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Competency-Based Approach in the Scientific-Research Process of Higher Medical Institutions' Teachers

F.M. Abdurakhmanov[1], D.N. Korikhonov[1], I.Yu. Yakubov[1], U.K. Kasimov[2], S.S. Atakov[2], A.O. Okhunov[3], A.Sh. Yarkulov[1]

[1]Assistant, Department of General and Pediatric Surgery-1, Tashkent Medical Academy, Tashkent, Uzbekistan;
[2]PhD, Associate Professor, Department of General and Pediatric Surgery-1, Tashkent Medical Academy, Tashkent, Uzbekistan;
[3]Professor, MD, PhD, Head of the Department of General and Pediatric Surgery, Tashkent Medical Academy, Tashkent, Uzbekistan.

Abstract

The article deals with the methodology of diagnostics of scientific-research competence of teachers in higher education. Based on the analysis of the results of empirical research, the main directions for the improvement of teachers' research competence are outlined.

Key words: scientific-educational competencies, research competencies, scientific-research methods, teachers of higher institutions

INTRODUCTION

Modernization of higher professional education sets up new challenges in organizing a system of professional development for teachers of higher institutions [1,4,6,10].

The empirical study carried out in Tashkent Medical Academy allowed us to define scientific-methodological and scientific-research competence of teachers of different qualifications, to study the conditions of competence formation, and to investigate the problem of research work efficiency.

According to the concept, we understood research competence as a complex and multi-level psychological new formation of the subject of research activity, which is a systematic manifestation of knowledge, skills, abilities and personal qualities and allows to successfully solving functional tasks that make up the content of scientific-research activity.

At the initial stage of the project, the main types of scientific-research competencies, their content, and development indicators were identified.

In the second stage, an empirical study of the competencies of teachers of medical higher education institutions was carried out.

MATERIAL AND RESEARCH METHODS

Teachers with different levels of qualifications participated in the study (n=59):

Doctors of science (n=13),

Candidates of Sciences (n=37), as well as non-degree teachers (n=9).

The objective indicators of scientific-methodological and scientific-research competence used in the study were:

⇒ availability and type of degree;
⇒ position;
⇒ number of publications;
⇒ number of papers presented at conferences of various statuses;
⇒ management of scientific laboratories, availability of grants and contests won in the last 5 years, etc.).

Subjective indicators reflected the nature of intrapersonal changes that manifest themselves in the activities and behavior of the teacher.

To solve the research tasks, the main methods used in the project were:

◊ method of expert evaluations;
◊ focus group method;
◊ method for judging concentration.

The obtained data was processed using primary

mathematical statistics methods, significance criterion of differences and correlation analysis were also applied.

RESULTS AND DISCUSSION

The methodology of expert assessment of the scientific and methodological research competence of higher school teachers was based on the principle of self-reliance in the possession, ability to use any competence [2,3,5,7,8,9].

The developed methodology (questionnaire) consisted of an introduction and three parts.

The first part contained questions for teachers' self-assessment of scientific-research competences.

The second part allowed recording the objective indicators that characterize the effectiveness and efficiency of scientific-research activities.

The third part contained socio-demographic characteristics of the respondent: gender, age, year of study, field of study, work experience in higher education institution, etc.

The focus group method was used to determine the effectiveness of interaction between scientific supervisors and students.

The focus group participant form consists of two parts: the first part of the form allows to identify the 10 most important indicators of scientific-research work effectiveness, the second part allows to investigate the intrapersonal hierarchy of effectiveness criteria for each block separately (motivational-value, procedural-activity, presentation, interactive).

The study of teachers' competences (non-degree, candidate of science, doctor of science) revealed differences in the development of individual competences.

Alongside with the well-developed ones, such as information competences, activity programmer competences, a number of private competences of goal-setting, etc., there are also the competences in the structure of scientific-methodological and scientific-research competences which are not so successfully developed, such as private competences of self-control and performance correction, competences of goal-setting, motivational ones.

First of all, this concerns teachers who do not have a degree.

