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**MOTIVATION OF TEENAGERS TO DESIGN IN THE FIELD OF FINE ARTS**

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**ABSTRACT**

This article includes the results of a scientific study, the purpose of which has been to study the motivational component of the design process in teenagers. In this regard, we considered the motivational component of the teenager's desire to design activities in the field of fine arts. We offered fine arts as an effective mean of developing this component, the effectiveness of which has been proved in the course of experimental work, organized in three consecutive stages. To implement the experimental work, we used observation, testing, diagnostic techniques and other pedagogical methods. We consistently analyzed the results of the experimental and control groups after the formative stage of the experiment, which revealed a positive qualitative and quantitative dynamics of the indicators studied. The qualitative dynamics is manifested in the following: increased emotional responsiveness to works of art and interest in the project activities, illustrations of works, artistic component of literary works, as well as interest in participating in the scientific and practical conferences and competitions not only in fine arts, but also in other subjects. In addition, it is noted the teenager's activity in the after-hour activity on the creation and implementation of new school projects: charitable action, creative competition, school newspaper, master class, etc. It is concluded that the fine arts contribute to the teenager's motivation development to design.

**Key words:** motivation, readiness for design activity, teenagers, fine arts.

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## **INTRODUCTION**

Fine art as a mean of developing various competences is considered in the studies of modern authors and used in solving various pedagogical problems such as: formation of figurative thinking of schoolchildren [3; 8]; development of creative abilities of students [1; 7; 10]; development of patriotic education [6; 9], etc. We offered to use fine arts as an effective mean of developing the teenager's motivation for the design. Artistic activity occupies a significant place in the development of creative abilities and non-standard approach to the activities, including, when creating a project.

## **METHODS**

The material for the work was the data of experimental work carried out at the MBGEI (Municipal Budgetary General Educational Institution) "Gymnasium No. 96" in Kazan and MBGEI "Gymnasium No. 3" in Chistopol of the Republic of Tatarstan, which was attended by 106 schoolchildren of 6-8 grades divided into 2 groups: the experimental group (EG) - 53 people, the control group (CG) - 53 people.

To identify the severity of motivational component of the teenager's readiness for the design activity, we defined the following levels and indicators. The high level is characterized by a bright expressive and diverse manifestation of emotional and motor activity and the presence of a sustained increased interest in the fine arts and design activities. The emotional-motor activity is adequate to a work that is rather schematic and monotonous, and the presence of a mediocre interest in the fine arts and design activity indicates the existence of an average level of the motivational component development. The emotional-motor manifestations, which are of an episodic, short-term character and are not expressed vividly, having an imitative nature, correspond to a low level.

Based on the identified indicators, we selected the diagnostic methods for determining the levels of the motivational component development of teenager's readiness for design activities. The study of artistic and aesthetic needs and the definition of interest in art were carried out by means of diagnosing the measurement of artistic and aesthetic needs of V.S. Avanesov. The presence of positive or negative motivation in teenagers in the course of design activity was determined by diagnosing the motivation for success and fear of failure in creative activity based on the technique of A.A. Rean. The study of the reflexivity level is carried out by means of diagnosing an individual measure of reflexivity.

The reliability of differences between the average values of the results of diagnostic methods was carried out using the statistical method of Student's t-test, the numerical value of which is calculated by the following formula for the independent samples:

$$t_{emp} = \frac{|M_1 - M_2|}{\sqrt{\frac{\delta_1^2}{N_1} + \frac{\delta_2^2}{N_2}}},$$

where  $M_1$  – arithmetic mean of the first sample;  $M_2$  – arithmetic mean of the second sample;  $\delta_1$  – standard deviation of the first sample;  $\delta_2$  – standard deviation of the second sample;  $N_1$  – volume of the first sample;  $N_2$  – volume of the second sample.

