

An Empirical Study of Integrating Orff-Schulwerk in Music Classes to Improve College Students' Social Competence in the Post Epidemic Era

Zhining Cai¹, Krisada Daoruang², Arethit Posrithong³

Abstract

As the global epidemic eases, college students face increasing Social-Skills problems, especially when Social-Skills are reduced due to prolonged home isolation. This study investigated the effectiveness of Orff-Schulwerk in enhancing the Social-Skills of college students. Taking students of Z College School in Southern China as the research object, the current social status and needs of college students were analyzed through questionnaires and in-depth interviews. The findings suggest that Orff-Schulwerk significantly improves students' Social-Skills through its unique collective participation and creative expression, especially in enhancing teamwork, communication skills and self-confidence. This study not only provides new perspectives on the application of music education in higher education, but also provides empirical support on how to promote the development of college students' Social-Skills through art education in the post epidemic era.

Keywords: *Orff-Schulwerk; Music Education; College Students; Social-Skills.*

Introduction

Since the outbreak of New Crown in December 2019, it has rapidly spread and spread globally, bringing great impact to the world. New Crown virus spreads mainly through direct transmission, aerosol transmission and contact transmission, and is characterized by rapid transmission, high infectiousness and incubation period. In order to curb the spread of the epidemic, countries around the globe have adopted physical barrier against the epidemic (Salehi-Abari, I., & Khazaeli, S. (2020), such as wearing masks, school closures, business closures, and restrictions on gatherings. Although these measures were effective in controlling the epidemic to a certain extent, they also had far-reaching effects on the way people interacted in society. Prolonged physical isolation from the epidemic has led to limited social life and isolation from friends and family most of the time, resulting in increased stress and anxiety (Valmiki, E. K. A., Yadlapalli, R., & Oroszi, T. (2022). In this context, the social interaction problems of college students are becoming more and more prominent, such as social anxiety, weakened desire to socialize, and reduced communication skills (HKTWW, 2022). These problems not only affect the psychological health of university students, but may also have a negative impact on their studies and future career development.

Music education, as a unique educational activity, has the function of helping adolescents adapt to social life (Abiogu, G., Mbaji, I., & Adeogun, A. 2015). Orff-Schulwerk is an interactive pedagogy that has clinical efficacy in alleviating social anxiety in college students and treating mental illnesses such as autism in children (Wan, Y., 2013; Zhang, Y., 2022; Li, X., 2022). Therefore, this study attempts to introduce Orff-Schulwerk into university music courses, and through designing teaching activities, to enhance college students' social interaction ability while teaching them music knowledge, so as to provide new ways and methods to solve the social interaction problems of college students in the post-epidemic era.

¹ Chakrabongse Bhuvanarth International College of Interdisciplinary Studies, Rajamangala University of Technology Tawan-Ok, Bangkok, Thailand. E-mail: zhining.cai@rmutto.ac.th

² Chakrabongse Bhuvanarth International College of Interdisciplinary Studies, Rajamangala University of Technology Tawan-Ok, Bangkok, Thailand. E-mail: Krisada_da@rmutto.ac.th (Corresponding Author)

³ Faculty of Education, Srinakharinwirot University, Bangkok, Thailand. E-mail: arethit@g.swu.ac.th

Literature Review

Orff-Schulwerk

Founded by and named after the outstanding German music educator Carl Orff (Liao, N.X., 1981), the Orff-Schulwerk of music teaching is not only a teaching technique or tool, but also an embodiment of a profound educational philosophy and concept. The pedagogy emphasizes the integrated use of music, singing, dancing and percussion instruments, offering unlimited possibilities for children's musical learning and creativity, and is one of the three most famous music pedagogies in the world today (Li, Dana, 1995). In the practice of the Orff-Schulwerk, music is no longer a single, isolated subject, but is closely integrated with other art forms such as language and rhythm to build a vibrant and creative music classroom (Davies-Splitter, S., Splitter, P., 2006; Maubach, C., 2006). Orff-Schulwerk has four main characteristics: it emphasizes the original principle of music, encourages children to explore the nature and laws of music through personal participation and practice, to express music in their own way, and to fully display their personality and talent (Li, Dana, 1995); It is diversified and inclusive, not limited by geography, culture and musical style, and able to integrate with different types of musical styles from all over the world (Phokha et al., 2023; Valasi, S., 2023; Junko, HOSODA, 2023); it pays attention to comprehensiveness, integrates various art forms such as music, language, rhythm, etc., and stimulates children's interest in music and promotes their all-around development by means of rhythmic recitation, musical games, singing and dancing, etc. (Zhao, Q.Y., 2022). Emphasizing interactivity, encouraging students to actively participate, forming close interaction between teachers and students and between students, and through co-composing, playing and performing, allowing students to experience the fun and charm of music in interaction, and thus enhancing their musical literacy and aesthetic ability (Huang, S., 2009).

Social-Skills

Social interaction skill is a multidimensional concept that refers to the comprehensive ability demonstrated by an individual in complex social environments through interactions and interactions with different individuals and groups in order to meet specific needs or goals (Yang, S., 2012). This ability is not only reflected in a wide range of social activities, such as social gatherings and public speeches, but also focuses on interpersonal interactions in a narrower sense, i.e., the depth of connection and communication established between individuals. Social interaction skills are particularly important in the college student population, which covers a wide range of aspects such as academic and emotional communication between faculty and students, friendship and cooperation among peers, and integration of family and campus life (Xing, X. C., & Cao, X., 2003). Social interaction skills can be subdivided into three main dimensions: Behaviors related to interactions with others, including the acceptance of authority, the use of conversational skills, and the ability to demonstrate cooperative behaviors; self-related behaviors, which emphasize an individual's ability to self-manage and emotionally regulate their social interactions, including emotional expression, ethical behaviors, and positive attitudes towards the self; and task-related behaviors, which focus on an individual's performance in the process of completing tasks, including participation behaviors, task completion, and including participation behaviors, task completion, and following directions (Science China, 2021).

