

**Impact of a chamber orchestra in the university environment: analysis of the development of artistic and cultural skills**

O impacto de uma orquestra de câmara no ambiente universitário: análise do desenvolvimento de competências artísticas e culturais

Impacto de una orquesta de cámara en el ámbito universitario: análisis del desarrollo de competencias artísticas y culturales

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[ing.elizabethlaica@hotmail.es](mailto:ing.elizabethlaica@hotmail.es)**ABSTRACT**

The objective of this research was to explain the importance of the creation of the chamber orchestra established in the Faculty of Human Education Sciences and Technologies, the career of Pedagogy in Arts and Humanities of the National University of Chimborazo in the year 2023, through the review of scientific data and theoretical foundation, in order to demonstrate the musical and cultural artistic development. The research had a qualitative approach by virtue of the fact that a more personal interaction was required, and the level of research was analytical-synthetic, inductive - deductive, which helped to form the theoretical considerations of the chamber orchestra and its purpose in the university environment. Applying the technique of interviewing students and art professionals with trajectory and transcendental characteristics for the research. As results were obtained that the creation of the chamber orchestra has substantial benefits for university students, demonstrating improvement in discipline, development of skills, attitudes, and abilities, achieving academic, social-cultural benefits, encouraging teamwork and collaboration through practice and group performance in addition to gaining stage experience, which is crucial for the student of music and other fields related to the arts. The chamber orchestra, considered a jewel in the world of classical music, promotes the cultural and social diversity of the university community.

**Keywords:** Culture, music, chamber orchestra, skill, music performance, university.**RESUMO**

O objetivo desta pesquisa foi explicar a importância da criação da orquestra de câmara estabelecida na Faculdade de Ciências e Tecnologias da Educação Humana, carreira de Pedagogia em Artes e Humanidades da Universidade Nacional de Chimborazo no ano de 2023, para através da revisão de dados científicos e fundamentação teórica, a fim de demonstrar o desenvolvimento artístico, musical e cultural. A pesquisa teve abordagem qualitativa visto que era necessária uma interação mais pessoal, o nível de pesquisa foi analítico-sintético, indutivo-dedutivo, o que ajudou a formar considerações teóricas como a orquestra de câmara e sua finalidade no ambiente universitário. Aplicar a técnica de entrevista a estudantes e profissionais de artes com trajetória e características transcendentais para a pesquisa. Os resultados mostraram que a criação da orquestra de câmara traz inúmeros benefícios para os estudantes universitários, demonstrando o aprimoramento da disciplina, o desenvolvimento de competências, atitudes e habilidades, alcançando benefícios acadêmicos, socioculturais, promovendo o trabalho em equipe e a colaboração por meio da prática e performance em grupo. além de adquirir experiência de palco, fundamental para o estudante de música e outras áreas relacionadas às artes. A orquestra de câmara, considerada uma joia no mundo da música clássica, promove a diversidade cultural e social da comunidade universitária.

**Palavras-chave:** Cultura, música, orquestra de câmara, habilidade, performance musical, universidad.**RESUMEN**

El objetivo de la presente investigación fue explicar la importancia de la creación de la orquesta de cámara establecida en la Facultad de Ciencias de la Educación Humanas y Tecnologías, carrera de Pedagogía en Artes y Humanidades de la Universidad Nacional de Chimborazo en el año 2023, a través de la revisión de datos científicos y fundamentación teórica, con el fin de demostrar el desarrollo artístico musical y cultural. La investigación tuvo un enfoque cualitativo en virtud que se requirió una interacción más personal, el nivel de investigación fue el analítico-sintético, inductivo - deductivo, que ayudo a formar las consideraciones teóricas como la orquestra de cámara y su finalidad en el entorno universitario. Aplicando la técnica de la entrevista a estudiantes y profesionales del arte con trayectoria y características transcendentales para la investigación. Como resultados se obtuvieron que la creación de la orquesta de cámara tiene cuantiosos beneficios para los estudiantes universitarios, demostrando mejora en la disciplina, el desarrollo de habilidades, actitudes y destrezas, logrando beneficios académicos, sociales-culturales, fomentando el trabajo en equipo y la colaboración a través de la práctica y la interpretación grupal además de ganar experiencia en escenario, lo que es crucial para el estudiante de música y otros campos relacionados con las artes. La orquestra de cámara, considerada como una joya en el mundo de la música clásica, promueve la diversidad cultural y social de la comunidad universitaria.

