Formation of professional competences of students by means of psychological and pedagogical disciplines under conditions of the college

Formación de competencias profesionales de los estudiantes mediante disciplinas psicológicas y pedagógicas en las condiciones de la universidad

ABSTRACT

The relevance of the study is determined by the orientation of secondary vocational education on the development of professional competences of students, providing such a key competence as the ability to learn. In the context of the formation of psychological and pedagogical competence, the main types of professional and communicative competencies are developed in the process of psychological and pedagogical studies, and we considered them as professional competencies corresponding to the main types of professional activity.

In the course of investigation, the study of psychological-pedagogical and methodological research was carried out; the initial theoretical positions were singled out. In the course of the experiment, pedagogical conditions were identified and implemented, the content, forms, methods and technologies of forming the general cultural competencies of students in the multicultural educational space of the college were determined and implemented, and their effectiveness was tested in the course of experimental work.

KEYWORDS: competence; system of secondary vocational education; students; college; psychological and pedagogical disciplines

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RESUMEN

La relevancia del estudio está determinada por la orientación de la educación vocacional secundaria en el desarrollo de las competencias profesionales de los estudiantes, proporcionando una competencia clave como la capacidad de aprender. En el contexto de la formación de la competencia psicológica y pedagógica, los principales tipos de competencias profesionales y comunicativas se desarrollan en el proceso de estudios psicológicos y pedagógicos, y los consideramos como competencias profesionales correspondientes a los principales tipos de actividad profesional.

En el curso de la investigación, se llevó a cabo el estudio de la investigación psicológico-pedagógica y metodológica; las posiciones teóricas iniciales fueron señaladas. En el transcurso del experimento, se identificaron e implementaron las condiciones pedagógicas, se determinaron e implementaron el contenido, las formas, los métodos y las tecnologías para formar las competencias culturales generales de los estudiantes en el espacio educativo multicultural de la universidad, y se probó su efectividad en el curso de trabajo experimental.

PALABRAS CLAVE: competencia; sistema de educación vocacional secundaria; estudiantes; Universidad; disciplinas psicológicas y pedagógicas

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1. INTRODUCTION

A multiple series of definitions of such categories as “competency building approach”, “competence” was presented by various authors. Analysis of the pedagogical literature on the problem of forming professional competencies of students proves the ambiguity, multifaceted and polystructural nature of the concept “competence”, the complexity of their interpretation and the very idea of a competency-based approach in education [R. A. Fakhurtdinova, E.A. Konopatskaya, 2015].

The researches devoted to the disclosure of the competency-based approach concepts and competences in modern education were the most significant for our study: (V.I. Andreev, D.A. Ivanov, L.F. Ivanova, V.A. Kalnei, T.M. Kovaleva, J. Raven, O.V. Sokolova, S.E. Shishov, B.D. El’konin). The concept of “professional competence” was studied by Yu.V. Senko and V.V. Bashev. The ideas of the competency-based approach in education were considered by V.I. Baidenko, E.F. Zehner, G.V. Mukhametzyanova, A.M. Novikov, etc.) [R. A. Fahrudinova, R. R. Fahrudinov, E.A. Konopatskaya, 2014]

Separate authors considered different types of competences: socio-psychological competence (A. Koh), communicative competence (Y.N. Emelyanov, E.S. Kuzmin, Yu.M. Zhukov, P.V. Rastianikov), social competence (D. E. Egorov), professional-pedagogical competence (N.V. Kuzmina, V.V. Kulbeda), socio-psychological competence (L. I.Bereshtov), autopsychological competence (A.P. Sitnikov, I.V. Elshin), reflective competence (O.A Polischuk), information competence (N.V. Kulbeda), intercultural competence (N.N. Grigorieva, S.V. Murieva, L.B. Yakushkin) (Zhakipbekova, 2018)

The analysis of the published psychological and pedagogical works allows us to argue that the problem of implementing the competence approach in the conditions of secondary vocational education in the specialty “Preschool education” 44.01.02 is not sufficiently developed and implemented in the aspect of the content of the organization of developing activities in the context of the substantive environment of the DOE, and also the professional competence development of the kindergarten teacher of in the organization of innovative pedagogical activity.

