ISSN 3060-5091 (Online)
Farg‘ona metodika maktabi – Ферганская методическая школа – Fergana methodical school
2026-yil 6-son.

DOI: https://doi.org/10.5281/zenodo.24270163

Organization of a pedagogical experiment on the development of future teachers' managerial competence

Dildora Tokhirovna Akmalova –
Doctor of Philosophy (PhD) in Pedagogical Sciences,
Associate Professor I.Ibrat Namangan State Institute of Foreign Languages
E-mail: dilya-yura@mail.ru
ORCID: https://orcid.org/0009-0006-6421-5432

Annotation. *The article examines the step-by-step organization of the process of developing future teachers' managerial competence in higher education. It explores the content and diagnostic potential of interviews, self-assessment questionnaires, and surveys used to determine the initial level of managerial competence among undergraduate students. The study substantiates the content of the diagnostic, formative, and control stages of the pedagogical experiment. Particular attention is paid to the integration of collaborative, consonance-based, contextual, intercultural, and comprehensive approaches, as well as the application of a structural pyramid of competencies based on the DORA principle. The article identifies pedagogical conditions for developing managerial thinking and skills in planning, organizing, coordinating, analyzing, and reflecting on decision-making.*

Keywords: *managerial competence, future teachers, higher education, pedagogical experiment, diagnostic stage, formative stage, reflection, managerial thinking, collaborative approach, consonance-based approach.*

Организация педагогического эксперимента по развитию управленческой компетентности будущих педагогов

Аннотация. *В статье рассматривается поэтапная организация процесса развития управленческой компетентности будущих педагогов в системе высшего образования. Раскрываются содержание и диагностические возможности беседы, самооценочного опросника и анкетирования при определении исходного уровня управленческой компетентности студентов бакалавриата. Обосновывается содержание диагностического, формирующего и контрольного этапов педагогического эксперимента. Особое внимание уделяется интеграции коллаборативного, консонансного, контекстуального, межкультурного и комплексного подходов, а также применению структурной пирамиды компетенций на основе принципа ДОРА. Определяются педагогические условия развития управленческого мышления, навыков планирования, организации, координации, анализа и рефлексивной оценки принимаемых решений.*

Ключевые слова: *управленческая компетентность, будущие педагоги, высшее*

образование, педагогический эксперимент, диагностический этап, формирующий этап, рефлексия, управленческое мышление, коллаборативный подход, консонансный подход

Bo‘lajak o‘qituvchilarning boshqaruv kompetentligini rivojlantirish bo‘yicha pedagogik tajriba-sinov ishlarini tashkil etish

Annotatsiya. *Maqolada oliy ta’lim tizimida bo‘lajak o‘qituvchilarning boshqaruv kompetentligini rivojlantirish jarayonini bosqichma-bosqich tashkil etish masalalari ko‘rib chiqiladi. Bakalavriat ta’lim yo‘nalishi talabalarining boshqaruv kompetentligining boshlang‘ich darajasini aniqlashda suhbat, o‘z-o‘zini baholash so‘rovnomasi va so‘rovnomaning mazmuni hamda diagnostik imkoniyatlari ochib berilgan. Pedagogik tajriba-sinovning diagnostik, shakllantiruvchi va nazorat bosqichlarining mazmuni asoslanadi. Kollaborativ, konsonans, kontekstual, madaniyatlararo va kompleks yondashuvlarni integratsiyalash, shuningdek, DORA tamoyili asosida kompetensiyalarning tarkibiy piramidasini qo‘llashga alohida e’tibor qaratilmoqda. Boshqaruv tafakkuri, rejalashtirish, tashkil etish, muvofiqlashtirish, tahlil qilish va qabul qilinayotgan qarorlarni refleksiv baholash ko‘nikmalarini rivojlantirishning pedagogik shart-sharoitlari aniqlanadi.*