Music Course

Music curriculum is an important part of music education, and its research intensity is closely related to the degree of national attention to art education. Since the 1990s, Western music education concepts such as 'music education as an aesthetic education' (Reimer, B., 1970) have been introduced to China, and have had a profound impact on the development of domestic music programmes in China. The diversification of the philosophical outlook on music education has gradually emerged, and people's thinking about the value of music education is no longer confined to its ontological value, but has shifted to an in-depth exploration of the non-ontological value of music education in the comprehensive development of human beings. The development of music curricula shows diversified characteristics, including national curricula, local curricula and school-based curricula (Jin, S.Y., 2010). In addition, music curriculum development paradigms are

evolving, involving hermeneutics, phenomenology, and the philosophy of music anthropology (Guan, J.H., 2006). The use of music curriculum development resources has also received much attention, including traditional music resources, modern music resources, and community music resources (Li, X.Y., 2005; Wang, Y.F., 2012). In conclusion, music curriculum development is a complex and multifaceted process that requires comprehensive consideration of a variety of factors.

Research Methodology

Type of Research

This study uses Research & development's type of research, which includes methods such as literature analysis, questionnaire, interview and IOC project goal congruence assessment. Through these methods, the issues are studied in depth to ensure the validity and reliability of the study.

Research Area

The object of this study is limited to Southern China College Z. College Z is located in Zhongshan City, an economically developed region in the Pearl River Delta of Guangdong Province, which is the geometric centre of the Guangdong-Hong Kong-Macao Greater Bay Area and a city at the forefront of the development of higher vocational education in the country. It is the first public higher vocational school founded in the region and has an important status and influence. Taking the students of this school as the research object, the research results are generally representative in a certain region.

Sample Group

In this study, the students of College Z were used as the study population, and the target sampling method was used to study the sample of students who took music appreciation classes. This sampling method covers students of different grades, majors, and backgrounds, ensuring the comprehensiveness and universality of the study. In order to ensure the breadth and representativeness of the data, this study used the census method to conduct a tripartite evaluation of the students who took the course, including students' self-assessment, teachers' evaluation and peer evaluation. This comprehensive evaluation method enables a comprehensive and in-depth exploration of the effectiveness of Orff-Schulwerk in enhancing students' social interaction skills.

Research Tools

In this study, 'Questionnaire Star' applet was chosen as the main data collection tool, which is rich in functions and can efficiently and accurately collect and analyse the questionnaire data to ensure the reliability and scientificity of the data.

Excel was used to calculate the mean and standard deviation of the sample data using the inbuilt AVERAGE function and the Stdevp function. The AVERAGE function was used to calculate the mean and the Stdevp function was used to calculate the overall standard deviation, the combination of which provided a comprehensive and in-depth analysis of the data. In addition, the Peer Relationship Test Scale was used to collect relevant data and tools such as SPSS were used to analyse the data.

Results

A study of the socialization of university students in the post epidemic era

Social problems of college students after the New Crown epidemic: this study was conducted using a combination of quantitative questionnaires and qualitative interviews. The questionnaire survey took the students of College Z as the whole population, and used the whole cluster sampling method to draw two classes from each of the five second-level colleges, and distributed the Peer Relationship Test Scale to conduct the survey. A total of 300 questionnaires were distributed and 271 were returned, all of which were

valid, with an overall participation rate of 90%. The results of the questionnaire showed that most of the respondents had problems such as low self-confidence and nervousness and uneasiness in socialising. For example, 51.66% of the respondents are worried and concerned about other people's impression of themselves, 37.27% always try their best to make other people appreciate them, 39.48% lack confidence in their instrument and grooming performance, and 40.59% can't express their own feelings confidently; more than half of the students feel unnatural when communicating with strangers, 39.11% feel unnatural when interacting with the the opposite sex, 39.11% of the respondents feel unnatural when interacting with the opposite sex, and 57.93% of the respondents feel nervous in social situations. In addition, in terms of listening to others 'opinions or listening, although most of the respondents' self-assessment is relatively positive, there is still room for improvement for 16.97% of the students. In order to further dig deeper into the reasons, eight students were selected for interviews according to the questionnaire results, which showed that students' social problems mainly stem from introverted personality, fear of being denied, and fear of expressing themselves because they care about others' evaluation, reflecting that there is room for improvement in self-management ability such as self-confidence and self-emotion regulation; at the same time, the lack of language expression and communication ability is also an important factor affecting social interaction such as substandard Mandarin, dialect Communication barriers lead to social embarrassment and tension.

Develop Teaching Activities based on Orff-Schulwerk to Enhance Social-Skills

Music Teaching Activity Design

Teaching activities are designed for 6 sessions of 45 minutes each.

Table: Music Teaching Activity Design

Projects	Element
Educational objective	To enable students to master the basic knowledge and methods of music appreciation. To enhance students' self-management, communication and
	teamwork skills. 3. To enable students to confidently express music in their favourite way.
Educational content	Chinese music, Western classical music, European and American popular music, world music and other representative and interesting musical works for students.
Teaching methods	Orff-Schulwerk, demonstration methods, lecture methods, interactive games and other methods
Teaching equipmen	1. Experience music through music games. 2. Learn to appreciate different styles of music. 3. Be able to express music confidently.
Teaching Difficulties	1. motivate students to actively participate in the interaction. 2. Guide students to acquire the ability to recognise musical styles. 3. Encourage students to express their musical feelings with their own characteristics.

