

CREATIVITY IN THE TEENAGER'S PERSONALITY STRUCTURE

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The topicality of this research is caused by the fact that creativity represents a facet of creative abilities and has a great significance for understanding the whole picture of the entire teen age. In this connection, this article is dedicated to the study of creativity in the teenager's personality structure. The key method to the study of this problem is a psychodiagnostic that gives a possibility to consider comprehensively the creativity components in the teenager's personality structure and obtain valid, reliable and secure data. R. Cattell's multi-factor questionnaire (a teenager's version) and a test battery "Creative thinking" by E.E. Tunik are used as psychodiagnostic tools. The article gives a description of creativity as a component in the teenager's personality structure. The relationships between creative abilities and other personal characteristics of an individual were revealed. The article also deals with methodical difficulties and the ways of improving the creativity diagnostics. The materials of the article will help to accomplish practical tasks of drawing up an individual development pathway of a teenager in his learning activity.

Key words: personality, teenager, creativity, structure, study.

INTRODUCTION

Making a study of the problem of creativity draws a lot of attention in psychology both in theory and practice. Creativity as a quality, typical of a person, exerts an essential influence on the character and activity outcome, in many respects determines social and psychological peculiarities of an individual – flexible and constructive perception, thinking and behavior of a man. Owing to the ability of changing, transforming the resources that a person has not only of the objective world but also psychological ones, the mankind is capable of going on the development path.

At present creativity is considered as a function of the integrated personality, which is not reducible to intelligence, dependent on a whole set of psychological characteristics. Correspondingly, the major direction in the study of creativity is revealing personal qualities which it is related to.

However, the factors that have influence on the creativity development have not been studied thoroughly. The lack of a distinct definition of creativity,

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complexity of its diagnosis диагностирования and, as a consequence, the lack of objective, valid techniques, impels us to conduct in-depth studies in this area, which will create a favorable atmosphere in practical implementation of the data obtained.

As I.A. Susokolova (2007) notes: «The attempt to combine a statistical view of creativity as a widespread phenomenon which is distributed normally, implying that the ideal average provides optimal adaptation, with the test interpretation as a creation of rare, atypical product, exposes the contradicting character of this metaphysical approach» (Rogov, 2012).

The task of diagnosing creativity, though it has a great theoretical and practical importance, but is left unsolved. Known diagnostics methods, first of all, E.T. Torrance's (1974) test are subjected to scientific criticism in the works of D.B. Bogoyavlenskaya (2002), M. A. Kholodnoy (2002), R. Stenberg (2007), I.M. Kyshtymova (2008) and others. The following points are brought into question: firstly, the notion of creativity as divergent thinking, underlying the principles of constructing diagnostic techniques; secondly, identifying creativity with originality (the main criterion of assessing the creativity level is a rarity of answers); thirdly, an off-system, element by element analysis of the creative activity products; fourthly, low correlations of test evaluations with objective creative achievements.

No sufficiently grounded data about the development character of creativity in ontogenesis are available. As well as about sex and age specific features of its development. However, teenage years are considered by many authors as a sensitive period for a person, that is why it is of a special interest, both as it is and in the context of the studied phenomenon of creativity. It is in this period the most fruitful mutual influence of important factors is possible that take part in the creativity formation as well as any other personal quality such as the impact of the environment and internal aspiration to the I-image formation. A teenager begins to be aware of himself in his integrity, ability to self-development and creativity, connected to a certain area of human activity. At the same time the majority of schools is more focused on the formation of instrument skills. As a result, good performers appear but not creative personalities (Gnedova *et al.*, 2015; Efimova *et al.*, 2015; Lipatova *et al.*, 2015; Salakhova *et al.*, 2016; Salakhova *et al.*, 2017).

Creativity as a facet of creative abilities has a great importance for understanding the whole age picture. A closer attention to this problem will give a required basis for practical realization of tasks on developing creativity, devising an individual approach to teaching (Enyashina & Sedova, 2016; Mitin, 2016).

MATERIALS AND METHODS

An empirical research of creativity in interrelation with individual qualities of a person was conducted on the sample group of teenagers from 12 to 15 years of age. The total number of test participants was 91 people (boys – 38, girls - 53).

Diagnostics of the person's individual and psychological specific features was carried out with the application of R. Cattell's (1990) questionnaire (a teenage version) and creativity technique. Favorable conditions were created that are required for reducing the test situation sensing level and test results as a measure of the stringent evaluation of personal abilities – a free and easy atmosphere, the teenagers were informed beforehand that all their answers would be correct, the more answers they could give the better, even if those were unusual answers, all their answers were encouraged (Kapustina, 2007).

