CHARACTERISTIC OF PROFESSIONAL AND TEACHING ACTIVITY OF THE TECHNICAL DISCIPLINES’ EDUCATOR IN A VOCATIONAL EDUCATION INSTITUTION
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The Article discusses the professional and teaching activity of educators in the vocational education institutions. On the basis of regulatory documents, a list of positions of teaching employees in the vocational education institutions is defined, which allow teaching employees to teach the disciplines of theoretical education: teacher of vocational education and educator in a vocational education institution. The qualification requirements for the above-mentioned positions of teaching employees were analyzed; their tasks and functions were defined, as well as requirements for educational level were determined.

A more specific direction of professional and teaching activity of an educator in a vocational education institution and a teacher of vocational education was established, and the concept of "technical disciplines’ educator" was introduced (a teaching employee who teaches disciplines the subject of study of which is technology and technological processes). The article defines the versatile abilities of a technical disciplines’ educator necessary for successful carrying out of professional and teaching activity.

The definitions of the terms "teaching" and "professional and teaching" activity are compared. The professional and teaching activity of an educator of technical disciplines in a vocational education institution was characterized. On the basis of the analysis of the scientific and teaching literature, the types of professional and teaching activity of the technical disciplines’ educator in the vocational education institution are determined in accordance with the subject of activity, and components of activity are determined in accordance with the features of activity. The correspondence between the tasks and functions of the educator of technical disciplines is established, as well as the types and components of activity are determined. It has been determined that the fulfillment of certain tasks and responsibilities of a technical disciplines’ educator can occur both in the context of a specific type or component of activity and several ones, which is related to the integrated nature of the professional and teaching activity.

Keywords: educator of technical disciplines, teacher of vocational education, educator in a vocational education institution, qualification requirements, teaching employees, types of activity, professional and teaching activity.

Juergen Koeberlein-Kerler. «Характеристика професійно-педагогічної діяльності викладача технічних дисциплін закладу професійної освіти».

У статті розглядається професійно-педагогічна діяльність педагогічних працівників закладів професійної освіти. На основі нормативних документів визначений перелік посад педагогічних працівників закладів професійної освіти, що дозволяє педагогічним працівникам викладати дисципліни теоретичної підготовки: педагог професійного навчання та викладач закладу професійної освіти. Здійснено аналіз кваліфікаційних вимог до зазначених вище посад педагогічних працівників, визначені їх завдання та обов’язки, а також вимоги до освітнього рівня.

Встановлено більш конкретне спрямування професійно-педагогічної діяльності викладача закладу професійної освіти та педагога професійного навчання та введено поняття «викладач технічних дисциплін» (педагогічний працівник, який викладає навчальні дисципліни, предметом вивчення яких є техніка та технологічні процеси). В статті визначені різномірні здібності викладача технічних дисциплін необхідні для того, щоб успішно здійснювати професійно-педагогічну діяльність.

Зроблено порівняння визначень понять «педагогічна» та «професійно-педагогічна» діяльність. Здійснена характеристика професійно-педагогічної діяльності викладача технічних дисциплін закладу професійної освіти. На підставі аналізу науково-педагогічної літератури визначені види професійно-педагогічної діяльності викладача технічних дисциплін закладу професійної освіти у відповідності з
Articulation of a problem. The education of skilled workers in vocational education institutions is inextricably linked with the teaching employees who provide the organization and implementation of the educational process. In order to be able to carry out the educational process at a high professional level and in accordance with the present requirements, teaching employees shall meet the qualification requirements and be able to perform the various activities provided by these requirements.

Mastering specific knowledge, skills and competences within a certain specialty (such as teaching specialty) and the formation of appropriate competencies on this basis occurs in the higher education institutions during the process of the future teachers’ education.

In order for the higher education institution to be able to formulate the required list of competencies to be mastered and the educational outcome to be achieved by future professionals when creating appropriate educational programs, the qualification requirements for them should be analyzed in order to determine the tasks and functions inherent in employees (including teaching employees), as well as main activities.

This information should be taken into account when organizing and implementing the educational process in the higher education institutions when studying the disciplines of psychological and...
teaching direction, since it is they provide training for future teachers in professional activity in educational institutions. The types of activities that are inherent in teaching employees should be reflected in the tasks and activities for mastering a profession in a higher education institution.

Research objective. The purpose of the study is to analyze the qualification requirements for teaching employees in the vocational education institutions, to determine on this basis the main types of their activities and to characterize the professional and teaching activity of an educator of technical disciplines in a vocational education institution.

