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# THE INVESTIGATION ON HARMONIC TEACHING STRATEGIES FOR THE EFFICIENCY DEVELOPMENT OF MUSIC LEARNING SKILLS: A CASE STUDY OF A JUNIOR MIDDLE SCHOOL IN CHINA

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## Abstract

The aims of this study are to encourage harmonic skills, assess cooperative learning teaching methods for teaching harmony in group piano classes, to enhance harmony abilities via the study of music and to study how learning music improves efficiency in order to foster harmony abilities. This study employs a mixed-methods approach, combining literature review, semi-structured interviews, participatory observation, and expert evaluation to investigate harmonic teaching strategies and music education at Nanjing Arts Institute Affiliated Middle School. The results shows that teachers' assessment of cooperative learning strategies in harmony teaching showed overall positive results. Individual teacher characteristics, especially teachers' gender, age and educational background, significantly influenced the selection of cooperative learning strategies. Students gave positive comments on the skill level, musical expression, harmonic understanding, collaborative coordination, and learning interest in teaching harmony. Individual characteristics of students such as gender, age and grade level have an impact on their assessment of the effectiveness of teaching and learning. The use of more comprehensive and targeted cooperative learning strategies is associated with higher levels of teaching effectiveness in group piano programs.

**Keywords:** Harmonic Teaching Strategies, Music Learning Skills, Junior Middle School

## Introduction

Teaching strategies are crucial tools for achieving instructional objectives in the teaching of music. The efficacy and motivation of students' learning are impacted by various teaching styles. Additionally, a key metric for evaluating instructional outcomes is teaching effectiveness. Depending on the teaching strategy used in group piano lessons, pupils' performance skills and

understanding of harmonics may vary (Yin, Z.F., 2020). Thus, a thorough investigation into the relationship between harmonic teaching techniques and instructional outcomes in piano lessons can aid in streamlining the learning process and raising the standard of instruction.

The educational theory and teaching approach known as cooperative learning places a strong emphasis on students working together, interacting, and co-constructing knowledge. Cooperative learning is considered an effective teaching technique in the realm of music education that enhances students' musical literacy and learning outcomes (Xu, 2021). In group piano lessons, cooperative learning can help students communicate and work together to address challenges related to technique and theory of music. In harmonic teaching, students can develop their understanding of music theory and harmonic building by practicing and discussing various harmonic phrases and techniques with one another, learning from one another, and sharing their experiences. Fostering a sense of teamwork and cooperation, encouraging students to bear shared responsibility, and encouraging interaction and cooperation among students are the main components of cooperative learning (Channuwong et al., 2024; Yang, 2022). Cooperative learning has been shown to help students in group piano lessons create a positive learning environment, increase motivation, spark interest in the material, and provide better learning outcomes. In the meanwhile, educators are crucial to cooperative learning (Qiu, 2019). In addition to planning learning activities, giving out required support and feedback, and encouraging communication and learning among students, they must also mentor students in effective cooperation.

The aims of this study are to encourage harmonic skills, assess cooperative learning teaching methods for teaching harmony in group piano classes, to enhance harmony abilities via the study of music and to study how learning music improves efficiency in order to foster harmony abilities.

**Research Questions**

1. How well do teachers assess their own cooperative learning strategies for teaching harmony in group piano lessons in terms of teacher roles, cooperative skills, group organization and management, and facilitation and interaction?
2. How do students rate the efficiency of harmony instruction in group piano lessons in terms of technical proficiency, musical expression, comprehension of harmony, teamwork and coordination, and eagerness to learn?
3. What initiatives could be suggested to improve the efficacy of instruction in light of the study's findings?

