

# **JUMPING OUT OF THE COMFORT ZONE: PROMOTING COLLABORATIVE LEARNING THROUGH MUSIC AND MOVEMENT COURSE IN HIGHER EDUCATION**

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## **Abstract**

This presentation investigates the benefits and challenges of a collaborative learning (CL) model implemented within a music and movement course in higher education in Macau, China. CL is an educational approach that involves groups of learners working collaboratively to solve a problem, complete a task, or create a project (Laal & Laal, 2012). This university-level music and movement course is structured to promote collaborative learning through small group creative projects and group demonstrations. In addition to the musical and pedagogical skillsets, this course aims at developing students' 21<sup>st</sup> century learning skills: critical thinking, communication, collaboration, and creative thinking. Research has shown that East Asian students usually tend to learn passively yet low participation is found to be only confined to classrooms as students are generally talkative outside the classroom (Tani, 2005). To engage students through active learning and experience (Dewey, 1938), a pre and post-survey were employed to obtain students' feedback on collaborative learning. Participants (n=71) were non-music major students enrolled in this music and movement course. Results revealed that the benefit of the CL encourages the 4Cs of 21<sup>st</sup> century skills, self-management, leadership skills, knowledge acquisition, social interaction, and so on. Yet, there are also challenges and barriers to implement this model in a classroom where passive learning is ingrained in the culture (Tani, 2005). It is to recommend collaborative learning model to be used more often as a pedagogic innovation to transform the current learning culture in the higher education in East Asia.

**Keywords:** *Collaborative learning, music, movement, 4Cs, pedagogic innovation.*

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## **1. Introduction**

Collaborative learning (CL) is recognised as an important skill set in the 21st century. Collaboration encompasses a principle of engagement as well as a personal way of life that underscores personal accountability for one's actions, while also valuing the skills and contributions of others. Whether in group settings or elsewhere, it offers a framework for treating people in a way that acknowledges and celebrates the unique talents and contributions of each individual within the group (Laal & Ghodsi, 2012).

In higher education, there is a growing fascination with how interactions with peers' impact academic engagement and learning. However, despite this enthusiasm, effectively organizing productive peer learning remains a complicated endeavor (Palincsar & Herrenkohl, 2002). Especially in Asia, students from Asian countries generally have lower levels of in-class participation (Tani, 2005; Chow & Chu, 2007; Crosthwaite et al., 2015). Teacher-centered pedagogies and lecture styles are common in Southeast Asia (Braine, 2003; Tan & Hairon, 2016; Loima & Vibulphol, 2016; Saito et al., 2008). Saito and others (2021) discussed issues in introducing collaborative learning in Southeast Asia, such as teachers' views towards the learning processes and academic experiences (p. 169). They concluded that the challenges to implement CL in Southeast Asian classrooms are students' hesitancy to ask questions due to the structure of the class and the difficulty of creating challenging and engaging tasks (Saito et al., 2021). Rao and Chan (2009) described traditional Eastern education approaches as didactic, instructional, and expository in nature. In contrast, according to Kember (2000) and Tani (2015), Asian students are only quiet in the classroom and are active in the cafeteria. Kember (2000) further stated that Asian students do not actually prefer passive learning or resist teaching innovations, using evidence from more than 90 action research projects. Zhao et al. (2015) concluded the importance of teachers' attitudes and their roles in curriculum reform in China.

As Atweh and Clarkson (2001) noted, many East Asian countries are revamping their education systems to foster more student engagement, group discussions, and teamwork in classrooms, which are typical strengths of Western education. Dello-Iacovo (2009) pointed out that “Cross Century Quality Education Project” curriculum reform project has been proposed for fostering students' curiosity and thirst for knowledge, encouraging their active involvement in the learning process, nurturing their sense of inquiry and investigative skills, promoting communication and collaboration, and reinforcing the connection between the curriculum and society (p. 243). With a similar goal of increasing participation and engaging students further, the objective of this study was to explore the benefits and challenges associated with the use of a collaborative learning (CL) approach in a music and movement course offered at the higher education level in Macau, China.

## **2. A revamped music & movement course**

Traditionally, music and movement courses are designed for younger children to promote their musical and physical development through singing, moving, dancing, and various musical concepts. Renowned approaches such as the Orff Schulwerk method and the Dalcroze method in music education have expanded the course to college students, adults, and even elders by incorporating movement and dance to foster a strong sense of musicality and expression for learners. As a researcher and course instructor, I proposed a revamped music and movement course at a higher education institute in Macau, China. Macau is a unique region that has been influenced by both Chinese and Portuguese culture and history. Though it was handed back to China in 1999 and is now a Special Administrative Region, it still retains some of its Portuguese heritage and identity. In terms of education, traditional schools in Macau have been heavily influenced by the education systems of Hong Kong and other East Asian countries, which often prioritize rote memorization, teacher-led instruction, and a focus on academic achievement over creative thinking and student-led exploration. While there has been some pushback against these traditional teaching methods in recent years, with educators and policymakers advocating for more student-centered and innovative approaches to learning, many schools in Macau still adhere to more traditional models of education. This is in contrast to the more progressive educational approaches that are being adopted in other parts of the world.

