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The Professional Competence Development Technology of Experts in the Methodical Association

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Abstract: The carried-out analysis on the development condition of a problem in psychology and pedagogical science and practice allowed to reveal the existing contradiction between the objective need of primary vocational education system for the competent staff, who are capable to organize teaching, upbringing and work activity of pupils under modern social and economic conditions and the insufficient level of their methodical qualification. The professional competence development of experts is a process of quantitative and qualitative condition changing of all its components upon the transition from one level to another, which can be revealed in those who learn under the influence of organizational and pedagogical conditions created by a teacher in the interaction with trainees in the educational process of the methodical association. The research defines the teachers' questionnaire results on self-assessment of the teacher's activity efficiency which is shown in the innovative approach to teaching process and the indicators change of teacher's activity efficiency which is shown in the teachers' innovative approach to teaching process after the training course organization.

Key words: Professional Competence · Methodical Association · Pedagogics

INTRODUCTION

Conceptual ideas of primary vocational education reforming cause the improvement of all elements of educational activity, including teacher's professional and pedagogical activity. The activity improvement of primary vocational education establishments in many respects depends on teacher's competence, his ability to be redeveloped according to new conditions of educational activity. This task solution is impossible without the solution of questions on the increase of his professional competence according to modern requirements of educational environment. The analysis of psychological, pedagogical, methodological and other literature shows that scientists already paid attention to this problem. Thus, questions of teacher's professional competence and his preparation for educational activity implementation are considered in works by Andreev V.I. [1, 2], Nain A.Ya. [3]. We relied on scientific researches on psychology and pedagogical researches which are mostly devoted to the development of ways and methods on professional competence formation of a worker in various fields of modern production [4-10].

MATERIAL AND METHODS

Research methodological base is philosophical principles of the personality subjectivity, change continuity and developments of phenomena, the unity of theory and practice, consciousness and activity.

Research methods at the second stage are analysis, observation, conversation, interviewing, modeling, expert evaluation method, mathematical statistics methods and empirical data processing.

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The research base was the scientific and educational professional staff training center of Pedagogy Department in the Ural State University of Physical Education (Ural GUFK). The additional base was the Perm Training College No. 50 (the methodical association), Magnitogorsk and Chelyabinsk State Professional Teacher Training Colleges.

118 teachers, 64 masters of vocational training, 26 methodologists and 17 heads of primary vocational education institutions were involved into the research.

When developing the professional competence development technology of experts in the methodical association, we took into account the following objective situations. The further vocational education system has to perform the compensatory function today and not only in the field of Pedagogics and Psychology. When determining the professional development content, it is necessary to consider a number of additional continuously changing requirements to the professional competence of teachers and masters of vocational training, namely: society requirements on the social and economic tasks solution by the primary vocational education system; labor market requirements; requirements of state standards, curricula and programs of vocational education; requirements of the production sphere; tendencies of scientific and technical progress development, means of production and technological processes; requirements of various social institutes towards the morale of an educational institution graduate; requirements of tariff and qualification characteristics.

RESULTS AND DISCUSSION

In the course of the methodical association, the following pedagogical technologies are realized for the professional competence development: collective discussion of scientific, methodical, pedagogical literature (pedagogical readings, debates, etc.); abstracting of books, reference books, articles; scientific, methodical, pedagogical literature reviews; making up recommendatory reference lists, bibliographic cards, abstracts; book exhibitions which are periodically arranged by subject cyclic and methodical commissions together with a library; reports, lectures on scientific, methodical and pedagogical subjects; pedagogical consultations; the analysis of tests, topic studying results, a semester, psychological features studying of pupils' educational activity and behavior by teachers, putting forward suggestions for the education and upbringing improvement of trainees; various types of teachers' joint practical work, including didactic material selection to lessons and extra-curricular activities (texts, paper works, tasks); visual aids creation and selection; the equipment of classrooms, workrooms, subject places, etc.

The professional competence development of experts in the MA is promoted by face-to-face work with teachers and masters of vocational training according to programs of their self-educational activity which was carried out for the purpose of teachers' pedagogical reflection skills, self-educational activity formation and the need for continuous self-improvement. Teachers carried out this work according to individual plans. Plans are formed according to functional elements of individual pedagogical teacher's activity: gnostic, design, constructive, communicative and organizing.

The choice of Materials Testing (MT) form and content for the professional competence development is defined by monitoring and diagnostics tasks and organizing features of the skill improvement process and training resources. The combination of traditional control forms of teachers' educational cognitive activity with a test, which main advantages are high efficiency and adaptability, is effective. Testing represents the main method when carrying out operational quality control sessions of learning objectives achievement in the course of monitoring. As monitoring data is the base for carrying out diagnostic testings, the main MT selection criterion, applied in monitoring, is their diagnostic capability.

The following criteria of teachers' professional competence development efficiency are defined in the research: the motivational and valuable relation to the teaching activity, which is shown in teachers' professional competence dynamics; teachers' development of an ability to cooperate, put and solve the communicative tasks estimated with the help of self-assessment and empathy indicators; teacher's activity efficiency which is shown in the innovative approach to training process.

Skilled work materials showed that at the beginning of the forming experiment 48.9% of teachers had strong interests to professional and pedagogical activity. At the final stage, 61.2% of teachers noted their interests. According to self-assessment, 26.5% of respondents had a high level of methodical competence at the beginning of the forming experiment. At the final stage of the forming experiment, 38.7% of respondents had such a level. The number of teachers with a low level of methodical competence decreased from 10.2% to 4.1%.