**Conceptual Framework**

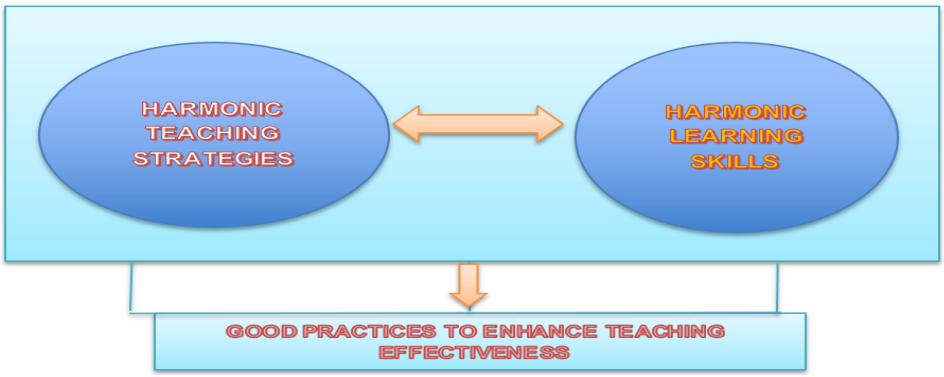


Figure 1: Research Conceptual Framework

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Following this framework, the researcher looked at the fundamentals of cooperative learning teaching methods and the efficacy of group piano instruction at Nanjing Arts Institute Affiliated Middle School. Subsequently, the teaching strategies for cooperative learning as well as the variations of each variable at the levels of gender, age, education, and years of experience were analyzed using SPSS software. The fundamental characteristics of the participants concerning the efficacy of their instruction and the variations in every aspect concerning gender, age, and grade level. This research quantitatively evaluates the association between teaching tactics for cooperative learning and teaching efficacy in group piano lessons, supplemented by teachers' comments.

**Music Education Policy in China**

China's education system has undergone significant reforms in recent decades, including efforts to strengthen music education in schools. The government's education policies play a crucial role in shaping the landscape of music education, including curriculum standards, teacher training, and resource allocation. The Ministry of Education of the People's Republic of China (MOE) sets national guidelines and standards for music education across all levels of schooling. These guidelines outline the objectives, content, and assessment criteria for music instruction, emphasizing the development of students' musical skills, appreciation, and cultural awareness.

In recent years, there has been a growing emphasis on integrating music education into the broader curriculum to promote holistic development. For example, the "Outline of National Medium and Long-term Educational Reform and Development Plan (2010-2020)" prioritizes the cultivation of students' aesthetic appreciation and creative abilities through arts education, including music (Ministry of Education of the People's Republic of China, 2010). Additionally, regional education authorities and local governments have implemented initiatives to support music education in schools. These initiatives may include funding for music programs, provision of musical instruments and resources, and collaboration with cultural institutions and community organizations to enrich students' musical experiences.

**Junior Middle School Music Education in China**

Junior middle school, typically comprising grades 7 to 9, represents a critical stage in students' musical development and education. During this period, students undergo significant cognitive and socio-emotional changes, making music education particularly relevant for their holistic growth.
The music curriculum in junior middle schools covers a wide range of musical elements, including music theory, performance skills, music history, and appreciation. Teachers strive to provide a balanced and comprehensive music education that caters to students' diverse interests and abilities.

In recent years, there has been an increased focus on active and experiential learning approaches in junior middle school music education. Educators incorporate group activities, ensemble performance, and creative projects to engage students actively in music-making and foster

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collaborative skills. Furthermore, technology plays an increasingly important role in junior middle school music education in China. Digital tools and multimedia resources are used to enhance teaching and learning experiences, facilitate music composition and production, and provide access to a broader repertoire of musical styles and genres. Overall, junior middle school music education in China is guided by national and regional policies that prioritize the development of students' musical abilities, cultural awareness, and creativity. By aligning curriculum objectives with educational priorities and leveraging innovative pedagogical approaches, educators aim to provide meaningful and enriching music experiences for all students.

**Harmonic Teaching Strategies in Music Education**

Harmony, a fundamental aspect of music theory, plays a crucial role in the development of music learning skills. Effective teaching strategies for harmony instruction are essential for enhancing students' musical understanding and proficiency. Various approaches have been explored in the literature to facilitate harmonic learning in music education. According to Reimer (2003), traditional harmony teaching often focuses on theoretical concepts and analytical techniques, such as chord progressions and voice leading. While this approach provides a solid foundation in music theory, it may sometimes lack engagement and relevance to students' musical experiences. As a result, educators have increasingly turned to innovative and student-centered pedagogies to make harmony instruction more accessible and meaningful.