To shift the learning styles of students, this course not only teaches musical concepts and techniques, but also focuses on transforming the teacher-centered classroom into a student-centered one. The course is open to students of all majors, including education majors, and students are divided into small groups to complete various tasks throughout the course. Drawing on the support of constructivism theory (Piaget, 1970; Vygotsky, 1978), several strategies have been implemented in this course: (a) reducing lecture time, (b) regularly incorporating student-led activities after guided instructions, (c) employing collaborative learning strategies, and (d) adding in-class small group preparation time. Reducing lecture time allowed for more time for students to engage in hands-on activities and group work. This approach was in line with the constructivism theory, which suggests that learners construct knowledge through their own experiences and interactions with others. Collaborative learning strategies were also employed to encourage students to work together in small groups to complete various tasks and assignments. This approach was in line with the constructivism theory, which suggests that learners construct knowledge through social interaction.

## **3. Methodology**

This study utilized a pre- and post-study design to evaluate changes in the abilities of individual students before and after taking the Music and Movement course. A total of approximately 90 undergraduate students were invited to participate in the study and complete both pre- and post-study surveys. Ultimately, 71 students completed both surveys, and their data were used for analysis. All the participants were undergraduate students, comprising of 83% female and 17% male students with a mix of majors including education, accounting, Chinese language, Portuguese language, psychology, communication, and engineering in various years of their undergraduate studies.

Both pre- and post-study surveys contained the same questions that aimed to evaluate students' perceptions of their musical abilities and 21st century skills. The surveys were administered using Google Forms and were promoted to students during introductory and concluding lectures, as well as through email reminders and postings on the course content system. The surveys included a total of 25 questions, consisting of 11 questions on personal learning styles, 4 questions on music-related self-assessment, and 10 questions on 21st century skills. The students rated themselves using a 5-point Likert scale, with 1 indicating strong disagreement and 5 indicating strong agreement for learning styles and music-related self-assessment questions, and 1 indicating low scores and 5 indicating high scores for 21st century skills

questions such as leadership, confidence, and motivation. The data obtained from the surveys were analyzed using paired t-tests to compare students' self-ratings at the beginning and end of the course. A statistical significance level of  $\alpha = .05$  was set for the analysis. The continuous data were reported as mean  $\pm$  standard deviation (SD).

#### 4. Results

The results of the music-related skills of students showed a significant increase after taking the Music and Movement course. Specifically, the pre-test ( $M = 2.54$ ,  $SD = 1.13$ ) and post-test ( $M = 3.04$ ,  $SD = 2.7$ ) ratings for the question "I am comfortable at dancing and singing in front of people" indicate a significant improvement in students' comfortability in dancing and singing after a semester of the course, with  $t(70) = -2.82$ ,  $p = .006$ . Additionally, for the question "I consider myself a musical person," the pre-test ( $M = 2.54$ ,  $SD = 1.13$ ) and post-test ( $M = 2.96$ ,  $SD = 1.02$ ) ratings show a significant difference with  $t(70) = -2.57$ ,  $p = .01$ , allowing us to reject the null hypothesis of no difference. Regarding learning style preferences, there were no significant differences for most questions, except for the question "I have many experiences learning through group projects before," with pre-test ( $M = 3.58$ ,  $SD = 0.87$ ) and post-test ( $M = 3.96$ ,  $SD = 0.75$ ),  $t(-2.95)$ ,  $p = 0.004$ , indicating that the course increased their experiences learning through collaborative design.

For 21st-century skills, students ranked themselves significantly higher in public speaking skills ( $p < 0.005$ ), self-management skills ( $p < 0.05$ ), relationship with others ( $p < 0.05$ ), leadership skills ( $p < 0.05$ ), collaboration skills ( $p < 0.005$ ), confidence ( $p < 0.005$ ), and critical thinking skills ( $p < 0.05$ ). However, for creative thinking skills, there was only a slight improvement in the mean rating, which was not statistically significant.

Table 1. Comparison of Pre-test and Post-test Means, Standard Deviation, and p value for Students Self-Assessing Skills and Preferences.