Table 1: Questionnaire results of teachers on self-assessment of teacher's activity efficiency, which is shown in the innovative approach to teaching process (prior to the forming experiment and at the final stage; n=49, which is in %)

		Your Self-Assessment of This Quality Formation					
		Formed		Not Enough		Not Formed	
No.	Professionally Important Qualities	EG	CG	EG	CG	EG	CG
1.	Needs, Motivations towards Professional Pedagogical Activity	48.9	61.2	51.1	37.8	–	–
2.	Method Competence	26.5	38.7	67.3	57.2	10.2	4.1
3.	Social-Psychological Competence	20.4	18.4	71.4	75.5	8.2	6.1
4.	Differential- Psychological Competence	34.6	42.8	51.1	45.0	14.3	12.2
5.	Autopsychological Competence	24.5	42.8	55.1	47.0	20.4	10.2
6.	Leadership in Teachers Staff	32.6	44.9	53.1	46.9	14.3	8.2
7.	High Level of Intellect	22.4	14.3	57.2	67.3	20.4	18.4
8.	Information Awareness	20.4	40.8	65.3	47.0	14.3	12.2
9.	Emotionality	22.4	36.7	61.3	57.2	16.3	6.1
10.	Self-Possession	28.5	40.8	57.2	51.0	14.3	8.2
11.	Innovative Activity	26.5	42.2	57.2	49.6	16.3	8.7
Statistical Data		M=28.0 m±1.64	M=38.5 m±2.4 p<0.05	M=58.8 m±0.91	M=52.8 m±1.62 p>0.05	M=13.5 m±1.79	M=8.5 m±2.16 p<0.05

Table 2: Indicators changes of teachers' activity efficiency, which is shown in the innovative approach to teachers' training process after the organized training course (n=25, %)

		Awareness Level			
		Low		High	
No.	Occupational Mobility Indicators	Prior to the Training Course	After the Training Course	Prior to the Training Course	After the Training Course
1	Scientific, Scientific and Methodical Literature Analysis	16.9	9.6	33.7	50.6
2	Scientific Achievements Knowledge in the Field of Vocational Education	14.4	10.8	24.1	53.0
3	Method Competence	16.9	14.4	31.3	43.3
4	System Bases Knowledge of Pedagogical Activity	36.1	21.7	19.2	38.5
5	Ability to Apply the Principles of a System Approach in Pedagogical Activity	31.3	19.2	26.5	45.8
6	Scientific Information Knowledge of the Pedagogical Activity Effective Methods	19.2	10.8	24.1	43.3
7	Knowledge and Abilities to Interpret Legislation and Regulations Spelling out the Pedagogical Activity	19.2	10.8	24.1	43.3
8	Compliance of Applied Training Methods to the Level of Modern Society Requirements	24.1	14.4	21.7	53.0
9	Creative Opportunities in the Pedagogical Activity	33.7	19.2	28.9	43.3
10	Mastering Innovative Activity Methods and Skills in the Pedagogical Activity	31.3	28.9	33.7	45.8
Statistical Data		M=24.3 m±3.61	M=16.6 m±2.24 p>0.05	M=27.2 m±3.51	M=46.2 m±2.78 p <0.05

Low-expressed (statistically doubtful, in P>0.05) changes happened at the final stage of the forming experiment in social and psychological competence level in the field of communication (Table 1).

There were essential changes in teachers' relations towards innovative activity. If prior to the forming experiment 26.5% of respondents were in favor of innovations, at the final stage there were 42.2% of respondents.

The objective expert efficiency indicators assessment of teachers' activity testifies that teachers' special knowledge and skills are behind promptly changing environment in the education system. Thus, only 24.1% of teachers had sufficient scientific achievements knowledge in the field of vocational education and only 19.2% of teachers were noted with a high level of system bases knowledge of pedagogical activity.

The tasks solution of educational process quality improvement is possible only when there is a high level of teachers' theoretical training. Specially organized teachers' professional development to a certain extent contributed to it.

The expert assessment of special knowledge and practical skills, carried out after the forming experiment, testifies to the essential growth of teachers' activity efficiency which is shown in an innovative approach to the training process (Table 2).

More than a half of teachers were noted with a high level of analytical activity and knowledge in the field of vocational education (50.6% and 53.0%). The number of experiment participants, who have a high level of system bases knowledge of pedagogical activity, increased from 19.2% to 38.0%.

The percent of teachers who use creative opportunities in their pedagogical activity increased (from 28.9% to 43.3%). 45.8% of listeners were noted with a high level of innovative pedagogical activity knowledge and skills. However, teachers still have insufficient abilities to apply the principles of a system approach in the pedagogical activity (19.2% of teachers had a low level after the end of the experiment). The insufficient ability level to apply the principles of a system approach to the pedagogical activity and also difficulties in mastering innovative activity methods and skills were corrected by teachers' independent work under leadership of skilled consultants-methodologists.

The materials analysis of skilled and experimental work allows concluding that all results of the pedagogical experiment on the teachers' professional competence development were reliable for 5% test distinctions significance. This circumstance confirms the hypothesis accuracy made by us at the beginning of the research and shows high efficiency of the developed technique of teachers' professional competence development.

CONCLUSION

The professional competence development technology, which contains the following components: the development subject, development purpose, process, development means, development methods, standard bases, principles, provides the most guaranteed result on professional competence development of experts.

Conditions of teachers' professional competence development of vocational education in the further vocational education system are revealed, proved and checked in a practical way according to the hypothesis and research tasks.

The teacher's professional competence development indicator is his professional preparation which is the effective activity factor and special preparation result. The preparation is considered as a social and professional quality of the personality, being characterized by the unity of knowledge, skills necessary for successful activity performance; as personal education including three interdependent components: motivational, informative, emotional and strong-willed.

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