One such approach is the use of experiential learning methods, as advocated by Kolb (1984). Experiential learning emphasizes active engagement, reflection, and application of knowledge in real-world contexts. In the context of harmony instruction, experiential learning strategies might involve collaborative music-making activities, improvisation, and composition, which allow students to explore harmonic concepts experientially and creatively. Additionally, the incorporation of technology has revolutionized harmony teaching in recent years. Digital tools and software platforms offer interactive learning environments where students can visualize, manipulate, and experiment with harmonic structures in real-time. For example, programs like Sibelius and Finale provide notation software with playback features, enabling students to hear and analyze harmonic progressions dynamically.

Furthermore, the integration of cultural and contextual perspectives in harmony instruction has gained prominence in multicultural music education. By exploring diverse musical traditions and genres, students can develop a broader understanding of harmonic practices across different cultural contexts. This approach not only fosters cultural appreciation but also enriches students' musical repertoire and creativity (Campbell, 2012). Harmony holds a special place in both the composition and teaching of music because it is an essential component of both. It can encourage the general development of students' music literacy as well as the transmission and evolution of music culture through in-depth harmony study and instruction. Therefore, in order to enhance the curriculum of music education and raise the standard of music instruction, it is crucial to keep researching and developing harmony theory and educational methodology. Harmony can be taught using a variety

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of techniques, such as actual performance, listening instruction, and theoretical explanation. Teachers typically present the fundamental ideas, guidelines, and methods of harmony during the theoretical explanation stage in order to assist students in developing a framework for comprehending harmony (Qiu, 2020). Contrarily, listening training aims to improve students' auditory perception of harmony and their listening abilities through exposure to various harmonic structures and types. Through the actual performance of musical pieces, students can experience and use the harmonic information and skills they have learned in the practical performance stage.

Content-oriented, problem-solving, cooperative learning, and multimedia teaching are examples of harmony teaching methodologies (Gu, Y.T., 2017). Content-oriented techniques concentrate on teaching fundamental ideas like vocal lines, chord structure, and harmony. Students' thinking and inquiry are stimulated by problem-solving procedures because they provide them with difficult situations and difficulties. In order to tackle harmonic problems, students need collaborate and interact with one another using cooperative learning practices. Conversely, multimedia instruction uses a variety of media types, including audio, video, and interactive tools, to deliver educational materials and resources in a harmonious manner. According to Chen, R. (2021), these teaching techniques improve students' comprehension and application of harmony. Cooperative learning, for instance, enhances students' capacity for thought and self-expression while also strengthening their analytical and harmonic auditory discriminating abilities.

Teaching harmony requires the use of a variety of instructional techniques. According to Feng, H. (2019), there are varying degrees of impact that various teaching strategies, including inquiry-based learning, cooperative learning, and guided instruction, have on students' ability to learn. Cooperative learning and inquiry-based learning place more emphasis on student interaction and cooperation, which can help students gain a deeper understanding and explore harmony, while guided instruction places more emphasis on the teacher's guidance and direction of the class, making it appropriate for students with a weak foundation in harmony.

In piano group classes, teachers assume several responsibilities, including that of motivator, counselor, and instructor. According to research, there is a direct correlation between instructors' job effectiveness and the learning outcomes of their students. He, X. Y. (2020) discovered that while responsible and meticulous teachers can offer students individualized learning guidance to help them overcome learning difficulties and achieve better learning outcomes, teachers who are full of enthusiasm and passion can stimulate students' interest and love for harmony learning and increase their motivation to learn. To assist students in overcoming learning challenges and achieving improved learning outcomes, teachers might offer them individualized learning guidance. Soisuwan, T. & Chayanuvat, A. (2019).

