

**ENSEMBLE AND ORCHESTRAL TYPES OF MUSIC-MAKING BY
CLARINETISTS AS PEDAGOGICAL TECHNOLOGIES**

***MANEIRAS DE FAZER MÚSICA DE CONJUNTO E ORQUESTRA POR
CLARINETISTAS COMO TECNOLOGIAS PEDAGÓGICAS***

***TIPOS DE ELABORACIÓN MUSICAL DE CONJUNTO Y ORQUESTA POR
CLARINETISTAS COMO TECNOLOGÍAS PEDAGÓGICAS***

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ABSTRACT: The research deals with the pedagogical problem of using collective music-making. Evaluation results of pedagogical observation in two groups of 1st year students in the music university were used as research materials. The representative sample was composed by 75 students selected by mechanical sampling. The research methodology includes the methods of general scientific group, and special methods: content analysis of scientific literature, the method of included pedagogical observation, the method of statistical analysis using the advanced analytics program Neural Designer. In conclusion, the introduction of an educational ensemble and an orchestra into the process of learning to play the clarinet makes it possible to enrich the musical-theoretical and practical performing experience of clarinet students, to maximize the genre-thematic, technical, educational and artistic concert repertoire of clarinetists, to form in the participants of the experimental educational ensemble analytical variant thinking and the ability to make a single interpretation and performance decision.

KEYWORDS: Clarinet. Ensemble. Pedagogical technologies.

RESUMO: *A pesquisa trata do problema pedagógico do uso do fazer musical coletivo. Os resultados da avaliação da observação pedagógica em duas turmas de alunos do 1º ano da universidade de música foram utilizados como materiais de investigação. A amostra representativa foi composta por 75 alunos selecionados por amostragem mecânica. A metodologia de pesquisa inclui os métodos de grupo científico geral, e os métodos especiais: análise de conteúdo da literatura científica, o método de observação pedagógica incluído, o método de análise estatística usando o programa de análise avançada Neural Designer. Em conclusão, a introdução de um conjunto educativo e de uma orquestra no processo de aprendizagem do clarinete torna possível enriquecer a experiência musical-teórica e prática performativa dos alunos de clarinete, para maximizar o repertório de concertos de gênero-temático, técnico, educativo e artístico de clarinetistas, para formar nos participantes do conjunto educacional experimental o pensamento variante analítico e a capacidade de tomar uma decisão única de interpretação e performance.*

PALAVRAS-CHAVE: Clarinete. Conjunto. Tecnologias pedagógicas.

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RESUMEN: La investigación aborda el problema pedagógico del uso de la creación musical colectiva. Los resultados de la evaluación de la observación pedagógica en dos grupos de estudiantes de 1er año en la universidad de música se utilizaron como materiales de investigación. La muestra representativa estuvo compuesta por 75 estudiantes seleccionados por muestreo mecánico. La metodología de investigación incluye los métodos de grupo científico general y métodos especiales: análisis de contenido de la literatura científica, el método de observación pedagógica incluida, el método de análisis estadístico utilizando el programa de análisis avanzado Neural Designer. En conclusión, la introducción de un conjunto educativo y una orquesta en el proceso de aprendizaje del clarinete permite enriquecer la experiencia musical-teórica y práctica interpretativa de los estudiantes de clarinete, para maximizar el repertorio de género-temático, técnico, educativo y artístico de clarinetistas, para formar en los participantes del conjunto didáctico experimental el pensamiento analítico variante y la capacidad de tomar una única decisión interpretativa y performativa.

RESUMEN: Clarinete. Conjunto. Tecnologías pedagógicas.

Introduction

The relevance of the research topic is because the clarinet is one of the main instruments of the Jewish tradition of ensemble music making. In the context of the latter, the most diverse types of technique are used, determined by the different setting of the lips, the use of quarter-tone intervals, ascending and descending glissando etc. (NORTH,2020). Among the famous clarinetists of this genre are N. Brandwein, G. Feidman, D. Krakauer, G. Goldenstein (SERKOV, 2020). Collective music-making contributes to the intensive development of all types of musical ear. Harmonic hearing often lags behind melodic. A student can freely handle monophony, but, at the same time, experience difficulty with auditory orientation in the polyphony of a harmonic warehouse. Reproducing polyphony, chord vertical are especially favorable conditions for the development of harmonic ear (Weiss,2018).