Statement of basic materials. As mentioned above, the education of skilled workers in vocational education institutions is provided by teaching employees. Considering the current legislation, namely the laws of Ukraine "On education" and "On vocational (vocational and technical) education", the list of positions for teaching employees in the vocational education (vocational and technical) institutions shall include: educator in the vocational (vocational and technical) education institution, teacher of vocational education, master of on-the-job education, instructor of on-the-job education, assistant master of on-the-job education, assistant educator in a vocational (vocational and technical) education institution.

Since the purpose of the study is to characterize the professional and teaching activity of an educator of technical disciplines in a vocational education institution, that is, teaching employees who teach the disciplines of theoretical education (technical direction) for future skilled workers, we will identify exactly those positions among the list that allow such activities. These positions include: educator in the vocational (vocational and technical) education institution, teacher of vocational education and assistant educator in a vocational (vocational and technical) education institution. As the latter is involved only in the organization of inclusive education for people with special educational needs (namely, adaptation of educational materials taking into account the peculiarities of educational and cognitive activity of students) in a vocational education institution, the educator of vocational (vocational and technical) education institution and the teacher of vocational education shall be considered.

Table 1 gives an analysis of the qualification requirements for the above teaching employees’ positions.

Table 1

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Profession (position) of teaching employee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Educator in a vocational education institution</td>
</tr>
<tr>
<td><strong>Tasks and functions</strong></td>
<td>1</td>
</tr>
<tr>
<td>- provides training and education of students, taking into account the specifics of the discipline;</td>
<td>- carries out theoretical and practical vocational education, re-education of students;</td>
</tr>
<tr>
<td>- conducts educational classes;</td>
<td>- carries out planning and accounting of educational work;</td>
</tr>
<tr>
<td>- is responsible for comprehensive methodological support;</td>
<td>- carries out work to improve the educational and methodological support and organization of educational process with students;</td>
</tr>
<tr>
<td>- develops curricula and programs;</td>
<td>- organizes vocational education for students in individual vocational programs;</td>
</tr>
<tr>
<td>- improves professional and pedagogical qualification;</td>
<td>- improves professional and pedagogical qualification;</td>
</tr>
<tr>
<td>- studies and applies in practice the achievements of pedagogy and information technology.</td>
<td>- studies and applies in practice the achievements of pedagogy and information technology.</td>
</tr>
<tr>
<td><strong>Qualification requirements</strong></td>
<td>Complete higher teacher education in the specialty &quot;Vocational education&quot; or other complete higher education and psychological and teaching education.</td>
</tr>
</tbody>
</table>
Thus, given the Table 1, both the Educator in a vocational education institution and the Teacher of vocational education can carry out theoretical education in the vocational education institutions, that is, to teach theoretical disciplines. The disciplines of professional and theoretical education are interesting in terms of the study, as they allow students to master scientific, technical, technological and special knowledge, skills and abilities, to apply this knowledge when performing both typical and non-standard tasks related to the future professional activities that will occur in the technical and technological environment.

Among the disciplines studied in the process of professional and theoretical education can be distinguished technical disciplines, which subject of study is technology and technological processes. Therefore, we consider it possible in the future text to use the concept of "educator of technical disciplines" as a more specific direction of the professional and teaching activity of the educator in a vocational education institution and the teacher of vocational education.

The next step in the study is to characterize the professional and teaching activity of the technical disciplines’ educator in a vocational education institution. In general, it is appropriate to apply the notion of "professional and teaching" activity rather than "teaching" activity to teaching employees in the vocational education institutions who carrying out teaching activities. This is due to the integrated nature of their work, which is at the intersection of several subject areas.

Teaching activity is a special kind of activity consisting in the conscious training and educational impacts of the educator on the student, aimed at its personal, intellectual and activity development, which simultaneously serves as the basis of self-development and self-improvement [8].

Therefore, professional and teaching activity is a teaching activity focused on a specific field of activity. The main purpose of professional and teaching activity of an educator in a vocational education institution, regardless of the educational program specialization of future skilled workers, is to form a system of professionally important knowledge and skills, as well as professional development of a future specialist in a specific field [10].

According to the well-known classification of occupations of E. Klimov [4], the educator of technical disciplines needs versatile abilities in order to successfully carry out activities in the systems: person to person, person - sign system, person - engineering.

The educator of technical disciplines should not only be a highly qualified specialist in a specific field of knowledge, but also possess the technology of teaching and educational process, modern technical means of teaching, and carries out research activities, involves students in scientific and technical creativity [5].

Scientists engaged in the study of professional and teaching activity of teaching employees (in particular, educators in the vocational education institutions with appropriate engineering and teaching education), determine the structure of professional and teaching activity in the form of certain types in accordance with the subject of activity.

