THE IMPORTANCE OF BEST PRACTICE IN TEACHING FOR DEVELOPING FINE ARTS SKILLS AMONGST PRIMARY SCHOOL CHILDREN

Dr. sc. Matjaž Duh, izvanredni profesor
Mr. Sc. Vesna Logar
Pedagoška fakulteta Univerze v Mariboru

Abstract:
Primary school students engage in different areas of art and various artistic techniques during the art lessons, but the basis for all forms of artistic expression is drawing. The choice of subjects depicted by the students is quite diverse. The way they depict the subject matter is closely related to their stage of development. The easiest way to monitor developmental stages is by analyzing depictions of the human figure.

The quantitative empirical research was based on a sample of 27 pupils (n = 27). Their artistic development was monitored during the period of eight months. We were interested in the pupils’ progress in terms of artistic-intellectual, formal artistic and artistic creative development considering the entire sample and a subsample based on gender. The research results show that students achieved higher performance in all monitored aspects in the final testing at the level of statistical significance. Girls did slightly better than boys. Teachers aware of fact that the quality of teaching profoundly influences the artistic-design and artistic-creative development will find the obtained results positive and useful. The survey results demonstrate the importance of teacher’s work in the art-teaching process, which can greatly contribute to the artistic and general progress of the students.

Key words: art culture, primary school, design development, optical thematic development, creative development.

INTRODUCTION

The modern curriculum of primary education stems from a fundamental orientation to the full development of the human personality, which is, inter alia, in accordance with the evolving mental development, critical thinking, imagination and the ability to communicate and promote the experience and expression in various artistic fields. The latter includes the visual arts, in which the visual artist for the materialization of his creative thoughts uses a wide variety of tools and creatively expresses the artistic elements (Duh, 2004). Some of those features of fine arts students learn in elementary school on the subject of art, which focuses mainly on the development of pupils’ creativity and to create conditions that enable creativity.

Artistic creation is important in childhood development. The child’s artistic expression is most often a necessity and a cognitive skill, according to Muhovič (1990), while not dealing with an art-theoretical concepts and elements, so in their works it does not feel as much as knowledge as originality, expression and poetry. Through drawing we can see how they are developing their experience and how they evolve (Duh, 2009). They express themselves spontaneously and in their work they do not feel the obstacles. Children should be given the opportunity to artistically express and develop their skills (Hočevar, Berce and Prestor, 1980). Artistic ability in a child appears as integration of motor and rhythmic stimulus to the sensory elements (visual, auditory, tactile). When this is activated affective initiatives and rhythmic-
motor-sensory skills. (Duh, 2004). During the institutional education, students are met with all areas of art. By using different artistic techniques they try to formulate its own individual artistic expression. Butina (1997) notes the importance of the knowledge of art techniques and materials for the ultimate success of creative work. Gorup (1999), however, suggests that it is necessary to choose a variety of artistic techniques, experiment with them and try to achieve its goals. In terms of design, we find that children frequently draw the human figure. Children of various age draw the conventional human figure, showing a man in motion in several stages of development (Marjanovic Umek, Lešnik, Musek, 2001). Depictions of people in children's drawings are mainly dependent on the performance a child carries within itself. Interestingly, it is the development of rendering the human figure the exact development principles (Schrader, 2000).

**ART IN PRIMARY SCHOOL AND CHILDREN’S DRAWING**

Development Art creative skills has a direct impact on the development of the full creative potential of the individual. Art-educational work should enable children to spontaneity, taking into account their natural dispositions and options. Creativity does not develop overnight, for its promotion more time is needed, or as he says Pečjak: "If creativity can be obtained, it is possible to most long-lasting pedagogical process, provided that it is started early enough in life" (Pečjak, 1989, p. 13). The role of art teachers is that the creativity of the student recognizes and further develops as creativity personality traits anyone or Žagar wrote: "Creativity is a universal human trait that is normally distributed among the people. This means that most creative people on average, fewer of them are able to superior creativity or no creative "(Glogovec, Žagar, 1992, p. 8). In terms of teaching, this means that it is necessary for children to develop creative joy through specific exercises, creative exercises and didactic approaches. Such work will arteducational teachers working in our schools successful and quality (Duh, 2004). Fine art work in primary school children should be in resolving art tasks in addition to spontaneity in artistic expression allow even a gradual transition from spontaneous to conscious approach (Herzog, 2009). Župančič (2001) says that teachers must pay special attention to the rate of emergence of creative ideas because the rational work of art only one that allows and develops a child's creativity.