Kalit so‘zlar: *boshqaruv kompetentligi, bo‘lajak pedagoglar, oliy ta’lim, pedagogik tajriba-sinov, diagnostik bosqich, shakllantiruvchi bosqich, refleksiya, boshqaruv tafakkuri, kollaborativ yondashuv, konsonans yondashuv.*

INTRODUCTION

The development of future teachers' managerial competence is a gradual process of improving their ability to understand, organize, and regulate their own activities, as well as interact with other participants in the educational process. However, the acquisition of managerial knowledge alone does not guarantee its conscious application when addressing professionally oriented tasks. There is a relationship between students' understanding of managerial functions and their ability to apply them in simulated pedagogical situations, which requires the purposeful organization of the educational process [7].

Determining students' initial level of managerial competence, motivation, professional perceptions, and ability to organize their own activities and make decisions is of particular importance. This necessitates a step-by-step organization of the pedagogical experiment, involving the assessment of initial conditions, the implementation of formative interventions, and the evaluation of the results achieved. The effectiveness of this process depends on the consistency of diagnostic methods, the content of formative activities, and the final assessment criteria, which ensure a systematic and purposeful approach to developing future teachers' managerial competence.

RESEARCH METHODS

The study employed theoretical analysis of scientific and pedagogical literature, pedagogical observation, interviews, questionnaires, self-assessment, comparative analysis, and methods of quantitative and qualitative analysis of the pedagogical experiment results. The diagnostic procedures were aimed at examining students' understanding of educational management, their motivation to develop the managerial component of their future professional activity, and their readiness for self-organization, planning, interaction, and reflective evaluation of their own actions [6].

RESEARCH RESULTS AND DISCUSSION

The process of developing the managerial competence of future teachers is viewed as an integrated, consistent, and interconnected system comprising three main stages: diagnostic, formative, and final assessment. Each stage is characterized by specific objectives, content of activities, and expected outcomes. Their sequential implementation ensures continuity between identifying the initial level of competence, organizing the educational intervention, and assessing the changes achieved.

The diagnostic stage of the pedagogical experiment was aimed at identifying the initial level of future teachers' managerial knowledge, motivation, and personal and professional qualities. One of the main research methods employed was the interview, the effectiveness of which largely depended on establishing a trusting relationship with the participants [6].

The interviews provided more detailed information about students' understanding of the managerial component of teaching, their professional interests, motivations for choosing a teacher education programme, and readiness to acquire relevant skills. Creating a supportive communicative environment encouraged respondents to freely express their opinions, assessments, and attitudes towards their academic and professional activities.

An additional diagnostic tool was a self-assessment questionnaire containing items designed to determine the frequency with which certain behavioural characteristics were demonstrated. Responses were evaluated using a four-point scale: "Usually" – 1 point; "Often" – 2 points; "Rarely" – 3 points; "Never" – 4 points. This scale made it possible to determine how regularly students performed activities related to self-organization, planning, information seeking, interaction, and analysis of their own performance.

Table 1.

Sample Self-Assessment Questionnaire Used Before the Training

№	Self-Assessment Behaviour Indicators	Rating
1	To plan and organize one's own activities	
2	To maintain one's own motivation to achieve the set goals	
3	To engage in creative and research activities	
4	To independently identify and find information necessary for academic studies and future professional activities	
5	To exchange information and personal experience with other participants in the educational process	
6	To conduct self-analysis and self-assessment of one's own activities	
7	To determine the degree of success of interaction with other participants in the educational process	
8	To evaluate the results of one's own academic and educational-professional activities	

The analysis of the responses made it possible to identify individual student characteristics related to planning their own activities, maintaining motivation, searching for information, organizing interaction, and conducting reflective assessment. Self-assessment was not regarded as an independent indicator of the development of managerial competence, but rather as an additional source of information that helped determine how students perceived their own abilities and difficulties.

To obtain more comprehensive diagnostic information, a questionnaire survey was conducted to determine the importance of professional, instrumental, and organizational and managerial competencies in the structure of teachers' future professional activities.