The next stage was the organization of a formative experiment aimed at developing the readiness of adolescents for project activities and in particular for the development of a motivational component. In this regard, in the experimental group, in addition to the main program of B.M. Nemensky, we implemented the optional author program "Art-Perekrestok", contributing to the development of the need for communication with art, the formation of a steady teenager's motivation to study art works and the development of interest in creative design activities. In addition, we implemented a program of professional retraining among teachers, and regularly carried out an individual educational work with teenagers, which was aimed at strengthening the students' confidence in their abilities, stimulating their cognitive activity in creative activities.

We used the following active methods as effective teaching methods to promote motivation and interest in art and project activities: group discussion, It-training, web-quest, geocaching, case-study, business game, brainstorming, etc. [2; 4; 5].

At the control stage, we measured the final data on the levels of development of teenager's readiness for design activities and, in particular, the levels of motivational component development, on the basis of which it was possible to judge the effectiveness of the formative stage. The diagnostic technique for the implementation of end-of-year assessment of school students was similar to the one used to obtain the initial data at the summative stage of the experiment.

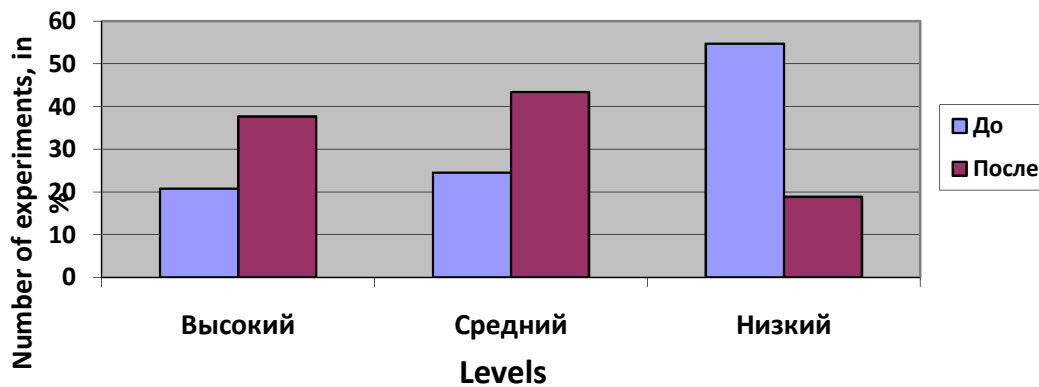
## RESULTS

The results of diagnosing the artistic and aesthetic needs in the experimental and control groups at the summative and control stages of the experiment are presented in Table 1.

**Table 1.** Summary table of the distribution of students according to the levels of the formation of artistic and aesthetic needs at the summative and control stages of the experiment (in %)

| Groups/<br>levels | Experimental group |      |               |      | Control group   |      |               |      |
|-------------------|--------------------|------|---------------|------|-----------------|------|---------------|------|
|                   | Summative stage    |      | Control stage |      | Summative stage |      | Control stage |      |
|                   | persons            | %    | persons       | %    | persons         | %    | persons       | %    |
| High              | 11                 | 20.8 | 20            | 37.7 | 9               | 17   | 10            | 18.9 |
| Medium            | 13                 | 24.5 | 23            | 43.4 | 16              | 30.2 | 17            | 32.1 |
| Low               | 29                 | 54.7 | 10            | 18.9 | 28              | 52.8 | 26            | 49   |
| Total             | 53                 |      | 53            |      | 53              |      | 53            |      |

Let us show the dynamics of the formation of artistic and aesthetic need in the experimental group in Figure 1.



|         |        |
|---------|--------|
| Высокий | High   |
| Средний | Medium |
| Низкий  | Low    |
| До      | Before |
| После   | After  |