Children are creative when they are given complete freedom to watch and artistically reflect on their own individual way, with your imagination and logic. When observing children form or phenomenon, it directs all its attention. This orientation elicit a higher form of general perception, which we call the creative perception. Only when the child achieves this goal can make the next step and artistically express what is noticed or discovered (Duh, 2004).

It will be appreciated that the student rather diffuse interests, and the only right approach to feeding the substance and presentation of artistic tasks can arouse student interest and hence good results. To achieve a certain level of artistic culture is needed in the art to develop his creative ability, the ability of visual observation and thinking, evaluation and criticism. Of course, it should be fine arts school is planned in accordance with the principles of creative expression and stimulated by relevant teaching forms and methods of work (Herzog, 2008).

The process of practical art work should be based on the promotion of artistic skills and creative artistic factors. In this way, they organized likovnovzgojno school work taking into account the phases of the creative process opens up rich possibilities for the development of artistic skills and artistic creativity (Duh, 2004). Tacol (1999) adds that creativity in art represents an individual's orientation, orientation to the original, non-solving and discovering the artistic problems. It produces something new, peculiar, rare, unrepeatable and unique.
Visual art is permanently focused on developing creativity. But practice shows that this is all teachers not succeeding. Children’s art work, created as a product of the creative process, giving many options for monitoring children’s creativity (Herzog, 2008). "Artistic design developments in the visual arts is an important factor and thus a necessary part of each teaching unit art educational activities" (Duh, 2009, p. 35). The child should be offered a lot of opportunities to be artistically expressed and thereby develop their abilities (Duh, 2004).

The child’s drawing to show the personality characteristics of the child, but also reflects individual differences in the level of development. Some authors (Hočevar et all., 1980) say that the artistic expression in the drawing depending on the child’s mental development. Children’s drawings are of age all the more proportional, realistic and include a greater number of elements and details. It has to be noted that the analysis of drawings of different aged children show a certain developmental characteristics that define the various stages of development in the child’s artistic expression (Marjanovic Umek et all., 2001). For some children’s artistic development faster, in others slower. Child development stages of artistic expression always follow the same sequence, but they do not always occur at the same age and in all significant details in the same way (Gerlovič, 1976). Some children are distinguished by precise and sensitive observation of the second brim of vivid imagination. Recognising and promoting individual differences among students in art education is an important segment of the quality of teaching (Duh, Vrlič, 2003).

**Definition of the research problem**

In this course, the fine arts, we must achieve a certain level of artistic culture pupils to develop their creative and design ability, the ability of visual observation and thinking, evaluation and criticism. The development of these skills can contribute high-quality art-teaching work. The efficacy thereof can be monitored in various ways. One of these is to verify students’ artistic abilities in a given period of time with reliable tests, which measure these abilities.

In the quantitative study, we monitored the students in the development phase of realist drawing that follows a symbolic stage and is predominant in the age between nine and eleven years. In this late childhood drawing objects and figures, which are very similar visually the object and figure in a real environment. Complete drawing draw with a certain perspective and incorporated into meaningful momentum. Each individual element in the drawing represents a whole, and has in itself meaning. Children are to their products to the drawing very critical and has already drawn elements often supplemented and corrected. The essence of a realistic drawing is in the fact that each part respectively element of its meaning, represents a complete unit and is realistic (Marjanovic Umek et all, 2001). Depictions of figures and objects are very precise and realistic, with many details, movement and space. With this level of child development can proceed in different variants of art design in youthful period, which again depends on the individual characteristics of each child and other external influence factors (Karlawaris, 1991). Each individual develops in their own way.

