

Students' Collaborative Learning, Social-Emotional Development, and Opportunities in Music Ensembles'

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Abstract

This study examined students' collaborative learning, social-emotional development, and opportunities in music ensembles among 390 college students of Iloilo Science and Technology University, Iloilo, Philippines, during School Year 2025–2026. It specifically determined the levels of collaborative learning, social-emotional development, and opportunities in music ensembles and examined whether significant differences existed when students were grouped according to age, sex, year level, campus, and parents' occupation. It also determined the relationships among the three major variables. The study employed a descriptive-correlational research design. Respondents were selected using Slovin's formula and stratified proportionate random sampling. Data were collected using a researcher-made questionnaire based on Bruner's Constructivist Learning Theory, which was validated by experts and pilot-tested for reliability. Data were analyzed using frequency, percentage, mean, standard deviation, t-test, Analysis of Variance, and Pearson's product-moment correlation at the 0.05 level of significance. Results showed that students demonstrated a very high level of collaborative learning ($M = 4.31$, $SD = 0.43$) and social-emotional development ($M = 4.27$, $SD = 0.45$), while opportunities in music ensembles were moderate ($M = 3.24$, $SD = 0.61$). No significant differences were found in the three major variables when respondents were grouped according to age, sex, year level, campus, and parents' occupation. A significant positive relationship was found between collaborative learning and opportunities in music ensembles ($r = .286$, $p = .001$), while no significant relationships were found between collaborative learning and social-emotional development ($r = .094$, $p = .063$) and between social-emotional development and opportunities in music ensembles ($r = .087$, $p = .086$). The findings highlight the importance of collaborative learning and the need to strengthen opportunities for student participation in music ensembles.

Keywords: collaborative learning, social-emotional development, music ensembles, college students, constructivist learning, student participation

INTRODUCTION

Collaborative learning is now an important part of higher education because it helps students build knowledge and skills by working together. In music education, this is especially relevant since performing music usually requires teamwork. Students in music ensembles have to listen to one another, coordinate their parts, share ideas, respond to feedback, and work toward a common goal. These experiences not only help them grow academically but also socially. Research shows that working with

peers in higher music education can lead to musical development and improve students' social and teamwork skills (Forbes, 2020; Jørgensen et al., 2023). As a result, music ensembles provide students with a setting where they can learn through shared experiences and interaction.

Collaborative learning aligns with Bruner's constructivist theory of learning, which holds that students build knowledge through direct experience, interaction, and engagement with their environment. In music ensembles, students learn from both teachers and their peers by rehearsing, observing, practicing, discussing, and performing together. Each member takes an active role and is responsible for their own part. This process helps students communicate, solve problems as a team, and adapt based on what others are doing. Forbes (2020) noted that collaborative learning in higher music education gives students the chance to learn from each other and develop both musical and personal skills. Jørgensen et al. (2023) also found that collaborative methods in higher music education can support learning in cognitive, metacognitive, emotional, and social areas.

Social-emotional development is also a key part of students' overall growth. It involves understanding and managing one's emotions, building positive relationships, showing empathy, communicating effectively, and making good decisions. Being in a music ensemble puts students in situations where they need to manage their emotions during rehearsals, performances, feedback, successes, and mistakes. They also work with peers who have different personalities, skills, and backgrounds. These experiences help students learn to manage their emotions, become more aware of others, build confidence, cooperate, and feel a sense of belonging. Studies in higher music education have shown that social and emotional interactions during ensemble rehearsals can affect the group's atmosphere, motivation, teamwork, and how students manage themselves and relate to others (Tahirbegi, 2023). Therefore, the social and emotional aspects of participating in ensembles are important for understanding students' educational experiences.

Music ensembles give students the chance to take part in performances, competitions, school programs, cultural events, community activities, and other musical experiences. These activities allow students to use their musical skills in real-life situations and help them build discipline, responsibility, communication skills, creativity, and teamwork. Being part of an ensemble can also help students form their own identities and feel connected to a group. Ben-Tal and Salazar (2014) observed that at the college level, working together in ensembles helps students develop creative identities through shared musical experiences. Participation in ensembles expands learning beyond the classroom by giving students real opportunities to perform, work together, lead, and connect with others in their school and community.

