DIAGNOSING THE DEVELOPMENT LEVELS OF STUDENTS' PROFESSIONAL QUALITIES IN A DIGITAL EDUCATIONAL ENVIRONMENT, ESSENTIAL ISSUES OF DEVELOPING EDUCATIONAL AND METHODOLOGICAL SUPPLY

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Abstract:
In the article, the modeling of the process of formation of professional qualities of future teachers for working in a digital educational environment requires both scientific evaluation of qualities and self-evaluation with the construction and use of a criterion-evaluation apparatus. The article also talks about the importance of diagnosing the level of development of students' professional qualities in the digital educational environment.

Keywords: digital education, modeling, teacher, assessment, professional quality.

Introduction

Analysis of theoretical research, normative, scientific-methodical and psychological-pedagogical literature "assessment" works as a method of monitoring the levels of development of professional qualities of future teachers to work in the digital educational environment. The analysis of the normative documents on the training of bachelors in pedagogical fields showed that the assessment of personal knowledge of students is considered only in terms of the results of academic and extracurricular activities. Control is carried out at the levels of mastering professional competencies and training (intermediate and final attestation). The question of self-assessment of the professional qualities of future teachers to work in a digital educational environment is not considered. The student needs the experience of self-assessment to further analyze professional and pedagogical activities, to solve professional problems and to adequately assess the selected educational methods, forms and tools when working in a digital educational environment. In many research studies, the issue of teacher training from the point of view of using self-assessment was proposed (R.G. Buyankin, L.I. Dudar, P.A. Yemetss, I.N. Zayseva, YE.V. Zamiralov, D.N. Mingazov N.I. Movchan, R.G. Romanova, O.A. Sokolova, M.V. Sokolovskaya, V.F. Sopin). It is recognized that there is no preparation of the future teacher to a sufficient level of self-assessment of his professional qualities in the system of pedagogic HEIs.

The study of self-assessment as a means of assessing one's professional qualities is highlighted in the work of local and foreign teachers (N.A. Barskaya, P.Y. Brel, I.V. Yegorov, I.S. Kon, I.D. Kseneva, S.B. Mironova, S.L. Rubinstein, A.V. Khutorskoy, Chiyeu Txi Hyung and others). In the opinions of scientists, there is a similarity of self-assessment of students, their capabilities, qualities, qualifications, their place in professional activity and opportunities to adjust their professional and pedagogical activities in time.

A number of authors define self-assessment as follows:

- as a form of self-awareness of a person (V.A. Gorbacheva, V.F. Safin);
- assessment of one's strengths and capabilities (reflection), as the ability to set another goal (N.V. Bely, L.I. Ruvinsky, R.N. Mayzub);
- as a subjective synthesis of various human relations (S.F. Buinova, I.P. Volkov);
- as personal education in the ability of a person to self-assess (A.V. Zakharova, V. Klenovsky);
- as personal qualities of professional importance reflecting direction and activity (D.N. Mingazova, V.F. Safin).

M.N. Prozorova suggests clarifying the definition in terms of the place, role and importance of self-evaluation of the future specialist:

1. Self-evaluation is part of self-awareness. 2. Self-evaluation and understanding - a mechanism for determining the educational connection between the quality of the lesson and the results of the educational process. 3. Knowledge of professional qualities, among others, the presence of satisfaction in their positive qualities and the need to strengthen them, negative attitude to undeveloped qualities and the desire to change for the better. R.M.Maizub examines self-evaluation from the point of view of alternative education of students, setting educational goals, further monitoring, evaluation of own educational process, including results. The objectivity of the student's assessment of their actions and self-assessment can be done taking into account three aspects: 1. Availability of self-assessment criteria agreed between the student and the teacher. 2. The existence of a dialogue (discussion) between the student and the teacher. 3. To prove the student's evaluation reasoning. Self-evaluation, from the point of view of professionalism, can lead to a number of consequences: satisfaction or dissatisfaction with one's achievements, the reality and virtuality of evaluating one's actions, a critical or overestimated attitude to one's results: The problem of assessing the level of development of professional qualities of future teachers to work in a digital educational environment is related to the selection of criteria and indicators. Without knowing the initial results, it is impossible to plan further work or manage the process of developing professional qualities. Therefore,

there is an objective need to develop criteria and indicators for the level of development of professional qualities of future teachers.

Based on the analysis of psychological-pedagogical literature, on the basis of groups of professional qualities of future teachers determined for working in the digital educational environment, we identified the following criteria: motivational-emotional, gnostic, operational and reflexive. According to the definition in D.N. Ushakov's explanatory dictionary, "criterion" is a sign of evaluating, describing, classifying something. On the other hand, the indicator is an independent concept that indicates the presence of a group of professional qualities of the future teacher, which is structured to work in the digital educational environment (according to P.I. Pidkasist). S.A. Mavrik proposed the following interpretation of the term "criterion" - a sign by which the factors of pedagogical reality are classified and evaluated. The quantitative expression of the criterion is the indicators used to diagnose the level of compliance with a certain criterion. The criterion-evaluation apparatus developed to determine the dynamics of advanced professional quality levels of future teachers for the digital educational environment meets the following requirements: - the criteria should reflect the dynamics of the development of professional qualities of future teachers for the digital educational environment (wanting to know - knowledge - acquiring knowledge - reflection); - unity of quality and quantity indicators; - there is a connection between the criteria and all the components of the studied system; - the presence of qualitative characteristics of indicators that allow evaluation of the criterion. Below are the characteristics of the criteria for the development of professional qualities of future teachers to work in a digital educational environment: - the motivational-need criterion for the development of professional qualities, the level of motivation for awareness of pedagogical activities in the digital educational environment, the level of understanding the social significance of the chosen activity; determines students' valuable attitude to future educational activities. - the gnostic criterion for the development of professional qualities, determines the student's idea of the future professional activity (professional image) in the digital educational environment, the formation of theoretical BKM, the ability to integrate educational material. - the operational criterion for the development of professional qualities determines the ability of students to connect their professional qualities with the use of professional activities to work in a digital educational environment.