In the literature it can be found quite theories and research that have been developed in the field of creativity, drawing skills and the spatial-visual skills and intelligence (Torrance, 1970, 1988; Clark and Zimmerman, 1984; Gardner, 1994, 2006). In our research, we are monitoring the development aspects of the pupils in the stage of realistic drawing in drawing the human figure wished to establish the existence of the progress in the artistic-intellectual, creative and design development and the overall artistic development over a period of 28 weeks with the active participation in the artistic creative process.
Purpose

On the basis of initial and final art of the test is to determine what was the level of initial visual-intellectual (ART-INT-D), formal artistic (FOR-D), and creative development (CREATE-D) and the entire artistic development (ART-D) sample of pupils in its entirety and gender. We also want to determine what was the level of the final artistic-intellectual (ART-INT-D), formal artistic (FOR-D), and creative development (CREATE-D) and the entire artistic development (ART-D) sample of pupils in full and the gender. Comparing the two tests we will reveal whether there is progress of pupils in all monitored factors of development.

Hypothesis

Hypotheses that are bound on initial testing of pupils

- H 1.1 Assume that there are no differences in initiation artistic-intellectual development (ART-INT-D) regardless of gender.
- H 1.2 Assume that there are no differences in the development of initial formal artistic (FOR-D) regardless of gender.
- H 1.3 Assume that there are no differences in initiation creative development (CREATE-D) regardless of gender.
- H 1.4 Assume that there are no differences in the level of initial artistic development (\text{\Lambda}ART-D) regardless of gender.

Hypotheses, which are linked to the final testing of pupils

- H 2.1 Assume that there are no differences in the final artistic-intellectual development (ART-INT-D) regardless of gender.
- H 2.2 Assume that there are no differences in the final formal artistic development (FOR-D) regardless of gender.
- H 2.3 Assume that there are no differences in the final creative development (CREATE-D) regardless of gender.
- H 2.4 Assume that there are no differences in the final level of artistic development (ART-D) regardless of gender.

Hypotheses, which are linked to the progress in the artistic development

- H 3.1 Assume that there are differences between initiation and final testing of artistic-intellectual development (ART-INT-D).
- H 3.2 Assume that there are differences between initiation and final testing in the formal artistic development (FOR-D).
- H 3.3 Assume that there are differences between initiation and final testing of the creative development (CREATE-D).
- H 3.4 Assume that there are differences between initiation and final testing in the artistic development (ART-D).
METHODOLOGY

RESEARCH METHOD AND RESEARCH SAMPLE

The quantitative research used descriptive method and causal - experimental method. The study was conducted among a non-probability convenience sample of 5th (11 years old - n = 27) grade students in Slovenian primary school Mirna. There were 15 (55.6 %) boys and 12 (44.4 %) girls. On the level of inference statistics (statistics of testing hypotheses), this sample represents a simple random sample from a hypothetical population.

DATA COLLECTION PROCEDURES AND INSTRUMENT

The data acquisition was started in the third week of September, when we conducted of initial testing. The study lasted for 27 weeks and then were 28 weeks but performed final testing. Prior to testing, we provide the right conditions were the same for all the people being tested. We were given the same task and the same instructions found they had the same time. Observers and contractors test was observed in the test conditions.

Pupils in 5. a and 5. b we provide the same number of hours of fine art. The project was planned 56 lessons were run by 50. Individual areas of fine arts, we adjust accordingly and appropriately reduced. Those hours were counted as up initially and final testing. With this project we did not want to interfere in the annual work plan and schedule of school, so we guarantee the result Research wider applicability in the real conditions of life and work in an elementary school. For the duration of the survey was carried out 50 teaching hours, during which we achieved, we unified the number of teaching hours in the two sections of fifth grade. To guarantee the best possible implementation of the research were only contractors and observers in all classes.

