Developing Creative Abilities of Future Musical Art Teachers by Means of Choreography: An Experimental Study

Natalia Seheda¹, Halyna Panchenko², Liliia Chervonska³, Alona Uskova⁴

Abstract
The article contains the approaches of modern scholars to the definition of “creativity” and “creative abilities”. The experimental work method is determined and described with the introduction to methods of development of creative abilities. The pedagogical interpretation of the quantitative measurement of the experimental study results for developing the creative abilities of students in the experimental and control groups using the Student’s t-test and Fisher’s F-test is given. The authors discuss that creativity is developed on the basis of an interdisciplinary approach (integration of music methods and choreographic training), has an effective influence on the quality of the professional training of the future teacher of musical art.

Keywords: Pedagogical interpretation, Creativity, Creative abilities, Choreography, Choreographic training, Future teacher of musical art.

¹ Doctor of Pedagogical Sciences, Professor of the Bogdan Khmelnytsky Melitopol State Pedagogical University, Melitopol, Ukraine. E-mail: segeda2008@ukr.net
² Candidate of Pedagogical Sciences, Associate Professor of the Bogdan Khmelnytsky Melitopol State Pedagogical University, Melitopol, Ukraine. E-mail: music_pan@ukr.net
³ Candidate of Pedagogical Sciences, Associate Professor of the Bogdan Khmelnytsky Melitopol State Pedagogical University, Melitopol, Ukraine. E-mail: chervonskay@ukr.net
⁴ Candidate of Pedagogical Sciences, Senior Lecturer of the Bogdan Khmelnytsky Melitopol State Pedagogical University, Melitopol, Ukraine. E-mail: uskovaalena555@gmail.com
Introduction
The modern education asserts the personality of the future teacher through the full realization of his creative potential. Creativity is a leading feature of professionalism, therefore the problem of development of creative abilities of the future teacher becomes especially relevant in the context of the priority directions of the reform of higher education in Ukraine and its integration into the European educational space.

In Ukraine, the importance of this issue is reflected in the current state normative documents: The National doctrine of the development of education in Ukraine, the National Strategy for the development of education in Ukraine for 2012-2021 (2011), the Concepts of the development of Ukraine’s education for the period 2015-2025 (2014), Concepts of the implementation of state policy in the sphere of reforming general secondary education “New Ukrainian School” (2017) and others. The further development of the scientific research in the musical-educational sphere is aimed at the growth of personality through the development of the creative abilities and the orientation of the qualifications of graduates of pedagogical higher educational establishments for compliance with the international level.

In today’s educational space, actual positions increasingly take on the possibility of an interdisciplinary approach that in the training of future teachers of musical art focuses on the widest possible application of the integrational relationship of most forms of art. This idea has its basis, because it is the rhythm-intonational nature of music that becomes the means of human expression in both musical performances and choreographic activities. In modern Ukrainian schools, the educational process requires the creation of maximum conditions for the students’ self-expression by means of various types of arts. Such socio-cultural expectation focuses our research on the development and experimental verification of the results of the implementation methodology, which in the future will help the teacher of musical art to apply elements of choreography in the process of art lessons at elementary school, and for the implementation of creative ideas in extracurricular work with students of different age groups.

Literature Review


The analysis of scientific sources gives grounds to assert that the problem of the development of creative abilities is relevant, and in modern psychology and art pedagogy, there is accumulated some experience in the development of theoretical positions in this direction.

Developing creativity in education is the start of building “human capital” upon which, according to Adam Smith, depends on the “wealth of nations” (quoted in Walberg, 1988).

The concept of “creative abilities” is closely related to the concept of “creativity”. There is the following definition in the Ukrainian pedagogical dictionary: “Creativity is a productive human action capable of generating qualitatively new moral and spiritual values of society” (Goncharenko, 1997, p. 326). Creative activity is practically a valuable action of an individual, which can be characterized by three main grounds: a fundamental novelty and originality, the value character created for society or an individual, and the humanistic orientation of this type of activity.

The phenomenon of creative abilities is determined by scientists (L. Vygotsky, B. Teplov, A. Chaplygin, etc.) as the synthesis of personal properties and qualities that contribute to the successful implementation of creative activity (Lazarev, 1995, p. 204).
In the process of studying scientific and methodological sources on the research problem, there were found contradictions between a sufficiently high level of performance training of a future musical art teacher and a low level of development of his creative abilities, there was the predominance of reproductive teaching methods and the need to implement innovative ideas in the educational space of modern Ukrainian higher education.