The clarinet has gained its distribution not only in Europe, but also in a number of Asian countries. For example, the «*dan huang*» is very popular in China, the *bure* (a wind instrument, which is a type of clarinet) in Mongolia, the «*zummará*» (the double «clarinet» of the Bedouins, in fact, another version of the classical model of the instrument), is very popular in Saudi Arabia, etc. (PÀMIES-VILÀ; HOFMANN, 2020).

For the professional training of clarinet players in educational institutions to meet modern educational goals, professional performance needs, and sociocultural requirements, it is necessary to supplement the traditional clarinet learning process with intensive forms of collective learning.

One of the most effective forms of collective learning are the instrumental ensemble and orchestra. The experience of many teachers - leaders of ensembles and orchestras shows that such collective learning and creativity contribute to:

- 1) increasing the level of professional skills;
- 2) development of musicians' communication and performing skills;
- 3) activation of analytical variational thinking, creative initiative;
- 4) enrichment of the genre spectrum of the concert repertoire;
- 5) expansion of professional performing, pedagogical, creative, socio-cultural opportunities of musicians.

An analytical study of the existing methods and forms of teaching musical performance led us to the hypothesis that the above results can be achieved through the intensification of the collective educational and performing students' activities, in particular, by organizing a training ensemble and orchestra. It was assumed that the specially selected composition would allow achieving the highest possible professional performance, general educational and socio-cultural results.

The appearance of the clarinet significantly enriched the performing possibilities, introduced a unique timbre of extraordinary beauty into the orchestral palette. The scores acquired a complete connection between the wood and brass instruments of the orchestra. In the 18th century, the clarinet virtuosos were so skillful that in 1764 Mozart, having first heard the clarinet in London, was completely subdued by it and began to actively use it (YU, 2017).

This significantly strengthened the position of the clarinet in orchestral music and finally formed the composition of the wind instruments in the symphony orchestra. The clarinet became an essential instrument of the Rococo and later of the Classical style. An outstanding work that opened up new timbre possibilities of the instrument, especially its lower register, the sounds of which are achieved with the help of three additional valves and, with a small air flow, thick sound, with a certain hint of ringing and humming, is Mozart's Concerto for clarinet and orchestra A-dur by Mozart.

The key of A major gave the timbre of the clarinet a truly sunny brilliance. In the 19th century, wind instruments experienced the next stage of improvement. The craftsmen proposed new valve designs, which expanded the technical capabilities of the clarinet. In the 19th-20th centuries, the so-called Klose-Buffer-Bohm system was formed. The Parisian virtuoso clarinetist G. E. Klose, together with the instrumental company L. Buffet, develops the system of the German flutist T. Boehm, who proposed ring valves that tightly cover the holes (BATTIPAGLIA, 2019).

As a result of this, the clarinet sounded more even throughout the scale, the intonation and legato performance became better. The gap in sound production was eliminated and the orchestral range was significantly increased, allowing composers to create various images in the lower, middle and upper registers of wind instruments. Then, improvements in mechanics of the clarinet lead it to modern forms: small, alto, tenor, bass and contrabass varieties appear (BORODINA, 2017). Not all of them have found application in orchestral practice. The grand clarinet (building B-flat), the small clarinet (building E-flat) and the bass clarinet (building B-flat) were used. From that moment on, composers paid special attention to the instrument - they began to write solo music for it. The most interesting work for wind instruments was the concerto for clarinet in A with the orchestra by V.-A. Mozart (YU, 2017).

The systematic implementation of various creative tasks, in our opinion, should have led to the following pedagogical results: activation of analytical variational thinking; acquiring the skills of working in a «team» with the adoption of a single decision in the discussion; formation of individual creative initiative; disclosure of personal qualities and abilities; the development of discipline in the team, responsibility to comrades for their actions; the communication skills; enrichment of musical-theoretical and practical performing experience; expansion of professional and performing opportunities.