To test for artistic creativity and artistic abilities we use a special test development criteria, which in many similar studies, gave good results in terms of objectivity, resolution, reliability, and ultimately economy. The test can be measured in a variety of factors development. In our study with him to witness three of the criteria development aspects: artistic-intellectual, formal artistic and creative. In testing they have to take tests in test conditions to draw drawing that contains the specified elements. Students drew the usual drawing sheet available but had two lessons. Art task is to contain elements, by which we can be prepared by using evaluation scales monitored and measured these three aspects or levels. Fine job is both art assays (test and retest) containing a figure in space (artistic-intellectual aspect). The task was set so as to allow the unusual solutions (creative aspect) and contains at least four art elements: line, shape, texture, and composition valeur (formal artistic aspect). In the evaluation of these tests, we proceeded from the rock-tested criterion for assessing children’s art works (Karлаварис, 1974), which had been adjusted rate of students (5th grade elementary school). Evaluation of the test results of all groups was carried out on commission. The evaluation scale is composed in such a way that each individual aspect allows a maximum of 50 points.

Considering the measuring instruments is important to note that we are aware of certain weaknesses in our test of artistic creativity, especially in terms of strict separation between the individual factors of creativity. Any subjectivity in the evaluation of this test, we objectivise with commission-evaluation of three independent assessors. Despite some reservations, however, we find that we have been successful in setting criteria. Prepared criteria have allowed us to fairly objectively evaluate the results and assess levels of artistic creativity in all pupils.
DATA PROCESSING PROCEDURES

The collected data were processed on the level of descriptive and inference statistics. The following methods were used:

- Frequency distribution (f, f%) characteristics of participants;
- Descriptive statistics (Minimum – MIN, Maximum – MAX, Mean – \( \bar{x} \), Standard Deviation – \( s \), Skewness – Skew, Kurtosis – Kurt);
- t-test for independent samples to verify differences with regard to students’ gender in their achievements in whole test (Leven’s F-test);
- t-test for dependent samples
- Pearson’s correlation coefficient

The data are processed by a computer program SPSS on descriptive and inferential statistics.

RESULTS AND INTERPRETATION

ANALYSIS OF THE INITIATION SHEET

First, we present the results of the basic statistical analysis, after analysis of the differences in the initiation condition.

Table 1. Descriptive analysis of the development of initial test

<table>
<thead>
<tr>
<th>Tasks</th>
<th>n</th>
<th>Rang</th>
<th>Mean</th>
<th>Stand. deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MIN</td>
<td>MAX</td>
<td>( \bar{x} )</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>ART-INT-D</td>
<td>27</td>
<td>7</td>
<td>39</td>
<td>26.296</td>
<td>8.699</td>
<td>-0.530</td>
</tr>
<tr>
<td>FOR-D</td>
<td>27</td>
<td>10</td>
<td>26</td>
<td>15.370</td>
<td>4.360</td>
<td>1.067</td>
</tr>
<tr>
<td>CREAT-D</td>
<td>27</td>
<td>13</td>
<td>33</td>
<td>20.852</td>
<td>5.763</td>
<td>0.740</td>
</tr>
<tr>
<td>ART-D</td>
<td>27</td>
<td>33</td>
<td>94</td>
<td>62.519</td>
<td>15.453</td>
<td>-0.072</td>
</tr>
</tbody>
</table>

Except for the shape the development of the distribution of all other variables more flattened, suggesting that the results are more scattered. Coefficients asymmetries reveal that the distribution of the results of the formal artistic (KA = 1,067) and creative development (KA = 0.740) to the right, asymmetric (there are several results below), the distribution of artistic-intellectual development (KA = - 0.530) is symmetrical or slightly left asymmetrical which means that students are here to achieve higher scores. The overall results of artistic development is distributing more symmetrical (KA = - 0.072) and normal (KS = - 0321). Given the stakes arithmetic occupied by standard deviations, it should be noted that there are all sets of fine arts test higher variability, so from this point of view among the pupils themselves quite different.

