COMPARATIVE STUDY OF THE INDICES THAT DETERMINE THE LEVEL OF CHOREOGRAPHIC TRAINING OF THE STUDENTS OF THE PROFILE FACULTIES

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Keywords: students, choreographic training, expressiveness, coordination, creativity.

Abstract
This scientific paper was made in order to present details on the level of choreographic training of students in the profile faculties. In this study, a number of 49 students (10 girls and 39 boys) from FEFS Suceava and 56 students (10 girls and 46 boys) from FEFS Galati were tested. They were applied tests specifically for rhythmicity in coordination, expressiveness and motor coordination and expressiveness and creativity. Following the study, we were able to conclude that the FEFS Suceava students where we implemented a program in which we introduced theoretical and practical notions about choreography had significant results.

Introduction
The choreographic training of students is one of the current problems of theory and methodology in the branches of gymnastics. The choreographic training itself is one of the basic links that condition the multilateral training in gymnastics and offers the possibilities to know the aesthetics of the movement, which subsequently has a positive impact on the level of professional training.

This problem has not been addressed by many theorists and practitioners and therefore its approach at the moment to the level of professional training of students is not yet realized. Obviously, the specific means of choreographic training have put in the service of trainers of specialists in physical education, useful information of body image but some pedagogical-methodological aspects remain without a well-defined concept. In the theory and practice of physical and sports education (especially in gymnastic tests), there are no approaches to the
choreographic aspect in the instructive-educational preparation of students.

This aspect also contains some shortcomings in this context, the solution to the problem is the introduction in the discipline programs in the branches of gymnastics of the choreographic training of students to condition the acquisition of expressiveness, the connection between music and movement and rhythmicity. The choreographic aspect has an important role in the basic training of students, which requires knowledge of rhythmic gymnastics, classical dance, contemporary dance and character dance.

Some specialists [1, 3, 4, 11, 14] consider that the choreographic training aims at acquiring a baggage of movements and an expressive artistic execution of them, in close connection with music. Due to its content and peculiarities, the means of choreographic training ensure the movements virtuosity, expressiveness, as well as a fine coordination and an exact understanding of the music.

The development to perfection of artistic attire, harmony, amplitude and rhythm, leads to the moving expressiveness of the whole body. To this is added the facial expression, the speech of the eyes, which must reflect the range of inner feelings, related to experiencing movement, the passion of the thing itself, the feeling springing from the correlation between music and movement, the inner force that generates beauty and has the power to transmit it [5, 7, 8, 12, 13].

According to some specialists [2, 6, 9, 10] it is considered that by using dance elements the following objectives can be achieved: harmonious body development, artistic attire and execution, stimulation of body expression, creativity and artistic imagination, increasing virtuosity, dynamism, grace and elegance of movements, development of the ability to appreciate one's own motor actions, development of motor rhythmicity and musicality, development of motor qualities, education of coordination capacity by acquiring a rich motor content, education of aesthetic feelings.

Running the experiment

Subjects
The subjects of the research were students of the second year of the academic year 2014-2015. The experiment group included a number of 49 students, of which 10 girls and 39 boys from the Faculty of Physical Education and Sports in Suceava. The students in the control group were from the Faculty of Physical Education and Sports in Galați, of which 10 girls and 46 boys a total of 56 students.

Procedure
During the semester, during the practical works, the following dances were proposed in the experimental program: Cha Cha Cha, Slow Waltz and Viennese Waltz.

Methods
In order to assess the level of choreographic training, the samples were used:
- Rhythmicity test in coordination mode
- Test of expressiveness and motor coordination
- Test of expressiveness and creativity - freely chosen exercise

For statistical analysis, the statistical program SPSS23 was used using the Student Pair Test.

Results and discussion
The systematic teaching of practical lessons, through specific choreography exercises contributes to the development of the student’s creative thinking, which allows him to create and exemplify different choreographies.

Therefore, it was proposed to evaluate some tests of rhythmicity in coordination, expressiveness and creativity, which are part of the choreographic training. The evaluation of these samples was completed by a statistical analysis presented in Tables 1 and 2.

The statistical results of the motor tests are presented in Tables 1 and 2.

<table>
<thead>
<tr>
<th>Groups</th>
<th>GIRLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests</td>
<td>Witness group (n=10)</td>
</tr>
<tr>
<td></td>
<td>T.I. $\bar{x} \pm m$</td>
</tr>
<tr>
<td>Rhythmicity test in coordination mode (notes)</td>
<td>5.63±0.52</td>
</tr>
</tbody>
</table>
The complexity of gymnastic structures is given by the simultaneous participation of several segments in performing a movement. This requires very good coordination of body segments and the ability to give movements harmony and fluency.

Rhythmicity (the basic component of skill) is a defining ability for choreography, whose essential feature is the permanent use of music and making a connection with movement, in terms of all basic components of movement: amplitude, direction, rhythm.