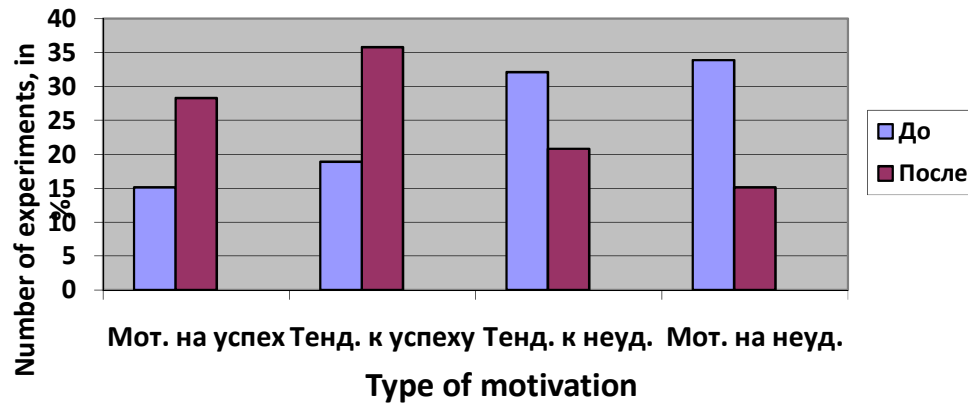
**Fig.1.** The dynamics of the formation of artistic and aesthetic need in the experimental group.

Let us show the results of diagnosing the motivation and fear of failure in creative activity, created on the basis of the technique of A.A. Rean in Table 2.

**Table 2.** A summary table of the distribution of students with different levels of positive and negative motivation in creative activity at the summative and control stages of the experiment (in %)

| Groups/<br>levels  |  | Experimental group |      |               |      | Control group   |      |               |      |
|--|--|--------------------|------|---------------|------|-----------------|------|---------------|------|
|  |  | Summative stage    |      | Control stage |      | Summative stage |      | Control stage |      |
|  |  | perso<br>ns        | %    | perso<br>ns   | %    | perso<br>ns     | %    | perso<br>ns   | %    |
| Motivation for success<br>(high)   |  | 8                  | 15.1 | 15            | 28.3 | 7               | 13.2 | 8             | 15.1 |
| The<br>motivationa<br>l pole is not<br>clearly<br>pronounced<br>(medium) | A tendency of<br>motivation for<br>success | 10                 | 18.9 | 19            | 35.8 | 11              | 20.8 | 12            | 22.6 |
|  | A tendency of<br>motivation for<br>failure | 17                 | 32.1 | 11            | 20.8 | 18              | 33.9 | 18            | 33.9 |
| Low  |  | 18                 | 33.9 | 8             | 15.1 | 17              | 32.1 | 15            | 28.4 |
| Total  |  | 53                 |      | 53            |      | 53              |      | 53            |      |

Let us show the dynamics of motivation and fear of failure in creative activity in the experimental group in Figure 2.



|                      |                        |
|----------------------|------------------------|
| Мотивация на успех   | Motivation for success |
| Тенденция к успеху   | Trend for success      |
| Тенденция к неудаче  | Trend for failure      |
| Мотивация на неудачу | Motivation for failure |
| До                   | Before                 |
| После                | After                  |

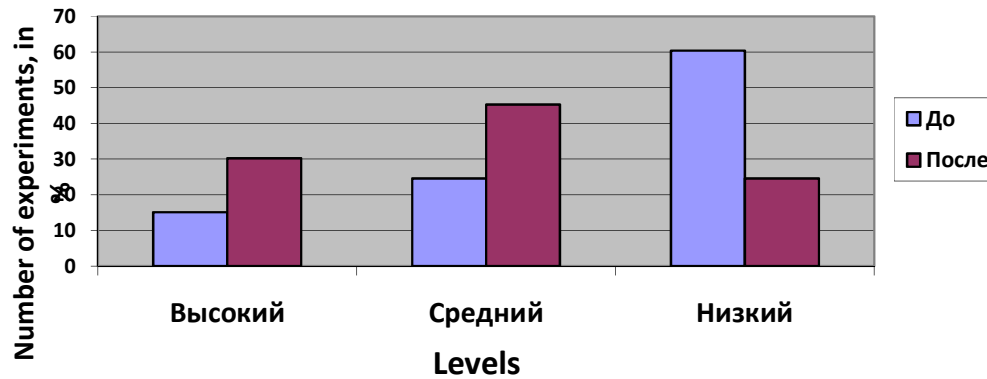
**Fig.2.** The dynamics of motivation and fear of failure in creative activity in the experimental group.