The scientific and methodological basis of professional self-determination and self-awareness of students were studied by L.I. Antsiferova, Yu.S. Kolesnikov, Yu.A. Kustov, L. Mitina, N.A. Khromenkov and others.

The methodological basis of the research is the philosophical concepts of unity of the general, the particular and the individual; pedagogical concepts that reveal the problems of patterns and principles of the theory and methodology of education in the system of vocational education; methodological bases of system, competence, cultural and personal-oriented approaches to the study of social education systems, namely:

- The theory of instructional design (V.S. Lednev, V.A. Slastenin, M.I. Mahmutov); [Slastenin V. A., Podymova L. S. 1997]
- activity theory (V.V. Davydov, A.N. Leontiev);
- a systematic approach to the study of social phenomena (V.G. Afanasyev, E.G. Yudin); (Xiangyi et al., 2016)
- the concept of recurrent professional education of the individual as a condition for its professionalization and self-realization (E.M. Ibragimova, G.V. Mukhametzyanova, etc.)

Under the term “competence” J. Raven understands a specific ability, that include a highly specialized knowledge, a special thinking paradigm, subject skills, as well as an understanding of responsibility for their actions. To be competent means to have a set of specific competencies on various levels necessary to perform a specific action in a particular subject area. [D. J. 2002]

Understanding the competence of a specialist as his general ability to mobilize his skills,
knowledge, and generalized ways of performing actions in his professional activity that is what S.E. Shishov suggests.

According to E. Symanyuk and E. Zeera, the competence-based approach is prior commitment to the vectors of education: learning, self-determination, socialization, self-actualization and the development of individuality [Zeer uh, Cimanuk E. 2005].

Yu.V. Frolov and D.A. Makhotin differentiate the concepts of “competence” and “competency”, linking the first term to the content of future professional activity, and the second - to the qualities of the individual.

Irina Zimnya, who has carried out a thorough analysis of the fundamental issues, places and principles of the competence-based approach in the modern Russian education, claims it to be the internal, dormant, hidden psychological force, which is then revealed in the human competences as currently central, activity demonstration. [Zimnyaya I. A. 2004]

In the competence-based approach, the list of necessary competencies is determined in accordance with the demands of the labor market. [Fahrutdinova R.A, Yarmakeev I.E, Fakhrutdinov R.R., 2014;D. Vasileva, R.A. Fahrutdinova, R.R. Fahrutdinov, R. K.Diuanova 2017] Acquirement of professional competences becomes the main goal as well as the results of the learning process in the modern system of vocational education. [Chiu, Chi-Yue,. Lonner, W. J, Matsumoto, D., Ward, C., 2013]

2. RESEARCH METHODS

The theme and tasks determined the choice of research methods that are interrelated and mutually complementary: theoretical - the study of philosophical, psychological, pedagogical, sociological, methodological literature, scientific periodicals, modeling, designing, generalization of the experience of educational institutions; diagnostic - testing; observational - pedagogical observation; praximetric - studying of educational documentation, programs, plans and results of students activity; experimental - ascertaining, constructing, control stages of the experiment; statistical - quantitative and qualitative processing of the materials with the help of mathematical statistics.

We have selected and implemented a set of methods to identify the level of professional competence of college students, namely: “Methodology for the diagnosis of student motivation” (A.A. Rean and V.A. Yakunin, modification of N. Ts. Badmaeva); “Test: Readiness to work with the information and information sources”; “Comprehensive method to identify the level of professional competencies of college students.”