The opportunities students have in music ensembles can depend on their personal and background factors. Things like age, sex, year level, campus, and their parents' jobs can affect their experiences and access to music and extracurricular activities. For example, students in different year levels may have different chances to join university programs and ensembles. The campus itself can also influence what music groups and activities are available. By looking at these factors, we can see if students' experiences in collaborative learning, their social-emotional development, and their access to ensembles vary based on their backgrounds. This information can help schools find ways to improve participation and access to music education.

This study looked at collaborative learning, social-emotional development, and opportunities in music ensembles among 390 college students at Iloilo Science and Technology University in the Philippines during the 2025–2026 school year. The students were selected using Slovin's formula and through

random sampling across different campuses. The study used age, sex, year level, campus, and parents' occupation as independent variables, and collaborative learning, social-emotional development, and music ensemble opportunities as dependent variables. It used a descriptive-correlational research design and a questionnaire based on Bruner's constructivist learning theory, which was reviewed by experts and tested for reliability. The data were analyzed using frequency, percentage, mean, t-test, ANOVA, and Pearson's r at a 0.05 significance level.

The main goal of this study was to determine the levels of collaborative learning, social-emotional development, and music ensemble opportunities among 390 college students at Iloilo Science and Technology University in the Philippines during the 2025–2026 school year. It aimed to describe the students' backgrounds, measure their collaborative learning in music ensembles, assess their social-emotional development in relation to ensemble participation, and find out how many ensemble opportunities they had. The study also examined whether these factors differed by age, sex, year level, campus, and parents' occupation. In addition, it looked at whether there were any links between collaborative learning and social-emotional development, between collaborative learning and ensemble opportunities, and between social-emotional development and ensemble opportunities. The findings could help educators, administrators, and policymakers improve collaborative learning, support students' social-emotional growth, and increase access to music ensemble opportunities in higher education.

METHODOLOGY

The study used a descriptive-correlational research design to examine students' collaborative learning, social-emotional development, and opportunities in music ensembles, as well as how these factors are related. The researchers chose this design to describe students' characteristics and identify significant differences or relationships without changing any variables. The study included 390 college students from Iloilo Science and Technology University in Iloilo, Philippines, during the School Year 2025–2026. The researchers determined the sample size using Slovin's formula and calculated it through stratified proportionate random sampling across different campuses. The researchers grouped students by age, sex, year level, campus, and parents' occupation. These characteristics were used to examine possible differences in collaborative learning, social-emotional development, and opportunities in music ensembles.

The researchers used a questionnaire as the main data-collection tool; it was designed to fit the study's goals and objectives and align with constructivist learning theory, which views learning as an active process in which students build knowledge through experience and interaction. The questionnaire measured students' collaborative learning, social-emotional development, and opportunities in music ensembles. Experts reviewed the questionnaire to ensure content validity. They also tested it with students not part of the main study to check reliability and identify items that needed clarification or revision.

Data collection was done with the selected college students during the School Year 2025–2026. Before administering the questionnaire, the researchers got the necessary permissions from university authorities. The researchers informed students of the study's purpose and encouraged their participation. The study's purpose and identity were confidential, and the information collected was used only for academic and research purposes. The researchers checked the completed questionnaires for completeness, entered them into the system, and prepared them for analysis using the Statistical Package for the Social Sciences (SPSS). Frequencies and percentages were used to describe respondents' profiles

by age, sex, year level, campus, and parents' occupation. The mean was used to find levels of collaborative learning, social-emotional development, and opportunities in music ensembles. The t-test was used to find significant differences between two groups, and analysis of variance (ANOVA) was used for more than two groups. Pearson's product-moment correlation coefficient (Pearson's r) was used to find significant relationships among collaborative learning, social-emotional development, and opportunities in music ensembles. All statistical tests were checked at the 0.05 level of significance. The researcher followed ethical guidelines throughout; participation was voluntary, and students were told they could join or leave the study at any time without penalty. The researcher kept their identities and responses confidential. The researcher made sure all information was handled carefully, analyzed correctly, and reported only for this study.

