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STUDYING PEDAGOGICAL DISCIPLINES IN THE CONTEXT OF VOCATIONAL EDUCATION (COMPUTER TECHNOLOGIES) EDUCATIONAL PROGRAMME: THE FORMATION OF STUDENTS' MOTIVATION

The article highlights approaches and techniques of increasing students' motivation to study pedagogical disciplines at the first (bachelor's) level of higher education in Specialty 015 Vocational Education (Computer Technologies). The analysis of modern approaches to the formation of such motivation is performed. It is proved that the diversity of methods used for organization of the educational process and the situational nature of the motives make it possible to determine and elaborate the strategy and tactics for forming the learning motives. It is clarified that an effective factor of increasing the motivation to study pedagogical disciplines by bachelor students majoring in Specialty 015 Vocational Education (Computer Technologies) is the organization and didactic support of classes based on innovative approaches, the following being identified as the most effective and efficient: integrative approach, development of appropriate methodological support of lectures and practicals, competency-based approach. The activity approach and its significance for motivating students to study pedagogical disciplines are analyzed. Methodical techniques for increasing motivation are proposed. Characteristic of the means for increasing motivation to study pedagogical disciplines is provided. The authors offer their own methodology for forming the content of the discipline "Introduction to Specialty and Basics of Pedagogy". The results of the survey conducted among the bachelor students of this specialty are presented and the prospects of further research are outlined.
Keywords: *motivation; means of motivation; pedagogical disciplines; computer technologies teacher; professional orientation.*
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ВИВЧЕННЯ ПЕДАГОГІЧНИХ ДИСЦИПЛІН У КОНТЕКСТІ ОСВІТНЬОЇ ПРОГРАМИ "ПРОФЕСІЙНА ОСВІТА (КОМП'ЮТЕРНІ ТЕХНОЛОГІЇ)": ФОРМУВАННЯ МОТИВАЦІЇ СТУДЕНТІВ

У статті висвітлено підходи та засоби підвищення мотивації до вивчення педагогічних дисциплін для здобувачів першого (бакалаврського) рівня вищої освіти за спеціальністю 015 Професійна освіта (комп'ютерні технології). Виконано аналіз сучасних підходів до формування мотивації, встановлено, що результат формування педагогічної компетентності майбутніх викладачів професійного навчання за спеціалізацією "Комп'ютерні технології" залежить від особливостей навчальної мотивації студентів, а також змістово-процесуальних характеристик мотиваційної діяльності. Доведено, що різноплановість організації освітнього процесу та ситуативний характер мотивів дають можливість визначити стратегію і тактику формування мотивів учіння. Встановлено, що дієвим чинником підвищення мотивації до вивчення педагогічних дисциплін бакалаврами спеціальності 015 Професійна освіта (Комп'ютерні технології) є організація та дидактичне забезпечення навчальних занять на основі інноваційних підходів, серед яких виокремлено як найбільш ефективні і результативні: інтегративний підхід, метою якого є формування професійно-педагогічної компетентності, та який застосовується для розроблення науково-методичного

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забезпечення лекційних і практичних занять; компетентнісний підхід, що спрямований на формування фахової компетентності випускників освітньо-професійної програми бакалаврського рівня за спеціальністю 015 Професійна освіта (Комп'ютерні технології) та їхньої готовності до професійної педагогічної діяльності. Проаналізовано діяльнісний підхід та його значення для мотивування здобувачів освіти вивчати педагогічні дисципліни. Запропоновано методичні прийоми підвищення мотивації: чітка постановка мети, прогнозований результат, спілкування, ігрова діяльність, фахова орієнтація. Подано характеристику засобів підвищення мотивації до вивчення педагогічних дисципліни: аналіз наукових публікацій щодо проблем сучасної освіти, розробка професійно-орієнтованих завдань для самостійної роботи, підготовка матеріалів для організаційно-методичного забезпечення навчальних занять різних організаційних форм навчання, формування елементів педагогічної майстерності. Запропоновано авторську методику формування змістового компонента дисципліни "Вступ до спеціальності та основи педагогіки", наведено результати проведеного анкетування й окреслено перспективи подальших досліджень.

Ключові слова: мотивація; засоби мотивації; педагогічні дисципліни; викладач комп'ютерних дисциплін; фахова спрямованість.