Teaching Process

The teaching activity consists of four parts, as shown below



Figure 1: Teaching Flow Chart

Instructional Activity Design

Teaching activity design: The design of each specific lesson includes dance preparation activities, group discussion and presentation, music games, and polyphonic exploration, etc., in order to cultivate students' musical perception, expression, and co-operation skills. (e.g. Fig. 2-4, the teaching activities of the previous three lessons as an example)

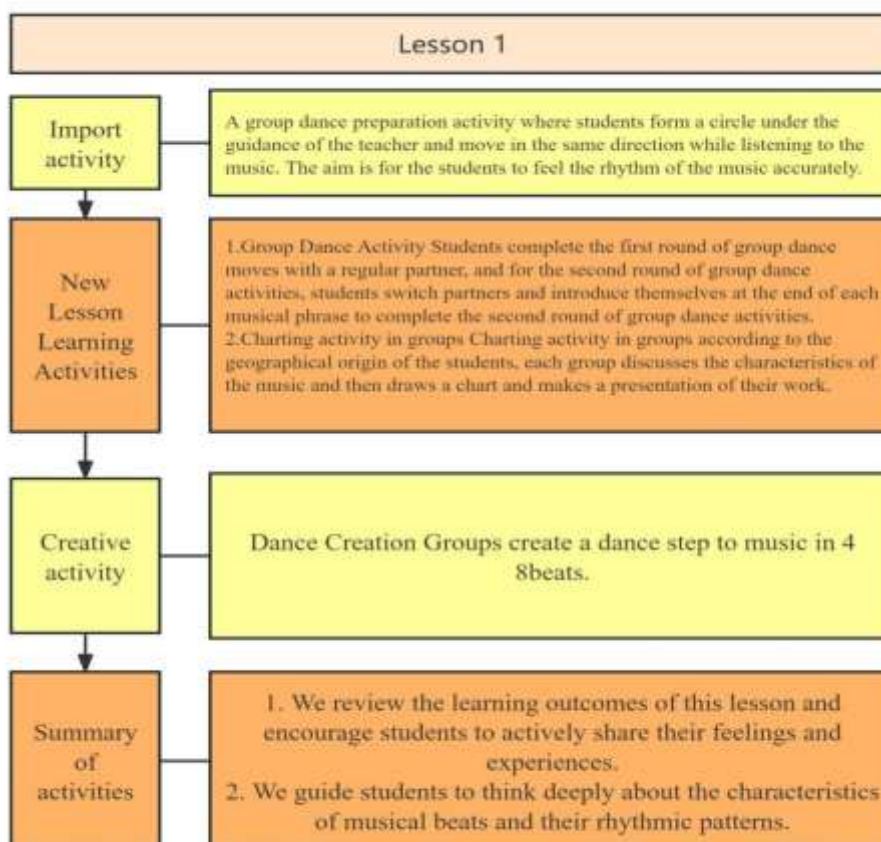


Figure 2: Process map of the Lesson 1

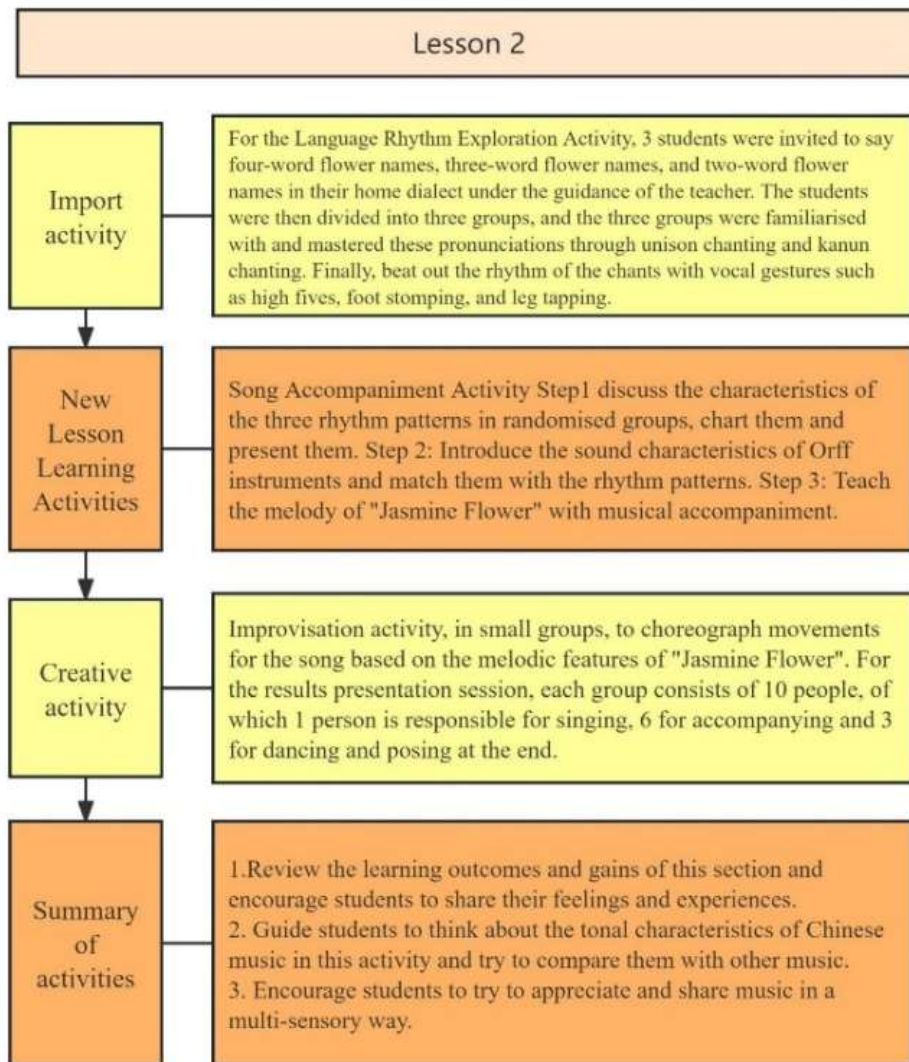


Figure 3: Process map of the Lesson 2

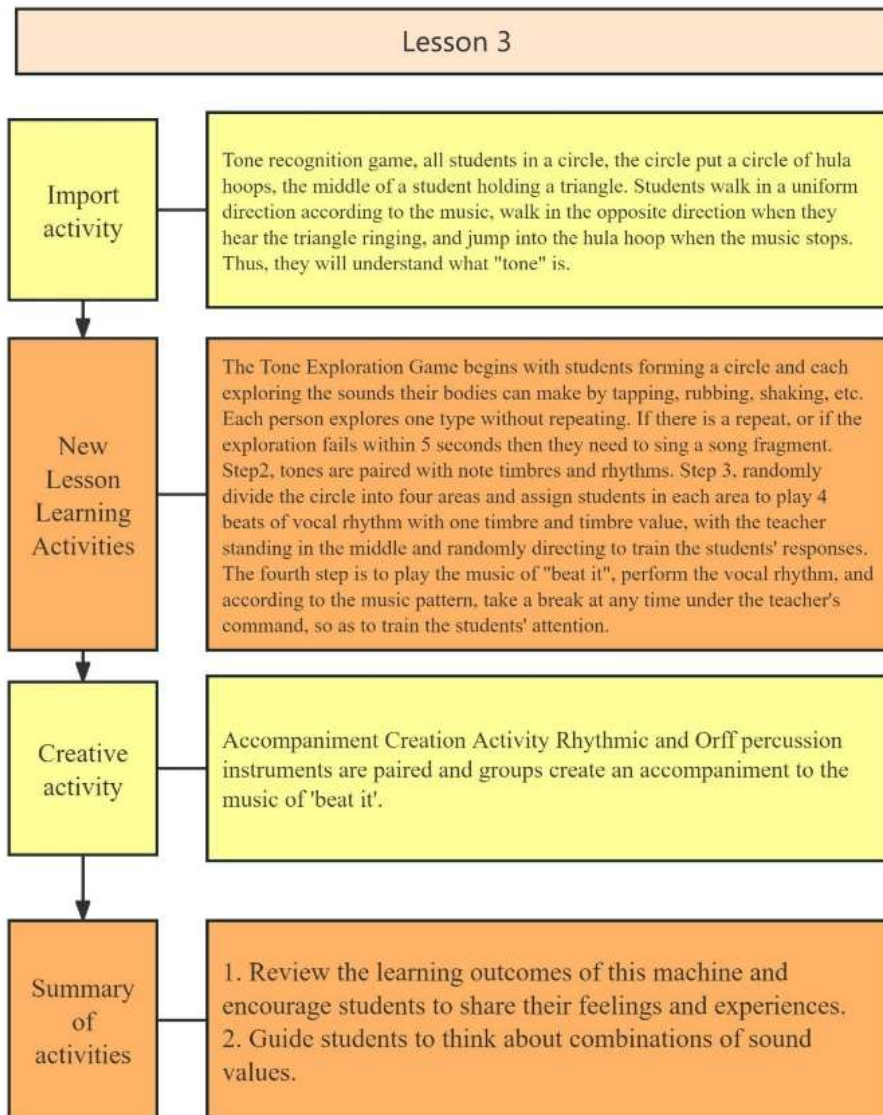


Figure 4: Process map of the Lesson 3

Teaching Evaluation

Teaching evaluation is divided into three aspects: teacher's post-class evaluation of students, student's self-evaluation, and student's peer evaluation, which comprehensively assesses students' learning effect and Social-Skills improvement.