The empirical research was based on the study of peculiar features of the teenager's personality and creativity, disclosing the interrelation between creativity, individual and psychological qualities.

To conduct the study the following psychodiagnostic tools were selected:

1. multidimensional personality questionnaire, (teenage version (high school personality questionnaire) - HSPQ), devised by R.B. Cattell and R.W. Cîan (1990). The purpose of the questionnaire which contains a list of bi-polar indicators is to evaluate the development level of the following personal qualities comprising 14 factors: affectothymia - schizothymia, high intellect – low intellect, strength of «I» - weakness of «I»; excitability – stolidity, dominance – conformity, mindlessness – seriousness, strength of «Super-I» - weakness of «Super-I», boldness – shyness, gentleness – toughness, individualism – affiliation, hypothymia – hyperthymia, self-sufficiency – sociability, control of desires – impulsiveness, frustratedness – non-frustratedness.
2. The battery of tests «Creative thinking» by Å.Å. Tunik (2013). These tests are intended for revealing creativity in a group aged from 5 to 15. The majority of them is the modification of J. Guilford (1965) and Torrance's (1974) tests. The test consists of seven subtests dealing with evaluation.

Indicators throughout the whole battery are determined by the factors established in Guilford's studies, to be more precise:

- 1) Fluency (easiness, productivity) is a factor characterizing fluency of creative thinking and can be determined by the overall number of answers;
- 2) Flexibility is a factor characterizing flexibility of creative thinking, an ability to quick switching and can be determined by a number of classes (groups) of given answers;
- 3) Originality is a factor characterizing originality, a peculiarity of creative thinking, irregularity of the approach to a problem and can be determined by a number of rarely given answers, with the unusual application of elements, originality of the answer structure.

The most meaningful of all given factors is originality. This indicator is a specific feature of the ability to put forward ideas that are different from evident, commonly accepted, trite or well established. Originality of solutions implies an ability to avoid easy, evident and not interesting replies.

There is an opinion that answers of rare occurrence and original ones do not always coincide. Irregularity is a notion broader than originality. Any deviation can be referred to the manifestation of creativity within the irregularity criterion: from accentuations to manifestations of autistic thinking (Druzhinin, 2009).

The indicator of each test reflects two or three abovementioned factors. The results of the test were assessed in score points.

The test battery «Creative thinking» (Tunik, 2013) is composed of 7 subtests, of verbal or image (figured, graphic) orientation, where non-verbal creativity is represented as some capability for «inventing» a new original product under conditions of minimal verbalization.

On each subtest a cumulative value is deduced by adding score points on criteria. The overall value of creativity according to this technique is deduced by means of addition of cumulative values of all the tests. This procedure is not sufficiently correct (which was taken into account by the author of the technique), since addition is done on various factors. E.E. Tunik (2013) also points out the difficulty of creating factor — pure tests while evaluating the model of creative processes reflecting their natural complexity. Cumulative score points can be used only as approximate or evaluative.

Since subtests have differences in identified criteria for the purposes of this scientific investigation overall cumulative points will be used on all seven tests as an indicator of creativity expressiveness.

The results of the study were assessed with the use of mathematical statistics methods. The cluster analysis was made with the application of squared Euclidean distance as a measure of distance, **the method of integrating – the relationship between the groups.**

Thus the found clusters classify tested teenagers with different creativity expressiveness levels: the first cluster incorporated the testees with a low level, the second – with an average, the third – with a high level.

Considering the teenager's personality structure as a separate system within the purpose of this research it is necessary to reveal internal relationships of substructures, the inclusion of creativity as a part of the whole. Internal relationships are presented in the following way: interrelations between the studied qualities for the whole sampling group of the tested teenagers and peculiarities of internal interrelationships depending on the creativity expressiveness level (on the identified clusters).

To search for essential interrelationships between individual and psychological characteristics of an individual and the creativity expressiveness indicator Ch.

Spearman's method of correlation analysis was applied on the basis of the statistical processing program SPSSv. 20.0.

After the data analysis on the entire sampling group of the tested teenagers the relationship diagram of individual and psychological properties in the teenager's personality structure was made up with the inclusion of creativity as a substructure.

A preliminary analysis of the correlation diagram on the whole sampling group is caused by the fact that correlation significance is raised by a greater composition of the sampling group (91 people) in comparison with identified groups. It is also raised by the fact that that diagram reflects tendencies to certain interrelationships in the identified subgroups-clusters. The analysis of the general structure gives a possibility to compare the discovered correlations later with correlations of subgroups at the level of the common and the different.