The following are the results of t-tests of differences of arithmetic and F-tests of homogeneity of variance of the results of initial measured optically theme, design, creative development and artistic development regardless of gender.
Table 2. Results of t-test of differences of arithmetic and F-test of homogeneity of variance of the results of initial measured artistic-intellectual development, formal artistic development, artistic creativity and artistic development as a whole regardless of gender

<table>
<thead>
<tr>
<th>Factors</th>
<th>gender</th>
<th>n</th>
<th>Mean – μ</th>
<th>Stand. Deviation s</th>
<th>Test of homogeneity of variances</th>
<th>Test of differences between means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>F</td>
<td>P</td>
<td>t</td>
<td>P</td>
</tr>
<tr>
<td>ART-INT-D</td>
<td>boys</td>
<td>15</td>
<td>23.6000</td>
<td>9.06957</td>
<td>1.308</td>
<td>0.267</td>
</tr>
<tr>
<td></td>
<td>girls</td>
<td>12</td>
<td>29.6667</td>
<td>7.20269</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOR-D</td>
<td>boys</td>
<td>15</td>
<td>15.8667</td>
<td>4.73387</td>
<td>0.316</td>
<td>0.579</td>
</tr>
<tr>
<td></td>
<td>girls</td>
<td>12</td>
<td>14.7500</td>
<td>3.95716</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CREAT-D</td>
<td>boys</td>
<td>15</td>
<td>21.4667</td>
<td>6.53416</td>
<td>1.485</td>
<td>0.234</td>
</tr>
<tr>
<td></td>
<td>girls</td>
<td>12</td>
<td>20.0833</td>
<td>4.79504</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART-D</td>
<td>boys</td>
<td>15</td>
<td>60.9333</td>
<td>17.79031</td>
<td>1.759</td>
<td>0.197</td>
</tr>
<tr>
<td></td>
<td>girls</td>
<td>12</td>
<td>64.5000</td>
<td>12.40601</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results of the F-test shows that the artistic-intellectual development of the assumption of homogeneity of variances justified (F = 1.308, P = 0.267). Results of t-test of differences of arithmetic shows that the condition of initial artistic-intellectual development no statistically significant differences, but there is a trend (P = 0.071), and although they have slightly higher scores girls. We assume that because they work more manageable. The results confirm the hypothesis (H 1.1). Even in the formal artistic development reflects the outcome of the F-test the assumption of homogeneity of variances justified (F = 0.316, P = 0.579). Results of t-test of differences of arithmetic shows that the shape of initial state of formal artistic development no statistically significant differences between the genders (t = 0.654, P = 0.519). This hypothesis (H 1.2) is confirmed. In monitoring the development of artistic creativity reflects the outcome of the F-test, the assumption of homogeneity of variances justified (F = 1.485, P = 0.234). Results of t-test of differences of arithmetic shows that the initiation condition of artistic creativity there are no statistically significant differences between the genders (t = 0.612, p = 0.546). Thus, we confirm the following research hypothesis (H 1.3).

We are also at the level of artistic development in the whole outcome of the F-test shows that the assumption of homogeneity of variances justified (F = 1.759, P = 0.197). Results of t-test of differences of arithmetic shows that the initiation state of art development there are no statistically significant differences between the genders (t = 0.588, P = 0.562). Thus, we confirmed the hypothesis (H 1.4).

