Research and Development of Training Package to Enhance Curriculum and Learning Management Competency for Lecturers of Faculty of Education

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Abstract

The purposes of this research were 1) to examine the needs regarding curriculum and learning management competency enhancement for lecturers of Faculty of Education and 2) to develop a training package to enhance curriculum and learning management competency for lecturers of Faculty of Education. Curriculum and teaching were scoped out for this study, and 32 samples were selected by purposive sampling method. The research instruments were questionnaire on the subject of the needs for curriculum and learning management competency enhancement for lecturers of Faculty of Education, training package, training achievement test and satisfaction questionnaire. Statistical analysis used were percentage, mean, standard deviation, and t-test.

The research results revealed that: 1) the overall mean of the needs for curriculum and learning management competency enhancement for lecturers of Faculty of Education was at a high level (3.76), 2) efficiency of training package to enhance curriculum and learning management competency for lecturers of Faculty of Education was at 89.18/80.00 (consistent with the specified criteria of 80/80), and 3) the comparison of training achievement before and after training revealed that the pre-test cores were higher than the post-test's at statistical significance of 0.05.The efficiency of the training package

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was 0.5019 which showed that the trainees increased their knowledge of 0.5019 or 50.19 % The overall mean of satisfaction of the trainees with the training was at 4.62, indicating that the teachers were most satisfied with the training.

Keywords: Training package, curriculum and learning management competency

Significance of the study

Education is an important factor in promoting sustainable development. The followings are the main aims: 1) changing attitudes of awareness when problems arising from development and 2) having good skills and behaviors to promote sustainable development are aimed by teaching and learning integration (Siribanphithak, 2012).

Rajabhat Universities have implemented new strategy of for local development in accordance with the Royal 20-year policy (2017 - 2036) consisting of 4 strategic issues as follows:

1. Local development

2. Teacher production and development

3. Quality of education improvement

4. Management system development

The second strategic issue (Teacher production and development) is regarded as the heart of the development nationwide from teacher colleges to Rajabhat universities. The second strategic issue comprises of 3 important components that all Rajabhat universities must proceed:

1 Closed/open teacher production system

2 Teacher potential development

3 Development of teacher production and development innovation

The important person to implement all 3 components according to this strategy is the lecturers and professors of the pre-service teachers who are the lecturers of Faculty of Education. The development of lecturer potential for expertise and role model is one of the success indicators of the strategy of teacher production and development.

In current conditions, most lecturers of Faculty of Education in Rajabhat universities are the new generation. They have become a teacher after completing a master's degree or PhD without any experience in teaching and

learning at the basic level or higher education. This fact affects the development of students of Faculty of Education who need knowledge, experience, and integration of teaching and learning.

Due to such problems and importance, the researcher is interested in conducting a research and development of training packages to enhance curriculum and learning management competency for the lecturers of Faculty of Education aiming at becoming a role model for professional expertise, being accepted by society, and applying knowledge and experience for the development of curriculum and teaching in higher education.

Research Objectives

1. To examine the needs for curriculum and learning management competency enhancement for lecturers of Faculty of Education

2. To develop a training package to enhance curriculum and learning management competency for lecturers of Faculty of Education. Sub-objectives were to investigate:

2.1 Training package efficiency

2.2 Comparison of training achievement before training and after training

2.3 Efficiency of the training package

2.4 Satisfaction of the trainees with the training

Research Methodology

The researcher adopted the research and development process to create and determine the quality of research instruments. The three steps of the process were as follows:

1. Need Assessment

Needs study for curriculum and learning management competency enhancement for lecturers of Faculty of Education consists of two areas as follows:

1.1 Review and research information, various documents and sources of knowledge

1.2 Inquire into opinions regarding the needs for curriculum and learning management competency enhancement

1.2.1 Resources: Documents, texts, other knowledge sources, and the lecturers of Faculty of Education, Buriram Rajabhat University