Introduction. Training specialists for the field of vocational education is in search of new approaches to the formation of the contingent of future teachers of vocational training in various specializations as the teaching staff of vocational education institutions are mostly formed of graduates from higher education institutions who do not undergo any special pedagogical training. Thus their pedagogical interaction with students of vocational institutions is often difficult and ineffective. So the emergence of the system of teacher training in Specialty 015 Vocational Education (by specializations) is well justified. However, according to the analysis of the competitive admissions, the entrants who become students of this specialty have no intention to follow pedagogical career. This specialty turned out to be an alternative for those applicants who didn't manage to win the competition for studying Information Technologies. The results of the survey conducted with such students show that they do not intend to work in the field of education, and therefore are very wary of the pedagogical component in their curriculum. Most first-year students studying in this specialty consider that their professional training should be focused on computer subjects while they do not see the need to seriously study pedagogical disciplines. They argue that competence in IT will give them more chances to become competitive in modern labour market. From our own experience we can say that working with such students is rather difficult, because the main goal of the pedagogical process is supplemented by an additional goal – to form a positive and further motivated attitude to the study of pedagogical disciplines.

The problems associated with preparation of a modern competitive teacher of vocational training are dealt with in research works of many leading scientists in the field of vocational education. They focus mostly on the profile pedagogical component of the content of vocational training. At the same time, the specifics of forming students' motivation to study pedagogical disciplines, in particular, while training future teachers of computer disciplines in vocational education institutions have not yet been given sufficient attention. The analysis of the scientific and pedagogical literature shows that there are scientific research works related to teaching pedagogical disciplines to master students of non-pedagogical profile, but there is practically no such research concerning bachelor students. Thus there is a contradiction between the statutory requirements of the educational standard for preparation of bachelors in Specialty 015 Vocational Education (Computer Technologies) and the real demands and motives of students. It is the presence of such contradictions between the needs and demands of consumers of educational services in the field of computer technologies and the lack of modern approaches in the organizational, content and procedural components of the pedagogical process of training teachers in computer technologies that proves the relevance of our study.

Analysis of recent research and publications. The issues related to the pedagogical component in training teachers of vocational education are central in the research works of such scientists as S. Burdina, O. Dzhurynskyi, N. Zhuravska, N. Kostin, N. Machynska, N. Nikandrova, L. Pukhovska, Yu. Sorokopud and others. It should be noted that the works of these scientists deal with teaching pedagogical disciplines to students of pedagogical educational institutions, students of master's level of non-pedagogical specialties or advanced training of teachers in the process of their professional development, emphasizing the issue of forming the readiness of students of non-pedagogical specialties for pedagogical activities in vocational education institutions.

Scientific research into master's degree training in various fields of education is sufficient: O. Boiko, T. Matsevko, I. Chystovska (military and social services); M. Kryshtanovych, V. Lunyachek (public administration); R. Heyzerska, T. Prykhodko

(economics); O. Zabolotnyi, O. Maliuha (agriculture); T. Sulima (construction) and others.

Relevant and close to the subject of our study is a number of scientific research works devoted to the theoretical basis of preparing masters for professional activities as future teachers at technical higher education institutions. The scientists involved in such research are: V. Ivanov, A. Kirsanov, and I. Kryvchanskyi – formation of professional and pedagogical competence; O. Zavalevska – professional self-awareness; S. Yermakova – monitoring the results of professional training; S. Dvoretskyi, A. Ivanov – prospects of using innovative technologies; Yu. Irkhina – future teachers' personal development while taking master's courses; O. Koval – formation of professional tolerance in future higher school teachers.

Interesting is the research done by N. Bolyubash [1] on developing and analyzing methodological approaches to the formation of pedagogical competence of master's students of non-pedagogical specialties using the capabilities of modern educational information technologies. Researchers have identified both the specifics of professional and pedagogical training of master's students of any specialty and the features that contribute to the successful formation of pedagogical culture of the master's student, it being done in conformity with the fact that part of the educational program of master's training envisages mastering the categorical apparatus and methodology of pedagogical science, logic and methods of pedagogical research as well as regulatory framework for functioning and reforming the education sector in general and individual pedagogical systems in particular. In fact, this is a condition and guarantee of the formation of the master's student pedagogical culture, the assimilation of its special values, while the research work in the field of pedagogy during master's studies is not only a necessary condition for professional training of future teachers, but a professional duty, which requires constant self-development, the necessary research competencies, without which it is impossible to form pedagogical culture [5]. We agree with N. Machynska [4], who notes that the process of training non-pedagogical professionals is aimed at the formation of professional and research competencies, which can explain the low motivation to study pedagogical disciplines by students of non-pedagogical specialties in higher education institutions. It is the low level of motivation to study pedagogical disciplines that necessitates influencing the motivational sphere of students in the process of forming their professional competence in order to develop positive motivation to study pedagogical