ANALYSIS OF THE FINAL SHEET
Table 3. Descriptive analysis of the development in the final test

<table>
<thead>
<tr>
<th>Tasks</th>
<th>n</th>
<th>Rang</th>
<th>Mean – μ</th>
<th>Stand. Deviation s</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MIN</td>
<td>MAX</td>
<td>μ</td>
<td>s</td>
<td>Skew</td>
</tr>
<tr>
<td>ART-INT-D</td>
<td>27</td>
<td>8</td>
<td>42</td>
<td>30.889</td>
<td>7.806</td>
<td>-1.470</td>
</tr>
</tbody>
</table>
As during initial examination, there is also the final test of a higher degree of variability in the results. Significant differences between the students in this regard, also showed the results of the final measurement. In the optical thematic development (KS = 2.840) shows a more tapered distribution of the results (lower dispersion), with the formal artistic (KS = -0.0166) and creative development (KS = -0.577) but more flattened. Left asymmetry, more higher results were measured in the artistic-intellectual development (KA = -1.470), several lower and thus right asymmetry in the formal artistic (KA = 0.322) and creative development (KA = 0.284). Moreover, the distribution of the overall results of artistic development quite normal (KS = 0.315) and symmetric (KA = -0.072).

The following are the results of t-tests of differences of arithmetic and F-tests of homogeneity of variance measured results of the final optical thematic shape, creative and artistic development regardless of gender.

Table 4. Results of t-test of differences of arithmetic and F-test of homogeneity of variance measured results of the final artistic-intellectual development, formal artistic development, artistic creativity and artistic development as a whole regardless of gender

<table>
<thead>
<tr>
<th>Factors</th>
<th>gender</th>
<th>n</th>
<th>Mean $\bar{x}$</th>
<th>Stand. deviation $s$</th>
<th>Test of homogeneity of variances</th>
<th>Test of differences between means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>ART-INT-D</td>
<td>boys</td>
<td>15</td>
<td>29.9333</td>
<td>9.86673</td>
<td>3.424</td>
<td>0.076</td>
</tr>
<tr>
<td></td>
<td>girls</td>
<td>12</td>
<td>32.0833</td>
<td>4.16606</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOR-D</td>
<td>boys</td>
<td>15</td>
<td>17.6667</td>
<td>5.09435</td>
<td>0.004</td>
<td>0.953</td>
</tr>
<tr>
<td></td>
<td>girls</td>
<td>12</td>
<td>21.5833</td>
<td>4.44069</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CREAT-D</td>
<td>boys</td>
<td>15</td>
<td>24.4667</td>
<td>7.68920</td>
<td>0.140</td>
<td>0.711</td>
</tr>
<tr>
<td></td>
<td>girls</td>
<td>12</td>
<td>28.4167</td>
<td>7.36649</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART-D</td>
<td>boys</td>
<td>15</td>
<td>72.0667</td>
<td>19.24083</td>
<td>0.037</td>
<td>0.849</td>
</tr>
<tr>
<td></td>
<td>girls</td>
<td>12</td>
<td>82.0833</td>
<td>14.89636</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results of the F-test shows that the artistic-intellectual development of the assumption of homogeneity of variances justified (F = 3.424, P = 0.076). Results of t-test of differences of arithmetic shows that in the final state of artistic and intellectual development there are no statistically significant differences between the genders (t = -0.704, p = 0.488). This hypothesis (H 2.1) was confirmed. Even in the formal artistic development reflects the outcome of the F-test the assumption of homogeneity of variances justified (F = 0.004, P = 0.953). Results of t-test of differences of arithmetic shows that in the final formal artistic development, there is a statistically significant difference between the genders (t = -2.099, P = 0.046), in favor of girls. From the results obtained it follows that our hypothesis (H 2.2) is not confirmed. Until such an outcome is probably because girls are more consistent, more manageable and more care than boys and listening to the teacher’s instructions and tracking.
demonstration of painting techniques. Even in monitoring the development of artistic creativity reflects the outcome of the F-test, the assumption of homogeneity of variances justified (F = 0.140, P = 0.711). Results of t-test of differences of arithmetic shows that in the final state of creative development there are no statistically significant differences between the genders (t = -1.351, P = 0.189). With this result is our hypothesis (H 2.3) certified.