RESULTS

The study involved 390 college students of Iloilo Science and Technology University, Iloilo, Philippines, during School Year 2025–2026. The respondents were selected through Slovin's formula and stratified proportionate random sampling across campuses. The study examined students' collaborative learning, social-emotional development, and opportunities in music ensembles, as well as differences in these variables according to age, sex, year level, campus, and parents' occupation.

The results showed that students demonstrated a very high level of collaborative learning, with an overall mean of 4.31 and a standard deviation of 0.43. Among the indicators, cooperation and shared responsibility obtained a mean of 4.38 (SD = 0.42), communication and interaction obtained 4.34 (SD = 0.44), peer support obtained 4.29 (SD = 0.46), and participation in group activities obtained 4.22 (SD = 0.48). These results indicate that the respondents generally participated actively in group activities, communicated with their peers, shared responsibilities, and worked cooperatively toward common musical and learning objectives.

The respondents also demonstrated a very high level of social-emotional development, with an overall mean of 4.27 and a standard deviation of 0.45. Emotional regulation obtained a mean of 4.25 (SD = 0.47), interpersonal relationships obtained 4.31 (SD = 0.44), empathy and respect obtained 4.29 (SD = 0.45), and communication and social skills obtained 4.23 (SD = 0.48). The findings suggest that students generally demonstrated positive interpersonal behaviors, emotional awareness, cooperation, and the ability to interact constructively with their peers during music-related activities.

In contrast, opportunities in music ensembles were assessed at a moderate level, with an overall mean of 3.24 and a standard deviation of 0.61. Opportunities for performances obtained a mean of 3.31 (SD = 0.64), participation in competitions obtained 3.18 (SD = 0.67), leadership opportunities obtained 3.15 (SD = 0.65), and access to workshops and other music-related activities obtained 3.32 (SD = 0.59). The results indicate that although students experienced opportunities to participate in music ensembles, these opportunities were not as extensive as their reported levels of collaborative learning and social-emotional development.

When grouped according to age, students aged 18–20 obtained a mean of 4.30 in collaborative learning, while those aged 21 and above obtained 4.33, with a t-value of -0.52 and p-value of .603. For social-emotional development, the younger group obtained 4.26 and the older group 4.29, with a t-value of -0.49 and p-value of .625. For music ensemble opportunities, the two groups obtained means of 3.20 and 3.28, respectively, with a t-value of -1.01 and p-value of .314. All results were not statistically significant at the 0.05 level.

In terms of sex, male respondents obtained a mean of 4.28 in collaborative learning, compared with 4.33 among female respondents, with a t-value of -0.68 and p-value of .498. For social-emotional development, males obtained 4.24 while females obtained 4.29, with a t-value of -0.65 and p-value of .517. For music ensemble opportunities, male respondents obtained 3.20 and female respondents 3.27, with a t-value of -0.89 and p-value of .375. These findings indicate no statistically significant differences according to sex.

The results of the analysis according to year level showed slight increases in music ensemble opportunities among students in higher year levels. First-year students obtained a mean of 3.15, second-year students 3.21, third-year students 3.28, and fourth-year students 3.34. However, the differences were not statistically significant, $F = 1.42$, $p = .236$. Collaborative learning also showed comparable means across year levels, ranging from 4.27 to 4.35, with $F = 0.76$, $p = .517$. Similarly, social-emotional development ranged from 4.23 to 4.31, with $F = 0.81$, $p = .490$. Thus, year level did not produce statistically significant differences in any of the three major variables.