Taking into account the dependence of correlation reliability on the overall sampling volume, it should be pointed out that «with greater sampling volumes even a slight correlation can turn out reliable» (Sidorenko, 2003).

To determine peculiarities of the interrelationships structure in individual cases – identified with the help of the cluster analysis in subgroups differentiated on the creativity expressiveness level, the correlation analysis was made between the studied qualities within clusters.

RESULTS AND DISCUSSION

The analysis of correlation ties gave the following results. The number of ties between the expressiveness level of creativity and individual-psychological peculiarities is insignificant and different in various clusters identified on the basis of the general creativity indicator.

In the general array of data a slight positive correlation has been found at the significance level $P \leq 0,05$ creativity with the factor «cautiousness-light-mindedness» and a negative one with the group dependence degree, a degree of self-control.

The number of interrelations as well as correlations of the higher significance level predominates in the first cluster – the group of tested teenagers with the low creativity level.

In the identified clusters based on the differentiation of the creativity expressiveness level the relationships of creativity and factor of «cautiousness-light-mindedness» have been found, a negative correlation with such factor as «subordination-dominance» in the group with the low creativity expressiveness level. In the group with the average level - a moderate significant relationship ($P_d \leq 0,05$) between the creativity level and the factor «schizothymia-affectothymia» was discovered. In the cluster with the high level – between the creativity level and the factor «realism-sensitivity» a moderate significant correlation was found ($P \leq 0,05$).

The analysis of the relationship between individual and psychological traits of a person and the creativity expressiveness level allows us to assume that there is a relationship between creativity and the factor identified as «cautiousness-light-mindedness» ($r_s = 0.258, P \leq 0,05$). Negative correlations were also discovered with the degree of the group dependence ($r_s = -0.216, P \leq 0,05$) and self-control degree ($r_s = -0.216, P \leq 0,05$). But the character of these relationships is not significantly expressed.

Creativity is a complex psychological phenomenon, multidimensional in its manifestation and its structure. Its expressiveness can have different directions. It is very hard to speak about the identification of general creativity as the personality's characteristics (Enyashina, 2015; Salakhova & Agadzhanova, 2016).

In the course of the study a number of specific features was found when revealing the creativity expressiveness level. All these features require attention and possible further correction.

In the test battery «Creative thinking» by E.E. Tunik (2013) the flexibility evaluation in some subtests (subtest 1, subtest 4, subtest 6) implies the answers being referred to certain classes or categories. In the test procedures manual there is a list of categories. The answers that do not fall under one of these categories are given a new category.

Difficulties in the appropriate evaluation of the tested teenagers' answers may arise due to the excessive generalization of the categories available and insufficient embracing all the spheres from which objects can be taken for an answer. The number of used classes has influence on score points that are given to evaluate such creativity indicator as fluency, which later can distort overall results in the procedure. To reduce the number of mistakes and distortions in the interpretation procedure of the test battery «Creative thinking» a thorough elaboration of methodical recommendations to the procedure is required (Gorev *et al.*, 2017).

One should not exclude such a fact that the analysis and interpretation of the answers given in the testing is of a subjective nature, depending on the researcher's personality and, perhaps, on his own level of creativity and creative abilities as an abilities indicator of another person. This can significantly distort the results obtained. To reduce the influence of this factor it is worth attracting a group of experts for the checking procedure of the diagnostics data.

To establish the interrelation between creativity and individual-psychological characteristics the teenager's personality more extensive studies including long-term ones are required to trace the creativity expressiveness before the beginning of the teenage period, during it and after, when psychological structures have already come to a stable state (Mitin *et al.*, 2017).

CONCLUSION

The conducted theoretical and methodological analysis enabled us to designate creativity as a characteristic of creative abilities of an individual expressed in

creating totally new forms of the objective world. It has been found that creativity is influenced by both environmental factors (family, cultural and historic) and internal conditions. Creativity is manifested in situations and dependent on the objective set.

The data obtained as a result of empirical research suggest that the teenager's personality structure expressed in interrelations of individual and psychological traits with the inclusion of the studied property - creativity, demonstrates that there are differences between groups with different levels of creativity in the number and potency of relationships. The research data obtained speak of the availability of hypothetic interrelation of some components in the personality structure and creativity level.

Besides, the analysis of the data obtained showed that when considering individual creativity components, there were sex peculiarities in this sampling group – girls possess a greater expressiveness of verbal creativity.

RECOMMENDATIONS

The empirical research results presented in the article can be used in psychological and pedagogical support to the activity of a psychologist in an education institution, as well as in counseling teenagers and their parents. The research materials can be applied for the creation of training and developmental programs for teenagers and adolescents.

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