According to the results of educational researches, the study of L. Krasyynska [5] analyzes the structure and content of the professional activity of the technical disciplines’ educator; it focuses specifically on the concept of "professional and teaching" activity and its specific types. The main types of professional and teaching activity are attributed by the author to the following:

1) teaching activity itself is an activity of creating conditions for the development of students by means of training, upbringing and education, aimed at encouraging them to the cultural achievements of mankind and forming an active, responsible and free personality. The purpose (and at the same time the subject) of this activity is the professional and personal development of students;

2) subject and information activity - the purpose of which is to develop new information on the subject area of knowledge, its selection, analysis and inclusion in the content of the discipline. The latter involves the design of the discipline content, definition of major sections and topics, selection and composition of theoretical material within each topic, selection of basic concepts, patterns, principles, definition of visual presentation of information, development of educational and methodological documentation;

3) research activities - conducting independent studies in the field of particular science by setting a target, determining the subject of the study, formulating a hypothesis and
choosing the best methods for checking it. The result of such study is to obtain and replenish scientific knowledge in a specific subject area and to improve the quality of the discipline teaching;

4) technical and technological activity – it is associated with the development of modern industry and production (mastering of best practices, modern technological processes, new technology, etc.), as well as information technologies (computer and multimedia training, distance courses, video lessons, etc.);

5) the activity of professional and personal self-development – it involves continuous improvement of subject knowledge (especially in the field of engineering and production technologies), as well as psychological and teaching knowledge.

O. Vlasenko's study identifies 4 types of activity in the structure of the teacher's professional and teaching activity [3]:

1) educational activity is the organization of learning process in accordance with regulatory documents (defining the purpose and objectives of education in a particular subject in conjunction with other disciplines; content of education, modern forms and methods);

2) methodical activity is the preparation of the educational process, its provision and improvement;

3) scientific-research activity is the study of scientific and teaching literature, monitoring of the science development, independent research, introduction into own practice of teaching innovations;

4) bringing-up activity is an educational impact on the students, using the potential of academic disciplines, as well as after-school hours.

The researcher T. Yakovenko defines the following types of activities when determining the requirements for a teacher of vocational education of a new generation in the structure of its professional and teaching activity [11]:

1) methodical activity is the definition and (or) analysis of the source data, factors and characteristics of the educational process, construction of its forecast model; organization and management of effective educational activity (providing direct communication and initiating feedback); assessment of the degree of conformity of the educational process model implemented in order to make correction or a complete change;

2) production and technological activity – it is aimed at providing and managing the educational and production process in a vocational education institution;

3) organizational-managerial activity is an activity connected with implementation of organization functions of educational and bringing-up process, optimization of microclimate in the team, planning, decision-making, organization and control of their implementation;

4) research activity is a activity related to the improvement of its professional and teaching skills on the basis of advanced teaching experience, scientific theory, empirical studies of problems of vocational education in order to improve the quality of educational process in an educational institution;

5) bringing-up activity is an activity aimed at diagnosing the personality and collective of students, planning educational work; organization of work in all areas of education; psychological rehabilitation and correction of students’ behavior; conducting vocational guidance; design, manufacture, registration of attributes of educational measures; organization and implementation of activities of study club, class, etc.

In the Project "Contemporary vocational education" (conceptual foundations for reform) of the Ministry of Education and Science of Ukraine, the components of high-quality vocational education are: a motivated applicant for qualifications; educational content based on occupational standards; modern educational environment; innovative teacher; an educational process focused on learning outcomes; recognition of learning outcomes by qualification assessment centers [9].

An innovative teacher in the context of modern vocational education is considered as one that combines theoretical and practical education in its professional and teaching activity; one who has the right to choose freely educational and author programs, as well as didactic teaching aids [9]. In other words, we can say that he/she is ready for the perception of teaching innovations and mastering innovative teaching technologies, that is, the implementation of innovative teaching activities [7]. Thus, innovative teaching activity can be considered as one of the types of professional teaching activity of the technical disciplines’ educator.
Other scientists engaged in the study of professional and teaching activities of teaching employees define the structure of professional and teaching activity by means of certain components – relatively independent functional activities, each of which includes set of skills required for its implementation.

According to N. Kuzmina, the structure of professional and teaching activity consists of the following components [6]:

1) gnostic component is the ability to acquire new knowledge, systemize them, analyze the positive moments and weaknesses in the activity (own one and students’ one);
2) designing component is a long-term planning of own and students activity content and methods;
3) constructive component is selection and arrangement of educational information;
4) organizational component is the ability of conveying information to students;
5) communicative component is establishing positive teaching communication with students, parents and teachers.