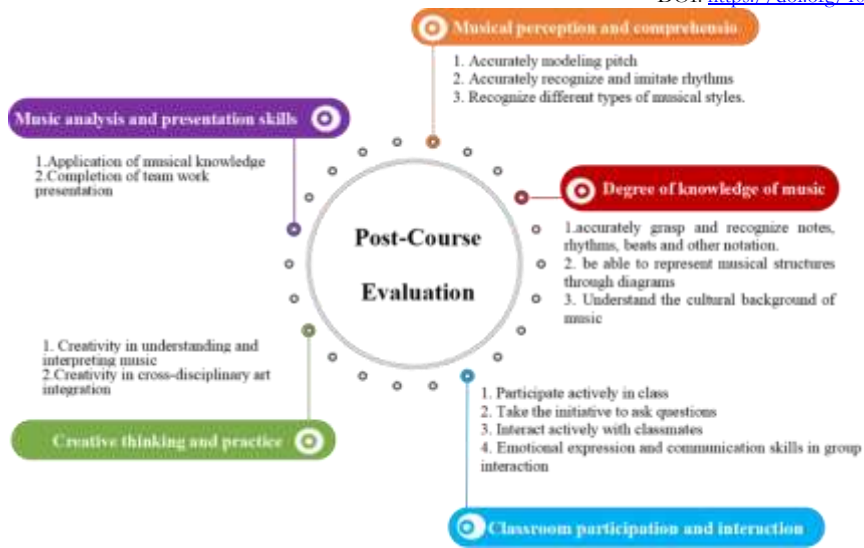


Figure 5: Post-Course Evaluation

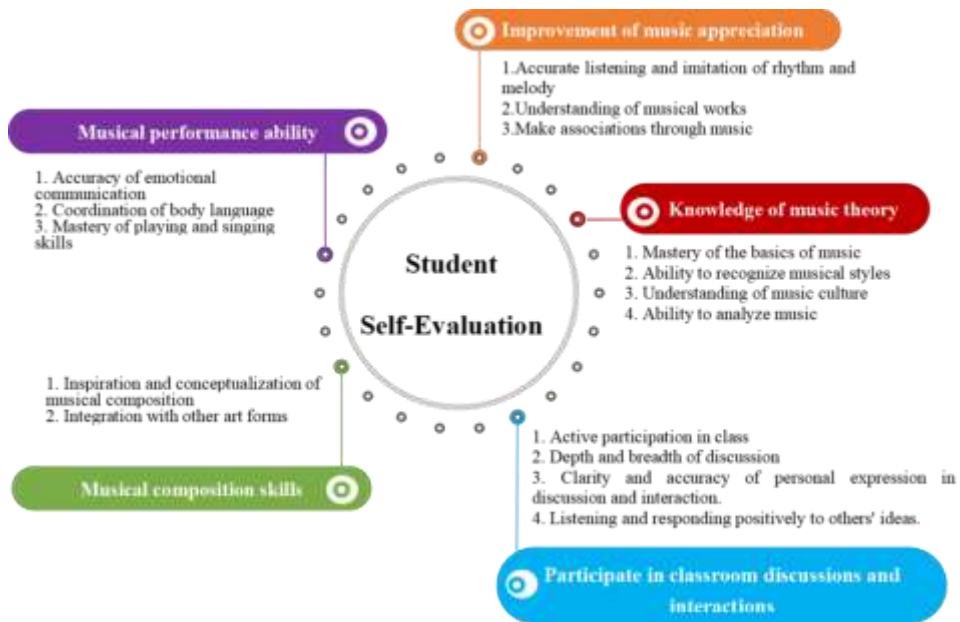


Figure 6: Student Self-Evaluation

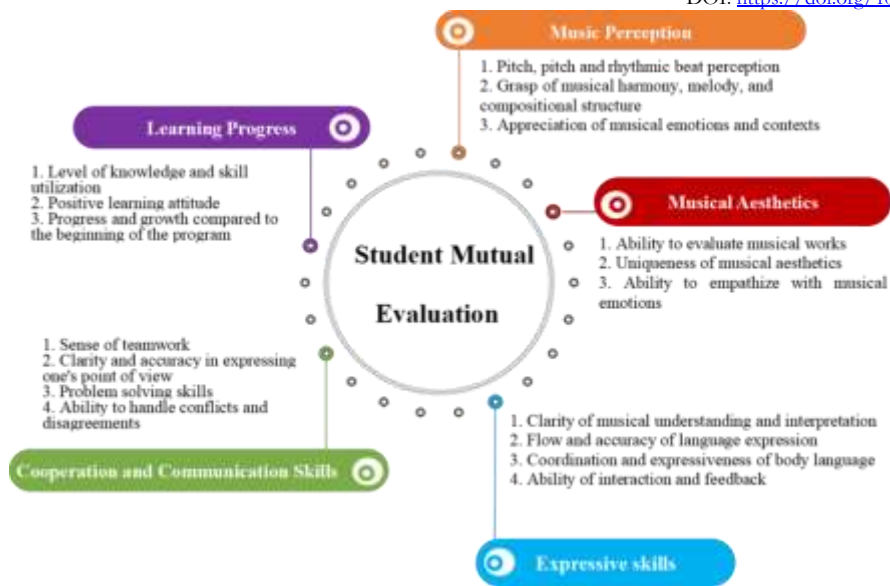


Figure 7: Student Mutual Evaluation

Instructional Design Assessment and Feasibility of Implementing Instruction

IOC Evaluation Results

5 experts were invited to conduct the evaluation, and the IOC value was 9.4, indicating that the experts generally approved of the design of the teaching activities, but disagreed on the effect of the specific music teaching activities on the enhancement of Social-Skills and the assessment methods, which need to be further optimised.

Table 2: Music Appreciation Class Teaching Activity Design Lesson Plan IOC Quality Evaluation Data Sheet

Appraisal Items	Expert Opinion					IOC	Result
	1	2	3	4	5		
1. Matching degree between course content and course objectives	++ 1	++ 1	++ 1	++ 1	++ 1	1.0	Conforms
2. Course content is suitable for the age of students	++ 1	++ 1	++ 1	++ 1	++ 1	1.0	Conforms
3. The course adheres to the principles of music teaching	++ 1	++ 1	++ 1	++ 1	++ 1	1.0	Conforms
4. The relevance of musical activities in enhancing students' social-skills	++ 1	+0	++ 1	++ 1	++ 1	0.8	Conforms
5. Course content is suitable for students' interests	++ 1	++ 1	++ 1	++ 1	++ 1	1.0	Conforms
6. Teaching design is sequential and progressive	++ 1	++ 1	++ 1	++ 1	++ 1	1.0	Conforms
7. Teaching objectives are reasonably specified	++ 1	++ 1	++ 1	++ 1	++ 1	1.0	Conforms
8. The relevance of musical activities to the content of music courses	++ 1	++ 1	++ 1	++ 1	++ 1	1.0	Conforms
9. Lesson plan writing is standardized	++ 1	++ 1	++ 1	++ 1	++ 1	1.0	Conforms
10. Suitability of evaluation	+-1	++ 1	++ 1	++ 1	++ 1	0.6	Conforms

TOTAL	8	9	10	10	10	9.4	
AVERAGE	0.8	0.9	1	1	1	0.94	

Implementation and Results

A sample of students who took ‘Music Appreciation’ in College Z was taught by a fixed teacher, at a fixed time and place, and evaluated by three parties. Taking the average of the three-way evaluation of the six lessons and comparing and analyzing the results, the students as a whole showed significant improvement in music knowledge and skills, Social-Skills and other aspects. The performance of the special style in the last three lessons showed a more significant improvement of the students. The tripartite evaluation of the first three lessons showed that there were some deviations between the teacher's assessment of students and the results of students' self-assessment and mutual assessment at the level of music knowledge mastery.