Motor expressiveness has proven to be a feature of the execution of certain motor acts, which nuances the essential moments of the exercise and also communicates a certain content of ideas and feelings.

Table 1. Comparative analysis of the level of choreographic training between the initial and final testing of the control and experiment groups (girls)

<table>
<thead>
<tr>
<th>Groups</th>
<th>GIRLS (n=10)</th>
<th>Tests</th>
<th>GM T.I. $\bar{x} \pm m$</th>
<th>GE T.I. $\bar{x} \pm m$</th>
<th>t</th>
<th>P</th>
<th>GM T.F. $\bar{x} \pm m$</th>
<th>GE T.F. $\bar{x} \pm m$</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rhythmicity test in coordination mode (note)</td>
<td>5.63±0.52</td>
<td>5.65±0.39</td>
<td>0.08</td>
<td>&gt;0.5</td>
<td>8.47±0.24</td>
<td>9.45±0.48</td>
<td>2.97</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td></td>
<td>Test of expressiveness and motor coordination (notes)</td>
<td>5.98±0.62</td>
<td>6.09±0.50</td>
<td>0.42</td>
<td>&gt;0.5</td>
<td>7.95±0.38</td>
<td>8.73±0.49</td>
<td>2.92</td>
<td>&lt; 0.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Test of expressiveness and creativity - freely chosen exercise (notes)</td>
<td>5.95±0.52</td>
<td>6.13±0.56</td>
<td>0.72</td>
<td>&gt;0.5</td>
<td>6.88±0.34</td>
<td>8.81±0.48</td>
<td>3.27</td>
<td>&lt; 0.01</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Analysis of the comparative results of the level of choreographic training between the control group and the experiment group (girls)

The complexity of gymnastic structures is given by the simultaneous participation of several segments in performing a movement. This requires very good coordination of body segments and the ability to give movements harmony and fluency.

Rhythmicity (the basic component of skill) is a defining ability for choreography, whose essential feature is the permanent use of music and making a connection with movement, in terms of all basic components of movement: amplitude, direction, rhythm.

Motor expressiveness has proven to be a feature of the execution of certain motor acts, which nuances the essential moments of the exercise and also communicates a certain content of ideas and feelings.
In gymnastics, but also in dance, motor expressiveness is a criterion for appreciating the artistic impression.

Artistic execution or expressiveness is expressed by the possibility of coordinating the movements of body segments in order to obtain a perfect unity. The musical background that accompanies the execution of the movements, impresses a certain rhythmicity, harmony, expressiveness and at the same time amplifying them, the power of suggestion, the emotional state. These are some of the choreographic skills that students had to acquire and which we tested through specific tests demonstrated above.

As we have already stated, coordination is a necessary motor skill in the activities carried out in the gymnastic discipline and related to it.

In this test, the subjects had similar averages at the initial test, both groups making the difference precisely at the final test, where the control group obtained an average of 8.47 ± 0.24, and the experimental group an average of 9.45 ± 0.48 points. The difference is made due to the use of the means of choreographic preparation from the proposed experimental program. The comparative results are presented graphically in Figure 1.

The statistical analysis shows a significance threshold of P < 0.01 in this sample (according to the data in Fisher's table), corresponds to a “t” of 2.97, which demonstrates a significant difference in the average of the grades in favor of the experimental group.

Expressiveness and motor coordination are skills needed to highlight appropriate high choreographic training. Therefore, the subjects subjected to the research at the initial testing obtained approximately
equal averages around the grade “6”. But at the final test it was possible to observe the difference between the two groups, so the control group obtained an average of the marks of 7.95 ± 0.38, and the experimental group an average of the marks of 8.73 ± 0.49 points. Even if the average of the marks at the final test was below that of the rhythmicity test in coordination mode, this highlights the need to apply in a longer time the means of choreographic preparation. The comparative results of this sample between groups are shown graphically in Figure 2.

The significance threshold for this test is P <0.01, corresponds to a “t” of 2.92, which demonstrates a significant deference of the average marks in favor of the experimental group.

FIG. 2. Comparative averages of the marks obtained by the research subjects at the “Expressiveness and motor coordination” test (girls)

As previously mentioned, the means of choreographic training contribute to the development of coordination and improvement of the components of movement expressiveness (correct and aesthetic posture of the body, amplitude, dynamism, rhythm).

The test, which highlighted very well the level of choreographic training and professional artistic skills acquired by the research subjects was the test of "Expressiveness and creativity - freely chosen exercise". At this test we can see a big difference between the results obtained by the subjects from the control group, who reached an average of 6.88 ± 0.34 points, and those from the experimental group, an average of 8.81 ± 0.48 points. This difference of 1.93 points is due to the application of the
proposed program to the experimental group, which better mastered its choreographic skills compared to the representatives of the control group. The results are shown graphically in Figure 3.