Categories	Survey Questions	Pre-test	Post-test	p value
		Mean $\pm$ SD	Mean $\pm$ SD	
Music-related Self-assessment	I am comfortable at dancing and singing in front of people	2.54 $\pm$ 1.13	3.04 $\pm$ 0.98	0.006*
	I consider myself a musical person	2.54 $\pm$ 1.13	2.96 $\pm$ 1.02	0.01*
Learning Styles Preferences	I prefer to take a test rather than an alternative final (presentation, performance, etc.)	2.57 $\pm$ 1.18	2.46 $\pm$ 1.31	0.56
	I have many experiences learning through group projects before.	3.58 $\pm$ 0.87	3.96 $\pm$ 0.75	0.004*
	I prefer to learn through doing, rather than memorizing.	3.89 $\pm$ 0.96	4.04 $\pm$ 0.87	0.28
	Getting a good grade is the most important thing as a student	3.69 $\pm$ 0.90	3.60 $\pm$ 0.92	0.57
	I prefer to sit and listen in the class.	3.25 $\pm$ 1.09	3.11 $\pm$ 1.02	0.43
21 <sup>st</sup> Century Skills Self-Assessment	Public Speaking Skills	2.83 $\pm$ 0.81	3.30 $\pm$ 0.80	0.0008*
	Self-Management Skills	3.32 $\pm$ 0.75	3.60 $\pm$ 0.73	0.03*
	Relationship with Others	3.58 $\pm$ 0.73	3.87 $\pm$ 0.67	0.019*
	Leadership Skills	3.14 $\pm$ 0.88	3.45 $\pm$ 0.81	0.019*
	Collaboration Skills	3.46 $\pm$ 0.75	3.82 $\pm$ 0.72	0.005*
	Confidence	3.05 $\pm$ 0.77	3.42 $\pm$ 0.71	0.002*
	Critical Thinking Skills	3.11 $\pm$ 0.82	3.38 $\pm$ 0.66	0.019*
Creative Thinking Skills	3.28 $\pm$ 0.84	3.45 $\pm$ 0.81	0.14	

\* Data represents statistical significance at  $p$  value  $> 0.05$

#### 5. Discussion and conclusion

The findings suggested this collaborative Music and Movement course has enhanced the skillsets of students ( $n = 71$ ), as reflected in their self-assessment. Notably, the students ranked themselves higher in terms of their ability to sing and dance in front of people, as well as their perception of themselves as musical individuals. Additionally, students reported higher rankings in various 21st century skillsets, including self-management, relationship building, leadership, confidence, and critical thinking skills after the course. Among these skills, collaboration and public speaking skills were statistically significant. Previous research has indicated that East Asian students commonly experience anxiety while speaking in

class (Cheng, 2000; Mak, 2011; Tani, 2008). However, this study demonstrated that through student-led activities and collaborative learning, students were able to improve their 21st century skills and learning, which is consistent with prior research (Johnson et al., 2000; Johnson & Johnson, 2019; Nokes-Malach et al., 2015; Panitz, 1999).

However, the main challenges were observed in the results related to the students' learning preferences. The question regarding their preference for taking the final exam, "I prefer taking a test rather than an alternative final (presentation, performance, etc.)," showed a higher standard deviation, indicating that the data was more dispersed. This suggests that some students still preferred written exams rather than presentations or performances, while others did not. This preference did not change significantly even after the course. Similarly, for the other two questions, "I prefer to learn through doing rather than memorizing" and "Getting a good grade is the most important thing as a student," there were slight shifts in the mean scores towards "doing" and less emphasis on getting good grades, but the overall shifts were not significant. Wong (2004) and Wu (2015) believe that some researchers have attributed passive learning styles to the culture-based approach to learning, which limits the understanding of the complexities of Asian students' experiences.

*From an essentialist point of view, students from Confucian heritage cultures may typically display a reluctance to speak up or give their opinion; rely heavily on memorization; lack critical thinking; respect the authority of the teacher; and expect to be spoon-fed. (Wu, 2015)*

Although some students were influenced by their cultural heritage, many of them desired a more diverse and active learning experience. As a Macau native, I personally believe that the limited exposure to CL is one of the main challenges for students. Traditional teaching styles in which the teacher is the center of attention and passive learning is encouraged have wired students to learn this way. They were rewarded for being quiet and passive rather than participating actively in class. Many universities in East Asia recommend innovative pedagogies and student-centered learning, which can benefit not only Asian students but also transform their attitudes, methods, and motivations for learning. While this research has only focused on one pilot course, it is hoped that CL learning can be continuously implemented and integrated into students' learning culture by the university.

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