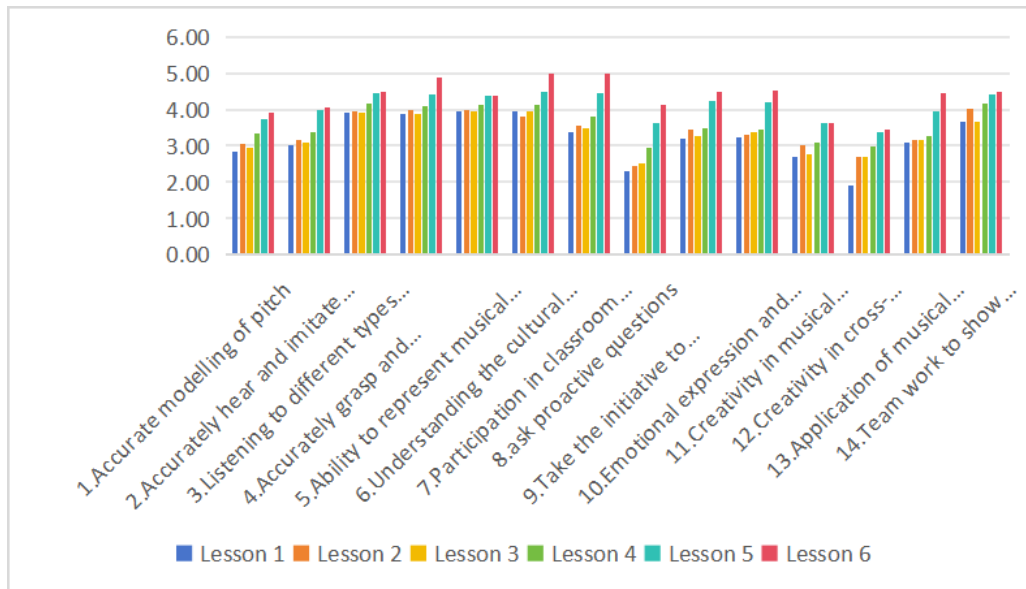


Figure 7: Post-Course Evaluation results

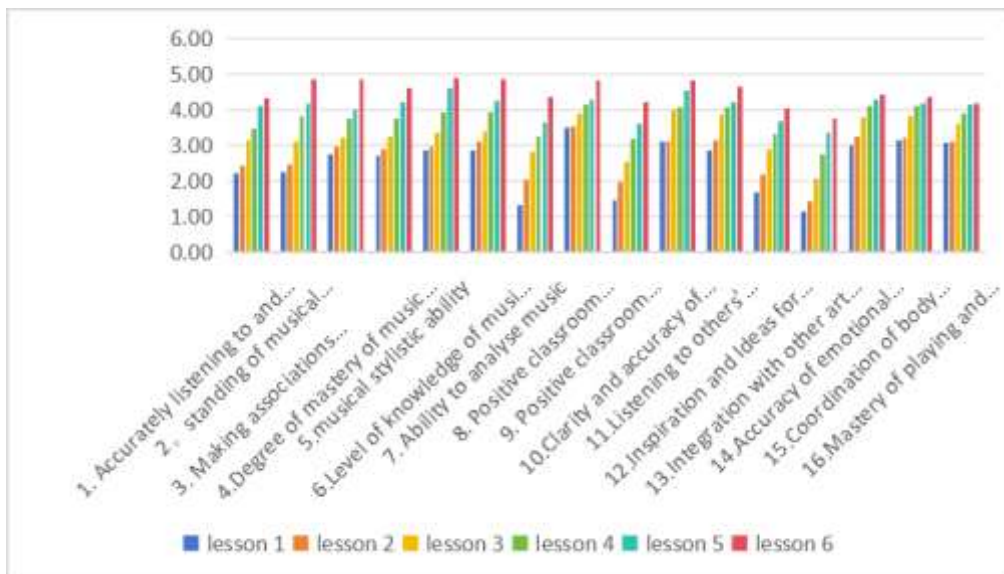


Figure 8: Student Self-Evaluation results

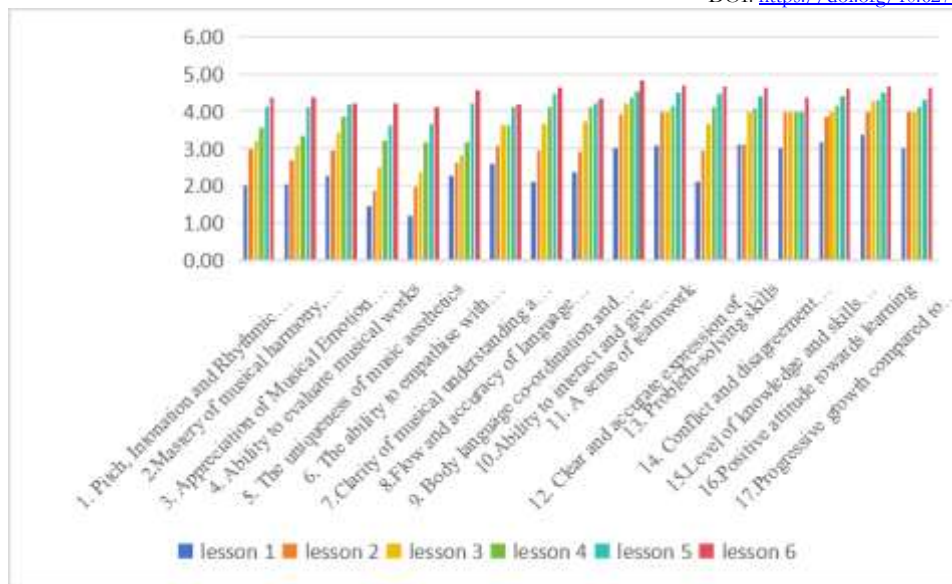


Figure 9: Student Mutual Evaluation results

Discussion

This study develops the design of music teaching activities to enhance the Social-Skills of university students based on the Orff-Schulwerk, and through an in-depth discussion of the findings, it aims to reveal the positive impact of this pedagogy on the Social-Skills of university students.