The level of artistic development to monitor the interaction between various aspects of development (artistic-intellectual, formal artistic and creative). At the level of artistic development in the whole outcome of the F-test shows that the assumption of homogeneity of variances justified (F = 0.037, P = 0.849). Results of t-test of differences of arithmetic shows that in the final state of art development there are no statistically significant differences between the genders (t = -1.481, P = 0.151). The obtained results tell us that it is our hypothesis (H 2.4) certified.

ANALYSIS OF THE PROGRESS IN THE DEVELOPMENT OF THE ARTS

The following are the results of t-tests for dependent samples and the Pearson correlation coefficient is measured; initial and the final art, optical thematic, presentational and creative development.

Table 5. Results of t-test for dependent samples, measuring the difference between the initial and the final artistic-intellectual development, formal artistic development and creative artistic development

<table>
<thead>
<tr>
<th>Factors</th>
<th>Test</th>
<th>n</th>
<th>Mean ( \bar{X} )</th>
<th>Stand. deviation ( s )</th>
<th>Pearson’s Correlation Coefficient</th>
<th>Test of differences between means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r</td>
</tr>
<tr>
<td>ART-INT-D</td>
<td>I</td>
<td>27</td>
<td>26.2963</td>
<td>8.69931</td>
<td>0.414</td>
<td>0.032</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>27</td>
<td>30.8889</td>
<td>7.80697</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOR-D</td>
<td>I</td>
<td>27</td>
<td>15.3704</td>
<td>4.36021</td>
<td>0.478</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>27</td>
<td>19.4074</td>
<td>5.12354</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CREAT-D</td>
<td>I</td>
<td>27</td>
<td>20.8519</td>
<td>5.76264</td>
<td>0.364</td>
<td>0.062</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>27</td>
<td>26.2222</td>
<td>7.66778</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results in terms of optical thematic development shows that the correlation is positive and statistically significant (r = 0.414, P = 0.032), so the condition for the calculation of the t-test for dependent samples. The difference between the initiation and the final test is statistically significant (t = -2.661, P = 0.013). Viewing the values of arithmetic shows that the disciples were in the final test as successful during initial. So there is progress in the artistic-intellectual development, which is related to the overall development of the two testes. Our hypothesis (H 3.1), which provides that there are differences in progress between the initiation and final testing of the artistic-intellectual development of the pupils for the entire sample is confirmed. The results in terms of form D shows that the correlation was statistically significant (r = 0.478, P = 0.012), so the condition for the calculation of the t-test for dependent samples. The difference was statistically significant (t = -4.292, P = 0.000). The arithmetic mean indicates that the disciples were in the final test as successful during initial. So
there is progress in the formal artistic development. This result confirms the hypothesis (H 3.2), which provides for the existence of progress during the initiation and final testing. In measuring the level of creative coefficient ($r$) is not statistically significant, and there is a tendency ($r = 0.364, P = 0.062$), so there is also the requirement for calculating the t-test. Results of t-test shows ($t = -3.607, P = 0.001$), were students in the final test as successful during initial. So there is progress in creative development. This is a result that confirms the hypothesis (H 3.3).

Table 6. Results of t-test for dependent samples, measuring the difference between the initiation and the final artistic development

<table>
<thead>
<tr>
<th>Factors</th>
<th>Test</th>
<th>n</th>
<th>Mean $\bar{X}$</th>
<th>Stand. deviation $s$</th>
<th>Pearson’s Correlation Coefficient</th>
<th>Test of differences between means</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART-D</td>
<td>I</td>
<td>27</td>
<td>62.5185</td>
<td>15.45308</td>
<td>0.499</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>27</td>
<td>76.5185</td>
<td>17.85922</td>
<td>-4.330</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The correlation coefficient is a positive and statistically significant ($r = 0.499, P = 0.008$), so the condition for the calculation of the t-test for dependent samples. As shown in the outcome of the t-test for paired samples, the difference between the initiation and the final test was statistically significant ($t = -4.330, P = 0.000$). The arithmetic mean indicates that the disciples were in the final test as successful during initial. So there is progress in the development of art. Our hypothesis (H 3.4) was confirmed. Quality work in the field of teaching art it follows that a higher level of artistic development.

