Practical Mechanisms for Training of Education Managers for Innovation and Evaluation of their Effectiveness

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Abstract

The article is devoted to the preparation and assessment of the effectiveness of training of education managers for innovations in the system of higher pedagogical education by conducting an empirical study; structural and logical evaluation scheme is described; analysis of the dynamics of managers' readiness for innovative management in comparison groups is carried out.

Keywords: Assessment of Training Effectiveness, Readiness of Education Managers, Innovative Activity, Management, Education Manager, System of Higher Pedagogical Education, Dynamics of Readiness for Innovative Activity Development.

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INTRODUCTION

The global transformations in the modern world react promptly to the requirements for the educational system, actualizing innovative activity of education managers more and more that primarily ensures the flexibility of management, its cardinal reorganization and modernization. Not only functioning of the educational system, but also its final result, depends on the effectiveness of this management.

At the same time, one of the main contradictions of the modern educational development processes is the contradiction between deeper professionalization of the management, the need for cross-sectorial integration of knowledge and experience, the importance of integrated skills for the implementation of innovative activities by the education manager and the actual state of the staff training.1

Modernization of education management training should be based on scientific developments, innovative management models, modern achievements of practitioners around the world, which provide for creation of a management system that would accumulate valuable achievements of the world theory and practice of personnel management, that are adapted to the conditions of the modern society and to the specifics of such a unique large-scale social object as national education.2

At the same time, such improvement is possible only on the basis of combination of the achievements of pedagogical science and practice with the theoretical works and technological developments of the world leading management schools, that guarantees a high level of professionalism and competence of the education manager, who is able to implement the planned work and adapt to the changing conditions of the innovation environment. Thus, given the high relevance of training of education managers in innovative management, as well as the results of the conducted theoretical and empirical studies, readiness for innovative management is predetermined by the main indicators of professional competence of the education manager.

MAIN PART

137 education managers in total with experience in the system of higher education, both male and female, were involved in the empirical study. To compare the obtained results, two comparison groups were formed:

- An experimental group consisting of 68 respondents, whose training was carried out according to the developed model, taking into account the corresponding classes according to the retraining course module and advanced training of the leading personnel of higher educational institutions - "Management of the education system".
- A control group consisting of 69 respondents, whose training was carried out without the use of the developed practice (Figure 1).

Fig. 1. Quantitative characteristic of the research on the effectiveness of the training for innovative management process sample (n=137)

The empirical study of training of the respondents has been conducted during eight weeks on the basis of the Head Scientific and Methodological Center of the Organization for Retraining and Advanced Training of Pedagogical and Management Personnel of the Higher Education System under the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan, taking into account their absence at the main place of work.

Due to the complexity of the phenomenon in question, the diagnostic procedures provided for a comprehensive character and were aimed at the investigation of all components of the readiness. In addition, it is appropriate to note that pedagogical diagnosis is an important component of educational activities in general, a regulatory basis of the educational process, a basis for forecasting of development and management.

On that basis, the readiness of education managers for innovative management was carried out according to the methodology that we prepared, which provides for the three main directions (figure 2.):

Fig. 2. Structural-logical scheme of assessment of the readiness of education managers for innovative management in the system of higher education
• Education managers' self-assessment of the readiness for innovative management in a prepared questionnaire.
• Teachers' assessment of the readiness for innovative management using a prepared assessment form.
• Results of the intermediate, final performance control.

**ANALYSIS OF EXPERIMENTAL DATA**

At the same time, in order to ensure the adequate arithmetic operations with the results of the assessment of the three above-mentioned directions, the students' scores of the self-assessment and assessment of the readiness for innovative management were translated into a single 100-point scale using the following formulas:

- For the education managers' self-assessment of the readiness for innovative management scores:
  \[
  BS = \frac{PBS}{30} 
  \]

Where:

- PBS - is the sum of the points in the questionnaire on studying the readiness of education managers for innovative management (for self-assessment by education managers);
- 30 - is the maximum possible score for the questionnaire on studying the readiness of education managers for innovative management (for self-assessment by education managers);
- BS - is the score on a single 100-point scale based on self-assessment;

- For the scores of teachers' assessment of the level of preparedness of education managers for innovative management:
  \[
  BOP = \frac{PB}{150} 
  \]

Where:

- PB - is the sum of the points of the students' assessment of the readiness of education managers for innovative management;
- 150 - is the maximum possible sum of scores of the students' assessment of the readiness of education managers for innovative management;
- BOP - is the score on a single 100-point scale based on the results of the students' assessment.

In addition, calculation of the final coefficient of the education managers' readiness for innovative management was made according to the following formula:

\[
KG = \frac{BS + BOP + BKU}{3} 
\]

Where:

- KG - is the he ratio of education managers' readiness for innovative management.
- BS - is the score on a single 100-point scale based on the self-assessment.
- BOP - is the score on a single 100-point scale based on the results of the students' assessment.
- BKU - is the score on a single 100-point scale on the results of the performance control.