On the current socialisation situation of university students in the post epidemic era

The results of the survey show that the main factors affecting the social interaction of college students in the post-epidemic era include conversational ability, communicative ability and interpersonal ability. Conversational ability is manifested in poor self-expression and lack of logic in expression; communicative ability is manifested in low self-confidence and lack of communicative initiative; and interpersonal ability is manifested in lack of wisdom and skills in dealing with others and lack of personal emotion management. As an important place for the growth and development of college students, schools should take on more responsibilities. In addition to imparting knowledge, schools should also provide a platform for students to learn communication skills, enhance self-confidence and optimise emotional management, and improve their social situation through rich campus activities and more interactive teaching.

Students' mastery of music knowledge and skills

Further analysing the results of the individual lesson evaluations, we found that students' gaps in verbal expression when interactively exploring music recurred during the third, fourth and fifth teaching activities. This was related to the changes in the activity content of the three lessons. The third lesson used popular music that students were familiar with as the content to learn about changes in sound value, and the fourth lesson used the children's song 'Two Tigers' as an example to learn about polyphony, and the content of the two teaching activities was relatively easy to grasp; whereas, the fifth lesson involved the division of musical sections, which was a jump in difficulty, and the understanding and mastery of students' knowledge of music showed some differences, which in turn influenced students' expression when interacting; There was a deviation in the tripartite evaluation between the second and third lessons, which might be related to the changes in activity content and students' classroom feelings. The evaluation results showed positive growth due to the active classroom atmosphere and the change in music learning styles, which resulted in students' high emotions and good classroom feelings. The teacher, on the other hand, from the perspective of musical expertise, the third lesson involved timbre exploration and rhythmic pairing, which were difficult to teach, and was caused by the decline in performance of some individual students compared to the second

lesson; in the students' mutual evaluation, the evaluation of the handling of conflict disagreements remained unchanged for four consecutive lessons because the grouping of the lessons was not fixed in each lesson, and none of the students were in conflict disagreement, so the evaluation was kept at a high level.

Improvement of students' Social-Skills

From the perspective of Social-Skills enhancement, in terms of self-management ability, the vocal activities in the teaching activities allow students to explore different tones by tapping different parts of the body, combining movements with musical melodies, so that students can better understand the relationship between themselves and the rhythm of the music, enhance their self-confidence, and bravely present themselves. Meanwhile, in the process of co-creating with their peers, students improved their body language expression and ability to understand others' intentions through matching movements and echoing rhythms, achieved the goals of attentive observation, attentive listening, confident expression and active interaction, and stabilised their social emotions. Insert your text here. Insert your text here. Insert your text here. Insert your text here. Insert your text here. Insert your text here. Insert your text here. Insert your text here.

In terms of conversational skills, the creative activities in the teaching activities require students to work in groups and present their results, which helps to enhance the accuracy and fluency of students' language expression, enabling them to communicate their thoughts and feelings with others more clearly and effectively. In addition, the exchange of summaries of the activities in each lesson also provided students with opportunities for active expression.

In terms of the ability to co-operate in completing projects, the collective creative activities strengthened students' awareness and ability to co-operate in completing tasks, making them more active and efficient in collaborating with their team members to overcome problems and achieve their goals.

Research Findings and Outcomes

Enhancement of Social-Skills of university students

Through the integration of Orff-Schulwerk into the music appreciation class and the design of suitable teaching activities for college students, we found that this pedagogy not only helps to improve college students mastery of music knowledge and skills, but also, more importantly, significantly improves college students' Social-Skills in social activities such as self-management ability, verbal expression and communication ability, and the ability to co-operate in completing tasks. The students showed a good attitude of speaking confidently, stable social mood, clear and logical language expression, and active participation in classroom interaction and cooperation.

Applicable to music education for university students

This study also found that Orff-Schulwerk is not only suitable for music education of preschool children and primary and secondary school students, but also has significant effects in the music classroom of college students. It can simultaneously improve the music literacy and Social-Skills of college students, bringing new ideas and methods for college students' music education, enriching the theoretical and practical basis of Orff-Schulwerk, and fully reflecting the social functional value of music education.

Summary

This study delves into the application of Orff-Schulwerk in university education and its potential impact on enhancing the Social-Skills of university students. Through questionnaire surveys, interviews, and the design and implementation of teaching activities, we found that the pedagogy has a positive effect on enhancing the Social-Skills of university students, further confirming the value of music education as a social function.

