

# DEVELOPMENT OF PSYCHOLOGICAL READINESS TO WORK WITH GIFTED CHILDREN FOR PRESCHOOL INSTITUTION TEACHERS

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## **Abstract**

The article presents a model of pre-school teachers' psychological readiness to work with gifted children. The program of a special course designed for extensive development of readiness and teachers' training to work with gifted children is presented. The effectiveness of the developed program is confirmed by a formative experiment. The obtained results can become a basis for psychological activities aimed at such readiness formation.

**Key words:** *preschool education institution (PEI), PEI teachers, gifted children, psychological readiness.*

## **Introduction**

**Problems and relevance of the research.** Effective work of preschool teachers with gifted preschool children is possible only at a high level of psychological readiness to professional work. However, the authors' data (Довгань, 2011a, 2011b, 2011c) show that a vast majority of preschool educators have average or low levels of psychological readiness to work with gifted children. In the authors' view, this is because of a number of contradictions inherent in techniques of pre-school teacher training, including:

- the traditional system of teachers training and the reality of practical work with gifted preschool children;
- future teacher commitment to use standard programs for preschoolers' education and lack of satisfaction of constant renewal with best practices of education methods and techniques for gifted preschoolers;
- traditional approaches to the development and training of preschool children without taking into account of gifted children's specifics and needs;

Today, one of the most important areas of modern education is the need to prepare psychologically competent caregivers, teachers who can play a decisive role in preschooler's

personality formation. Therefore, timeliness to introduce special forms into teachers' preparing process has led the authors to creation of a program of psychological readiness development to work with gifted children for pre-school teachers.

It should be noted that the problem of working with gifted children was investigated by national and foreign researchers. Thus, foreign psychologists Guilford (1967); Taylor (1998); Sisk (1990) and others used a variety of conceptual models for education and training program development.

Over the past three decades, national scientists were creating programs to identify and support gifted children development Дьяченко (1997); Шадриков (1996); Богоявленская (2005); Щепланова (2008); Шумакова (2004); Савенков (2010); Джумангулова (2009); Рубцов (2010).

In Ukraine at the regional level, the targeted program "Talented Children" of the National Foundation is being implemented. The programs were designed to promote state provisions relating to talented creative children progress.

However, the question of psychological preparation of future preschool teachers to work with gifted preschool children during graduate and post-graduate courses in universities was not raised in psychological researches and state programs.

**Object of the research** is development of pre-school teachers' psychological readiness to work with gifted children.

**Aim of the research** is to develop and test a program of development of pre-school teachers' psychological readiness to work with gifted children.

**Objectives of the research:**

- 1) to propose a program of development of pre-school teachers' psychological readiness to work with gifted children.
- 2) to test the program of development of pre-school teachers' psychological readiness to work with gifted children
- 3) to prove the efficacy of the program on a base of a formative experiment.

**Sample of the research**

The study involved 50 teachers from preschool education institutions of traditional and new types in Kyiv. Levels of psychological readiness to work with gifted children and social and professional characteristics of the participants (intermediate variables) were relatively homogeneous.

**Methods and organization of the research**

A special diagnostic system was applied to determine the levels of teachers' psychological readiness to work with gifted children at the beginning and at the end of the special course-training. Techniques from modern psychological diagnostics literature (Погов (2000), Райгородский (1998), Ярошевский (1982) that have passed appropriate checking and meet the context of the present research program have been selected. Unfortunately, most of the selected techniques are intended for secondary school teachers, so it was necessary to create customized options taking into account pre-school teachers' diagnosis specific features. Therefore, it was necessary to develop additional diagnostic tools (questionnaires and a technique).

Statistical analysis of the data was performed using the computer statistical software package SPSS (version 16.0).

### Methods of the research.

The formative experiment to develop teachers' psychological readiness on the base of the program of a special course was held as extensive work within the preschools' methodological framework (1 time per week) in experimental groups during 8 weeks in 2011-2012 in the preschool No 580 of a new type "Olbia" of educational institution "Giftedness" and in the traditional type preschool No 789 in Kyiv.