disciplines based on the integration of professional and pedagogical competencies [8; 9]. Practical experience of working with undergraduate students in Specialty 015 Vocational Education (Computer Technologies) and the analysis of scientific research shows the lack of elaboration of this problem and justifies the choice of the research topic.

The purpose of the article is to substantiate the approaches and identify ways to increase motivation to study pedagogical disciplines by bachelor students majoring in Specialty 015 Vocational Education (Computer Technologies), taking the discipline "Introduction to Specialty and Basics of Pedagogy" as an example.

Presentation of the main material. The experience of teaching bachelor students in Specialty 015 Vocational Education (Computer Technologies) shows that more than 80% of students hardly see their future careers as teachers, and are going exclusively to work in the field of Information Technologies. So the first and foremost task of a teacher of the pedagogical subject "Introduction to Specialty and Basics of Pedagogy" is to draw attention to a motivational component of the pedagogical process. Professionals often distinguish such concepts as "a motive", "motivation" and "motivational sphere", although it should be noted that there is no unanimous opinion in the interpretation of these categories among teachers and even psychologists. We interpret "a motive" as a situational effective stimulus of the learning process, which is characterized by different levels of stability and awareness.

The teaching profession is not considered as prestigious because of its low social status, which is manifested by low labour compensation, high labour intensity, emotional and psychological stress associated with it. This negative situation as to the status of the teaching profession is observed by every high school student while their studying at school, so it is not surprising that when entering a higher school applicants choose the profession of a teacher when they either feel it to be their calling or consider it as just a chance to get a diploma. Those who are clearly motivated for the pedagogical profession choose pedagogical higher education institutions, and the rest want to get a prestigious profession and to make a lightning-fast career, so they usually avoid pedagogical specialties. But for this or that reason some applicants embark on the specialty that leads to obtaining bachelor's degree in computer technology and a teacher of computer science. In this case, higher school teachers are supposed to put effort into the formation of positive motivation to study pedagogical disciplines in their students. This needs the

development of approaches and requirements for information and adaptive competence of the teacher [3; 5].

It should be noted that the very personality of the teacher of pedagogical disciplines working with students of this specialty has the direct influence on the formation of their positive motivation to study pedagogical disciplines. While conducting classes and organizing the educational process with first-year students the teacher of pedagogical discipline should be very restrained but convincing in their actions to form a positive attitude to the teaching profession, demonstrating professionalism in establishing pedagogical interaction, pedagogical competence and pedagogical skills. The teacher should focus on activity-based and innovative methods of work in the classroom, to avoid using outdated methods, to replace them with active teaching methods [2]. It is necessary to deeply modernize the courses of pedagogical disciplines based on the use of scientific achievements.

Formation of motivation to study pedagogical disciplines in students of Specialty 015 Vocational Education (Computer Technologies) by introduction of innovative approaches, in our opinion, is a long-lasting and complex process of forming a motive. This multi-component and multi-aspect process involves motivators that are present in the motivational sphere of the individual, as well as situational factors that are effectively manifested during effective pedagogical interaction. It is established that the effectiveness of the process of mastering pedagogical knowledge and skills depends on the formed students' learning motivation as well as on the content and operational characteristics of motivational activities. The multifaceted nature of the educational process and the situational nature of motives allow us to explain the strategy for forming learning motives.

During the practical class the teacher of a pedagogical discipline is supposed to create situations in which the motivational process of the individual acquires a positive dynamics (situations evoking the students' real interest in the process and the outcome of their activities). Such situations represent a motivationally saturated environment. The awareness of the "decisive influence of motivation on the success of educational and cognitive activities led to the formulation of the principle of motivational support of the educational process and determined the scope and intensity of research into this phenomenon by psychological and pedagogical science" [10, 3].