1.2.2 Research instruments: Content analysis form and questionnaire

1.2.3 Data collection: Self-operation

1.2.4 Data analysis: Content analysis and statistical analysis (percentage, mean and standard deviation)

2. Training package development

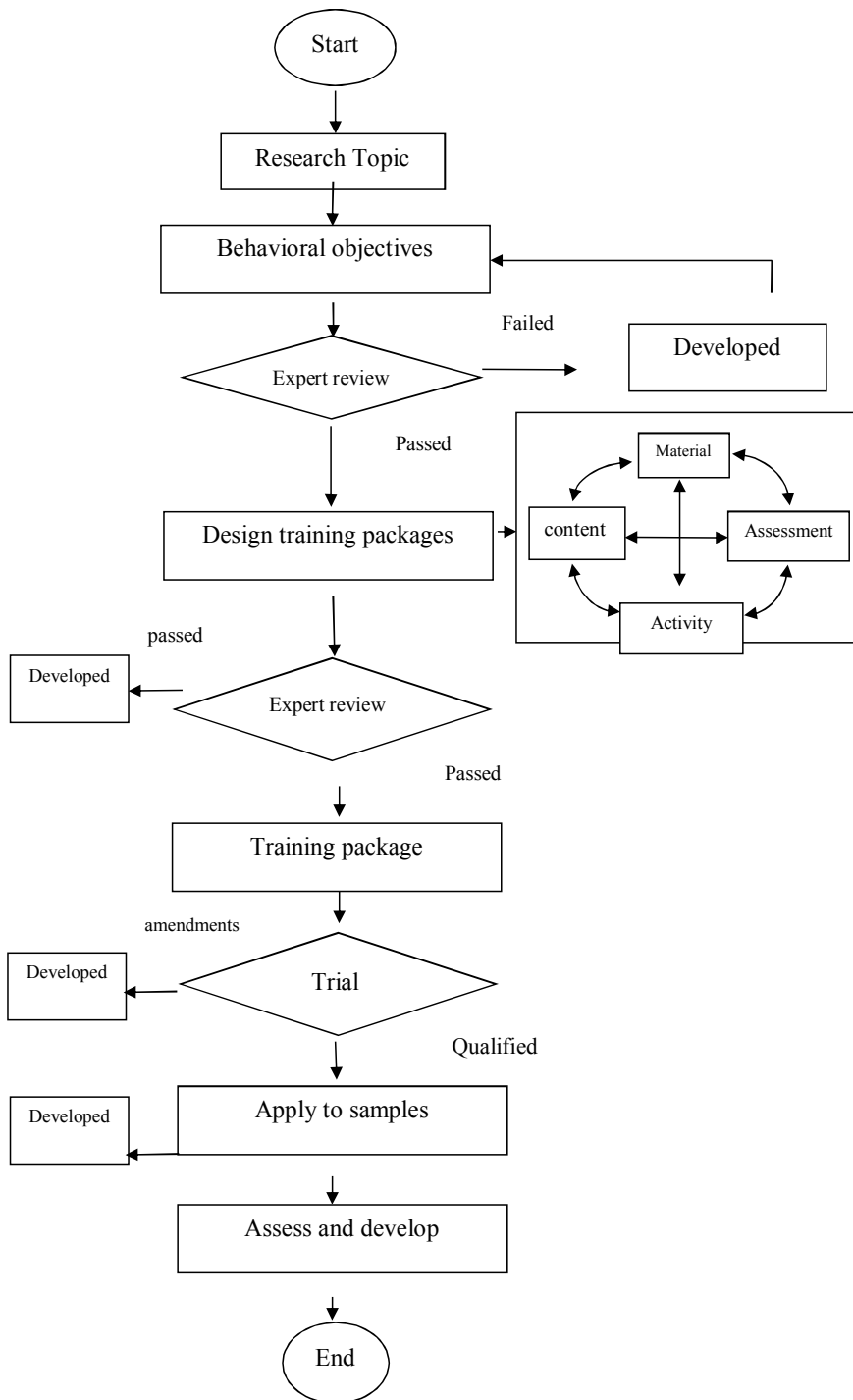Training package development process was presented as figure 2 as follows:

Figure 2: Training package development process

The data collected from step 1 was utilized to create the training package development process consisting of 3 sub-steps as follows: 2.1 Drafting training package, 2.2 Training package trial and 2.3 Assessment and improvement

2.1 Drafting training package

Drafting training package consisted of 5 moves as follows:

2.1.1 Topic analysis was carried out regarding the problems and needs of the university administrators and lecturers collected in step 1 (need assessment). The main topics and 4 sub-topics were defined as follows:

Learning unit 1: Higher education curriculum

Learning unit 2: Learning management in higher education

Learning unit 3: Introduction to basic education curriculum

Learning unit 4: Learning management design for basic education

2.1.2 Behavioral objectives were defined by subtopics from item 2.1.1

2.1.3 Behavioral objectives validation and coverage were examined and improved according to the advice of experts

2.1.4 Training package was designed regarding each behavioral objective and topic comprising of 1) learning unit description 2) objectives 3) content of learning unit 4) learning activity 5) materials 6) evaluation 7) knowledge sheet 8) worksheet/activity sheet and 9) test

2.1.5 Content accuracy, suitability and validity of training package were assessed by three experts before trial. The process was done using the conformity assessment form and the training package quality evaluation form

The three specialists of curriculum and learning management and the development of training packages were specifically selected to provide the data.