**Palabras clave:** Cultura, música, orquestra de cámara, habilidad, interpretación musical, universidad.**ARTICLE HISTORY****Received:** 16-01-2023**Revised Version:** 11-03-2024**Accepted:** 21-03-2024**Published:** 15-04-2024**Copyright:** © 2024 by the authors**License:** CC BY-NC-ND 4.0**Manuscript type:** Article**ARTICLE INFORMATIONS****Science-Metrix Classification (Domain):**

Arts &amp; Humanities

**Main topic:**

Music activities in the university environment

**Main practical implications:**

This paper contributes empirical evidence in favor of the implementation of structures such as a chamber orchestra. In the context of underdeveloped countries where investments in science, culture and art are usually limited, the evidence presented here can contribute to the political debate for decision making in favor of these initiatives for cultural development.

**Originality/value:**

The study addresses a topic that has been little explored by regional science, especially in Ecuador. It is original in the sense that presents evidence as well as contributes with a proposal of meaning in favor of culture and artistic development in the university context.

## INTRODUCTION

The useful is the great idol of the age, to which all forces must submit and to which all talents must pay homage. On this coarse scale, the spiritual merit of art carries no weight and, deprived of all encouragement, disappears from the noisy marketplace of the century. (Schiller, 2016, p. 57).

Music is one of the most essential activities for both personal and academic development. In the university environment, extracurricular musical activities, including chamber orchestras, offer unique opportunities for students' intimate and social growth. It is known that music and sports are used as strategies to cope with stress in schools or universities (Gomez et al, 2021; Rivas-Rosero & Garcia-Caicedo, 2023).

The present research work is fundamental because it focuses on exploring how a chamber orchestra at the university can influence the well-being and general development of the participants. The central problem lies in the fact that the absence of this type of grouping limits the artistic musical development of the students' skills and abilities.

Research into the effects of dormitory ensembles on the artistic achievement of university students is absolutely necessary to understand the overall value of extracurricular musical activities. Research has shown that participation in chamber music productions, such as chamber orchestra, can significantly enhance students' cognitive abilities, social skills, and emotional well-being (Hallam, 2010; Perkins et al., 2018).

Hallam (2010) conducted a longitudinal study that examined the effects of group music exposure on academic achievement and personal growth among adolescents. Findings indicated that students who frequently studied groups showed improvement in concentration, time management and self-discipline, all of which can transfer to a learning environment.

Furthermore, Perkins et al. (2018) investigated the psychosocial benefits of group music participation among university students. Their qualitative study found that students reported improvements in feelings of belonging, friendship, and trust through collaborative music production. These findings highlight the importance of creating supportive environments such as chamber musicians group in educational institutions to enhance the overall well-being and personal development of the students.

In summary, the empirical evidence suggests that the lack of chamber orchestras in universities can indeed hinder students' musical arts development and deprive them of valuable opportunities for growth and they have gained wealth. By establishing such music clubs, universities can provide space for students to enhance their technical skills, artistic expression and social interaction, enhancing their learning and personal experiences.

In this line, this article starts from the following question; Does the absence of the chamber orchestra in the university limits the musical artistic development? The general objective is to explain the importance of creating spaces that allow the students of the Arts and Humanities career to improve their interpretative skills, for this purpose, the review of scientific data and theoretical foundation that allows enriching the cultural life of the campus and promoting music in the social environment is carried out.

In the first section of the research article, the theoretical foundation of chamber orchestras, their origin, etc. will be presented. In a second section, the importance of the creation of a chamber orchestra is mentioned, through scientific information and theoretical foundation. Finally, the findings found during the creation of the chamber orchestra will be determined, one of them being to provide students with the opportunity to participate in rehearsals, performances and concerts, allowing them to improve their technical and artistic skills.

### **Overview of the literature: chamber orchestra**

In this regard the chamber orchestra is a reduced group of instrumental performers, of between 20 to 30 members approximately, (unlike a symphony orchestra that is made up of 40 to 60 members and a little more), established by different family groups such as: The orchestra will be in charge of a director who will arrange its repertoire, which will consist of the execution of diverse musical genres, from the academic music of the great master composers of history, to Latin American music, and national music depending on its country of origin.

According to (Lopez, 2015) states:

#### **Characteristics**

A chamber orchestra has four main sections. These are brass, woodwinds, percussion and strings. There may also be a piano. The woodwinds are instruments such as the reed bassoon, oboes and clarinets, and also flutes and piccolos. Brass instruments are the horns, such as the trumpet, trombones and French horns. Percussion instruments are drums, tympani, cymbals and the like. Stringed instruments are violins, cellos and other members of the string family such as basses and violas. (p. 4).