When teaching harmony, instructional resources are a crucial supporting component. Rich and varied teaching materials can boost students' enthusiasm and interest in harmony instruction as well as their learning efficacy, as demonstrated by Li, J. (2020). According to Liu, X.B. (2020),

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educational tools including multimedia courseware, teaching videos, and music software may convey harmony principles to students in the form of words, sounds, and images, improving their learning outcomes, explain harmonic ideas and assist students in developing a more intuitive understanding of and mastery of knowledge (Chayanuvat, A., Soisuwan, T., & Goenchanart, P. (2020).

A complicated mechanism of impact exists between teaching styles and student learning results. Apart from the aforementioned criteria, other elements that impact the efficacy of teaching tactics include the attitudes and experiences of teachers, as well as the learning styles and motivation of students. Thus, in order to maximize the success of Harmony instruction, teachers need take into account a range of variables and use instructional tactics that are appropriate for their students.

**Efficiency Development of Music Learning Skills**

Efficiency in music learning encompasses various cognitive, affective, and psychomotor skills that contribute to a student's overall musical development. While traditional pedagogical approaches often prioritize technical proficiency, contemporary music education emphasizes a holistic approach to skill development, encompassing both technical and expressive dimensions.

Technical proficiency in music performance involves mastery of instrumental techniques, sight-reading, and repertoire fluency (Harnum, 2013). Effective teaching strategies for technical skill development include systematic practice routines, deliberate repetition, and targeted feedback from teachers and peers (Lehmann & Kopiez, 2009). Moreover, the integration of music theory and ear training enhances students' ability to understand and interpret musical scores, facilitating efficient rehearsal and performance practices (Geringer, 2016). In addition to technical skills, musical expression plays a vital role in music learning efficiency. Expressive interpretation involves conveying emotion, phrasing, and stylistic nuances in performance (Juslin & Sloboda, 2010). Teachers can promote expressive skills through guided listening activities, expressive movement exercises, and interpretive analysis of musical works (Davidson & King, 2004).

Furthermore, comprehension of harmony is essential for musicians' ability to analyze, interpret, and create music effectively. A solid understanding of harmonic principles enables students to recognize chord progressions, identify harmonic functions, and improvise within harmonic frameworks (Laitz, 2012). Teaching strategies that promote harmonic comprehension include harmonic dictation exercises, harmonic analysis of repertoire, and composition projects that incorporate harmonic structures (Burstein, 2003).

Overall, the efficiency development of music learning skills requires a multifaceted approach that integrates technical proficiency, musical expression, and harmonic understanding. By employing diverse teaching strategies tailored to students' needs and learning styles, educators can nurture well-rounded musicians capable of achieving proficiency and artistic excellence in their musical endeavors.

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## Research Methodology

This study employs a mixed-methods approach, combining literature review, semi-structured interviews, participatory observation, and expert evaluation to investigate harmonic teaching strategies and music education at Nanjing Arts Institute Affiliated Middle School. A semi-structured interview outline is employed to select teachers and students for in-depth interviews. Interviews are conducted to gather viewpoints and insights on music teaching and learning experiences. Interview data are analyzed using coding techniques to identify emerging themes and patterns. Video recording and on-site observation are used to examine factors related to student learning and the classroom environment. The classroom observation paradigm is applied to document, analyze, and study the operational status of the classroom. Observations focus on understanding student engagement, learning quality, and classroom dynamics.

## Expert Evaluation

The IOC Assessment Form is utilized to evaluate the junior middle school music activity curriculum teaching plan. Five experts assess the teaching plan's effectiveness in meeting curriculum standards, fostering students' innovative abilities, and fulfilling core literacy requirements. Evaluation criteria include meeting student age stages, matching real-world scenarios, and instructional design structure. For this investigation, the IOC Assessment Form was used. We requested evaluations from five experts. The five experts in the above table show their overall satisfaction with the use of the junior middle school music activity curriculum teaching plan, with an IOC value of 8.8 and a total score of 44 points. Following a thorough analysis of each evaluation criterion, it is found that experts are most satisfied (average score of 1) when it comes to meeting student age stages, matching research issues and real-world scenarios, meeting core literacy requirements, encouraging students' innovative abilities, and adhering to teaching plan writing norms. A progressively structured instructional design has the lowest level of satisfaction, with an average score of 0.67.