Let us consider the aspects of motivation to study the course "Introduction to Specialty and Basics of Pedagogy" from the standpoint of a bachelor student majoring in Specialty 015 Vocational Education (Computer Technologies) and a teacher of pedagogical disciplines.

For a student taking a bachelor's course in Specialty 015 Vocational Education (Computer Technologies), such motivation is very low at the initial stage, because, as the students say, they do not see themselves as teachers in the future. The teachers of pedagogical disciplines define their professional goal as to ensure the implementation of the content of the discipline and get quality results in accordance with the goals and content of the discipline "Introduction to Specialty and Basics of Pedagogy".

The most important at this point is to focus the content of educational material on the future specialty of students, their professional and academic rights. Factors which contribute to increasing the motivational basis for studying the course "Introduction to Specialty and Basics of Pedagogy" are classes of various types based on innovative approaches. We consider it expedient to use an integrative approach, the purpose of which is to orient students to the historical aspects of formation of pedagogical science in general and computer education in particular. In our opinion, it is important to substantiate the professional competence of a teacher of computer disciplines and their readiness for pedagogical activities, which cannot be realized without the appropriate development of meaningful scientific and methodological support of academic disciplines.

Let us dwell in more detail on the above factors. Regarding the use of an integrative approach, it should be noted that the main factors of greatest influence on the formation of students' positive motives to study pedagogical disciplines are democratic behavior of the teacher in the subject – subject relations of participants during the pedagogical process and active cooperation between them, in which a student is not only a consumer, but also a source of information, while a teacher is not only an authoritarian carrier of information, but also a consultant; novelty and relevance of the content of educational material and the methods of its teaching; professional direction of studying the pedagogical discipline by using interdisciplinary relationships; objective and timely control over the learning and cognitive activities of students and optimal assessment of learning outcomes; individual and differentiated learning [7].

In order to evoke the interest of bachelor students majoring in Specialty 015 Vocational Education (Computer Technologies) in the process and outcomes of their learning activities in pedagogical disciplines, we propose, while teaching these subjects: to use personality-oriented problem tasks of different levels, and students' mutual learning and mutual testing during

their work in dynamic pairs; to perform creative tasks together with students; "to build learning cycles with the periods of analytical work interchanging the periods of speech activity, to model the substantive and socio-psychological contexts of professional activity, involve students in the research process etc." [10, 8]. Thus during the students' first practical classes at university we offer them to prepare an analysis of their previous experience of learning computer science in secondary school; to write an essay on one of the topics (Have I got enough knowledge and skills in computer technology at secondary school?, What do I expect from studying at the University?, Would I like to have got higher level of computer competency during my studies at a secondary school?, Why aren't computer professionals willing to become teachers?). There is also organized a discussion "Computer education in Ukraine and the ways to improve it".

We rely on the research done by N. Osipchuk, which determines the following motivational factors: "clear goal setting, i.e. making students aware of the opportunity to use pedagogical knowledge in future professional activities; predictable outcome, i.e. allowing students to track the achievement of specific significant outcomes; communication as a means to activate students' cognitive intellectual activity; game activities as a basis for improving motivational opportunities; professional orientation, i.e. integration of the course "Introduction to Specialty and Basics of Pedagogy" into the specialist training system and increasing students' awareness of the functional significance of the course" [6, 35].

It should be noted that the practical classes during which students are given an opportunity to discuss their groupmates' essays and presentations on the above topics evoke great interest and are very popular with the students. When using the virtual learning environment, students post their presentations or essays on the platform and introduce them to the participants of the pedagogical process, then online reviews are given and discussions are organized. This type of work is a high motivating factor in organizing the learning process. To ensure increased motivation to master the categorical apparatus of pedagogics, the content of education, the main categories of didactics, modern technologies of teaching and education, diagnosis of learning outcomes and professional development of teachers, the content of the lecture is always accompanied by short video clips from lectures of well-known IT professionals. This provides a possibility to analyze both professional and pedagogical component of the presentation of information by the lecturer. This ensures the integration of both general scientific and professional

training of students as a system of pedagogically organized educational impacts aimed at motivated, conscious mastery by the student of the competencies specified in the educational and professional program. Analyzing and reviewing a video lecture, students make suggestions for improving the wording of its purpose, focus on inaccuracies and mistakes in the use of pedagogical terms etc.