The chamber orchestra, Radice (2012) mentions that "to understand what a chamber orchestra is, the term "chamber" is used. In music, this word is basically used to refer to three things: chamber (Kammer) was the name given to the private rooms of the prince and his family (p. 36).

### **Other authors have stated the following:**

Finally, the term chamber music is used to refer to music played by small instrumental ensembles (duos, trios, quartets, etc.) and has a different logic than orchestral music, since each part of the music is played by a single instrument and not by a group of equal instruments (for example, in the orchestra normally between 14 and 18 violins play the same part, the first violin or second violin), which exposes the participation of each musician in the totality of the sonority (Latham, 2008, p. 36).

### **Development of Musical Skills**

This talent is acquired naturally, transmitted by their parents through genetic material, and is developed through a process by which an individual in a short time and through individual practices and instrumental techniques manages to develop great abilities and skills in the musical field. In this regard, Guerra and Quintana (2007) state that "musical ability or aptitude could be defined as the characteristic that differentiates people with musical abilities from those who do not have them" (p.110).

On the other hand, Akochky (2014) argues that one is born musical but the skills that allow an approach of music to the human being do not appear after birth, but are the result of a complex intrauterine evolutionary process, which begins to appear with the development and formation of the nervous system and auditory organs.(p.34)

### **Interpretive skills**

It consists of a correct interpretative execution of the melodic phrases found in a musical work, this consists of a meticulous musical reading, respecting the guidelines that the diverse compositions have such as: dynamics, time marks, time alterations, expressive text, technique text, rehearsal marks, miscellaneous, articulations, and among other detailed expressions found in a score, as well as the timbre sonority of the instrumentalist that consists of having a pleasant, audible, pleasant sound.

As stated by Malbrán (2009)interpretation skills, considered the first in importance by orchestral musicians, included such precisions as: phrasing and integrating musical lines of thought in a consistent manner, precise articulation of musical discourse, speculation with sound quality and dynamic-agogic resources, showing intelligence to unravel the work, creative attitude towards the interpretation of a work, intuition, going beyond the data of the work.

Aggregate" knowledge of the signs of the score, understanding of the structure of the work (harmonic, contrapuntal, melodic components, search for meaning (not influenced by others' interpretations), and communication of internal states and empathy with the work. That is, they ponder high-level cognitive skills and describe metacognitive skills. (p. 26).

### **Integral formation**

It is one that seeks a formative and comprehensive development of the student relating it to society through various personal and social skills, critical thinking, critical thinking, aesthetic, ethical, affective sensitivity, and social responsibility, in different university students, in order to prepare them for the challenges they will face in their daily personal and professional life. In this regard, Guerra, Mórtigo and Berdugo (2013) state the following:

The "well-being" of the person must be understood as a contribution to the training process, implemented through various strategies that allow the recognition of the integrality of the human being, from the recognition of its biological, socio-affective, intellectual, social, cultural, axiological and political dimensions that generate elements of identity that contribute to highlight the characteristics of the individual and the community. (p. 68).

On the other hand, we can establish that music is a means by which the university student can develop an integral formation with society; therefore, it is fundamental in university education to encourage the practice of music and the creation of more chamber orchestras in the different universities. As stated by other authors:

Music education should not be considered as a single priority for those who want to enhance their talent, but as a fundamental component to be developed in the human being from the first years of life, as an agent that enhances the different cognitive, social, communicative and cultural competences (Velecela, 2020, p.1).

As stated by Reynoso (2010) that "musical interventions bring benefits to the human being, both in the medium and long term, as long as they are carried out systematically and continuously" (p.54).

### **Impact on academic performance:**

Achievement or success obtained, which the student has generated through his academic studies, and can be measured through his grades achieved through exams, school projects and participation in different academic activities of a particular institution. In this regard, Pérez and Gardey (2021) state the following:

Academic performance refers to the evaluation of knowledge acquired at school, college or university. A student with good academic performance is one who obtains positive grades in the exams he/she must take during the course of study. In other words, academic performance is a measure of the student's abilities, which expresses what the student has learned throughout the educational process. It also implies the student's ability to respond to educational stimuli. In this sense, academic achievement is linked to aptitude. (p. 1)

On the other hand, music is one of the factors that help brain development allowing the individual to improve their cognitive, sensory and motor coordination skills, which is why practicing a musical instrument helps to improve the academic performance of students. According to the Venezuelan Symphony Orchestra (2023) states: Music not only provides us with moments of inspiration and relaxation. It can also be a powerful ally in improving students' academic performance. Several studies have shown that music education leads to higher test scores. This is because learning and playing a musical instrument is a complete exercise for the brain. It helps develop cognitive skills crucial for learning, such as memory, pattern recognition, logic, and analytical thinking. (p.1) Considering this description, it is important to maintain an instrumental practice workshop where students can demonstrate their musical skills, thus improving epistemological skills and academic performance.