Research instruments for data collection were divided into two types:

1. Consistency assessment forms

1.1 Assessment form for consistency between training topics and behavioral objectives

1.2 Assessment form for conformance between behavioral objectives and tests

1.3 Assessment form for consistency of curriculum competency and learning management model

2. 5-level rating scale of assessment form for training packages

The researcher delivered the evaluation forms to the experts individually in person or by post.

Data analysis

1. Consistency assessment form was utilized to determine Index of Objective Congruence (IOC)

Ensure consistency	→ mark √	in the +1 column
Not sure if there is consistency	→ mark √	in the 0 column
Ensure no consistency	→ mark √	in the -1 column

Criteria for determining consistency of the training package were as follows:

1.1 If there is an average score of IOC from 0.50 -1.00, then experts say that the assessment topics are highly consistent.

1.2 If the average score of IOC is less than 0.5, then the expert says that the assessment topics are at a low level and must be improved.

2. Training package quality evaluation form was used to analyze mean and standard deviation. The interpretation criteria were as the following table (Chusri, 2007).

Table 3: The interpretation criteria of training package quality evaluation form

Mean	interpretation
4.50 – 5.00	Experts are of the opinion that it is suitable at the highest level
3.50 – 4.49	Experts are of the opinion that it is suitable at the high level
2.50 – 3.49	Experts are of the opinion that it is suitable at the moderate level
1.50 – 2.49	Experts are of the opinion that it is suitable at the low level
1.00 – 1.49	Experts are of the opinion that it is suitable at the minimum level

2.2 Training package Trial

2.2.1 Training package Trial

Training package that passed consistency assessment and course quality evaluation was put to trial as follows:

1) A total of 32 lecturers of the Faculty of Education, Buriram Rajabhat University took the test created to test, and the test results were used to analyze difficulty, discrimination and reliability of the test before the trial.

2) 10 lecturers of the Faculty of Education, Rajabhat University who had the same qualifications as the sample group used the training package in order to determine the efficiency of the training course.

Samples

The two groups of research samples were as follows:

Group 1: 32 lecturers of Faculty of Education Buriram Rajabhat University who graduated in education

Group 2: 32 lecturers of Faculty of Education Buriram Rajabhat University who had the same qualifications as the sample group selected by purposive sampling. The qualifications required were 1) interested in self-development in curriculum and learning management and 2) ready to receive training as specified by the curriculum

Research instruments for data collection

1) Pre-tests and post-tests

2) Assessment form during training

3) Curriculum and Learning Management Competency Assessment Form

4) Questionnaire on opinions regarding the training process

Data analysis

Statistical data analysis performed by using computer program were as follows:

1. Mean and standard deviation

2. Reliability of the test

3. Difficulty of the test

4. Discrimination of the test

The training package was modified to ensure the quality and be used for data collection with the research samples.

3. Implementing the training package, assessment and improvement

3.3.1 Implementing the training package

Data collection was determined by using One Group Pretest-posttest Design. The process of data collection was performed to determine the efficiency of the training package for further improvement including pretest-posttest, training, assessment during training, evaluation after training, and opinions survey regarding the training.

Samples

32 lecturers of Faculty of Education, Buriram Rajabhat University were selected by purposive sampling method with the qualifications required as follows: 1) interested in self-development in curriculum and learning management and 2) ready to receive training as specified by the curriculum.

3.3.3 Research instruments for data collection

1) Pre-tests and post-tests

2) Assessment form during training

3) Questionnaire on opinions regarding the training process

4) Curriculum and learning management competency assessment form

3.3.4 Data analysis

3.3.4.1 Mean and standard deviation of pre-test and post-test scores

3.3.4.2 Efficiency of training package using E1 /E2

3.3.4.3 Mean and standard deviation of questionnaire on opinions regarding the training process

3.3.4.4 Percentage of curriculum and learning management competency assessment

3.2 Efficiency test of training package and improvement

Efficiency test of training package and improvement were carried out for data collection, improvement, and further development.

Research Results

According to the information from documents, other resources and researches related to curriculum and learning management competency enhancement for lecturers of Faculty of Education, the researcher found that

4.1 The needs regarding curriculum and learning management competency enhancement contained a high overall mean of 3.76. When each aspect was considered, all aspects were arranged in order from the highest to the lowest mean as follows: 1) Thai Qualifications Framework for Higher Education 7:TQF7 (Programme Report) 2) Techniques and methods of learning management for higher education students and 3) Thai Qualifications Framework for Higher Education 6:TQF6 (Field Experience Report).