In order to prove the above theses, we conducted an empirical study among students of a music university.

Materials and methods

Evaluation results of pedagogical observation in two groups of 1st year students of the music university were used as research materials.

The general sample of students was 750 people. The representative sample was 75 students selected by mechanical sampling. Two groups of 25 people participated in the experimental sessions. We also formed a control group of 25 people, in which experimental classes were not conducted. For classes, such musical works for clarinet as Sonata for Clarinet and Piano by Bernstein, Rhapsody in Blue by Gershwin, Sonatina for Clarinet and Piano by Arnold (ensemble music playing) were used; Clarinet Concerto by Finzi and Symphony No. 5 by Shostakovich (orchestral music).

In the course of the empirical study, we organized the activities of five educational ensembles (a total of 50 clarinet musicians).

One academic hour a week, clarinetists, flutists and accordionists studied in the class of an educational ensemble under the guidance of clarinet, flute and accordion teachers. And one academic hour per week, students worked through the technical and artistic-expressive difficulties of their ensemble parts individually with their teachers in the specialty.

The methodological and didactic content of the experimental classes of the educational ensemble remained standard.

However, the curriculum core was the ensemble repertoire specially formed and instrumented by us, as well as the system of creative tasks.

In the course of pedagogical observation, we evaluated the following criteria for ensemble and orchestral music-making:

- the professional skills among the students;
- the level of communication and performance skills;
- activation of analytical variational thinking, creative initiative;
- enrichment of the genre spectrum of the concert repertoire;
- expansion of professional performing, pedagogical, creative, socio-cultural opportunities of musicians.

The material was collected in several stages, conditioned by the research logic and objectives. The empirical study was carried out in three stages.

Table 1 – Stages and timing of empirical research

Empirical research stages	Survey schedule
Research of methodological background	1-17. 09. 2021
Survey (pedagogical observation)	18-20. 09. 2021
Collecting and analysis of the material	21-30. 09. 2021

*Time of study 2021. Authors observations

Source: Devised by the author

The research methodology is based on a systematic approach and includes the methods of the general scientific group (analysis, synthesis, induction, deduction); as well as special methods: content analysis of scientific literature, the method of included pedagogical observation, statistical analysis using the advanced analytics program Neural Designer.

This analysis technique made it possible to summarize the assessments of 75 students for each of the analysis criteria.

Table 2 – Methods for assessing students' groups result

Criterion	Rating scale for performing skills
Professional skills	1-3 low; 4-6 average; 7-10 high level
Communication and performance skills	1-3 low; 4-6 average; 7-10 high level
Analytical variative thinking	1-3 low; 4-6 average; 7-10 high level
Creative initiative	1-3 low; 4-6 average; 7-10 high level
Concert repertoire spectrum	1-3 low; 4-6 average; 7-10 high level
Social and cultural opportunities	1-3 low; 4-6 average; 7-10 high level