The study results of individual measure of reflexivity in the experimental and control groups at the summative and control stages of the experiment are presented in Table 3.

**Table 3.** The levels of individual reflexivity in the EG and CG at the control stage of the experiment (in %)

| Groups/<br>levels | Experimental group |      |               |      | Control group   |      |               |      |
|-------------------|--------------------|------|---------------|------|-----------------|------|---------------|------|
|                   | Summative stage    |      | Control stage |      | Summative stage |      | Control stage |      |
|                   | persons            | %    | persons       | %    | persons         | %    | persons       | %    |
| High              | 8                  | 15.1 | 16            | 30.2 | 9               | 17   | 10            | 18.9 |
| Medium            | 13                 | 24.5 | 24            | 45.3 | 15              | 28.3 | 16            | 30.2 |
| Low               | 32                 | 60.4 | 13            | 24.5 | 29              | 54.7 | 27            | 50.9 |
| Total             | 53                 |      | 53            |      | 53              |      | 53            |      |

Let us show the dynamics of the levels of individual reflexivity in the experimental group in Figure 3.



|         |        |
|---------|--------|
| Высокий | High   |
| Средний | Medium |
| Низкий  | Low    |
| До      | Before |
| После   | After  |

**Fig.3.** The dynamics of the levels of individual reflexivity in the experimental group.

## DISCUSSION

Figure 1 shows that the levels of the formation of artistic and aesthetic need in the experimental group changed significantly after the experimental work. The low level of the formation of artistic and aesthetic needs decreased from 54.7% to 18.9% (changed by 35.8%), the medium level increased from 24.5% to 43.4% (changed by 18.9%), the high level increased from 20.8% to 37.7% (changed by 16.9%). Thus, we can state that the low level of artistic and aesthetic needs has substantially decreased.

When calculating Student's t-test from the indicator of "artistic and aesthetic need", we have found that an empirical value of  $t_{emp} = 3.8$  has been obtained in the EG and CG, which is in the significance area at  $t_{cr} = 1.98$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.62$  (at  $p \leq 0.01$ ). We accept the hypothesis H1 - the difference between the average values of indicators is present. When calculating Student's t-test from the indicator of "artistic and aesthetic need", we have found that an empirical value of  $t_{emp} = -15.1$  has been obtained in the EG before experiment and in the EG after experiment, which is in the significance area at  $t_{cr} = 2.008$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.6778$  (at  $p \leq 0.01$ ). We accept the hypothesis H1 - the difference between the average values of indicators is present. When calculating Student's t-test from the indicator of "artistic and aesthetic need", we have found that an empirical value of  $t_{emp} = -1.9$  has been obtained in the

CG before experiment and in the CG after experiment, which is in the significance area at  $t_{cr} = 2.008$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.6778$  (at  $p \leq 0.01$ ). We accept the hypothesis  $H_0$  - the difference between the average values of indicators is absent. Thus, the analysis of study results of the EG and CG according to the method of V.S. Avanesov showed the presence of significant differences at the control stage.

The data analysis presented in Figure 2 allows drawing the following conclusions: the motivation indicator for success in the experimental group increased from 15.1% to 28.3% (changed by 13.2%), the motivation trend for success increased from 18.9% to 35.8% (changed by 16.9%), the motivation trend for failure decreased from 32.1% to 20.8% (changed by 11.3%), the motivation indicator for failure decreased from 33.9% to 15.1% (changed by 18.8% %) after conducting the formative work. Thus, after conducting the formative experiment in teenagers, the motivation for success increased.