## Research Subjects and Design

The study selects a class from the second year of junior middle school at Nanjing Arts Institute Affiliated Middle School, comprising 45 students. An 18-week teaching cycle is planned, with each class lasting 45 minutes, conducted in three stages of action research. Teaching practice is adjusted based on actual teaching needs, with a focus on unit-integrated teaching content aligned with students' cognitive levels and learning foundations. The questionnaire was split into two sections: one asked about the demographics of the teachers, and the other focused on the instructional strategies for cooperative learning. These were broken down into five categories: facilitation and interaction, group organization and management, cooperative skills, cooperative climate, and teacher's role. Data analysis is a crucial component of quantitative research when data gathering is finished. The scale survey data in this study were entered and processed using statistical software. The research hypotheses were verified using statistical techniques like the t-test and ANOVA, and the impact of various cooperative learning teaching strategies on the efficacy of instruction for both students and voices was ascertained. The researcher was able to derive and justify the research conclusions with the use of objective and reliable data obtained through statistical analysis.

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## Results

Table 1: Evaluation of teacher respondents' cooperative learning strategies for teaching harmony in group piano lessons in terms of interaction and facilitation

| Indicators | Mean | SD | Description | Qualitative Interpretation |
|---|---|---|---|---|
| 1. The students can successfully coordinate musical performance to guarantee harmonic efficacy. | 3.23 | 0.836 | Agree | Good |
| 2. Students work in groups to tackle problems related to music. | 3.21 | 0.852 | Agree | Good |
| 3. When playing together, students can accomplish musical objectives. | 3.22 | 0.897 | Agree | Good |
| 4. In group lessons, the students actively participate in helping and interacting with other students to establish musical harmony. | 3.23 | 0.856 | Agree | Good |
| 5. The students routinely engages in cooperative practice with other group members, particularly when it comes to harmonic exercise. | 3.29 | 0.858 | Agree | Good |
| 6. The students are discussing creative ideas and songs with other classmates. | 3.25 | 0.830 | Agree | Good |
| 7. Students actively offer criticism and recommendations when working in groups. | 3.17 | 0.828 | Agree | Good |
| **Overall** | **3.23** | **0.851** | Agree | Good |

The teachers' self-evaluations of the cooperative learning approach they employed in their group piano sessions are displayed in Table 1. The average score for all teachers was 3.23, suggesting that they were generally in favor of this method of instruction. The average range of the indicators was 3.17 to 3.29, suggesting that overall, the assessments were quite close. The range of the standard deviation (SD) was 0.828 to 0.897. Reduced standard deviations indicate a relative concentration of data points. The standard deviation quantifies the dispersion of values in a concentration of data. In this case, the rather narrow range of standard deviations suggests that educators evaluated cooperative learning in a reasonably consistent manner. This could also suggest that instructors generally agree on some aspects of how to evaluate their own teaching methods.

"The students routinely engages in cooperative practice with other group members, particularly when it comes to harmonic exercise" was the indicator with the highest mean, measuring 3.29. This suggests that teachers think that when pupils practice harmonics, they show favorable attitudes toward cooperation, which enhances harmonic skills. This suggests that educators think that students approach harmonic practice with a cooperative and pleasant attitude, which aids in the development of harmonic skills. "Students actively offer criticism and recommendations when working in groups" was the indication with the lowest mean, 3.17. This

suggests that when it comes to collaborative performance, students offer criticism and suggestions to a very small extent. This result implies that improving students' capacity for effective communication and interaction in group projects needs additional focus.

The results in Table 1 are in line with Lai's (2018) research, which highlights the value of cooperative learning in music education. It has been demonstrated that cooperative learning helps students become better musicians and fosters teamwork. Wang (2020) asserts that consistent group practice strengthened students' abilities, particularly in intricate music theory and techniques. This is consistent with the findings of the study, which showed that teachers thought students had a cooperative and good attitude toward harmonic practice. Consequently, in order to encourage more engaged student engagement in group performance, this becomes a worthwhile approach for future music instruction. The efficiency of cooperative learning in group piano lessons for developing harmonic skills. This not only validates the current study but also offers some recommendations for future research and teaching strategies.