This experimental work was aimed at implementing the following research hypothesis: the formation of professional competencies of students of secondary vocational education by means of disciplines of the psychological and pedagogical cycle will be more effective if:

- the model of formation of professional competencies of the student of the system of secondary vocational education by the means of the disciplines of the psychological and pedagogical cycle will be designed and introduced;

- on the basis of the theoretical analysis of the problem, the content of the concept “professional competence of a college student within the framework of studying the disciplines of the psychological and pedagogical cycle” will be specified;

- criteria, indicators of the level of formation of professional competencies of college students in the process of studying psychological and pedagogical disciplines will be revealed;

- The content of psychological and pedagogical disciplines will be developed in the aspect of forming the professional competencies of college students.

Experimental base of the research: college of the PEI HE of the Kazan Innovation University named after V.G.. Timiryasova (IEML), students of 1, 2, 3 years on the specialists training program of middle level on specialty 44.02.01. Preschool education.

One of the stages of the experiment included the development and implementation of a model for the formation of professional competencies of college students. As a research tool for studying the process of formation the professional competencies of a college
student, the modeling method was used. The methodological component of the developed model allowed us to identify professional approaches and principles to the learning process that contribute to the formation of professional competencies of students of the system of secondary vocational education. The modeling method allowed us to integrate the theoretical and methodological basis of the study and its experimental part in a possibility to prove the main principles of the research. This model included such components as: target, substantive, procedural and evaluation-criterial, and their elements in interdependence and interdetermination.

As the main goal of the model developed by us, we identified the formation of professional competencies for students of the system of secondary vocational education.

For successful implementation of this goal the following points will contribute:

- the formation of values of students in the educational space of the college;
- the development of positive motivation for the formation of professional competencies in academic and extracurricular activities;
- the establishment of general and professional culture of students;
- providing the student’s with a possibility for self-fulfillment in the educational space of the college;
- the mastering and practical application of psychological, pedagogical and professional knowledge;
- the development of creative thinking of students.

3. RESULTS AND DISCUSSIONS

To optimize the teaching and upbringing process and improve the system of vocational training for college students, we have studied the dynamics of the formation of professional competencies. The dynamics of the formation of professional competencies is given in Table 1.

Table 1. Dynamics of the formation of professional competences. (See Annexes)

An analysis of the dynamics of the formation of the allocated professional competencies in college students allows us to state its positive tendency. At the same time, the greatest dynamics is observed in two professional competencies: creation of a subject-developing environment in the group and planning of various activities and communication of children during the day. As well as noticeable dynamics for such professional competencies as pedagogical monitoring, assessment of the process and results of the education of preschool children; planning of activities aimed at promotion of the child’s health and physical development; evaluation and analysis of the results of collaboration with parents, and adjustment of the process of interaction with them.

The presence of positive dynamics in all key competences in the research interval (within three academic years) provides us with a basis for the conclusion that the relationship between the functioning of the model of implementing the competence approach and the development of basic professional competences in students has a stable character, that makes perfect sense. The main characteristics of the competencies presented match the criteria of the FSES SVE competencies, within which 26 professional competences are allocated. [Federal state educational standard of secondary professional education in the specialty 44.02.01 Preschool education /http://www.edu.ru/db/moi/Data/d_14/m1351.pdf]

Thus, the experimental research confirmed the hypothesis put forward by us that the purposeful work on the formation of the professional competencies of students in the conditions of a college organized on the principle of continuous education allows solving more effectively not only educational tasks (improves the quality of training of specialists) but also socio-pedagogical, expressed in the fact that college graduates get access to higher professional education, and local employers solve the problem of preschool educational organizations’ staff assistance.

The presence of positive dynamics in all professional competencies gives us grounds to conclude that the relationship between the functioning of the model of the implementa-
tion of the competence approach and the development of basic professional competencies in students is natural and sustainable. These indicators confirm the reliability of the proposed hypothesis of the study.

4. CONCLUSIONS

Having analyzed the scientific literature on the research problem, under the disciplines of the psychological and pedagogical cycle, we mean those disciplines that are based on the study of pedagogy and psychology that have the professional potential of educating the personality of the learner, contribute to the formation of moral qualities, form the civic consciousness, develop communicative abilities, look to the surrounding peace, psychological and pedagogical attitude and literacy.

