Rapid-test results of students' creativity showed that most students have a level of creativity above average. The best rates showed the students, whose specialties are "Music education and choreography", "International Law", "Oriental studies" and "Methods of initial training" – from 68 to 70 points in general. Rates below average were recorded only in 10 students, representing 1.18% of the total number of subjects (Table 5).

Table 5. Diagnostic results of students' level of creativity

Specialty	*Course*	*Num. of people*	*Average ind. Cr*	*VS*	*S*	*AA*	*A*	*BA*
Pedagogy and Psychology	1	60	66.1	15 ppl. (25%)	17 (28.3%)	16 (26.7%)	12 (20%)	-
Methodology of initial training	2	50	68	16 (32%)	13 (26%)	9 (18%)	12 (24%)	-
German	1	75	63.6	10 (13.3%)	23 (30.7%)	20 (26.7%)	20 (26.7%)	2 (2.6%)
English	2	65	64	11 (16.9%)	25 (38.47%)	19 (29.24%)	9 (13.85%)	1 (1.54%)
International law	1	95	68.5	23 (24.3%)	35 (36.84%)	27 (28.43%)	10 (10.52%)	-
International information	2	70	67	10 (14.29%)	20 (28.57%)	27 (38.57%)	13 (18.57%)	-
World history	1	44	61.2	4 (9.1%)	20 (45.45%)	3 (6.82%)	15 (34%)	2 (4.54%)
Oriental studies	2	40	68	11 (27.5%)	19 (47.5%)	6 (15%)	4 (10%)	-
Country studies and tourism	1	55	66	9 (16.36%)	27 (49.1%)	13 (23.64%)	6 (10.9%)	-
Chemistry and Biology	2	65	63.9	10 (15.39%)	26 (40%)	16 (24.62%)	12 (18.46%)	1 (1.54%)
Computing and Information technology	1	85	65	12 (14.12%)	40 (47.06%)	20 (23.53%)	13 (15.29%)	-
Methodology of teaching mathematics, physics and informatics	2	50	61	9 (18%)	13 (26%)	12 (24%)	14 (28%)	2 (4%)
Music education & choreography	1	47	70	20 (42.55)	20 (42.55%)	3 (6.4%)	4 (8.5%)	-
Theory and methodology of initial military preparation	2	50	63.3	12 (24%)	8 (16%)	15 (30%)	13 (26%)	2 (4%)
General rates		851	65.4	172 (20.21%)	30 (35.96%)	206 (24.2%)	157 (18.45%)	10 (1.18%)

Summing up test results on determine levels of IQ and Cr we received initial data that characterize the level of students' overall giftedness. Most of participants in the experiment (38.8%) referred to the category "Above Average", 31, 96% of respondents showed quite good results during both tests, so we consider them as potentially gifted students. The rest (28.97%) have average or below average rates. That confirms our thesis about the necessity of purposeful development of students' professional giftedness at the university (Table 6).

Table 6. Initial condition of development levels of students' overall giftedness

Levels of development	*Quantitative and percentage ratio*
Superior (S)	272(31, 96%)
Above Average (AA)	330 (38,8%)
Average (A)	224 (26,3%)
Below Average (BA)	25 (2,94%)

In this regard, we offer a model of students' giftedness development that involves a set of pedagogical conditions at three levels: organizational-pedagogical, psycho-pedagogical and didactic (Figure 1).