**Conclusion**

With the help of quantitative empirical research we have come up with interesting findings. The results of descriptive analysis showed that the participants of testing vary. We have also found that regardless of gender differences do not exist during initial artistic-intellectual, and initiation of initial formative creative development. Also, we did not find differences during initial level of artistic development. The obtained results of the study also confirmed the hypotheses tied on initial testing of pupils (H1.1, H1.2, H1.3, 1.4 H). The results of the final tests have shown that there is no difference in final visual-intellectual, creative development finals and the final level of artistic development regardless of gender. These results confirm the hypotheses related to the final testing of students (H2.1, H2.3 and H2.4). Only in the final formative development occurred differences between girls and boys. Better results are achieved girls. Thus hypothesis H 2.2, where we assume that there are no differences in the final formative development based on gender was not confirmed. The differences in favor of girls is probably because girls this age more enthusiastically follow the instructions, demonstrations of art techniques, the use of tools and materials, etc.

The results showed that there are differences in progress between the initiation and final testing, all monitored factors. Students are in the final testing to achieve higher scores. Disparities in progress between the initiation and final testing occurred in artistic-intellectual, design and creative development as well as in the development of art in its entirety. Progress of pupils between the initiation and final testing, all indicators on the level of statistical
significance, meaning students progress during eight months. This is all the research hypothesis (H.3.3, H.3.2, H.3.3, H.3.4) related to the progress of pupils in the final testing confirmed.

The results of quantitative research are the basis for the conclusion of the importance of the work of teachers in the artistic creative process and how to provide high quality teaching contributes to the progress of the students. Research has shown that a quality management of pupils in their artistic creativity leads to a rise in quality achievements in the field of shape development, as well as in the field of artistic creativity and artistic-intellectual development. Interaction of positive advancements could lead students to a higher level of the entire artistic development.

**LITERATURE**


Značajnost kvalitetnog pedagoškog rada kod razvijanja likovnih sposobnosti učenika na razrednom stupnju osnovne škole

Sažetak: Kod nastave likovne kulture u osnovnoj školi učenici se susreću s više likovnih područja i različitim likovnim tehnikama, ali je osnova svim vrstama likovnog izražavanja crtež. Pa i izbor motiva koje učenici likovno interpretiraju, vreo je raznolik. Način da se motivi realiziraju usko je vezan sa njihovim razvojnim stupnjem. A to se može najbolje pratiti kroz prikaz ljudskog lika. U kvantitativnom empirijskom istraživanju na uzorku od 27 učenika (n = 27) pratili smo njihov likovni razvoj u dobi od 11 godina tijekom osam mjeseci. Proučavali smo razvoj učenika s aspekta likovno-intelektualnog, likovno-oblikovnog i likovno-kreativnog razvoja u vidu cjelokupnog uzorka i s obzirom na spol. Rezultati istraživanja pokazuju da su učenici u završnom testiranju postigli u svim pratećim varijablama više rezultate i to na nivou statističke značajnosti. Kod usporedbi spola ustanovljeno je da su djevojke postigle nešto više rezultate od dječaka. Ako smo svjesni činjenice da kvalitetan pedagoški rad ima veliki utjecaj prvenstveno na likovno-oblikovni i likovno-kreativni razvoj, možemo biti zadovoljni dobivenim rezultatima. Rezultati istraživanja upućuju na značajnost učiteljevog rada u likovno-pedagoškom procesu što može uvelike pridonijeti likovnom i općem napretku učenika.

Klijučne riječi: likovna kultura, osnovna škola, optičko tematski razvoj, likovno-oblikovni razvoj, likovno-kreativni razvoj

Bedeutung von guter Lehrpraxis für die Entwicklung von künstlerischen Fähigkeiten der Grundschulkinder


Schlüsselbegriffe: Kultur der bildenden Kunst, Grundschule, gestalterische Entwicklung, optisch-thematische Entwicklung, kreative Entwicklung.