Students were asked to assess the importance of possessing the relevant competencies. Two points were awarded for recognizing the importance of a competency, while zero points were assigned for considering it unnecessary. This scoring method made it possible to identify which competencies students regarded as most significant for the professional development of future teachers.

Table 2.

Sample Questionnaire for Determining the Importance of Future Teachers' Competencies

№	A graduate should possess the following competencies	Assessment of the Importance of the Competency
Professional Competencies		
1.	To systematically use research findings to improve learning outcomes and enhance the effectiveness of professional activities	
2.	To create a positive and adaptive learning environment	
3.	To foster and develop innovative activities	
4.	To develop personal effectiveness through mental and creative inner resources	
5.	To purposefully and effectively implement modern pedagogical technologies aimed at improving the effectiveness of educational processes	
6.	To assess the quality of implemented innovative technologies	
7.	To develop practical recommendations for using research findings and implementing technologies	
8.	To forecast, design, and model the organization and management of one's own activities and those of other participants	
Instrumental Competencies		
9.	Communication Skills	
10.	Ability to adapt to different situations	
11.	Problem-solving ability	
12.	Ability to develop creative potential and put ideas into practice	
13.	Ability to engage in critical and self-critical thinking	
Organizational and Managerial Competencies		
14.	To ensure effectiveness in carrying out organizational and managerial activities	
15.	Ability to make managerial decisions in the learning process	
16	Ability to conduct strategic analysis, strategic planning, and strategic management of activities	
17	To coordinate activities	
18	To develop proposals for improving the effectiveness of the motivation system	
19.	To develop and implement functions and mechanisms for competency development	
20.	To develop algorithms for the optimal sequencing of activities	

Combining interviews, the self-assessment questionnaire, and the survey made it possible to examine students' initial level of preparedness from different perspectives. While the interviews helped identify their motivations, professional interests, and understanding of managerial aspects of teaching, the self-assessment questionnaire revealed individual behavioural characteristics, and the survey provided insight into students' understanding of the importance of specific competencies. The information obtained served as a basis for identifying the areas requiring pedagogical intervention, selecting the content of learning tasks, and refining the methods to be used during the formative stage of the experiment.

The formative stage involved the purposeful organization of the educational process aimed at developing future teachers' managerial thinking and their ability to plan, organize, coordinate, analyze, and reflect on their professional activities.

At this stage, particular importance was attached to implementing the structural pyramid of competencies model, based on the DORA principle, as well as integrating collaborative, consonant, contextual, intercultural, and comprehensive approaches. Their combined application ensured a connection between the acquisition of theoretical knowledge, the solution of academic and professional tasks, and the reflection on managerial decisions. The formative stage was based on the integration of collaborative, consonant, contextual, intercultural, and comprehensive approaches. The collaborative approach contributed to developing the ability to solve managerial tasks jointly, distribute responsibilities, and coordinate activities [1]. The consonant approach focused on aligning professional knowledge, personal attitudes, and managerial actions through reflective analysis [3]. The contextual approach involved applying knowledge to simulated pedagogical situations [2]. The intercultural approach emphasized taking into account the sociocultural characteristics of participants and reconciling different perspectives [5]. The comprehensive approach brought these areas together into an integrated process of developing future teachers' managerial competence[4]. These approaches were implemented through a combination of classroom instruction, independent work, reflective assignments, and group discussions of the results. The educational process included academic seminars, management-oriented training seminars, and model-based situational classes.

The content of the activities was determined by the potential of the courses Modern Technologies in Teaching the Russian Language and Interactive Methods of Teaching the Russian Language, studied by students enrolled in the programmes 60230100 – Philology and Language Teaching (Russian) and 60111700 – Russian Language in Groups with Other Languages of Instruction. Managerial tasks were incorporated into the learning activities not as isolated elements separate from subject-specific training, but through the modelling of situations in which students had to independently define objectives, plan a sequence of actions, distribute responsibilities among participants, anticipate possible outcomes, and justify their decisions. This approach helped students develop an understanding of the managerial component of their future teaching practice. After completing the learning tasks, students were asked to compare the intended objectives with the results achieved, assess the effectiveness of the chosen strategy, identify any difficulties encountered, and justify possible alternative solutions. This enabled them to move beyond simply carrying out learning activities towards consciously managing their own work and interaction with other participants. Thus, the formative stage ensured the gradual development of managerial skills through the integration of various approaches, the modelling of professionally oriented situations, and the systematic involvement of students in reflective activities.