Traditionally, in the process of music understanding to perception is assigned a leading role. It becomes more effective during listening, visual and motor activity of students. According to the scientific researches of B. Asafiev (1973), the movements are natural to the musical art itself that develops in time. With their help, children can reflect the image of the artwork, its emotional component, or individual elements of the musical language. For the inclusion of children to the knowledge of the world of music, teachers (Y. Aliyev, J. E. Dalcroz, I. Kadobnova, A. Kritska, T. Roters, V. Yanovska, etc.) recommend to diversify the activities in the classroom using methods and techniques among which are effective: movements to music, plastic intonation, free conducting, dramatization of musical works, plastic improvisation, etc. To do this, teacher needs to be able to move plastically, to perform dance elements and specific dances. The teacher of musical art should know the psychological and pedagogical features of various age groups of schoolchildren, the list of dance movements to music, that promote relaxation or enhance their activities in the classroom, methods of attracting children to rhythmic and dance activities. In turn, motor, dance skills contribute to more effective performing training (vocal, conductor and instrumental), enriching the experience of its artistic and educational activities, the development of creative abilities.

So, the multi-component structure of the activity of a musical art teacher requires the presence in his professional arsenal and choreographic competencies.

The purpose of the study is to interpret the results of an experimental study of the problem of the creative abilities development of future musical art teachers by means of choreography.

**Research Methodology**

In order to use the means of choreography in the development of creative abilities of musical art future teachers in the 2017-2018 academic year, a basic experiment was conducted on the basis of the Bogdan Khmelnitsky Melitopol State Pedagogical University, in which 60 students of I-IV courses took part. Experimental groups (EG) - 30 persons, control groups (CG) - 30 people.

Musical data, general erudition, musical theoretical basis and professional training of participants of both groups are relatively equal.

Methods of development of creative abilities of musical art future teachers by means of choreography are educational (explanatory-illustrative, problem-search, model, artistic-conceptual synthesis, emotional-sense generalization, collective discussion) and methods of up-bringing (stimulation of creative activity, story, conversation, discussion, example method, creation of special creative situations, creative exercises).

**Instrument and Procedures**

The experimental study was based on axiological and creative acmeological platforms:

1. Vital axiological: “Certainly taking into account the value of a student’s life, because his psychophysiology is an instrument of self-expression in both musical and choreographic performance”.

2. Creative-acmeological: “The content, forms and methods of the developing the creative abilities of musical art future teachers by means of choreography are the systemic elements of the creative-acmeological environment of vocational training, which makes it possible to achieve maximum experimental results using creative stimulation of the student's personal and cultural growth” (Seheda, 2011).
On the basis of theoretical generalizations in the course of study, it was determined that the development of creative abilities of future teachers of musical art by means of choreography is carried out in the process of studying the complex of disciplines provided by the curriculum and under the influence of the creative environment. During the study, an environment was created for the participants of the experimental group (methodical workshops, master classes, and there was organized a special course “The professional and creative development of the personality of the musical art future teacher by means of choreography”).

The content of the special course is based on the theoretical platforms defined above and includes five information blocks: 1) individual; 2) conative; 3) value-motivational; 4) cognitive active; 5) emotional and volitional. The nature of their content is educational, didactocentric and humanistically directed.

The first block is called “Determinants of individual manifestations of the personality of the musical art future teacher in choreographic activity”. It examines the issues of psycho-physiological and physical resources (body flexibility, turnout and leg strength, correct body, arm and head setting), coordination, jumping ability, constancy, static and dynamic balance, muscle strength, physical endurance.

The second information block “Symptom complex of individual psychological, subjective qualities in ensuring the quality of learning outcomes and the achievement of professional and creative development” provides information on the character, psychological properties and qualities of the personality (rhythm, memory, motor memory, imagination, thinking, will), professional qualities necessary for dancing techniques (performing skills and abilities, technical capabilities).

The third block informs the participants of the experiment about “The totality of social, artistic and aesthetic, individual and personal values, educational and professional motivation of the future teacher of art”.