Regarding the substantiation of professional competence of teachers of computer disciplines and their readiness for pedagogical activity, it should be noted that in the educational and professional program of bachelor's course in Specialty 015 Vocational Education (Computer Technologies) general and professional competencies are clearly distinguished, though taking into account the autonomy granted to institutions of higher education in shaping the syllabus, they often have significant differences. In practical works and in the content of the lecture material we emphasize the expediency of using one or another method of teaching during the coverage of each topic. The topics of practical works concerning the conceptual and categorical apparatus of pedagogics are completely based on the material from computer disciplines. For example, when studying the teaching principles, students are asked to create the way of presenting the material on the topic "Modern online services in education" building on the principles of scientificity, accessibility and systematicity. This task is of great interest to students and motivates them to search for information, present it in an appropriate way and justify the use of each principle. Thus students get an opportunity to demonstrate their professional competence, at the same time effectively developing their pedagogical competence. Similar tasks are developed for the following topics: Teaching methods, Choice of a teaching method, Modern pedagogical technologies, Organization of educational work, Work with difficult children and propaedeutics of crime prevention. Such tasks, as our experience shows, significantly increase the students' motivation to study pedagogy.

An important instrument of increasing motivation to study pedagogical disciplines is a differentiated approach to the formation of the content of education for a small number of bachelor students who are focused on the pedagogical profession. During the study of the discipline "Introduction to Specialty and Basics of Pedagogy" we have a differentiated approach to determining the themes of individual creative works. The students are free to choose from the topics proposed: Demands to a teacher of computer subjects in an educational institution: general secondary education, vocational education, higher education.

Important in professional training is the development of methodological support of practical classes based on an integrative approach. Preparation of methodical materials for practical classes and innovative activities for their implementation are the main tools for organizing, determining the content and conducting practical classes in the discipline "Introduction to Specialty and Basics of Pedagogy". Given the capabilities of students, we build the content of practical classes on a problem-based approach, based on the integration of pedagogical and professional components, as mentioned above. All practical works are professionally oriented. When performing a comparative analysis of the education system in Ukraine and the world, it is proposed to choose particularly specifics of training IT professionals for the education sector. Presentations are evaluated by four experts – students who develop evaluation criteria. A conference is organized, where the moderator can be both a teacher and a student, which is determined by the individual characteristics of students in a particular group, their interpersonal relationships etc. Students play the role of a teacher of pedagogy and present a lecture on a topic of their choice. Another type of work is the preparation of a review of a lecture or a practical lesson conducted by teachers from different disciplines. The final is a practical work on the topic "The profession of a teacher of computer disciplines: for or against". At the end of the course, students voluntarily and anonymously fill out a questionnaire, based on the results of which we plan our further activities. On the basis of this survey, we have chosen the most interesting and effective approaches to the content and activities offered in the course "Introduction to Specialty and Basics of Pedagogy" for undergraduate students majoring in Specialty 015 Vocational Education (Computer Technologies).

We conducted a comparative analysis of the motivational and value component of the discipline "Introduction to Specialty and Basics of Pedagogy" at the beginning of the course and after its completion and found that the introduction of teaching methods based on our proposed methodological approaches proves increasing motivation to study pedagogy. Thus after studying the discipline "Introduction to Specialty and Basics of Pedagogy" 75 % of students said that this course was useful and interesting for them, and after studying the course 25 % of students voiced their willingness to become teachers of professional disciplines.

Conclusions. The results of the survey conducted gave grounds to draw certain conclusions and identify further areas of research. Formation of positive motives of activity due to applying various methods and means is an important component of educational process and ensures the efficiency of studying pedagogical disciplines of professional and education program at the first level of higher education by the students taking bachelor's course in Specialty 015 Vocational Education (Computer Technologies). The indicators of the formed motivation to study pedagogical disciplines are the desire of students to master competencies inherent for these disciplines, students' interest in the categorical apparatus of pedagogics as a science, professional motivational interest in the chosen specialty, their certainty in future professional choice, personality of a teacher, his / her activity, unanimity of cognitive motivation of students.

Further research may include the generalization of the results obtained during the survey and the study of the level of pedagogical competence of bachelor students by the motivational criterion at the beginning of studying the discipline and after its completion followed by mathematical processing of the statistical data obtained.

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