References

- Abiogu, G., Mbaji, I., & Adeogun, A. (2015). Music education and youth empowerment: A conceptual clarification. *Open Journal of Philosophy*, 5, 117–122. <https://doi.org/10.4236/ojpp.2015.51013>
- Bella. (2022, August 28). Survey: Social Desire among Teenagers Declines by Over 60% During the Epidemic, Worried about Meeting Without Covers in the Future. HKTWW.
- Davies-Splitter, S., & Splitter, P. (2006). Get Orff on Singing. Retrieved January 6, 2010, from <http://www.vosa.org/includes/attach>
- Guan, J.H. (2006). On the Development and Understanding Paradigms of Music Curriculum. *Journal of Nanjing Normal University (Social Science Edition)*, (02), 75–81.
- Huang, S. (2009). A preliminary study on the creative atmosphere in music classrooms. *Journal of Xinghai Conservatory of Music*, 4, 102–105.
- Jin, S. Y. (2010). A study on the development of school-based music curriculum in primary and secondary schools in China (Doctoral dissertation). Fujian Normal University. Retrieved from https://kns.cnki.net/kcms2/article/abstract?v=YofA4grnCX7wQj53cpld-TOirt3RGkkZpO2d_M7NlflE_E6FN17V6HSIJVOML1gHi38y35wUTRg2o5JMN05bz77SyyvpsH5f8qo-5M7VnGxgQ3rv7Don4qNsrgm6GslIUwQL_3n8J45aYJjsP5nwxXQ==&uniplatform=NZKPT&language=CHS
- Junko, Hosoda (2023). Elementar as the Fundamental Idea in Orff-Schulwerk: When Orff Started Using the Term. *Tokyo Home Economics University Research Chronicle 1: Humanities and Social Sciences* 63, 1-7.
- Li, Dana. (1995). Orff-Schulwerk in China. *Yuefu Xincheng (Journal of Shenyang Conservatory of Music)*, (03), 28–33.
- Li, X. Y. (2005). Development and utilization of music curriculum resources. *Journal of Shenyang Normal University (Social Science Edition)*, 1, 140–142. <https://doi.org/10.19496/j.cnki.sxxb.2005.01.038>
- Liao, N. (1981). Karl Orff: His Life and His Music. *Yinyue Yishu* (02), 83–88. doi:10.19359/j.cn31-1004/j.1981.02.011
- Maubach, C. (2006). Introduction to the Orff Schulwerk Approach. Retrieved January 6, 2011 from <http://www.vosa.org/aboutorff>.
- Phokha, P., Saepueng, C., & Jirotkul, S. (2023). A Kodály-Orffian Methodology: Development of Music Education for the Thai Elementary Context. *The International Journal of Learner Diversity and Identities*
- Reimer, B. (2003). A philosophy of music education: Advancing the vision (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Salehi-Abari, I., & Khazaeli, S. (2020). Ten Rules Preventing COVID-19. *Advances in Infectious Diseases*, 10(3), 123–128. doi.org/10.4236/aid.2020.103012
- SciencePedia of Popular Science China. (2015). social-skills. Baidu Encyclopedia. https://baike.baidu.com/item/%E7%A4%BE%E4%BC%9A%E6%8A%80%E8%83%BD/3669882?fr=ge_al
- Valasi, S. (2023). Orff's pedagogical idea in the Greek and German version of the educational system. *KNOWLEDGE—International Journal*, 57(2), 267–271. Retrieved from
- Valmiki, E. K. A., Yadlapalli, R., & Oroszi, T. (2022). Global impact of coronavirus disease 2019 (COVID-19). *Health (English Edition)*, 007, 014.
- Wan, Y. (2013). An experimental report on the intervention of Orff group music therapy in college students' social anxiety. *Huang zhong: Journal of the Wuhan Conservatory of Music in China*, 2, 154-166+184.
- Wang, Y. F. (2012). A study on the development and utilization of local music resources in secondary school music education (Master's thesis). Shan xi University. Retrieved from https://kns.cnki.net/kcms2/article/abstract?v=YofA4grnCX4xTRHVgJFddd0Rv0i2n8druzGza1f9e9kf-63_qE1WUkve38g5h6AiSGHMYp9Begis02xM-iC5w0QNyTvKU524jtLZ89nWhjZZgBwjP71v455EMYoStdK7EbFez3oV54lcYyeCmEfYzgz==&uniplatform=NZKPT&language=CHS
- Xing, X. C., & Cao, X. (2003). A study on the effectiveness of group psychological counseling for interpersonal communication among college students. *Journal of Psychological Science*, 26(6), 1142–1143. <https://doi.org/10.16719/j.cnki.1671-6981.2003.06.056>
- Yang, S. (2014). A study on the effect of music intervention training on enhancing the social-skills of newly graduated entrants to the workforce (Master's thesis, East China Normal University). Retrieved from https://kns.cnki.net/kcms2/article/abstract?v=YofA4grnCX5B3Qeczo4D45UU3WScA6XaW5FJt3YDc_k66lXHOxLrIFsz6NOqEiJQ1faFGR29BOHRER6sQkve10BLtQGBGbkBcuQJeWA6mga_JQkmXv0dZ13Y0RYfO2ZGF_V4Gaoq-o=&uniplatform=NZKPT&language=CHS
- Zhang, Y. (2022). A study on the therapeutic effects of Orff music education on depression and aphasia in Alzheimer's disease. *Renren Jiankang*, 12, 63–65. <https://ikm.mk/ojs/index.php/kij/article/view/5998>
- Zhao, Q. Y. (2023). A study on the effectiveness of the Orff music teaching system in improving the social-skills of primary school students (Master's thesis). Jiangxi Science and Technology Normal University. Retrieved from https://kns.cnki.net/kcms2/article/abstract?v=YofA4grnCX6EV5uHWGw_DolkBG20pDlonrH42hUCLucdyQcLEwGPQW1XtzOrqocT9f9eZE1-7Wnna2_VpQwIQ0apAlgm8QhhYRGyQQ8OoI6V5vX_a5h80GTfuBPMHINpqG1zD9xeW8s=&uniplatform=NZKPT&language=CHS