

# Particular qualities of intelligent-creative component of gifted adolescents

## Cualidades particulares del componente inteligencia-creatividad de adolescentes talentosos

YA.T. ZHAKUPOVA 1; V.I. DOLGOVA 2; O.A. KONDRATIEVA 3; E.G. KAPITANETS 4; A.A. NURTDINOVA 5

Received: 12/01/2018 • Approved: 25/02/2018

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#### ABSTRACT:

The goal is to identify particular qualities of intelligent-creative component of gifted adolescents. The research was conducted in 2016 in the South Ural State Institute of Arts named after P.I. Tchaikovsky with students of 4-8 grades of pre-professional and general programmes (N = 220), including 141 students (64,1%) of music and folklore departments and 79 students (35,9%) of choreographic department. Participant observation and three parts of the Test of divergent thinking from F. Williams' Creativity Assessment Packet (CAP) - test of divergent (creative) thinking (TBM - 1), TBM-2 "Self-assessment of personal creativity" (for children), TBM-3 "The Williams Scale" (assessment for parents and teachers) - have been used. Distribution of the students by the level of divergent thinking (TMB-1, CAP, N=220) has identified high level of divergent thinking development in more than half of the students (55,9%). Degree of divergent thinking is within the determined standard for this age period. Distribution of the students by the levels of personal display of creative giftedness (TMB-2, CAP, N=220) has shown that 71,8% of teenagers have low self-esteem of personal factors of creative giftedness. This can be explained by increased level of personal and intellectual reflection of students studying in the

#### RESUMEN:

El objetivo es identificar las cualidades particulares del componente inteligente-creativo de los adolescentes dotados. La investigación se llevó a cabo en 2016 en el Instituto de Artes del Estado de los Urales del Sur, que lleva el nombre de P.I. Tchaikovsky con estudiantes de 4-8 grados de programas preprofesionales y generales (N = 220), incluidos 141 estudiantes (64,1%) de los departamentos de música y folclore y 79 estudiantes (35,9%) del departamento coreográfico. Observación participante y tres partes de la prueba de pensamiento divergente del paquete de evaluación de creatividad de F. Williams (PAC) - prueba de pensamiento divergente (creativo) (TBM - 1), TBM-2 "autoevaluación de la creatividad personal" (para niños) ), TBM-3 "The Williams Scale" (evaluación para padres y maestros) - se han utilizado. La distribución de los estudiantes por el nivel de pensamiento divergente (TMB-1, CAP, N = 220) ha identificado un alto nivel de desarrollo del pensamiento divergente en más de la mitad de los estudiantes (55,9%). El grado de pensamiento divergente está dentro del estándar determinado para este período de edad. La distribución de los estudiantes según los niveles de exhibición personal de talentos creativos (TMB-2, CAP, N = 220) ha demostrado que el 71,8% de los adolescentes tienen

system of art education. Distribution of evaluative opinion of parents by the levels of display of creative giftedness of their children (TMB-3, CAP, N=220) has shown that when communicating with children most parents (60,5%) quite often notice the habits of asking too many questions and giving original, unconventional answers, ability to generate a lot of ideas and consider different ways of their implementation. Comparative analysis shows that experimental data are close to normative data  
**Keywords:** gifted adolescent, intelligent-creative component, creative giftedness, divergent thinking, self-esteem, creative personal characteristics.

una baja autoestima de factores personales de talento creativo. Esto se puede explicar por un mayor nivel de reflexión personal e intelectual de los estudiantes que estudian en el sistema de educación artística. La distribución de la opinión evaluativa de los padres por los niveles de exhibición de dotes creativas de sus hijos (TMB-3, CAP, N = 220) ha demostrado que al comunicarse con los niños, la mayoría de los padres (60,5%) observan los hábitos de preguntar demasiadas preguntas y dando respuestas originales y poco convencionales, capacidad para generar muchas ideas y considerar diferentes formas de implementación. El análisis comparativo muestra que los datos experimentales están cerca de los datos normativos  
**Palabras clave:** dotado adolescente, componente inteligente-creativo, dones creativos, pensamiento divergente, autoestima, características personales creativas.