### **Inclusion and diversity**

It is an environment where all individuals regardless of their ethnic, religious, cultural, gender, socioeconomic, physical abilities, sexual orientation, mental, feel appreciated, respected with the same opportunities and equality to learn and participate in university life. This variety dignifies learning by obtaining different aspects and experiences in the classroom, in this way inclusion ensures that all these perspectives are heard, valued and respecting their personal criteria of each individual. According to Rivera (2023) " Inclusive Education and Diversity encompass several aspects, one of them is the institutional culture, which refers to the set of attitudes and values of an educational community, aimed at promoting a respectful and tolerant environment in the face of diversity" (p. 9451).

### **Other perspective from the literature**

Educational inclusion Current conceptions of educational inclusion, which are broader and more comprehensive, have led to attempts to guarantee access to education in the different educational systems, but if we seek to achieve true educational inclusion, this goal is insufficient.

It is true that this is a first step , but it is still necessary to offer an education adapted to all, where both the disparate realities that students may have, for socioeconomic or socio-cultural reasons, and the educational needs and learning rhythms of each student and their characteristics are taken into account. To achieve this requires a transformation of the educational policies of the different countries and of the educational centers or institutions themselves (García, 2017, p. 59). Inclusion generates an environment where all individuals regardless of their ethnic, cultural, gender, socioeconomic, physical abilities, sexual orientation, mental, feel appreciated, respected with the same opportunities and equality to learn and participate in university life. This variety dignifies learning by obtaining different aspects and experiences in class, in this way inclusion ensures that all these perspectives are heard, valued and respecting their personal criteria of each individual.

According to Gil and Morales (2019) attention to diversity in educational institutions leads to institutions where it is understood that social differences are revealed in them, where there are no inequalities or privileges in the education of students, where an inclusive education is reflected from the attention to educational needs and within them to special educational needs. Universities, as the highest exponents of the scope of a professional level, need to transform their educational practices in a way that offers everyone what is most beneficial to advance in their personal and professional growth based on who they are, where they belong and from an inclusive university context. (p.161).

## **METHODOLOGY**

An in-depth study was conducted at the university and the chamber orchestra was established, mixed methods including interviews and document analysis were used to collect data on the student experience and the perception of the university community at large.

### **Perspective and degree of research**

The research work on the lack of a Chamber Orchestra in universities has hindered students' opportunities to develop

their talent, abilities, musical skills, besides negatively affecting the cultural and artistic environment of the campus, depriving the university society of enriching symphonic and didactic concerts. The qualitative approach was used because interviews were conducted with art professionals and the university community. The level of research was exploratory because there are no studies on the subject.

**Research techniques applied**

Analytical-synthetic system allowed to carry out an analysis on the chamber orchestra, origin, importance. Etc. Inductive-deductive method that equated symphony orchestras with chamber orchestras, in addition to an analysis of the repertoire, complexity and level of execution of the instrumentalists. Therefore, interviews were used as a research technique, which allowed the collection of relevant information on the impact of chamber orchestras at the university.

