

Features links between intellectual indicators and creativity among students with different levels of intelligence

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The essential questions of creativity in modern science is far from resolved. In this case, the relevant knowledge is not only of theoretical interest, but are of paramount importance for the practice of teaching and learning.

There are several directions In the study of the problems of creativity: the development of concepts of creativity; identification of mechanisms of formation of creativity; definition of personality and motivational factors of formation of creativity; identification of conditions for the development of creativity; consideration of creativity in the age aspect.

The object of our research is to determine the characteristics of creativity, features links of intellect indicators and creativity among students with different levels of intelligence.

To solve this problem we used the following methodology: 1) a children's version of the D. Veksler's test (adapted by A.Y.Panasyuk, 1973), during processing were identified summary measures of verbal, nonverbal, and general intelligence; 2) a brief test of creative thinking (adapted variant by E.I. Sheblanova, I.S. Averina, 1995), during processing were identified the indicators of fluency, flexibility, originality and elaboration.

The research involved 60 students in grades 7-9 secondary schools, lyceums, gymnasiums. The average age of students was 13.3 years.

We have identified two groups of examinees in result of the study of intelligence by the D. Veksler's test: young people with intellectual level from 140 to 120 units of assessment (19 people); teens with intelligence estimates from 109 units or less (22 people). Indicators of intelligence and creativity of a group of students with the level of intelligence from 120 to 110 units of assessment (19 people) in the further analysis are not considered.

We used some mathematical methods of data processing: group, correlation and factor analysis.

The results of the research.

1. Adolescents with a high level of intelligence are characterized by higher values of the indicators of creativity (fluency, flexibility, originality, development) compared with their peers with less than high intelligence. The most significant difference between the two groups identified in terms of "elaboration";

2. Data correlation analysis indicate an increase in the number and closeness of links between indicators of creativity in the group of students with a high level of intellect. In this group of students fluency significantly correlates with other indicators of creativity ($r=0,446-0,655$; $p<0.05-0.001$). At the same time revealed a close linksbetween fluency and originality. The indicator of "flexibility" has a significant correlation with the indicator "elaboration" ($r=0,488$; $p<0.01$). Elaboration as fluency, was significantly associated with all the selected indicators ($r=0,4-0,544$; $p<0.05-0.01$).

In the group of adolescents with a lower level of intelligence revealed a decrease in the number of significant correlations. At the same time revealed significant correlations between originality and fluency ($r = 0,557$; $p <0.01$), originality and flexibility ($r = 0,368$; $p <0.05$). There are not any significant correlations between other indicators.

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3. Data correlation analysis of indicators of intelligence and creativity show that in the group of students with a higher level of intelligence there is an increase in the number and closeness of links between measures of creativity and intelligence. This may indicate a greater mutual influence of intelligence and creativity at high intellectual indicators.

4. Data correlation analysis confirmed the results of factor analysis, evidencing the formation of a common determinant of intelligence and creativity in the group of students with a high level of intelligence (from 120 to 140 evaluation units) and the absence of such a group of students with a level of intelligence from 109 evaluation units and below.