- I) Standardized techniques were used: 1) the method to determine teachers' orientation on interaction with gifted children by Torrance (1998) modified by Лейтес (1996), 2) the questionnaire "Studying of roles in a creative group" by Ярошевский (1982), 3) the method for diagnostics of empathic ability levels by Бойко (Райгородский, 1998); 4) the method for diagnostics of communicative tolerance by Бойко (Фетискин, 2002), and 5) the method "Your creative potential" by Рогов (2000).
- II) Additional diagnostic tools: 1) the questionnaire "Psychological and pedagogical features for working with gifted children", 2) the questionnaire "Styles of interaction with a gifted child", and 3) the questionnaire "Features of gifted preschoolers", and 4) the technique "The motives for working with gifted children."

### Principles of sampling of research participants

In order to form a representative sample, the respondents were divided into groups depending on:

- 1) their age: 32,3% were 24-34 years old, 33,3% were 35 to 44, 26% were 45 to 54; 8,3% were 55 to 70;
- 2) their length of service: 43,8% worked from 1 to 13 years; 32,3% did 14 to 22 years; 17,7% did 23 to 31 years; 6,2% worked 32 to 46 years;
- 3) types of pre-school educational institutions: 49% worked in traditional pre-schools, 51% did in pre-schools of new forms.

The experimental group consisted of 25 teachers and was divided into the sub-groups: 13 teachers from the preschool No 580 of a new type "Olbia" of educational institution "Giftedness" and 12 educators from the traditional type preschool No 789. The control group consisted of 25 people (a subgroup of 12 educators from the preschool No 580 "Olbia" and 13 pre-school teachers from the traditional preschool No 789).

Development of preschool teachers' psychological readiness to work with gifted children is based on the author's model of preschool teachers' psychological readiness to work with gifted children. According to the model, psychological readiness to work with gifted preschoolers is made of a combination of motives, knowledge, skills, personal qualities that provide effective training, education and personal development of gifted preschoolers. Accordingly, the structure of readiness includes the following components: 1) *motivational* (complex motives that raise teachers' desire to educate gifted preschoolers with high quality), 2) *cognitive* (knowledge about psychological characteristics of gifted children and psychologically sound forms and methods of work with them), 3) *operational and regulatory* (set of abilities and skills necessary for effective interaction "teacher - gifted child"), 4) *personal* (set of personal qualities needed to work with gifted children – creativity, tolerance, etc.).

The program "*Development of preschool teachers' psychological readiness to work with gifted children*" goes on 42 academic hours (4 hours for input and output diagnostics, 18 hours for lecture work, 18 hours for trainings, 2 hours for practical work) and 18 hours of independent work (home tasks).

The program was implemented in a form of a training workshop, where input and output diagnostics was performed to determine teachers' psychological readiness before and after the formative experiment (see Table 1).

**Table 1.** Program of the special course “Development of preschool teachers’ psychological readiness to work with gifted children”

Modules of the study course	Sections of the special course
Input diagnostics in order to determine the levels of teachers’ psychological readiness to work with gifted children <i>before</i> the special course-training	
Module 1 “Development of the cognitive component of teachers’ psychological readiness to work with gifted children”	Theoretical part.
	Practical part.
	Independent work
Module 2 “Development of the motivational component of teachers’ psychological readiness to work with gifted children”	Theoretical part.
	Practical part.
	Independent work
Module 3 “Development of the operational and regulatory component of teachers’ psychological readiness to work with gifted children”	Theoretical part.
	Practical part.
	Independent work
Module 4 “Development of the personal component of teachers’ psychological readiness to work with gifted children”	Theoretical part.
	Practical part.
	Independent work
Output diagnostics in order to determine the levels of teachers’ psychological readiness to work with gifted children <i>after</i> the special course-training	

The main part of the program is aimed at solving of the problems identified during an acknowledged experiment 1) the *cognitive* component: lack of awareness among teachers about features and characteristics of gifted preschoolers and peculiarities of work with them, 2) the *motivation* component: insufficient focus on quality of gifted preschoolers’ training and education, 3) the *operational and regulatory* component: insufficiently developed skills of effective interaction at work with gifted children, and 4) the *personal* component: lack of personal qualities necessary for effective interaction with gifted children.