## 1. Introduction

Social-economic transformations in the Russian society have brought about the need to form creative personality and develop its abilities. The more the society requires creative individuals (Zhakupova, 2017; Yermekbaeva, 2015; Karimova, 2015), the more urgent is the need to elaborate theoretically and practically the problems of development of intelligent-creative component, to study its nature and forms of appearance (Abdullaeva 2015; Akhmerova, 2015; Bogoyavlenskaya, 2015; Ilyin, 2011; Ostapenko, 2014); sources and conditions (Gavrilova, 2014; Dolgova, Kutepova, 2017; Dolgova, Rokitskaya, 2017; **Emelyanova**, 2017; Loseva, 2016); ways and methods of diagnostics and support (Dolgova, Vasilenko, 2017; Kazarina, 2015; Kuznetsova, 2015; Kulakova, 2015; Mikhaleva 2015).

Intelligent-creative component presupposes flexibility, fluency, originality, and development of thinking. All the above-mentioned characteristics are the main qualities of divergent thinking of an individual – productive thinking aimed at generation of new ideas and self-expression. The level of creative giftedness is defined by originality of thinking, non-standard and unusual answers, desire for intellectual novelty, deviation from obvious and generally accepted – a person able to create is almost always trying to find his or her own solution; semantic flexibility – ability to see a problem differently, pass from one category to another, make your thoughts go in a roundabout way, use different approaches and possibilities of the new when using the objects; fluency of thought, generation of a great number of ideas in a unit of time, multiplicity of suitable answers, high speed and efficiency of work; development – ability to thoroughly develop new ideas.

The above-mentioned has determined the goal of the research which is to identify particular qualities of intelligent-creative component of gifted adolescents.

## 2. Methods

The methods used are: participant observation; Test of divergent thinking (TBM) from F. Williams' Creativity Assessment Packet (CAP): test of divergent (creative) thinking (TBM – 1); TBM-2 "Self-assessment of personal creativity" (for children); TBM-3 "The Williams Scale" – assessment for parents and teachers; methods of mathematical statistics (Tunik, 2003; Sidorenko, 2003).

TBM-1 – the test of divergent (creative) thinking identifies five cognitive factors closely correlating with creative display of personality.

TBM-2 "Self-assessment of personal creativity" is a questionnaire for self-assessment of individual psychological qualities of a gifted child.

TBM-3 "The Williams Scale" is a rating scale allowing parents and teachers to assess the child's creative potential through observation by the same eight factors used in the first and the second tests (individually, without any time limit). To make the results more objective,

we decided it would be reasonable to use the average assessment of several teachers.

### 3. Results and discussion

Distribution of the students by the level of divergent thinking (TMB-1, CAP, N=220) shows that 55,9% of students (122 people) have high level of development of divergent thinking. These students worked fast and efficiently when fulfilling a test task, frequently changed the categories of made-up objects and plots, skillfully and wittily used the vocabulary to give the names to 12 painted pictures.

Average results of divergent thinking development were found in 39,5% of the respondents (87 people). Working with test material, these students also managed to fulfil all the tasks. However, they did not always present various ideas, mostly used one strategy of stimulus figure processing (only inside or only outside the contour) when working with pictures, did not use figurative names expressing something more than what was shown on the picture, mostly used the names consisting of one or two words.

Low level of divergent thinking development was shown by 5% of the students (11 people) taking part in our experiment. The students in this group only managed to process a few of the suggested stimulus figures (6-9) and were repetitive when giving new ideas during the work with the figures. They were not able to overcome the closed contours of the stimuli and make them a part of the whole picture. Using the experience of participant observation, we can state that the received results are more likely connected with the lack of proper motivation and self-discovery attitude within the set conditions or "protest" behaviour typical for teenagers.

Statistical analysis of experimental data has shown insignificant difference in deviations of individual values of experimental sample from normative data received at the sample of Russian school-children (general totality), allowing to mention the intensity of divergent thinking within the set standard for this period of age (Table 1).

**Table 1**  
Correlation of experimental and normative data when studying the development of divergent thinking in children of secondary school age (TMB-1, CAP, N=220)

No.	Divergent thinking factors	Experimental data		Normative data	
		Average deviation, M	Standard deviation s	Average deviation, M	Standard deviation s
1	General	66,5	9,27	84,4	12,7
2	Fluency	9,1	1,2	9,4	1,3
3	Flexibility	6,5	1,8	6,7	2,0
4	Originality	20	3,4	23,4	6,8
5	Development	12	4,0	15,7	9,4
6	Naming	21	4,9	24,2	5,2

We believe that such results are rather acceptable for the students representing the field of art education as we are convinced that creative giftedness is not only about cognitive abilities of an individual but it also includes a varied set of personal creative characteristics. Let us discuss the results of the research of personal (affective-perceptual) factors

composing emotional-will component of creative giftedness of children of secondary school age. To do this, we used TBM-2 "Self-assessment of personal creativity" and TBM-3 "The Williams Scale".