According to O. Bieliaeva study, components of professional and teaching activity are as follows [1]:

1) motivational component is a creation of a motivation system for different types of educational activities;
2) adaptive component is an adaptation of educational information to the level of its understanding by students;
3) stimulating component is a systematic orientation of the students towards the educational goals achievement;
4) cybernetic component is a constant management of the students cognitive activity and actualization of its given qualities and personality features;
5) technological component is an application of such strategies, methods and means of teaching and educating, which achieve guaranteed positive result of education;
6) diagnostic component is a study of the educational process effectiveness in order to confirm the accordance of obtained result with certain regulatory documents;
7) monitoring component is observing, evaluating and regulating of teaching activity, as well as providing feedback;
8) communicative component - it ensures the effectiveness and efficiency of communication between teachers and students, as well as with other parties in the teaching process;
9) designing component is planning and implementing the activity, condition and tools system delivering professional and teaching activity goals.

N. Briukhanova [2] proposes the following components of the engineer-teacher’s professional activity:

1) designing (teaching and educating) component, which involves activities for the creating of didactic and educational projects with sequential transition from the highest strategic level through the tactical level to the lowest operational level;
2) organizational (managerial) component related to the organization of teaching, educational-methodical and educating work; providing conditions for students to absorb information;
3) technological component including communicative component connected with teaching, educational-methodical and educating work performance;
4) control and correction component emphasizing the further actions, provided that the educational process result was insufficient;
5) original (creative) component describing something qualitatively new characterized by specialness, originality and socio-historical uniqueness;
6) methodological component associated with mastering of scientific knowledge principles, the creating of form and methods of this process;
7) scientific-research component aimed at knowledge of the academic discipline scientific foundations, development trends, etc.

Taking into account a specific task content and teaching employee functions containing the relevant qualification requirements (Table 1), as well as the definition of a certain type and component of activity from the viewpoint of the authors (scientists) who studied them (described above), we establish the correspondence between the tasks and functions of the teaching employees in the vocational education institutions, and types and components of their activity (Table 2).

Since both the educator in a vocational education institution and the teacher of vocational education within the study are considered to be educators of technical disciplines (see explanation above), we consider it possible to qualify both of them as "educator of technical disciplines" in Table 2.
Correspondence between functions and tasks of teaching employees in the vocational education institutions and activity types

<table>
<thead>
<tr>
<th>Functions and tasks</th>
<th>Activity types (depending on the subject of activity)</th>
<th>Components of activity (depending on activity features)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Educator in a vocational education institution</strong></td>
<td><strong>Teacher of vocational education</strong></td>
<td></td>
</tr>
<tr>
<td>- performs teaching and education of students considering the discipline specificity;</td>
<td>- performs theoretical and practical vocational education, requalification of students;</td>
<td>Pedagogical, Teaching, Educating</td>
</tr>
<tr>
<td>- conducts educational lessons;</td>
<td>- carries out planning and registering of educational work;</td>
<td>Organizational and management, Technical and technological, Engineering and manufacturing</td>
</tr>
<tr>
<td>- is responsible for comprehensive methodological support;</td>
<td>- carries out work on improvement of educational and methodological support and organization of students educational process;</td>
<td>Methodical, Subject and informational</td>
</tr>
<tr>
<td>- develops curricula;</td>
<td>- organizes vocational education of students following individual professional programs;</td>
<td>Organizational and management, Subject and informational, Engineering and manufacturing</td>
</tr>
<tr>
<td>- upgrades professional and teaching skills;</td>
<td>- upgrades professional and teaching skills;</td>
<td>Professional and personal self-development activity</td>
</tr>
<tr>
<td>- studies and applies in practice teaching and information technology achievements.</td>
<td>- studies and applies in practice the teaching and information technology achievements.</td>
<td>Scientific-research, Research Innovative Technical and technological</td>
</tr>
</tbody>
</table>

The established correspondence allows to state that the fulfillment of certain tasks and functions by the technical disciplines’ educator can occur both in the context of a specific type or component of the activity or several such types or components. Firstly, it is related to the integrated nature of the professional and teaching activity and, secondly, different authors differently defines the same activity type or component.

**Conclusions and directions for future study.** The professional and teaching activity of technical disciplines’ educators in the vocational education institutions is characterized on the grounds of analysis of qualification requirements for educators in the vocational education institutions. The direction of our further study is the analysis of activity types and components of technical disciplines’ educator defined above, and the determination among them the one responsible for the educational process designing, as well as its detailed consideration.
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