As the research has shown, being quite independent in controlling and correcting scientific-research activities, in making decisions related to scientific work, teachers of this category experience significant difficulties in defining quality criteria of their work, do not quite know constructive ways of expressing and defending their professional position, face other difficulties as well.

Moreover, this category of teachers has a significant decrease in personal motivational competences as they age and work, i.e. the desire to engage in scientific work weakens or disappears altogether.

This is evidenced by the low level of development of personal motivational competencies as compared to the other types, which is recorded by most of the participants in the self-assessment.

Teachers–candidates of science may have difficulties in analyzing and correcting their research and professional activities, in identifying the strengths and weaknesses of their work, in analyzing the difficulties and the reasons for them.

They do not always take into consideration their own personal qualities in their work and may have difficulties in tracking personal changes and correcting their own professional and scientific position.

Personal-motivational competencies of teachers-doctors of science are also somewhat reduced, as well as indicators of goal-setting.

The survey of scientific supervisors showed that they tend to be guided not so much by objective criteria of research work quality as by subjective perceptions of it when assessing the research work of students and postgraduates.

Therefore, it is necessary to train teachers (scientific supervisors) in objective ways of individual and differentiated evaluation of students' and postgraduate students' scientific-research work and to give detailed and meaningful feedback.

The study also revealed a number of competences that are less "sensitive" (due to ontogenetic features) to learning influences and changes in the subject's qualification status. These include:

- ability to relate the tasks and objectives of the activity;
- ability to determine whether the results of the activity are in line with the goals;
- ability to plan future scientific and pedagogical activities;
- ability to justify hypotheses;
- mastery of ethical norms of business and scientific ethics;
- ability to plan the "route" of professional self-development;
- ability to choose and use appropriate strategies and ways of interaction with other people, and others.

Thus, the study has identified the following main problems in the field of scientific-research competence of teachers, regardless of their qualification status - the problem of motivation of research activities of university teachers, the problem of goal-setting of teachers' research work, as well as the problem of constructive feedback from the supervisor to the student and/or graduate student.

These tasks should be a priority in the system of professional development and psychological and pedagogical support of research and pedagogical staff.

Conflict of interests - none

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OLIY TIBBIYOT MUASSASALARI O‘QITUVCHILARINING ILMIY-TADQIQOT JARAYONIDA KOMPETENSIYAGA ASOSLANGAN YONDASHUVI

F.M. Abdurahmonov, D.N.Qorixonov, I.Yu. Yoqubov, U.Q.Qosimov, S.S.Atakov, A.O. Oxunov, A.Sh. Yarqulov

Toshkent tibbiyot akademiyasi

Abstrakt

Maqolada oliy o'quv yurtlari o'qituvchilarining ilmiy-tadqiqot malakasini diagnostika qilish metodologiyasi ko'rib chiqiladi. Empirik tadqiqotlar natijalarini tahlil qilish asosida o'qituvchilarning ilmiy-tadqiqot malakasini oshirishning asosiy yo'nalishlari ko'rsatilgan.

Kalit so'zlar: ilmiy-ta'lim kompetentsiyalari, tadqiqot kompetensiyalari, ilmiy-tadqiqot usullari, oliy o'quv yurtlari o'qituvchilari

КОМПЕТЕНТНОСТНЫЙ ПОДХОД В НАУЧНО-ИССЛЕДОВАТЕЛЬСКОМ ПРОЦЕССЕ ПРЕПОДАВАТЕЛЕЙ МЕДИЦИНСКИХ ВУЗОВ

Ф.М. Абдурахманов, Д.Н. Корихонов, И.Ю. Якубов, У.К. Касимов, С.С. Атаков, А.О. Охунов, А.Ш. Яркулов

Ташкентская медицинская академия

Абстракт

В статье рассматривается методика диагностики научно-исследовательской компетентности преподавателей высшей школы. На основе анализа результатов эмпирического исследования обозначены основные направления совершенствования исследовательской компетентности педагогов.

Ключевые слова: научно-педагогические компетенции, исследовательские компетенции, научно-исследовательские методы, преподаватели вузов.