4.2 According to the statistical results, mean score during the training was 17.66 (total score of 80), standard deviation was 0.69 and percentage was 89.18 which was interpreted that the Efficiency of Process (E1) was 89.18.

4.3 As per the results, the mean score after the training was 32.00 (total score of 40), standard deviation was 3.58 and the percentage was 80.00 which was interpreted that the Efficiency of Product (E2) was 80.00.

4.4 The efficiency of training package contained Efficiency of Process (E1) at 89.18 and Efficiency of Product (E2) at 80.00 which was interpreted that the efficiency of training package was 89.18/80.00 in proportion to the specified criteria of 80/80.

4.5 The average score of pre-test and post-test of lecturers of the Faculty of Education faculty were of 24.00 and 27.00. When comparing the two scores, it was found that the post-test scores were higher than pre-test scores at statistical significance of 0.05.

4.6 Effectiveness index of training package was at 0.5019 which was interpreted that the trainees acquired more knowledge at 0.5019 or 50.19 %.

4.7 The overall mean of the trainees' satisfaction was at a highest level of 4.62. When each aspect was considered, all aspects were arranged in order from the highest to the lowest mean as follows: 1) friendly training atmosphere 2) collaborative atmosphere between the trainees and the speakers, and among the trainees 3) knowledge gained and understanding about curriculum and learning management after training and 4) overall satisfaction with the training. The suitability of the number of participants attending the training received the lowest mean.

Discussion

The research and development of training package to enhance curriculum and learning management competency for lecturers of Faculty of Education can be discussed in the following points:

1. The needs regarding curriculum and learning management competency enhancement contained a high overall mean of 3.76. This indicated that the lecturers of Faculty of Education required to enhance the curriculum competency and the learning management at a high level. When each aspect was considered, all aspects were arranged in order from the highest to the lowest mean as follows: 1) Thai Qualifications Framework for Higher Education 7:TQF7 (Programme Report) 2) Techniques and methods of learning management for higher education students and 3) Thai Qualifications Framework for Higher Education 6:TQF6 (Field Experience Report).

2. According to statistical results of the development of training packages for enhancing curriculum competency and learning management of the faculty of teaching and learning, the mean score was 17.66 (total score of 80), standard deviation was 0.69 and percentage was 89.18 indicating the Efficiency of Process (E1) at 89.18.

3. According to the results of curriculum and learning management competency assessment, the mean score after the training was 32.00 (total score of 40), standard deviation was 3.58 and the mean percentage was 80.00 which was interpreted that the Efficiency of Product (E2) was 80.00.

4. As per the results of efficiency of training package test, the Efficiency of Process (E1) was at 89.18 and the Efficiency of Product (E2) was at 80.00 which was interpreted that the efficiency of training package was 89.18/80.00 in agreement with the specified criteria of 80/80.

5. The average score of pre-test and post-test of lecturers of the Faculty of Education were of 24.00 and 27.00. When comparing the two scores, it was found that the post-test scores were higher than pre-test scores at statistical significance of 0.05.

6. It was found that the effectiveness index of training package was at 0.5019 interpreting that the trainees acquired more knowledge at 0.5019 or 50.19%.

7. The overall mean of the trainees' satisfaction was at 4.62 which indicated that the lecturers were most satisfied with the training.

Conclusion

According to the research objectives, the following points were concluded:

1. The need analysis regarding curriculum and learning management competency enhancement showed a high overall mean of 3.76.

2. The results of the development of training packages for enhancing curriculum competency and learning management of the lecturers of the Faculty of Education were as the following:

The efficiency of training package was 89.18/80.00 in agreement with the specified criteria of 80/80.

2.1 As per the results of efficiency of training package test, the Efficiency of Process (E1) was at 89.18 and the Efficiency of Product (E2) was at 80.00 which was interpreted that the efficiency of training package was 89.18/80.00 consistent with the specified criteria of 80/80.

2.2 The average score of pre-test and post-test of lecturers of the Faculty of Education were of 24.00 and 27.00. When comparing the two scores, it was found that the post-test scores were higher than pre-test scores at statistical significance of 0.05.

2.3 The effectiveness index of training package was at 0.5019 interpreting that the trainees acquired more knowledge at 0.5019 or 50.19 %.

2.4 The overall mean of the trainees' satisfaction was at 4.62 which indicated that the lecturers were most satisfied with the training.

Recommendations for further application

1. The practice of longer duration should be considered for the lecturers in each major for a more efficient opportunity.

2. The lecturers should be able to design their learning management and demonstrate their lessons as designed.

References

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