When calculating Student's t-test from the indicator of "positive and negative motivation in creative activity", we have found that an empirical value of  $t_{emp} = 4.66$  has been obtained in the EG and CG, which is in the significance area at  $t_{cr} = 1.98$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.62$  (at  $p \leq 0.01$ ). We accept the hypothesis  $H_1$  - the difference between the average values of indicators is present. When calculating Student's t-test from the indicator of "positive and negative motivation in creative activity", we have found that an empirical value of  $t_{emp} = -14.2$  has been obtained in the EG before experiment and the EG after experiment, which is in the significance area at  $t_{cr} = 2.008$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.6778$  (at  $p \leq 0.01$ ). We accept the hypothesis  $H_1$  - the difference between the average values of indicators is present. When calculating Student's t-test from the indicator of "positive and negative motivation in creative activity", we have found that an empirical value of  $t_{emp} = -1.6$  has been obtained in the CG before experiment and the CG after experiment, which is in the significance area at  $t_{cr} = 2.008$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.6778$  (at  $p \leq 0.01$ ). We accept the hypothesis  $H_0$  - the difference between the average values of indicators is absent. Thus, the analysis of study results of the EG and CG according to the method of A.A. Rean showed the presence of significant differences in this indicator at the control stage.

Figure 3 shows that the levels of individual reflexivity have changed significantly in the experimental group. The high level of individual reflexivity increased from 15.1% to 30.2% (changed by 15.1%), the medium level increased from 24.5% to 45.3% (changed by 20.8%), the low level increased from 60.4% to 24.5% (changed by 35.9%).

When calculating Student's t-test from the indicator of "individual reflexivity", we have found that an empirical value of  $t_{emp} = 9.64$  has been obtained in the EG and CG at the control stage



of the study, which is in the significance area at  $t_{cr} = 1.98$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.62$  (at  $p \leq 0.01$ ). We accept the hypothesis  $H_1$  - the difference between the average values of indicators is reliable. When calculating Student's t-test from the indicator of "individual reflexivity", we have found that an empirical value of  $t_{emp} = -17.64$  has been obtained in the EG before experiment and in the EG after experiment, which is in the significance area at  $t_{cr} = 2.008$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.6778$  (at  $p \leq 0.01$ ). We accept the hypothesis  $H_1$  - the difference between the average values of indicators is reliable. When calculating Student's t-test from the indicator of "individual reflexivity", we have found that an empirical value of  $t_{emp} = -0.35$  has been obtained in the CG before experiment and in the CG after experiment, which is in the significance area at  $t_{cr} = 2.008$  (at  $p \leq 0.05$ ),  $t_{cr} = 2.6778$  (at  $p \leq 0.01$ ). We accept the hypothesis  $H_0$  - the difference between the average values of indicators is absent. Thus, the analysis of the study results of the EG and CG by the method of "Determination of individual reflexivity" showed the presence of significant differences in this indicator at the control stage.

## CONCLUSIONS

The analysis of the results obtained in the experimental work gives grounds to conclude that the implementation of the developed author's program "Art-Perekrestok" based on the use of means of fine arts contributes to the development of the motivational component of teenager's readiness for design activities.

Along with the quantitative indicators, there is a qualitative positive dynamics, in particular, the teachers of fine arts mark some raise in the emotional responsiveness to works of art and interest in design activities in the students of the experimental group; the teachers of the Russian language and literature note the increased interest in illustrations of works, the artistic component of literary works, which undoubtedly leads to a better memorization of the school curriculum, as well as to an additional extracurricular reading. In addition, there is the teenager's interest in participating in the scientific and practical conferences and competitions not only in fine arts, but also in other subjects. The deputies on educational work note the teenager's activity in after-hours activities offering new school ideas and projects: to create a school newspaper, to hold a charity event, to organize a creative contest, to invite artists, designers to a master class, etc.

## SUMMARY

Thus, a comparative analysis of the indicators of the motivational component development of teenager's readiness for design activities and their significant quantitative and qualitative changes showed the presence of positive dynamics when using the means of fine art in developing the teenager's motivation for design.

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