- includes self-assessment, forecasting and assessment of professional qualities for working in a digital educational environment, as well as assessment of readiness for professional activity. The components of professional qualities of future teachers to work in a digital educational environment are interrelated. Based on the

determination of the essence of each criterion, indicators, levels and tools corresponding to them were determined (Table 1.3.1).

Table 1.3.1 Criteria, indicators, levels and tools for the development of professional qualities of future teachers for working in a digital educational environment

Mezonlar	Ko'rsatkichlar	Darajalar	O'lchov vositalari
Motivatsion-ehtiyojli	Raqamli ta'lim muhiti doirasida pedagogik faoliyat uchun motivatsiyaning mavjudligi, kasbga doimiy qiziqish, muvaffaqiyatli kasbiy rivojlanish istagi.	Yuqori- raqamli ta'lim muhiti doirasida pedagogik faoliyat uchun yuqori darajadagi motivatsiya, kasbga doimiy qiziqish, raqamli resurslardan foydalangan holda muvaffaqiyatli malaka oshirish istagi.	1. Raqamli ta'lim muhitida ishlash uchun "o'qituvchi" kasbini olish motivlari" so'rovnomasi. 2. "Pedagogika OTMga kirish uchun motivatsiya so'rovnomasi. 3. O'zgartirilgan metodologiya "o'z-o'zini qabul qilish darajasi"
		O'rtacha- raqamli ta'lim muhiti doirasida pedagogik faoliyat uchun motivatsiyaning mavjudligi, raqamli muhitda kasbga qiziqish, raqamli resurslardan foydalangan holda muvaffaqiyatli kasbiy rivojlanish istagi.	
		Past raqamli ta'lim muhiti doirasida kasbiy faoliyat uchun motivatsiyaning yetishmasligi, raqamli muhitda kasbga zaif qiziqish bildirilganligi, kasbiy rivojlanish istagi yo'qligi.	
Gnostik	O'quv fanlarini rivojlantirish natijalari, amaliy mashg'ulotlar, bo'lajak o'qituvchining raqamli ta'lim muhitida ishlash uchun asosiy ko'nikmalarini bilish	Yuqori- raqamli ta'lim muhitda kasbiy faoliyatni amalga oshirish uchun zarur bo'lgan yuqori darajadagi bilim: "o'qituvchi" kasbining o'ziga xos xususiyatlarini to'liq tushunish, kasbiy vazifalarni tushunish	1. Test savollari 2. O'quv faoliyati attestatsiyasi 3.Amaliy ishlar
		O'rtacha- raqamli ta'lim muhitida kasbiy faoliyatini amalga oshirish uchun zarur bo'lgan bilimning o'rtacha darajasi	
		Past- kasbiy faoliyatni amalga oshirish uchun zarur bo'lgan past bilim darajasi	
Operatsion	Kasbiy sifatlarni o'zlashtirish darajasi	Yuqori-raqamli ta'lim muhitida ishlash uchun kasbiy sifatlarni rivojlanishining yuqori darajasi.	1. Auditoriyadan tashqari ishlar 2. Kasbiy sifatlar monitoringi
		O'rtacha-raqamli ta'lim muhitida ishlash uchun kasbiy sifatlarni rivojlanishining o'rtacha darajasi.	
		Yuqori-raqamli ta'lim muhitida ishlash uchun kasbiy sifatlarni rivojlanishining past darajasi.	
Refleksiv	Raqamli ta'lim muhitida kasbiy sifatlarni rivojlanganligini o'z-o'zini baholash	Yuqori (haddan tashqari) – raqamli ta'lim muhitida ishlash uchun o'z kasbiy sifatlarini, turli pedagogik vaziyatlarda talaba tomonidan qobiliyat va fazilatlarni ortiqcha baholash.	1. O'z-o'zini baholash kartalari 2. O'z-o'zini baholash metodikalari
		O'rtacha (yetarli) – raqamli ta'lim muhitida ishlash uchun uning kasbiy sifatlarini baholashning o'rtacha darajada rivojlanganligi	
		Past – raqamli ta'lim muhitida ishlash uchun uning kasbiy sifatlarini baholashning past darajada rivojlanganligi	

In order to measure the level of development of professional qualities of future teachers for working in a digital educational environment, evaluation tools based on criteria that allow for objective assessment of pedagogical phenomena and self-assessment were used: - pedagogical observations of the activities of future teachers in the course of educational and extracurricular activities using digital educational resources; - monitoring the results of bachelors' activities outside the auditorium; - observation of developed theoretical BKM diagnostics and skills of practical application of knowledge; - analysis of student activity products using digital educational resources (research, design, professional-pedagogical). The developed criteria, indicators and measurement tools made it possible to distinguish three levels (high, medium and low) of the development of professional qualities of future teachers for working in a digital educational environment. Scale equivalence for measuring prospective teachers' self-esteem: extreme, adequate, and low. Each criterion has its own assessment and self-assessment tools.

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