The fourth block is called “Development of special choreographic abilities and professional qualities (combinatorial abilities, artistry, independence in solving creative problems, etc.)”.

The final topic in the special course: “Putting into practice a complex of general cultural and professional knowledge and skills (methodological, theoretical and technological) and forming on their basis professional competencies (ability to translate sensory representations into motor activity, mastering a professional thesaurus as content and form (plastic sign, that is, the external embodiment of the artistic image through the dynamics and statics of the motor act), a certain set of plastic units, understanding their combination and interconnection, knowledge of the dance laws, level of the mastery dance technique, etc.”.

Research Results

During the experiment, a group of diagnostic tasks was proposed to the participants of the CG and EG, which included: 1) selection of musical accompaniment to dance; 2) implementation of a school song with elements of dance moves; 3) plastic intonation; 4) motor improvisation; 5) creative task (combining elements of the dance); 6) interpretation of the choreographic statement.

The evaluation was carried out according to the 4-point system. On the basis of the combined tables with the results of the 6 tasks given above at the stage of the formation of the experiment by the participants of the CG and EG, and by the formulas (Kremer, 2002, p. 270, 275), the corresponding selective characteristics (grade point average (GPA) and dispersion) for each proposed tasks.

The results of the measurement of the GPA and the dispersion of the tasks performed by the participants in the control and experimental groups are given in Table 1.
Table 1. The results of the measurement of the GPA and the dispersion of the tasks performed by the participants in the control and experimental groups

<table>
<thead>
<tr>
<th></th>
<th>Control group</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td>3.37</td>
<td>3.50</td>
<td>3.23</td>
<td>3.10</td>
<td>2.93</td>
<td>3.43</td>
</tr>
<tr>
<td>Dispersion</td>
<td>0.79</td>
<td>0.33</td>
<td>0.46</td>
<td>0.57</td>
<td>0.40</td>
<td>0.32</td>
</tr>
<tr>
<td>Experimental group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPA</td>
<td>3.4</td>
<td>3.53</td>
<td>3.27</td>
<td>3.13</td>
<td>3.2</td>
<td>3.46</td>
</tr>
<tr>
<td>Dispersion</td>
<td>0.94</td>
<td>0.46</td>
<td>0.75</td>
<td>0.53</td>
<td>0.23</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Using Fisher’s F-test, we tested assumptions about the homogeneity of dispersions for each task of the control and experimental groups.

As a result of the work, all sample statistics for each task were calculated. The results of calculating the data obtained for other tasks are listed in Table 2.

Table 2. The results of calculating the data obtained for other tasks

<table>
<thead>
<tr>
<th>Calculation of statistics</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>F6</th>
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<tbody>
<tr>
<td></td>
<td>1.18</td>
<td>1.42</td>
<td>1.64</td>
<td>1.08</td>
<td>1.74</td>
<td>1.65</td>
</tr>
</tbody>
</table>

At the end of the study of the special course “Professional-creative formation of the personality of the future teacher of art by means of choreography”, students were invited to the EG and received a questionnaire for obtaining data on the quality of the special course they have made and the level of its informativity, the effectiveness of the methods (emotional self-adjustment, rhythmic variation, motor impression, plastic intonation, free conducting, staging of musical works, dramatizing songs, etc.), the usefulness and relevance of the selected methods and forms to the needs of those who studies.

The results of the questionnaire make it possible to conclude that acquired during theoretical and practical classes within the framework of the special course skills and abilities contributed to the intensification of the emotional and motivational sphere of students, positive attitude to choreographic activity, and raising the level of their inner creative freedom.

This fact has positively affected the results of pedagogical practice. There are hopes for developing the creative abilities of the future teacher of musical art with this type of educational activity. Therefore, the main advantage of this period was the acquisition by students of the EG their own experience of musical and productive activities in the context of working with children’s artistic groups. They have demonstrated a sufficient level of mastering the acquired knowledge in the performing arena, having a pedagogical orientation, formed an active and creative perception of music, a wealth of musical experience; used new forms and methods of teaching, tasks for the development of creative thinking, positive motivation; expressed a desire to develop the musical abilities and creative potential of children, involving them to join creative activity.

In the control group during the pedagogical practice there was no noticeable dynamics of the creative growth of students. Qualitative changes are also insignificant: only a small number of students was able to fill art lessons with creative content.