![Graph comparing results](image)

**FIG. 3.** Comparative averages of the marks obtained by the research subjects at the test of “Expressiveness and creativity - the freely chosen exercise” (girls)

From a statistical point of view, the significance threshold for this test is \( P < 0.01 \), corresponding to a “t” of 3.27, which demonstrates a significant deference of the average marks in favor of the experimental group.

As with the girls, the boys were assessed by the same tests. The test results are presented in Tables 3. and 4.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Tests</th>
<th>Witness group (n=46)</th>
<th>Experimental group (n=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T.I. ( \bar{x} \pm m )</td>
<td>T.F. ( \bar{x} \pm m )</td>
<td>t</td>
</tr>
<tr>
<td>Rhythmic test in coordination mode (notes)</td>
<td>5.47±0.42</td>
<td>7.28±0.17</td>
<td>2.56</td>
</tr>
<tr>
<td>Proof of expressiveness and creativity (notes)</td>
<td>6.20±0.09</td>
<td>7.23±0.38</td>
<td>1.87</td>
</tr>
<tr>
<td>Free exercise chosen (note)</td>
<td>5.50±0.49</td>
<td>7.15±0.17</td>
<td>2.09</td>
</tr>
</tbody>
</table>

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Table 3. Comparative analysis of the level of choreographic training between the initial and final testing of the control and experiment groups (boys)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Tests</th>
<th>BOYS</th>
<th>t</th>
<th>P</th>
<th>GM (n=46)</th>
<th>T.F.</th>
<th>GE (n=39)</th>
<th>T.F.</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x ± m</td>
<td></td>
<td>x ± m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhythmic test in coordination mode (notes)</td>
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<td>5.47±0.45</td>
<td>0.09</td>
<td>&gt; 0.5</td>
<td>7.28±0.17</td>
<td>2.47</td>
<td>&lt; 0.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proof of expressiveness and creativity (notes)</td>
<td>6.20±0.09</td>
<td>6.22±0.12</td>
<td>0.43</td>
<td>&gt; 0.5</td>
<td>7.23±0.38</td>
<td>2.32</td>
<td>&lt; 0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free exercise chosen (notes)</td>
<td>5.50±0.49</td>
<td>5.50±0.48</td>
<td>0.06</td>
<td>&gt; 0.5</td>
<td>7.15±0.17</td>
<td>2.38</td>
<td>&lt; 0.01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 Analysis of the comparative results of the level of choreographic training between the control group and the experiment group (boys)

In the rhythmicity test in the coordination regime, the groups of boys subjected to the research obtained the same averages at the initial testing, the difference being significant at the final testing, where the control group obtained an average of 7.28 ± 0.17 and the experimental group an average of 8.28 ± 0.82 points. These results are shown in Table 4 and graphically in Figure 4.

**FIG. 4.** Comparative averages of the marks obtained by the research subjects at the “Rhythmicity in coordination regime” test (boys)

Statistically, the significance threshold for this test is $P < 0.01$, corresponding to a “$t$” of 2.47, which demonstrates a significant
deference of the grade point average in favor of the experimental group, to which, during the instructional process, the program was applied.

In the “Expressiveness and creativity” test, the boys from the control group obtained an average of 6.20 ± 0.09, and those from the experimental group obtained an average of 6.22 ± 0.12 points at the initial test, so they had an equal level. At the final test, however, there is a difference between the two groups subjected to research, so the control group obtained an average score of 7.23 ± 0.38, and the experimental group an average of 8.53 ± 0.59 points. The results are shown graphically in Figure 5.

![Figure 5](image)

**FIG. 5.** Comparative averages of the marks obtained by the research subjects at the “Expressiveness and creativity” test (boys)

The difference between the two groups is also supported by the statistical analysis, where the significance threshold for this sample is P <0.01, corresponds to a "t" of 2.32, which demonstrates a significant difference in the mean of the notes in favor of the experimental group, to which he applied the elaborated experimental program.

The chosen free exercise was a difficult test for the boys, because in the initial test both groups obtained the same average of the marks: 5.50 ± 0.49 and 5.50 ± 0.48. In the final test, after applying the proposed program, the experimental group obtained a grade point average of 8.53 ± 0.44 points, compared to the control group, which obtained a grade point average of 7.15 ± 0.17 points, the difference between the two groups, being 1.38 points. This difference is achieved due to the application of the proposed program, which was based on exercises of the experimental program aimed at the choreographic preparation of students.

The comparative results between the two groups are presented graphically in Figure 6.
FIG. 6. Comparative averages of the marks obtained by the research subjects in the freely chosen exercise (boys)

From the presentation of the obtained results, we can state that the difference between the two groups was made due to the application of the proposed experimental program, which was based on the formation of specific choreographic training skills for students.

**Conclusion**

By applying the program, which includes means of choreographic training, the level of development of motor qualities has been considerably improved, as well as that of correct posture, amplitude, harmony in movement, rhythm, coordination of movements and other important components of motor expressiveness. An increased level of choreographic training in the professional training of students, which confirmed the research hypothesis from the beginning of the study.

**References**