*Time of study 2021. Authors observations

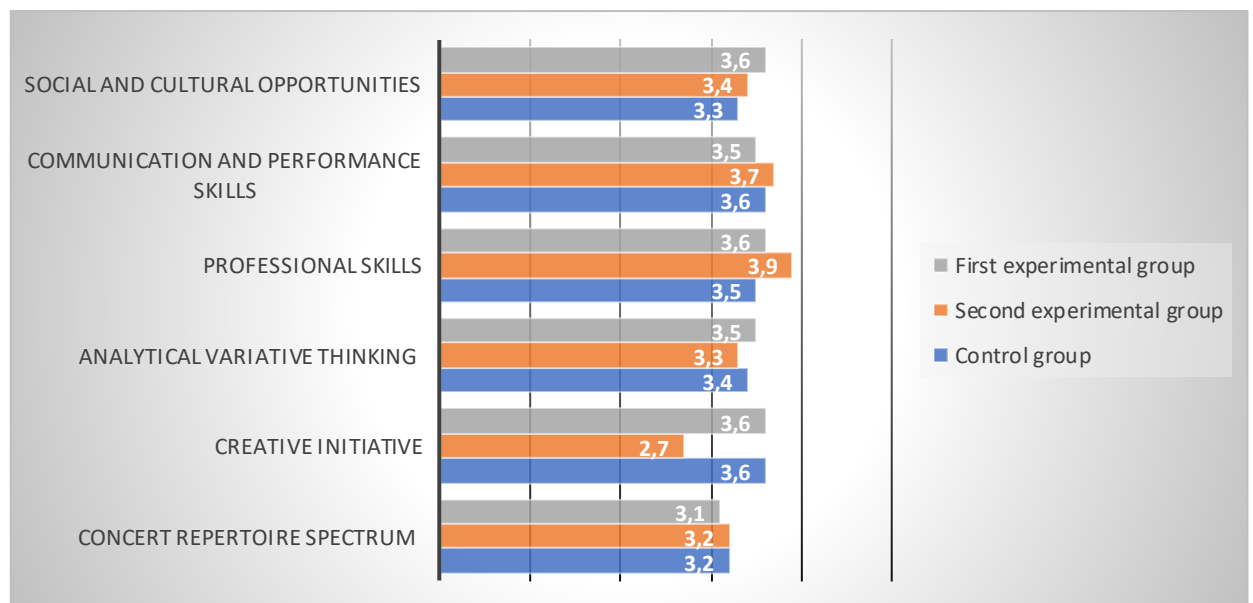
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The method of analysis proposed by us made it possible to translate the qualitative results of pedagogical observation into quantitative data.

Results

A preliminary survey of the level of professional skills according to the calculation method proposed by us gave the following results (Figure 1).

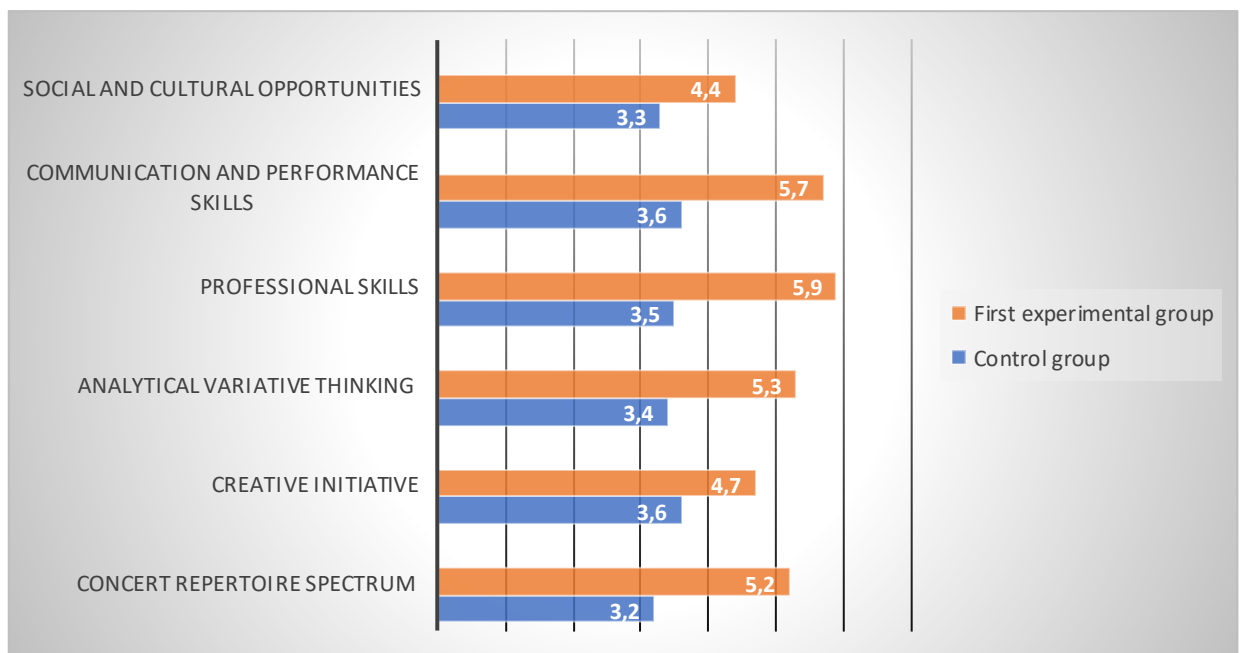
Figure 1 – Results of a preliminary assessment of the level of professional skills in the control and two experimental groups (compiled by the author using the Neural Designer program in 2021)