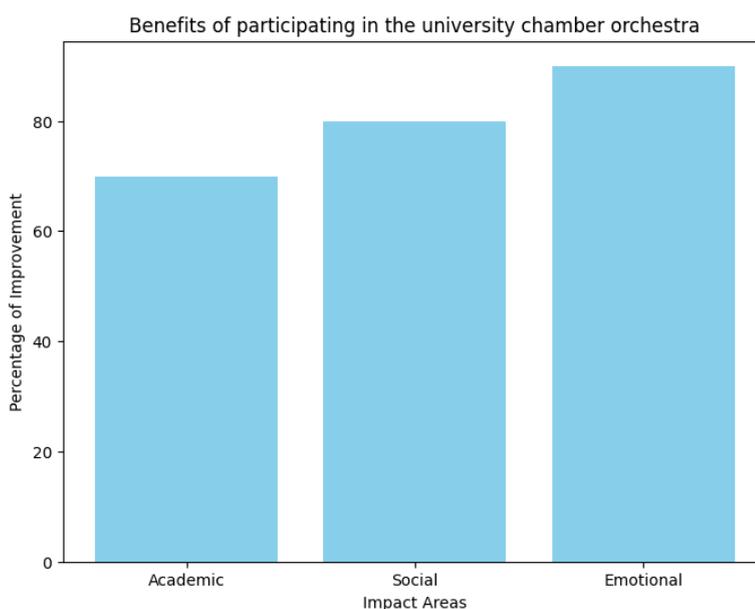
**Study universe and sample treatment**

The study focused on the university arts community as a target population, and realized its relevance to the research topic. Using a stratified sampling method, individuals highly involved in the university musical arts were selected, and ensured to be representative in terms of knowledge and engagement diversity. This method allowed for nuanced understanding of the impact of chamber ensembles get on students' artistic development in the campus-specific space.

**RESULTS AND DISCUSSION**

The results indicated that participation in the chamber orchestra has significant benefits for university students. Academically, an improvement in discipline, concentration and time management was observed among the participants. Socially, the orchestra provided a sense of community and belonging, facilitating new friendships and support networks. In addition, students reported developing teamwork, communication, and leadership skills. Emotionally, music was identified as a source of satisfaction, stress relief, and emotional expression for students. Participation in the college chamber orchestra yields vast blessings across numerous domains, as evidenced by way of the outcomes depicted within the bar chart in Figure 1. The have a look at tested the impact of engagement inside the orchestra on academic, social, and emotional factors of students' lives. Academically, college students experienced a remarkable improvement, with a 70% increase located in their discipline, awareness, and time control abilities. This enhancement underscores the orchestra's position in fostering attributes critical for academic achievement, inclusive of attention and enterprise. Socially, participation within the orchestra caused an 80% rise in students' sense of community and belonging. The collaborative nature of musical performance facilitated the formation of recent friendships and help networks amongst contributors.

**Figure 2.** Impact assessment



**Note.** Own author elaboration (2024)

Moreover, students mentioned developing teamwork, verbal exchange, and management competencies through

their orchestral involvement, enriching their social interactions each within and past the college network. Emotionally, college students benefited appreciably from their participation within the orchestra, experiencing a exceptional 90% increase in delight, pressure remedy, and emotional expression. Music served as a effective outlet for emotional launch and self-expression, contributing to students' universal well-being and resilience within the face of academic and personal demanding situations. These findings underscore the multifaceted effect of collaborating in the college chamber orchestra. Not only does it decorate college students' academic performance and social connections, however it additionally presents a meaningful street for emotional expression and increase. Thus, the orchestra serves as a valuable aid for promoting holistic improvement and enriching the college experience for its members.

The presence of a chamber orchestra in the university environment is of utmost importance both for the artistic development of the students and for the enriching cultural experience it provides to the academic community and the general public.

Firstly, the university chamber orchestra offers music students an invaluable platform to apply and hone the technical and artistic skills possessed by each of the students who have both empirical and academic musical knowledge. Through participation in individual rehearsals, group rehearsals by instrumental families, and concerts, students have the opportunity to collaborate with fellow musicians, explore diverse repertoire, and confront the interpretive challenges inherent in chamber music. This experience enriches their musical education by providing them with a deeper understanding of group dynamics, collaborative performance, and musical communication.

In addition, the university chamber orchestra plays a crucial role in the promotion of music appreciation in academic, Latin American, Ecuadorian national music genres, and of course in the cultural diffusion inside and outside the campus. The concerts offered by the orchestra provide an opportunity for the university community and local audiences to enjoy live performances of masterpieces from the chamber music repertoire, as well as lesser-known Ecuadorian music compositions. This contributes to the formation of educated and sensitive audiences, encouraging greater participation in the arts and strengthening the ties between the university and the surrounding community.

On the other hand, the university chamber orchestra faces unique challenges, such as limited resources, availability of adequate rehearsal space, and coordination of schedules among student participants. These challenges can affect the quality and continuity of the orchestra's activities, underscoring the importance of committed leadership, careful planning, and institutional support to ensure its long-term success. Thus, the presence of a chamber orchestra in the university environment is an invaluable asset that enriches the educational experience of music students and contributes significantly to the cultural environment of the university community and beyond. Its role as a platform for artistic development and cultural dissemination justifies its continued promotion and support within the university context.