**Result of the evaluation of Cooperative Skills**

Table 2: Instructors' evaluation of their cooperative learning techniques for teaching harmony in group piano lessons in terms of cooperative skills

| Indicators | Mean | SD | Description | Qualitative Interpretation |
|---|---|---|---|---|
| 1. In group musical composition, students show collaborative composing skills. | 3.19 | 0.858 | Agree | Good |
| 2. Students can work together to play in order to meet the standards for musical harmony. | 3.24 | 0.858 | Agree | Good |
| 3. Students are competent in resolving disputes when working together on music. | 3.19 | 0.874 | Agree | Good |
| 4. Students exhibit the musical abilities required for group performances. | 3.19 | 0.886 | Agree | Good |
| 5. Students are proficient in musical communication. | 3.24 | 0.824 | Agree | Good |
| 6. To increase the efficiency of musical collaboration, students receive training in collaborative skills. | 3.24 | 0.888 | Agree | Good |
| 7. Students have the flexibility to adjust to their musical partners' expectations and preferences. | 3.26 | 0.825 | Agree | Good |
| **Overall** | **3.22** | **0.718** | Agree | Good |

Table 2's collaborative skills findings demonstrate how the instructional strategies were successful in helping students build their collaborative skills. Students who received specific training to increase their collaborative efficacy in music collaborative learning scored highly (3.24) on the training in music collaboration abilities. Students' musical communication abilities scores (3.24) were displayed, which is in line with Feng's (2019) findings. A key component of collaborative

learning is musical communication, and good communication enhances harmony abilities by enabling a team to harmonize its many musical aspects (Juana, 2019).

In addition, students' conflict resolution score in musical collaboration was high (3.19), indicating that they had the ability to handle problems within the team. When considered together, Table 2's findings attest to the efficacy of collaborative skills training and instructional methodologies in enhancing students' harmonic proficiency, especially when it comes to dispute resolution, musical communication, and collaborative skills training. Prior studies on the development of collaborative skills corroborate the findings in Table 2. According to Yang and Xu (2021), students can enhance their collaborative efficacy by obtaining specialized instruction in music cooperation. Training can cover particular coordination, interpersonal, and organization skills in music—all of which are essential for working well in a group. High scores on musical communication skills attest to this. In order to coordinate the many musical components of a team and improve collaboration, musical communication is essential in collaborative learning (Zhang, 2019).

Students performed better in music cooperation when it came to dispute resolution, which is in line with other research findings. Zhu (2020) demonstrated that one of the most important components of effective cooperation is the ability to resolve conflicts in collaborative learning. Teams that can efficiently settle disagreements are better able to overcome internal issues and maintain seamless teamwork (Wang, 2022). As a result, the conclusions in Table 2 highlight the beneficial role those instructional strategies play in collaborative learning and are backed by pertinent research in theory and practice.

**Result of the evaluation of Teacher roles**

Table 3: Evaluation of educators' approaches to teaching cooperative learning. In terms of teacher duties, they are learning to teach harmony in their group piano classes.

| Indicators | Mean | SD | Description | Qualitative Interpretation |
|---|---|---|---|---|
| 1. I offer direction and encouragement for group musical endeavors. | 3.26 | 0.874 | Agree | Good |
| 2. I actively encourage musical collaboration and interaction among groups. | 3.26 | 0.839 | Agree | Good |
| 3. Through musical collaboration, I encourage my students to think creatively. | 3.29 | 0.823 | Agree | Good |
| 4. When I teach group piano lessons, I am the main instructor. | 3.26 | 0.884 | Agree | Good |
| 5. I set specific objectives for musical collaboration, particularly with reference to harmony. | 3.21 | 0.855 | Agree | Good |
| 6. How I encourage student participation in musical conversations and question-asking during musical performances. | 3.22 | 0.867 | Agree | Good |

| | | | | |
|---|---|---|---|---|
| 7. I give the suggestion and supports for musical collaboration. | 3.22 | 0.855 | Agree | Good |
| **Overall** | **3.25** | **0.713** | Agree | Good |