Source: Devised by the author

As can be seen from the data shown in Figure 1, among 1st year clarinetists, almost all professional skills, including the communicative and creative sphere, turned out to be at a low level. Unfortunately, this situation is not surprising, since in music schools, in pre-university training of musicians playing the clarinet, the emphasis in the educational process is on the solo program.

Figure 2 – Comparison of the level of professional skills in the control and 1st experimental group after experimental classes (compiled by the author using the Neural Designer program)



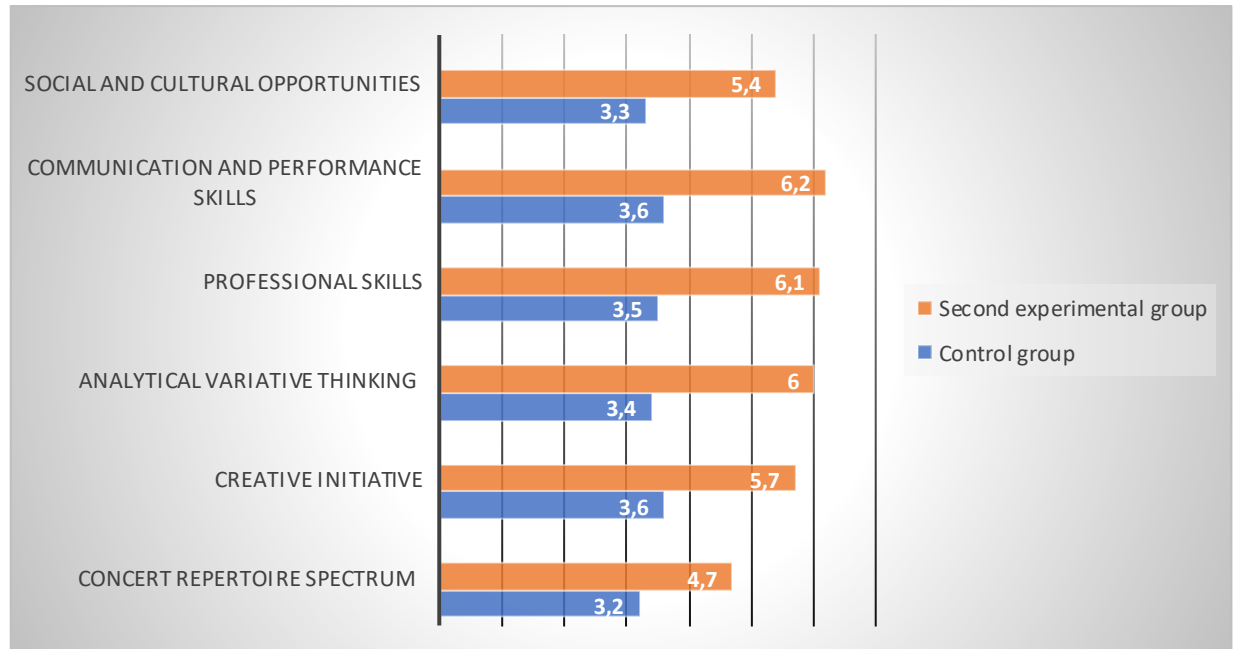
Source: Devised by the author

After we conducted a series of experimental lessons in the first group of clarinetists using Sonata for Clarinet and Piano by Bernstein, Rhapsody in Blue by Gershwin, Sonatina for Clarinet and Piano by Arnold (ensemble music); Clarinet Concerto by Finzi and Symphony No. 5 by Shostakovich (orchestral music making), the following results were obtained (Figure 2).