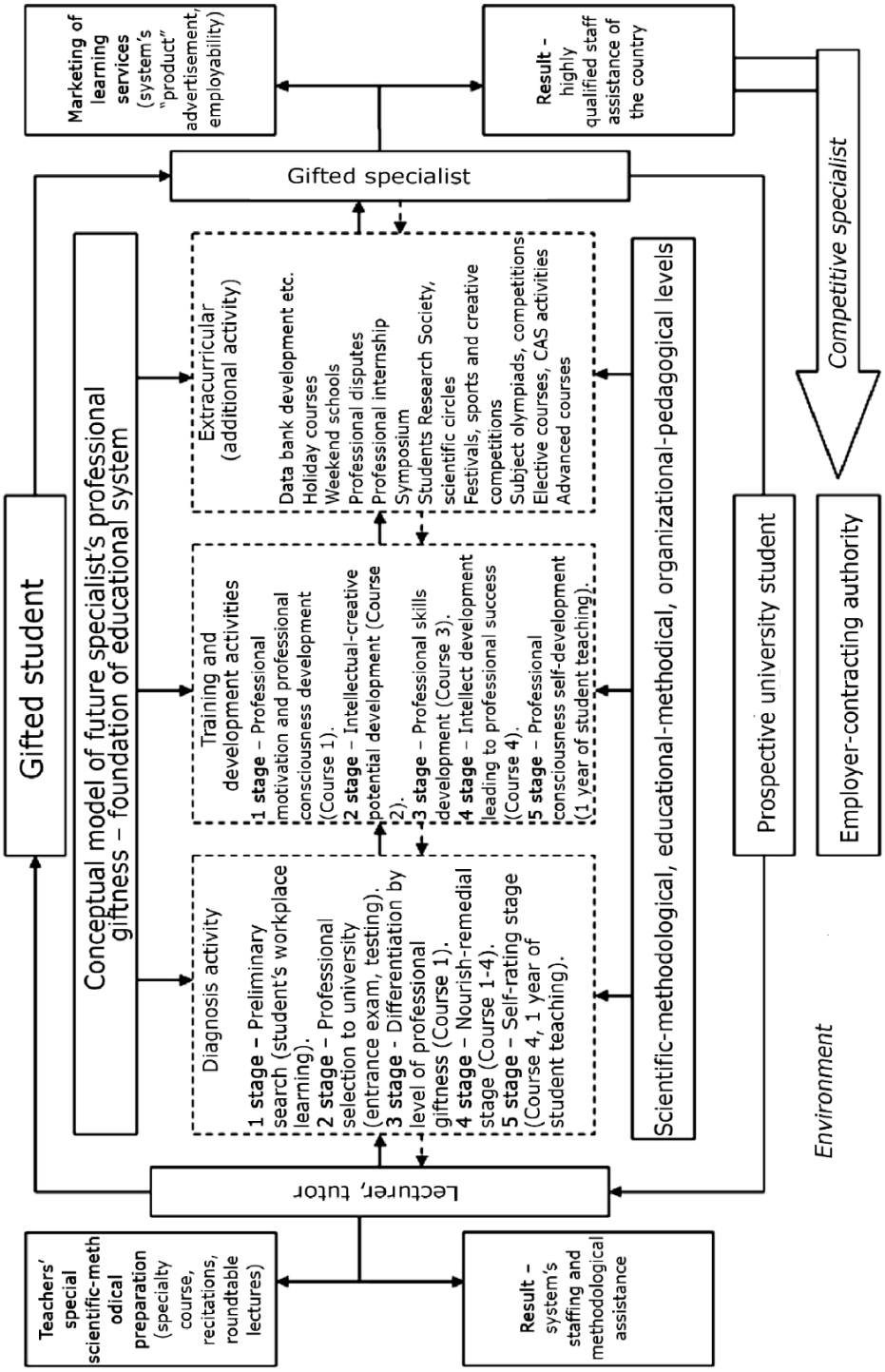

Figure 1. Student's giftedness development system

Organizational-pedagogical conditions:

– creation of psycho-pedagogical service (department) on work with gifted students (diagnostics, forecasting, planning of "individual trajectory of personal development," development of special training and development programs etc.) as the main educational system of control;

– creation of tutor's service – individual consultants and mentors for students, helping students to develop "individual trajectory of education and professional development", developing individual programs of students' giftedness development;

– training methodological support (development of special training programs on subjects, variability of courses for educational services selection, availability of individual development plans and programs etc.);

– diagnostics and monitoring of the level of professional giftedness development in general and its individual components, wherein, the original orientation of future specialist's professional giftedness development is how he learns an obligatory minimum of training programs;

– training and development differentiation (creation of mini-groups by levels of skills and professional giftedness) both during training and during extracurricular activities;

– morally psychological, material stimulation of gifted students (scholarships, participation in scientific conferences, seminars, publications of students' scientific articles, involvedness in the program of fundamental programs researches , as well as in the plans' research of scientific organizations, university faculties, departments);

– organization of group research and teams, creation of the Council of Young Scientists (CYS), student scientific societies (SSS), student scientific circles (SSC), creative laboratories, scientific schools under departments, faculties ensuring differentiation of scientific interests, thematic unity and scientific communication;

– solution of gifted students' employment problem in connection with personal and social problems in real life that will allow a student to realize his own demand in labor market and real possibilities of future professional success.