The results of the evaluation of the instructor's role in group piano lessons are displayed in Table 3, where the role of the teacher received a high overall score. Teachers specifically received the highest score of 3.26 on the indicator "I play a primary instructional role in group piano lessons," indicating that they are the main instructors in these classes. Research in music education supports this, as teachers are frequently viewed as crucial to directing students' learning. Other factors were also discovered, including "I assist and guide students in musical collaboration" and "I encourage students' musical creativity in musical collaboration." support for musical collaboration" likewise scored rather highly (3.29 and 3.26, respectively), showing that professors were effective in encouraging students' originality in music and offering assistance for collaborative activities. Teachers' performance in these positions appears to be generally consistent, and students seem to agree with the teacher's role, based on the relatively limited range of standard deviations.

Zhang's (2020) findings are mainly supported by the data in Table 3. Scholarly attention in music education research has been drawn to the function of the teacher in the communal classroom. As Gillies et al. (2023), the teacher's responsibility in a music classroom extends beyond imparting knowledge and includes encouraging students' creativity, fostering teamwork among students, and offering all-encompassing advice. Additionally, Han (2017) made the point that in collaborative learning settings, teachers should take on more of the role of a facilitator and guide, assisting students in learning from and sharing knowledge with one another.

Furthermore, in collaborative learning environments, teachers should strongly encourage students to pose questions and take part in musical conversations (Huang, 2021). Teachers have a crucial role in collaborative learning environments as facilitators, guides, and transmitters of knowledge, as highlighted by Song (2021).

## Conclusion

In overall, teachers' evaluations of cooperative learning techniques in harmony teaching produced encouraging findings. Specific instructor attributes, such as gender, age, and educational experience, had a big impact on which cooperative learning practices were chosen. Regarding the ability level, musical expression, harmonic knowledge, cooperative cooperation, and learning interest in teaching harmony, students provided positive feedback. Students' evaluations of the efficacy of teaching and learning are influenced by individual attributes such as gender, age, and grade level. In group piano programs, employment of more thorough and focused cooperative learning methodologies is linked to higher levels of teaching efficacy.

## References

Burstein, L. (2003). Teaching music theory in the twenty-first century. Music Theory Spectrum, 25(2), 319-333.

Campbell, P. S. (2012). Multicultural teaching in the music classroom. Rowman & Littlefield.

Channuwong, S., Sawangwong, B., Lamsutthis, V., Amnuaywuthikuk, J., & Khamsom, S. (2024). A relationship between organizational factors and good governance application of Thai Universities. Educational Administration: Theory and Practice, 30(4), 1729-1738.

Chayanuvat, A., Soisuwan, T., & Goenchanart, P. (2020). A Survey of International Students' Opinions on Digital Technology at the Master of Education Level at a Thai Private University, Proceedings of RSU International Research Conference. https://rsucon.rsu.ac.th/files/proceedings/inter2020/IN20-061.pdf

Davidson, J. W., & King, E. (2004). Strategies for teaching and learning musical expression: An examination of the work of expert instrumental teachers. Bulletin of the Council for Research in Music Education, 161, 68-74.

Feng,H. (2019). The role of piano works in piano teaching in colleges and universities. Northern Music, 16,108-110.

Feng,Y.Z.. (2019). Discussion on the cultivation method of application ability in harmony teaching. Senka (Next), 9,135.

Geringer, J. M. (2016). Strategies for teaching music theory: A review of the literature. Update: Applications of Research in Music Education, 34(2), 49-56.

Gillies, R. M., Millis, B., & Davidson, N. (2023). Contemporary Global Perspectives on Cooperative Learning:Applications Across Educational Contexts.Taylor and Francis.