Thus, the experimental group, as a result of formative experiment, recorded statistically significant differences ( $p < 0.01$ ) by criterion  $\chi^2$  between the results of the first and second studies that reflects the importance for teachers of motives of work with gifted children.

### Results of the research

The analysis of implementation results for the program of development of pre-school teachers’ psychological readiness to work with gifted children has proved its effectiveness.

This is manifested, in particular, in the fact that teachers from the experimental group, who attended the extensive special course within the methodological work, reported increased share of such motives as self-development and self-improvement, professional, social motives, etc. The control group did not show positive trends as for these motives.

**Table 2.** Levels of the motivational component of teachers’ readiness to work with gifted children before (1<sup>st</sup> study) and after (2<sup>nd</sup> study) the formative experiment

Levels of the motivational component	Tested groups (%)			
	1 <sup>st</sup> study		2 <sup>nd</sup> study	
	Experimental	Control	Experimental	Control
Low	20	8	0,0*	25
Average	68	88	44*	70,8
High	12	4	56*	4,2

\* – differences are statistically significant at the level  $p < 0,01$ .

At the beginning of the experiment (see Table 2) only 12% teachers in the experimental group indicated a high level of significance of motivation to work with gifted children, but after the experiment of 56% teachers indicated such a level, as the number of teachers with a low level of motives to work with gifted children decreased from 20% to 0%.

As for the *control group*, the 1st and 2nd studies have only minor differences, which generally do not significantly alter the situation on the significance of motives to work with gifted children for the studied preschool teachers. Thus, 4% and 4.2% of tested persons had a high level of significance of motives before and after forming experiment respectively, and 8% and 25% preschool teacher had a low level.

Statistically significant changes ( $p < 0.01$ ) were noted for levels of the readiness cognitive component among the teachers from the experimental group, while positive trend in the control group was not observed (Table 3).

In particular, the number of teachers with a high level of knowledge about psychological characteristics of gifted children and work with them significantly increased (from 0% to 56%) in the experimental group, while a number of teachers with a low level of knowledge decreased from 48% to 0%. Thus the results of the special course on cognitive matters showed that the main part of preschool teachers obtained the necessary knowledge.

The *control group* has not shown, as the result of *cognitive component* training workshop, significant changes in knowledge about psychological characteristics of gifted children and work with them.

**Table 3.** Levels of the cognitive component of teachers' readiness to work with gifted children before (1<sup>st</sup> study) and after (2<sup>nd</sup> study) the formative experiment

Levels of the cognitive component	Tested groups (%)			
	1 <sup>st</sup> study		2 <sup>nd</sup> study	
	Experimental	Control	Experimental	Control
Low	48	52	0,0*	62
Average	52	48	44*	37,5
High	,0	,0	56*	,0

\* – differences are statistically significant at the level  $p < 0,01$ .

Comparative analysis of the first and second studies for levels of the *operational and regulatory component* of teachers' readiness from the experimental group showed positive dynamics of its indexes (at the trend) after formative experiment, while the *control group* showed negative dynamic (8% teachers with a high level of readiness before the formative experiment to 0% after it) (Table 4).

**Table 4.** Levels of the operational and regulatory component of teachers' readiness to work with gifted children before (1<sup>st</sup> study) and after (2<sup>nd</sup> study) the formative experiment

Levels of the operational and regulatory component	Tested groups (%)			
	1 <sup>st</sup> study		2 <sup>nd</sup> study	
	Experimental	Control	Experimental	Control
Low	60	48	48	41,7
Average	32	44	24	58,3
High	8	8	28	,0

The fact draws attention that although the number of teachers from the experimental group with a high level of operational and regulatory component after formative experiment increased by 20%, statistically significant changes of this readiness component occurred only as a trend. This indicates that practical implementation of learned knowledge and skills acquisition require quite a long time.

Statistically significant differences in levels of the personal readiness component for experimental group teachers before and after the formative experiment were noted, while teachers from control group did not show statistically significant differences in the levels (table 5).

As it is shown in the table 4, a low level of the personal readiness component decreased from 52% to 32% in the *experimental group* after the formative experiment and a high level increased from 12% to 40% ( $p < 0.05$ ).