The final stage of the pedagogical experiment was aimed at determining the effectiveness of the implemented educational process, identifying changes in the development of managerial competence, and comparing the results achieved with the objectives of the study. The assessment took into account changes in students' managerial understanding, motivational and value-based attitudes, and their ability to organize activities, make decisions, interact with others, and engage in reflective analysis. Particular attention was paid not only to the acquisition of relevant theoretical knowledge but also to students' ability to apply it when solving simulated academic and professional situations.

An important condition for ensuring the objectivity of the final assessment was the alignment of the diagnostic indicators with the criteria established before the formative stage. This made it possible to compare the initial and final results and determine the nature of the changes that had occurred. To assess the development of managerial competence, it was considered appropriate to reuse the diagnostic tools applied at the initial stage of the

experiment. Comparing the results of interviews, the self-assessment questionnaire, and the survey made it possible to identify changes in students' understanding of the content of managerial activities, their attitudes towards managerial functions, and their assessment of their own capabilities. Alongside quantitative indicators, qualitative changes were also taken into account. These included students' ability to justify decisions, consider different perspectives, plan sequences of actions, anticipate outcomes, and analyze the effectiveness of the chosen interaction strategies. Thus, the final stage made it possible not only to determine the level of managerial competence achieved but also to obtain information about the effectiveness of the pedagogical conditions, the learning content, and the methods employed.

CONCLUSION

The staged organization of the process of developing future teachers' managerial competence ensures the consistent implementation of diagnostic, educational, and assessment tasks. The diagnostic stage identifies students' initial level of managerial understanding, motivation, and personal and professional characteristics. The formative stage focuses on the purposeful development of managerial knowledge and skills through the integration of collaborative, consonant, contextual, intercultural, and comprehensive approaches. The final stage makes it possible to identify changes in competence development and assess the effectiveness of the pedagogical conditions implemented.

The study established that combining interviews, a self-assessment questionnaire, and a survey expands the possibilities for comprehensive diagnostics, as it takes into account both students' perceptions of their own abilities and their understanding of the importance of professional, organizational, and managerial competencies. Incorporating simulated pedagogical situations, collaborative problem-solving, independent work, and reflective analysis into the learning process contributes to developing future teachers' ability to plan, organize, coordinate, and evaluate their own activities [4]. The diagnostic and analytical data obtained during the pedagogical experiment provide a basis for developing a reflective management mechanism operating within the systemic-discursive model for developing future teachers' managerial competence. Its application helps establish a link between the objectives of professional training, the content of educational activities, students' managerial actions, and the assessment of the results achieved.

REFERENCES

1. Johnson, D. W., Johnson, R. T. An Educational Psychology Success Story: Social Interdependence Theory and Cooperative Learning. Educational Researcher, 38(5), 365–379.

2. Verbitsky, A. A. Active Learning in Higher Education: The Contextual Approach. Moscow: Vysshaya Shkola. 204 p.

3. Festinger, L. A Theory of Cognitive Dissonance. Stanford: Stanford University Press.

4. Schön, D. A. The Reflective Practitioner: How Professionals Think in Action. New York: Basic Books.

5. Deardorff, D. K. Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization. Journal of Studies in International Education, 10(3), 241–266.

6. Cohen, L., Manion, L., Morrison, K. Research Methods in Education (8th ed.). London: Routledge –2018.

7. Slastenin, V. A., Isaev, I. F., Shiyanov, E. N. Pedagogy: A Textbook for Students of Higher Pedagogical Educational Institutions. Moscow: Akademiya. 576 p.