Harnum, J. (2013). Basic music theory: How to read, write, and understand written music. Sol Ut Press.

Juana. (2019). Analysis of the role of harmony in piano teaching. Northern Music, 8, 121.

Juslin, P. N., & Sloboda, J. A. (Eds.). (2010). Handbook of music and emotion: Theory, research, applications. Oxford University Press.

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice Hall.

Lai, M. F. (2018). Analyzing the use of harmonic theory in college piano teaching. Tomorrow's Style, 3, 237.

Laitz, S. G. (2012). The complete musician: An integrated approach to tonal theory, analysis, and listening. Oxford University Press.

Lehmann, A. C., & Kopiez, R. (2009). Information-processing in musicians during sight-reading. Music Perception: An Interdisciplinary Journal, 27(2), 89-100.

Qiu,Xi.N.. (2019). New thinking about the teaching of harmony in music majors in colleges and universities. Drama home, 33,156.

Reimer, B. (2003). A philosophy of music education: Advancing the vision. Rowman & Littlefield.

Soisuwan, T. & Chayanuvat, A. (2019). Roles, Characteristics and Professional Needs of Instructional Assistants in an International School. Rangsit Journal of Educational Studies, 6 (1), 65-84.

Song,M. (2021). Historical awareness in the teaching of harmony. Qilu Yiyuan, 4,25-30.

Wang, D. (2019). Discussion on Informatization Teaching Strategy of Higher Vocational Piano. Voice of Yellow River, 12, 110. doi:10.19340/j.cnki.hhzs.2019.12.079.

Xu, F.. (2021). Common Problems and Optimization Countermeasures in Piano Group Class Teaching. Daguan (Forum), 5, 150-151.

Xu, P.L.. (2023). "Harmony" Teaching Reform and Teaching Material Development. Chinese Music, 1, 77-84+96. doi:10.13812/j.cnki.cn11-1379/j.2023.01.012.

Yang, F.H. & Xu, R. (2021). Harmonization and Aural Cultivation in Piano Teaching. Journal of Huizhou College, 1,, 123-128. doi:10.16778/j.cnki.1671-5934.2021.01.022.

Yang, Z. Y.. (2021). Reflections and Prospects of Applied Harmony Teaching Methods. Art Research (02),122-123. doi:10.13944/j.cnki.ysyj.2021.0109.

Yang, Z.G.. (2022). Analysis on the innovation of piano teaching in colleges and universities oriented to quality cultivation. Art Review, 23, 104-108.

Yang,Z.Y. (2021). Analysis of the application of harmonic theory in piano teaching in colleges and universities. Art Review, 14,113-115.

Yin, Z.F.. (2020). How to cultivate students' improvisation accompaniment ability in piano teaching. Modern Vocational Education, 11,46-47.

Yu, Z. L.. (2021). Analyzing the use of harmonic theory in college piano teaching. Artist (11),45.

Zhang, S.. (2019). Exploration of the creation of harmonic thinking in the teaching of Harmonics (above). Northern Music, 23, ,137-138.

Zhang, X.L.. (2018). The application of harmonic theory in piano teaching in colleges and universities. Voice of Yellow River, 07,95-96. doi:10.19340/j.cnki.hhzs.2018.07.066.

Zhang,H. (2017). Exploration of the teaching content of group piano lessons in general colleges and universities. Contemporary music, 2,33-34.

Zhang,X. (2020). Exploration of effective teaching mode of group piano class in higher vocational preschool education. New Curriculum Research, 33, 95-96.

Zhang,X.L. (2019). Effective application of harmonic theory in college piano teaching. Curriculum Education Research 30,230-231.

Zhang,Y. (2019). Analysis of the role of harmonic analysis in piano teaching in higher education Institutions. Senka (Next) 05,151.

Zhong, H & Ying,y.L.. (2021). Countermeasures for Effective Teaching of Piano Group Lessons in Higher Vocational Colleges. Writer's World, 12,24-25.

Zhu, H. Y.. (2020). The use of piano group lessons in teaching. Senka (Next) 11, 131-132.

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