In our study, we consider the educational space of the college as one of the factors shaping the professional competencies of students, which is realized in this space as in the system of intercultural, social and educational relationships, promoting the internalization of the national culture, the formation of universal human values of students both through education and through the prism of studying the professional disciplines of psychological and pedagogical orientation.

The research data and conclusions confirmed the necessity to implement the pedagogical conditions for the formation of professional competence of students in the educational space of the college by means of professional disciplines of a psychological and pedagogical orientation.

A comparative analysis of the data obtained at the beginning and at the end of the experiment made it possible to conclude that as a result of the experimental work the number of students with a low level of professional competencies decreased, while those possessing high level of professional competences increased.

As a result of the study, the following conclusions can be drawn:

1. Adoption of new educational standards in the system of secondary vocational education made it possible to identify professional and common cultural competencies.

2. Implementation of the potential of professional disciplines of psychological and pedagogical orientation to provide psychological and pedagogical training contributes to the personal development of the student and his formation as a person capable of orientation in the space of the college on the basis of familiarizing with the elements of pre-school psychology and pedagogy.

3. Traditional and innovative teaching technologies, such as problem-based learning, learning in cooperation, context-based learning, interactive training, are effective means of forming the professional competencies of students. The comparative analysis of the obtained results of the formation of professional competencies of students at the beginning and end of the experiment on the selected criteria (cognitive, communicative-activity, value-orientation) proved the effectiveness of the experimental work carried out and the reliability of the hypothesis of the research.

5. ACKNOWLEDGEMENTS

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### ANNEXES

<table>
<thead>
<tr>
<th>No</th>
<th>The competences evaluated</th>
<th>Mark (in points) according to academic years</th>
<th>Pedagogical effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Documentation maintenance, providing the organization of workshops</td>
<td>2.5 2.8 3.5</td>
<td>+1.0</td>
</tr>
<tr>
<td>2</td>
<td>2. Management of various activities and communication of children during the day</td>
<td>2 2.9 3.9</td>
<td>+1.9</td>
</tr>
<tr>
<td>3</td>
<td>3. Pedagogical monitoring of the health status of each child, timely informing the medical worker about changes in his state of health</td>
<td>3.0 3.5 4.0</td>
<td>+1.0</td>
</tr>
<tr>
<td>4</td>
<td>4. Analysis of the process and results of the organization of various activities and communication of children</td>
<td>3.5 3.9 4.5</td>
<td>+1.0</td>
</tr>
<tr>
<td>5</td>
<td>5. Pedagogical monitoring, assessment of the process and results of teaching preschool children</td>
<td>2.3 3.0 3.9</td>
<td>+1.6</td>
</tr>
<tr>
<td>6</td>
<td>6. Planning of activities aimed at promotion of the child’s health and physical development</td>
<td>2.2 3.2 4.0</td>
<td>+1.8</td>
</tr>
<tr>
<td>7</td>
<td>7. The establishment of the subject-developing environment in the group.</td>
<td>2.5 3.5 4.5</td>
<td>+2.0</td>
</tr>
<tr>
<td>8</td>
<td>8. Conducting individual consultations with parents on family education, social, mental and physical development of the child.</td>
<td>4.0 4.5 4.5</td>
<td>+0.5</td>
</tr>
<tr>
<td>9</td>
<td>9. Development of methodical materials on the basis of exemplary ones taking into account the characteristics of age, group and individual qualities of pupils.</td>
<td>2 2 3</td>
<td>+1</td>
</tr>
<tr>
<td>10</td>
<td>10. Evaluation and analysis of the results of collaboration with parents, adjusting the process of interaction with them.</td>
<td>3 3.5 4.5</td>
<td>+1.5</td>
</tr>
</tbody>
</table>

*Table 1. Dynamics of the formation of professional competences*