### Value proposal

The implementation of a chamber orchestra at the university is crucial because it provides students with a platform to develop musical skills in a collaborative and professional environment. It also enriches the cultural life of the campus and fosters an appreciation for classical music among the university community. Its importance lies in nurturing musical talent, promoting creativity and strengthening the sense of community among students and faculty, as well as artistic development, personal evolution, contribution and teamwork, discipline, cultural diversity. Furthermore, it contributes to the personal and cultural development of the participants of the university community, through the presentation of concerts in different types of events. The chamber orchestra will be formed as follows:

**Figure 2.** Technical training for a university chamber orchestra



**Note.** The graph represents the minimum number of instruments and the location that each instrumentalist should have in a chamber orchestra. Own author elaboration (2024).

Unlike empirical evidence, which tend to focus exclusively on quantitative data and statistical analyses, our research takes a qualitative approach, exploring micro-experiences and perceptions of university students who participate in chamber choirs in the in depth. By incorporating interviews and personal data, we gain deeper insight into the multifaceted impact of orchestra participation on the academic, social and emotional aspects of students' lives. For example, Hallam (2010) conducted an ongoing study that examined the effects of group music participation on adolescents' academic achievement and personal development, highlighting the transferability of skills through independent music enter the emphasis. Similarly, Perkins et al. (2018) examined the psychosocial benefits of group music participation among university students, and shed light on the promotion of interpersonal development and emotional well-being in the music community. Furthermore, Rickard et al. (2013) investigated the psychological benefits of music education, showing positive effects on academic achievement and cognitive development of school-aged children.

In addition, Hille et al. (2011) conducted a meta-analysis on music intervention studies, which revealed the therapeutic effects of music on mental health and emotional well-being. Finally, Creech et al. (2013) explored the social benefits of group music making, emphasizing its role in fostering social integration and ownership among participants. This qualitative lens allows us to explore the complexity of individual development and interpersonal dynamics in the orchestra setting, and to complement quantitative findings with rich anecdotal descriptions of participants' experience.

Furthermore, while empirical research has generally prioritized generalizability and reproducibility, our study highlights the relevant contextual issues and unique challenges faced in a university chamber ensemble setting. We recognize the importance of considering organizational factors, priorities, and organizational dynamics in understanding the role of the choir and its implications for student achievement. By contextualizing our findings in a specific academic context, we offer insights and actionable recommendations tailored to the needs of the university, providing a nuanced understanding of the value of musicians group on the broader learning environment.

## **CONCLUSIONS**

This study highlights the value of the chamber orchestra in the university environment of the Faculty of Educational Sciences, Humanities and Technologies as a tool for the personal and social development of students in the Arts and Humanities Pedagogy Career.

The Chamber Orchestra at the university is important for several reasons. First of all, it provides students with the opportunity to develop and improve their musical artistic skills in an educational environment, in addition, it fosters collaboration and teamwork among students from different disciplines of the Faculty of Education, Human Sciences and Technologies of the National University of Chimborazo. The findings suggest that the university benefits from actively supporting and promoting extracurricular music activities for its students.

The creation of a chamber orchestra at the university provides opportunities for concerts and cultural events on campus and strengthens the identity and artistic reputation of the university by attracting student talent and contributing to the institutional and social culture. It also contributes to enriching the cultural life on campus and strengthens the ties between the institution and the local community through performances and concerts. In summary, the Chamber Orchestra at the university is important because it promotes the personal, academic and cultural growth of the students.

### **Main limitations of the study and future research**

One of the main limitations of the present day study is its reliance on self-report facts, which can be problem to biases which include social desirability and don't forget errors. Additionally, the study's pattern length and scope have been limited to a selected university context, doubtlessly restricting the generalizability of the findings to other educational settings. Future studies should employ large and greater various samples, such as members from various universities and cultural backgrounds, to beautify the outside validity of the findings.

Furthermore, longitudinal research may be conducted to discover the long-time period results of chamber orchestra participation on college students' instructional, social, and emotional improvement, presenting insights into the sustained impact of musical engagement over the years.

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**Contribution of each author to the manuscript:**

Task	% of contribution of each author			
	A1	A2	A3	A4
A. theoretical and conceptual foundations and problematization:	25%	25%	25%	25%
B. data research and statistical analysis:	25%	25%	25%	25%
C. elaboration of figures and tables:	25%	25%	25%	25%
D. drafting, reviewing and writing of the text:	25%	25%	25%	25%
E. selection of bibliographical references	25%	25%	25%	25%
F. Other (please indicate)	-	-	-	-

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