As can be judged from the data shown in Figure 2, in the first group of students after ensemble and orchestral music-making, the level of professional skills reached an average level, and in some parameters the effectiveness of the collective music-making technique showed a doubling of the indicators compared to the control group.

A similar result, with slight positive deviations, was obtained in the second group of clarinet students (Figure 3).

Figure 3 – Comparison of the level of professional skills in the control and 2nd experimental groups after experimental classes (compiled by the author using the Neural Designer program)



Source: Devised by the author

As can be judged from the data shown in Figure 3, students of the second group showed higher results in analytical variant thinking, in professional skills, as well as in terms of communication and performance skills. These results are especially noticeable in comparison with the control group, in which there were no classes in collective music making.

From the data presented by us, the result obtained turned out to be the highest due to the pedagogical experience we have accumulated, which made it possible, in the process of repeating the formative experiment, to make some organizational, methodological and psychological and pedagogical changes in the work of instrumental ensembles, to improve the method of organizing the class of the educational ensemble.

The students, participating in the experiment, showed a broad musical and theoretical outlook, professionally performing poly-functionality in the field of ensemble technique, unlimited genre-thematic, artistic and expressive possibilities, a formed, holistic, creatively proactive individual nature, that is, complete readiness for further broad educational and performing activities.

Discussion

The theses formulated by us during empirical research are confirmed in the works by such authors as V. M. Apriamov (2017), V. A. Battipaglia (2019), T. I. Borodina (2017), J. Ellsworth (2021), N. A. Frolova (2015).

As we also found in our study, orchestral music-making implies a higher level of performing and professional skills. This thesis and result are also noted in the studies by J. D. Gabriel and W. L. Coyle (2019), E. V. Gordeyeva (2019), J. T. Hinton (2021), E. A. Kaminskaya and S. V. Dedov (2021), S. L. Lawrence (2021).

Our results are also supported in studies by V. M. North (2020), A. Olmos and N. A. Bouillot (2020), M. Pàmies-Vilà and A. Hofmann A. (2020), B. Rash (2020), E. A. Rybalko (2021), The effectiveness of the technique application of ensemble music-making has been proven in the works by authors such as S. J. Scott (2020), K. S. Serkov (2020), A. Slis, K. Wolak and A. Namasivayam (2017), E. A. Stepenko (2021), T. A. Taillard (2018).

Our results on the effectiveness of collective music-making for the formation of professional skills of clarinetists are also confirmed in the works by authors such as A. E. Weiss, M. Nusseck and C. Spahn (2018), V. I. Zagursky (2021), Zhang Mini (2021), Zhao Yu (2017).

Nevertheless, despite the extensive scientific literature on the topic, the effectiveness of music-making methods in the modern musical education of clarinet students requires additional study. In this context, the following areas of research seem promising: musical orchestral pedagogy for the clarinet, pedagogical conditions for the formation of the ability to work in an ensemble for clarinetists, as well as pedagogical techniques for developing the professional skills of clarinetists.

Conclusion

Based on the empirical study results, the following conclusions can be drawn. The introduction of the didactic principle of developmental education into the process of learning to play the clarinet in the form of a specially organized class of the educational ensemble allows: to enrich the musical-theoretical and practical performing experience of clarinet students, to expand the genre-thematic, technical, educational and artistic concert repertoire of clarinetists as much as possible; to form in the participants of the experimental educational ensemble analytical variant thinking and the ability to make a single interpretation and performance decision; to develop students' discipline, responsibility, as well as communication and organizational skills for working in ensembles with different instrumental composition; reveal

individual creative initiative, personal qualities and abilities of musicians; to expand the professional-performing, educational and socio-cultural perspectives of graduates. The results of the experimental research experience were carefully analyzed in terms of modern problems and trends in musical performance pedagogy and systematized for students of musical and pedagogical faculties.

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