) do the follow-up activity by providing attachment program where some participants are considered failed. The institutions (STAINs) are responsible for providing facilities needed in making this program successful.

h. Monitoring and Evaluation

Management of this pedagogical competence training requires monitoring and evaluation. The evaluation process

begins from steps of planning, implementation and follow-up activities. Evaluators of this training are head deputies of each institution who are in charge of academic matters and heads of quality assurance unit. Monitoring is conducted to control the implementation of the training including processes of planning, organizing, and executing. This is done to minimize any shortcoming that might happen along the course of the training.

Evaluation conducted in this training is to assess course of actions which includes assessment of planning, assessment of organizing, and assessment of executing the program. At the phase of planning the valuation will assess the setting of objective, qualification standard, curriculum, and instructors. The evaluation is also performed to find out whether all the resources are effectively allocated. Finally, the evaluation will assess the learning process and practice.

i. Post-training follow-up

Post-training follow-up activities cover attachment program for participants completing the training. This is done for those participants who are considered have not passed the training. When an assessment has declared their mastery of pedagogical competences, this follow-up activity ceases. This post-training activity is performed based on the fact that not all who participate in the training could complete it successfully.

2. Discussion on final model for management of pedagogical competence training for lecturers with non-teacher training background

A final model serves as hypothetic model that has been experimented in limited and extended experimentation and has been validated by experts. The result demonstrates that the

model for management of training receives much appreciation from the subjects of the experimentation. The model was also proved to be effective in improving the pedagogical competence of lecturers with non-teacher training background. This is shown by level improvement of the competence between prior and post training. This improvement is expected to render positive influence on the quality of education provided by the institutions. This corresponds with Barakat (1998:121) who states that lecturers play a crucial role in determining the quality of both the education provided by the institution and its graduates. The quality of education provided by a higher education institution depends on the quality of its teachers or lecturers, and vice versa.

An excellent educational program will remain producing unsatisfactory graduates if not supported by quality lecturers. This is so because good education process largely depends on good-quality lecturers. Employing good-quality lecturers, an institution could design best programs and curricula to ensure production of good graduates.

The final model of management of the training consists of management phases, namely planning, organizing, implementing, evaluating and monitoring, and post-training follow-up activities. These phases correspond with the ones belong to ADDIE model (Molenda & Pershing, 2003:2) that comprise five steps; *analyse*: analysing needs of participants, *design*: designing targeted competences, *development*: developing materials, media and methods of the training; *Implementation*: executing the program, and *evaluation*: evaluating the implementation of the program.

The result of parametric t-test before and after the training in a limited experiment was $p=0,00$, $p < 0,05$, and the result of wilcoxon test before and after the training in an extended experiment was $p = 0,00$, $p < 0,05$. Since p-value is smaller than $\alpha = 0,05$, it is concluded that the score of the participants' pedagogical competence after the training is better than the one

before the training. This can be said that the new management model for the pedagogical competence training could become an alternative model for such training within the Ministry of Religious affair, Republic of Indonesia, to improve the level of pedagogical competence of lecturers.

E. Conclusion

The discussion above concludes that: (1) the factual model for training of pedagogical competence for lecturers at STAIN in central Java shows a number of limitation and lacks of maximizing effective use of management functions; (2) a design of management model development for training of pedagogical competence is highly needed by lecturers with non-teacher training background; (3) the final model for management of training of pedagogical competence for lecturers with non-teacher training background proves to be effective in the improvement of the competence. The model was proved to (1) meet the requirements, (2) be practical and useful, (3) be effective, (4) be sustainable, and (5) meet the principle of meaningfulness. This research implies that (1) this management model is effective in improving the pedagogical competence of the participants, which then influence the effectiveness of teaching activities, (2) this model might need to be made an alternative management model in carrying out such training at state Islamic higher education institutions under the management of the Ministry of Religious Affairs. This research also put some recommendation; (1) STAIN Pekalongan and STAIN Purwokerto need to design programs to improve the pedagogical competence of lecturers and implement this management model in order to enhance the quality of education both internally and externally, (2) similar researches on training of pedagogical competence need to be conducted especially ones focusing on certain courses, (3) the achieved effectiveness of this research is limited to two institutions (STAIN Pekalongan and

STAIN Purwokerto). This shows that further development and assessment need to be done in relation to othe STAINs.

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