The results of the control group did not change, only the number of teachers with a high level of readiness slightly increased (from 4.5% to 12.5%). Other results were not changed significantly.

**Table 5.** Levels of the personal component of teachers' readiness to work with gifted children before (1<sup>st</sup> study) and after (2<sup>nd</sup> study) the formative experiment

Levels of the personal component	Tested groups (%)			
	1 <sup>st</sup> study		2 <sup>nd</sup> study	
	Experimental	Control	Experimental	Control
Low	52	50	32*	50
Average	36	45,5	28*	37,5
High	12	4,5	40*	12,5

\* – differences are statistically significant at the level  $p < 0,05$ .

In general, the experimental group showed positive trends as for the level of teachers' psychological readiness to work with gifted children, while significant changes during the training workshop in the control group did not occur (Table 6).

**Table 6.** Levels of teachers' readiness to work with gifted children before (1<sup>st</sup> study) and after (2<sup>nd</sup> study) the formative experiment

Levels of readiness development	Tested groups (%)			
	1 <sup>st</sup> study		2 <sup>nd</sup> study	
	Experimental	Control	Experimental	Control
Low	48	50	4*	54
Average	48	50	64*	45,8
High	4	,0	32*	,0

\* – differences are statistically significant at the level  $p < 0,05$ .

Thus, a number of teachers with a high readiness level in the experimental group increased from 4% to 32%, and with a low one decreased from 48% to 4% ( $p < 0.01$ ). The results in the control group were virtually unchanged.

At the final stage of determination of the effectiveness of formative experiment, a comparative analysis of teachers' *positive expectations* at the first and second studies of possibility was performed to find out and develop special and general giftedness of every

child on the base of the authors' projective techniques "Circles", where teachers mentally transformed images of gifted children in their groups into circles and extent of potential natural abilities was described by the circle sizes at the beginning and at the end of the training workshop (Table 7).

**Table 7.** Teachers' positive expectations as for possibility to find out and develop special and general giftedness of every child

Degree of teachers' positive expectations as for possibility to find out giftedness of every child	Tested groups (%)			
	1 <sup>st</sup> study	2 <sup>nd</sup> study	1 <sup>st</sup> study	2 <sup>nd</sup> study
	Experimental	Experimental	Control	Control
Low	56	28*	36	44
Average	36	24*	56	52
High	8	48*	8	4

\* – differences are statistically significant at the level  $p < 0,01$ .

A number of teachers with high expectations as for possibility to find out and develop giftedness in every child in the experimental group increased from 8% to 48% ( $p < 0.01$ ). At the beginning of the seminar these teachers pointed to "lack of clearly gifted children", "a small number of children with high potential giftedness", but after the formative experiment teachers, stating that they "had difficulty in performing this task", while noted: "all children are gifted." Teachers' attitude towards talent waiting in each child in the control group did not change.

At the next step of the analysis of special course implementation, the features of the components of teachers' psychological readiness to work with gifted children depending on age and professional organizational factors (such as pre-school types and lengths of work at pre-school) were investigated.

In order to determine the dependence of these characteristics on the levels of pre-school teachers' psychological readiness to work with gifted children, the results of the formative experiment with  $\chi^2$  criterion were analyzed and correlation analysis with Pearson's rank correlation coefficient was performed.

The results showed the absence of statistically significant correlations between the overall level of psychological readiness, its components and the subjects' age and professional organizational factors (pre-school types and lengths of work at pre-school).

This confirms once again the important influence of the special course-training "Development of teachers' psychological readiness to work with gifted children" on development of psychological readiness and has proven its effectiveness.

### Conclusions

1. Development of teachers' psychological readiness to work with gifted children is possible with a special program that consists of modules including development of motivational, cognitive, operational & regulatory and personal components of readiness.
2. Analysis of program implementation during the methodological work with teachers in preschools proved its effectiveness. Thus, study of statistically significant indicators showed that importance of quality of work with gifted children increased for the teachers from the experimental group. Improvement of their psychological readiness to work with gifted children was also reported. Statistically significant changes of these parameters among the teachers from the control group were not observed.
3. In the future, the authors believe it is necessary to prepare individual programs of teachers'

psychological readiness to work with gifted children on the basis of continuous monitoring of personal and professional development. It is important from the authors' point of view to develop programs for preschool psychologists' training in the field of psychological support of work with gifted children.