Distribution of the students by the level of personal display of creative giftedness (TMB-2, CAP, N=220) has shown that 28,2% of the respondents (62 people) consider themselves able to accept criticism constructively, to not give up in case of failures, to solve difficult problems, be curious and trust their intuition. 50% of the respondents (110 people) decided they belong to the category of people who like to play with ideas, to visualise and create mental images, imagine something that has never existed; however, they cannot always act successfully in unstructured conditions as they often doubt whether their decision is the right one. 21,8 % of the students (48 people) are not always able to defend their own ideas.

Statistical analysis of experimental data has identified significant distinctive ability - s (Table 2).

**Table 2**

Correlation of experimental and normative data when studying the level of personal display of creative giftedness in children of secondary school age (TMB-2, CAP, N=220)

No.	Personal factors of creative giftedness	Experimental data		Normative data	
		Average deviation, M	Standard deviations	Average deviation, M	Standard deviations
1	General	51	9,2	62,1	18
2	Curious	12,2	2,6	16,4	4,3
3	Imagination	13,1	2,2	16,0	4,7
4	Complexity	11,5	2,4	14,8	5,1
5	Riskiness	11	2,1	15,3	5,2

Self-assessment by children of personal factors of creative giftedness turned out to be underestimated. Direct communication with famous musicians, composers, dancers, choreographers, "live" example of a performing artist as a teacher of special disciplines as well as constant contact with outstanding creative achievements of great people of art make future "creators" treat their own studies and professional activities more critically.

Distribution of evaluative opinion of parents by the level of display of children's creative giftedness (TMB-3, CAP, N=220) (60,5%, 133 people) has shown that when communicating with their children they quite often notice the habit of asking too many questions and giving original, unconventional answers, ability to generate a lot of ideas and consider different ways of their implementation. Children of such parents do not worry about failures on the way to the achievement of their goals, they allow mistakes and even defeats and also show neutral attitude towards other people's influence, opinion or evaluation of their educational and creative achievements.

The second conditional group of parents (28,2%, 62 people) has noticed that their children do not always show interest to complicated things and ideas, cannot always work fast and efficiently when studying and thus rarely refuse other people's help; they are also satisfied with only one right answer when discussing the ways of solving a problem. This shows the medium level of creative giftedness.

The answers of the third group of parents (11,4%, 25 people) have constituted the low level

of display of creative giftedness of teenagers since they mentioned partial or insufficient presence of all indicators or creative behaviour and thinking of their children.

Comparative analysis of the obtained data has shown that experimental data are close to normative (Table 3).

**Table 3**

Correlation of the obtained and normative data when studying the level of personal display of creative giftedness in children of secondary school age (TMB-3, CAP, N=220)

No.	Evaluative opinion of parents on creative giftedness of their children	Experimental data		Normative data	
		Average deviation, M	Standard deviation s	Average deviation, M	Standard deviation s
1	General	48,2	21,6	47,9	21,5

## 4. Conclusion

Distribution of the students by the level of divergent thinking (TMB-1, CAP, N=220) has shown high level of development of divergent thinking in more than half of the students (55,9%). Intensity of divergent thinking is within the limits of the set standard for this period of age.

Distribution of the students by the levels of personal display of creative giftedness (TMB-2, CAP, N=220) has shown that 71,8% of teenagers have low self-esteem of personal factors of creative giftedness. This can be explained by increased level of the development of personal and intellectual reflection of students within the system of art education.

Distribution of evaluative opinion of parents by the levels of display of children's creative giftedness (TMB-3, CAP, N=220) has shown that when communicating with their children most parents (60,5%) quite often notice the habit of asking too many questions and giving original, unconventional answers, ability to generate a lot of ideas and consider different ways of their implementation. Comparative analysis of the obtained data has shown that experimental data are close to normative.

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1. South Ural State Institute of Arts named after P.I Tchaikovsky, Russia, 454091, Chelyabinsk, Plekhanov Street, 41

2. South Ural State Humanitarian Pedagogical University, Russia, 454080, Chelyabinsk, Lenin Avenue, 69. E-mail: [23a12@list.ru](mailto:23a12@list.ru)

3. South Ural State Humanitarian Pedagogical University, Russia, 454080, Chelyabinsk, Lenin Avenue, 69

4. South Ural State Humanitarian Pedagogical University, Russia, 454080, Chelyabinsk, Lenin Avenue, 69

5. South Ural State Humanitarian Pedagogical University, Russia, 454080, Chelyabinsk, Lenin Avenue, 69

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