The diagnostic tests carried out according to the program of the experiment have brought the development of creative abilities of the students in the experimental group.

For comparison, we give the data on the GPA for doing creative tasks by students of CG and EG in Table 3.
Table 3. The data on the GPA for doing creative tasks by students of CG and EG

<table>
<thead>
<tr>
<th>Control group</th>
<th>GPA</th>
<th>Dispersion</th>
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<tbody>
<tr>
<td></td>
<td>3,83</td>
<td>0,28</td>
</tr>
<tr>
<td></td>
<td>3,97</td>
<td>0,31</td>
</tr>
<tr>
<td></td>
<td>4,03</td>
<td>0,24</td>
</tr>
<tr>
<td></td>
<td>3,8</td>
<td>0,37</td>
</tr>
<tr>
<td></td>
<td>3,5</td>
<td>0,26</td>
</tr>
<tr>
<td></td>
<td>3,93</td>
<td>0,21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experimental group</th>
<th>GPA</th>
<th>Dispersion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,3</td>
<td>0,22</td>
</tr>
<tr>
<td></td>
<td>4,37</td>
<td>0,24</td>
</tr>
<tr>
<td></td>
<td>4,67</td>
<td>0,23</td>
</tr>
<tr>
<td></td>
<td>4,67</td>
<td>0,3</td>
</tr>
<tr>
<td></td>
<td>4,7</td>
<td>0,22</td>
</tr>
<tr>
<td></td>
<td>4,83</td>
<td>0,14</td>
</tr>
</tbody>
</table>

As a result of the work, sampling statistics were found for each task. The sample statistics found for each task are shown in Table 4.

Table 4. The sample statistics for each task

<table>
<thead>
<tr>
<th>Calculation of statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
</tr>
<tr>
<td>1,29</td>
</tr>
</tbody>
</table>

To test the hypothesis of equality of grade points in fulfilling the corresponding tasks, students of CG and EG have put forward zero hypotheses regarding the equality of the corresponding averages. The values of the relevant statistics are calculated according to the Student's t-test and the results are illustrated in Table 5.

Table 5. The results of the relevant statistics

<table>
<thead>
<tr>
<th>Calculation of statistics</th>
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<tbody>
<tr>
<td>t1</td>
</tr>
<tr>
<td>–3,56</td>
</tr>
</tbody>
</table>

The difference in sample averages cannot be explained only by the influence of random factors. Even when conducting the diagnosis of students on the basis of the second task (the implementation of a school song from the elements of dance movements), the differences are statistically significant.

This fact allows us to talk about the indirect influence of the experimental methodology on the formation of students' motivation to professional creativity (increased interest in the search and implementation of their own ways and methods of management school artistic groups, combining well-known ways of dance activities with new, original, design and prediction of creative results in future professional activity, to the process of creating an effective interpretation of the song (finding a unique image and related his development, mise en scenes), his own emotionality and expressiveness, due to self-identification in a musical way; the growth of the quality of singer’s skills, stage reliability, etc.

Conclusion

Thus, during the period of studying under the program of the special course “Professional-creative formation of the personality of the future teacher of art by means of choreography” in the experimental group unlike the control, the indicators of creative abilities of students have significantly increased. We consider significant changes in this ratio to the materials listened to by the participants of the experimental group of the special course, participation in the conduct of master classes, the use of active teaching
methods, the inclusion in the process of teaching creative tasks, ensuring a stable positive motivation for choreographic activities.

The focus of professional training on creativity in accordance with the individual learning trajectory of the student, active participation in master classes, rather high informative content of the given special course, creation of the creative and acmeological environment contributed to the careful treatment of psychophysiological health, personal and cultural growth of subjects of the educational process, improvement of musical performance and choreographic skills of musical art future teachers, development of their creative abilities.

Concluding the pedagogical interpretation of the effectiveness of the final stage of the study, it can be argued that the application of the interdisciplinary approach for the development of creative abilities of the musical art future teacher by means of choreography effectively influences the improvement of the quality of vocational training, which will help him in the future better to convey the essence of musical image to students, show greatness and the beauty of art in general, to develop high feelings in them, to form spiritual values.

Prospects for further development of the problem are seen in the deepening of the structural and content analysis of the creative process, the search for ways to enhance the creative focus of professional training of the musical art future teacher by means of choreography.

References


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