Psycho-pedagogical conditions:

– stimulating teachers' and undergraduates' motivation to work in educational system of future university specialists' professional giftedness development;

– definition of specific objectives of professional giftedness in general and its individual components diagnosis and development at every stage of work;

– development of students' educational and professional motivation in all classes (lectures, seminars, practical, students' individual work etc.) In order to create students' professional self-awareness and understanding of the importance of developing their abilities and intellectually creative potential as for educational activity within the university and for the future professional activity;

– use of cooperation and co-creation principles, "transmission" of teacher's creative potential on the basis of dialogue interaction, intersubjective communication with the student; striving to improve the teacher's own professional competence as an example of a creative person for gifted students;

– promoting independence of opinions that challenge existing views and provide new ideas, independence in organization and evaluation of students' activity results by their own;

– promoting in-depth study of chosen topics from among elective courses in maximum extent, maintaining and developing independent researching skills, "learn to learn" abilities; student-future specialist is an active subject of his own activities;

– creation of a continuous training research work, thematic agreement of students' research work, continuity of scientific generations, scientific research work integration in educational disciplines, courses, practice;

– creation of an appropriate psychological climate in classrooms (friendly relations with the student, joyful relationship with knowledge, positive emotions); creation of a students' self-esteem, "a sense of success", self-reliance, respect for "right to make mistakes" principle;

– identification of leaders, definition of the on-line, course, group status in the eyes of students, teachers, heads of university faculties.

Didactic conditions:

– research approach to conducting lectures, seminars and practical courses based on the problem presentation of material associated with new prospects in science development; the use of heuristic methods for organization gifted students' creative activity;

– insertion of a wide (global) themes and problems in view of students' scientific interests differentiation, as well as theoretical orientation on the future professional activity;

– use of an interdisciplinary approach in teaching based on interdisciplinary integration issues, themes and problems related to different fields of knowledge;

– fill the learning process with "open type" tasks in studying the problems, allowing to take into account the tendency of gifted students to research type of behavior, self-intellectual activity;

– use of active forms of learning: group discussion, "brainstorming", role-playing and simulation games, group and individual research projects etc.; optimal combination of frontal, group, individual forms of work;

– teaching students to assess their work based on specific criteria for content related to a particular area of research and problems of future professional activity.

Combination of all these factors forms the professional competence as an integral characteristic of graduator's professional giftedness from higher vocational establishment. Professional elite formation in a particular industry should be the result of proposed educational system depending on the profile of training that after graduation will be able to engage in professional activities.

Discussion and Conclusion

In identifying the level of gifted students' development, we proceeded from the popular model of giftedness by J. Renzulli (1986), which deals with intellect and creativity as one of the main parameters of general giftedness. In later publications (Reis & Renzulli, 2004), a scientist said that the definition of giftedness should not stand in the forefront of cognitive factors, because they do not explain the productivity in adulthood.

Methodology of creativity assessment by P. Torrens that we used is adapted on schoolchildren sample and is most often used in diagnosis of children with the age of 5-17 (Runco et al., 2010). In Russia, there are also attempts to adapt this sub-test on managers' sample from 23 to 35 years old (Tunick, 2013). However, we found no cases of test use in diagnosis of students' capabilities. We have adapted the test "Incomplete Pictures" on students from pedagogical university. Special emphasis was placed on the identification of non-verbal creativity as the ability to create a new product in conditions of minimum verbalization.

Results of the experimental part of this study indicate that a high level of students' intelligence cannot guarantee their successful creative research activity, since it is not always comparable to the level of creativity. Studies in Chicago city educational institutions showed analogical arguments (Getzels & Jackson, 1962).

It is worth noting that psycho-diagnostic examinations of students' intelligence are widely used in education systems of advanced Europe countries, aimed at measuring how well an individual has mastered intellectual skills in order to study (Kwiek, 2014). To this end, a variety of programs was developed: test program of academic evaluation, national testing program of abilities and achievements in accordance with the requirements of colleges and universities, advanced selection of programs for students with additional training in certain areas etc. In addition, there were developed a special controlling bodies: testing services in education and the College Board.

This indicates that the level of gifted students' diagnostics is well developed at the national level, but we do not mark the same feature in the practice of the Republic of Kazakhstan and other former Soviet states.

In summary, experimental data of the study confirmed the need to improve the quality of work on students' professional giftedness development at the university: 28.97% of tested students showed average or below average results for "level of IQ" and "level of creativity" rates.

Proposed principles of systematic pedagogical work with students at the university are concentrated on four major interrelated aspects: scientifically methodical, diagnostic, developing and labor.

Implications and Recommendations

Developed system of students' giftedness development is a complex of organizational, psychological, pedagogical and didactic conditions. Thus, the submissions can be useful in educational practice of higher education

institutions of any type, in work organization with gifted students and in teaching of pedagogical disciplines, specialists training and retraining.

Disclosure statement

No potential conflict of interest was reported by the authors.

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