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## DEVELOPMENT OF PSYCHOLOGICAL READINESS TO WORK WITH GIFTED CHILDREN FOR PRESCHOOL INSTITUTION TEACHERS

### *Summary*

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The article states that effective teachers' working with gifted preschool children is possible with a high level of psychological readiness for professional activity. The analysis of the scientific literature states that the issue of psychological preparation of preschool teachers to work with gifted preschoolers in the system of higher education and post-graduate teacher education in psychological research and government programs is not revealed. *Aim of the research* is to develop and test a program of development of pre-school teachers' psychological readiness to work with gifted children. *Object of the research* is development of pre-school teachers' psychological readiness to work with gifted children.

*Sample of the research.* The study involved 50 teachers from preschool education institutions of traditional and new types in Kyiv. Levels of psychological readiness to work with gifted children and social and professional characteristics of the participants (intermediate variables) were relatively homogeneous.

The paper presents the formative experiment of psychological readiness program of the designed course for teachers. The study was conducted with extensive option within the methodological work of preschool education. The work took place one day a week in the experimental group for 8 weeks in 2011-2012 at the CCA number 580 a new type of "Olbia" NVZOSHL "Giftedness" and PEI traditional type number 789 in Kyiv.

The program "*Development of preschool teachers' psychological readiness to work with gifted children*" goes on 42 academic hours (4 hours for input and output diagnostics, 18 hours for lecture work, 18 hours for trainings, 2 hours for practical work) and 18 hours of independent work (home tasks).

The program was implemented in a form of a training workshop, where input and output diagnostics was performed to determine teachers' psychological readiness before and after the formative experiment.

The main part of the program is aimed at solving of the problems identified during an acknowledged experiment 1) the *cognitive* component: lack of awareness among teachers about features and characteristics of gifted preschoolers and peculiarities of work with them, 2) the *motivation* component: insufficient focus on quality of gifted preschoolers' training and education, 3) the *operational and regulatory* component: insufficiently developed skills of effective interaction at work with gifted children, and 4) the *personal* component: lack of personal qualities necessary for effective interaction with gifted children.

The analysis of the results of the implementation of the program of development of pre-school teachers' psychological readiness to work with gifted children has proved its effectiveness.

This is manifested, in particular, that in the experimental group students who attended a special course for the option within the extensive technical work, growth reached a high level of psychological readiness and its components. In the control group, a positive trend with respect to these parameters was observed.

At the next step of the analysis of special course implementation, the features of the components of teachers' psychological readiness to work with gifted children depending on age and professional organizational factors (such as pre-school types and lengths of work at pre-school) were investigated.

In order to determine the dependence of these characteristics on the levels of pre-school teachers' psychological readiness to work with gifted children, the results of the formative experiment with

$\chi^2$  criterion were analyzed and correlation analysis with Pearson's rank correlation coefficient was performed.

The results showed the absence of statistically significant correlations between the overall level of psychological readiness, its components and the subjects' age and professional organizational factors (pre-school types and lengths of work at pre-school).

This confirms once again the important influence of the special course-training "Development of teachers' psychological readiness of to work with gifted children" on the development of psychological readiness and has proven its effectiveness.

Conclusions show that the development of teachers' psychological readiness to work with gifted children is possible with a special program that consists of modules including development of motivational, cognitive, operational & regulatory and personal components of readiness. The analysis of program implementation during the methodological work with teachers in preschools proved its effectiveness, too. Thus, study of statistically significant indicators showed that importance of quality of work with gifted children increased for the teachers from the experimental group. The improvement of their psychological readiness to work with gifted children was also reported. Statistically significant changes of these parameters among the teachers from the control group were not observed. In the future, the authors believe it is necessary to prepare individual programs of teachers' psychological readiness to work with gifted children on the basis of continuous monitoring of personal and professional development. It is important from the authors' point of view to develop programs for preschool psychologists' training in the field of psychological support of work with gifted children.