Estimate for prepare innovation management is conducted three times.

Interpretation of the indicators of education managers' preparedness for innovative management was carried out taking into account the following gradations:

- From 0 to 20 points – low level of preparedness for innovative management.
- From 21 to 40 points – low-mid level of preparedness for innovative management.
- From 41 to 60 points – mid level of preparedness for innovative management.
- From 61 to 80 points – up-mid level of preparedness for innovative management.
- From 81 to 100 points - high level of preparedness for innovative management.

The assessment of the readiness for innovative management was made three times:

- After the first interim performance control of educational managers.
- After the second interim performance control of educational managers.
- After the final interim performance control of educational managers.

Based on the results of the first assessment of the readiness of education managers (after the first interim control of education managers’ performance in the course of preparation), the most number of the respondents in both experimental (n = 68, 83.8%, 57 people) and control (n = 69, 76, 8%, 53 people) groups had the average level of readiness for innovative management (Figure 3).
The rest of the respondents were rated at a low-mid level of readiness:
- Experimental group – 16.2% (11 people).
- Control group – 23.2% (16 people).

Proceeding from the above distribution of the quantitative indicators on respondents’ readiness levels, it can be stated that the comparison groups are almost identical, homogeneous with respect to the development of the readiness for innovative management, that undoubtedly has a positive impact on the study of the effectiveness of education managers in general.

The performed diagnostic activities after the second intermediate control of the respondents’ performance during the preparation have shown that the quantitative indicators of the preparedness levels in the experimental group (n = 68) underwent positive changes. Thus, the number of education managers with a up-mid level of preparedness has grown from 0% to 42.6% (29 people). Accordingly, the number of respondents with a low-mid readiness level decreased from 16.2% to 0%, and with the mid level of readiness – decreased from 83.8% to 57.4% (39 people).

At the same time, significant positive changes in the control group were not revealed (n = 69). The carried out diagnostic activities showed that the number of respondents, both with low-mid level of preparedness (21.7%, 15 people), and with mid level of preparedness (78.3%, 54 people) remained almost unchanged, there were no education managers with up-mid level of preparedness (Figure 4.).
After the training of education managers, the carried-out diagnostic activities revealed the positive dynamics in the development of the experimental group respondents (n = 68). Thus, the number of education managers with low-mid, mid readiness level decreased to 0%, and with up-mid level – from 42.6% to 5.9% (4 people). Accordingly, the number of respondents with a high level of readiness increased to 94.1% (64 people) and made up the main part of the experimental group.

At the same time, such changes were not observed in the control group (n=69). Thus, the main composition of the respondents had up-mid level of readiness (71%, 49 people). Accordingly, the number of education managers with low-mid readiness level decreased to 27.5% (19 people), and with high level of readiness grew to 1.5% (1 person) (Figure 5.).

**Fig. 5. Quantitative characteristic of the level of readiness for innovative management based on the results of the third assessment in the preparation course (n=137)**

**CONCLUSION**

Thus, a positive dynamics in the growth of the readiness of education managers of the experimental group (n=68) was revealed as a result of the conducted empirical research, in contrast to the control group (n=69), where these indicators are significantly lower, i.e. they developed less dynamically. At the same time, the level of the readiness of educational managers for innovative management in the experimental group increased due to:

- Special classes, master classes of the foreign specialists on the problems of introducing innovative management;
- Active participation of the trainees in the practical exercises, discussions, round tables;
- The training exercises on development of the skills of innovative and research experimental work;
- The proposed appropriate scientific and methodological recommendations.

In particular, the conducted comparative analysis of the eight-week training results in the form of assessments of the readiness of education managers for innovative management revealed the positive growth dynamics (from 0% to 94.1% of managers with a high level of preparedness) of the preparedness of the education managers of the experimental group (n=68, their training was carried out according to the worked out model, taking into account the corresponding classes according to the author's module), in contrast to the control group (n=69, their training was carried out without the use of the developments), where these indicators were significantly lower (from 0% to 1.4% of managers with a high level of preparedness), i.e. they developed less dynamically. The above changes in the dynamics of development of the experimental group in comparison with the control group were confirmed statistically (r=0.061, 0.85, 0.86 for p <0.050 Spearman R).

In addition, the selected organizational and pedagogical conditions make it possible for effective professional self-improvement of education managers, including promotion of the experience of innovative professional activity, creation of the reflective environment by teachers, acquisition of knowledge and skills in advanced innovative management, implementing of the principles of innovation and openness, and rational combination of traditional and innovative educational management. All the proposed theoretical and practical provisions, scientific and methodological recommendations for the preparation have positively influenced the effectiveness of the process, the development of innovative competence of education managers.
All this clearly demonstrates the proper practical effectiveness of the developed curriculum that takes into account the relevant classes in accordance with the retraining and advanced training of higher educational institutions managers course "Education system management".

REFERENCES