When respondents were grouped according to campus, collaborative learning means ranged from 4.27 to 4.35, with an F-value of 0.63 and p-value of .595. Social-emotional development ranged from 4.23 to 4.30, with $F = 0.71$ and $p = .547$. Music ensemble opportunities ranged from 3.17 to 3.31, with $F = 1.18$ and $p = .318$. The results indicate that there were no statistically significant differences among campuses in collaborative learning, social-emotional development, or music ensemble opportunities.

According to parents' occupation, collaborative learning means ranged from 4.26 to 4.35, with $F = 0.84$ and $p = .471$. Social-emotional development ranged from 4.22 to 4.31, with $F = 0.92$ and $p = .431$, while music ensemble opportunities ranged from 3.18 to 3.29, with $F = 0.77$ and $p = .511$. These results show that parents' occupation was not significantly associated with differences in students' collaborative learning, social-emotional development, or opportunities in music ensembles.

The correlation analysis revealed a positive and statistically significant relationship between collaborative learning and opportunities in music ensembles, with Pearson's $r = .286$ and $p = .001$. This indicates that higher levels of collaborative learning were associated with greater opportunities in music ensemble activities. However, the relationship between collaborative learning and social-emotional development was not statistically significant, with $r = .094$ and $p = .063$. Likewise, social-emotional development was not significantly correlated with opportunities in music ensembles, with $r = .087$ and $p = .086$. Therefore, only the relationship between collaborative learning and opportunities in music ensembles was statistically significant at the 0.05 level.

Overall, the numerical results indicate that students had very high collaborative learning ($M = 4.31$, $SD = 0.43$) and social-emotional development ($M = 4.27$, $SD = 0.45$), while opportunities in music ensembles were moderate ($M = 3.24$, $SD = 0.61$). The tests of differences showed no statistically significant variations according to age, sex, year level, campus, or parents' occupation. The correlation analysis established a significant positive relationship between collaborative learning and music ensemble opportunities, whereas the relationships involving social-emotional development were not statistically significant.

Summary of the Study

The study entitled "Students' Collaborative Learning, Social-Emotional Development, and Opportunities in Music Ensembles" was conducted among 390 college students of Iloilo Science and Technology University, Iloilo, Philippines, during School Year 2025–2026. It aimed to determine the

level of students' collaborative learning, social-emotional development, and opportunities in music ensembles. It also examined whether significant differences existed when students were grouped according to age, sex, year level, campus, and parents' occupation, and determined the relationships among the three major variables. The study utilized a descriptive-correlational research design, with respondents selected through Slovin's formula and stratified proportionate random sampling across the university campuses.

Data were gathered using a researcher-made questionnaire based on Bruner's Constructivist Learning Theory, which was subjected to expert validation and pilot testing. The data were analyzed using SPSS through frequency, percentage, mean, standard deviation, t-test, ANOVA, and Pearson's product-moment correlation, with the level of significance set at 0.05. The study focused on collaborative learning, social-emotional development, and opportunities in music ensembles as the major variables, while age, sex, year level, campus, and parents' occupation served as the respondent classifications.

Findings of the Study

The findings revealed that the students demonstrated a very high level of collaborative learning, with an overall mean of 4.31 and a standard deviation of 0.43. Social-emotional development was likewise rated very high, with an overall mean of 4.27 and a standard deviation of 0.45. In contrast, opportunities in music ensembles were rated moderate, with an overall mean of 3.24 and a standard deviation of 0.61. Although music ensemble opportunities showed a slight increase according to year level, from a mean of 3.15 among first-year students to 3.34 among fourth-year students, the difference was not statistically significant, with $F = 1.42$ and $p = .236$.

The results further showed that there were no statistically significant differences in collaborative learning, social-emotional development, and opportunities in music ensembles when the students were grouped according to age, sex, year level, campus, and parents' occupation. The correlation analysis showed a significant positive relationship between collaborative learning and opportunities in music ensembles, with $r = .286$ and $p = .001$. However, no significant relationship was found between collaborative learning and social-emotional development ($r = .094$, $p = .063$), or between social-emotional development and opportunities in music ensembles ($r = .087$, $p = .086$).

Conclusion

Based on the findings, it is concluded that the students of Iloilo Science and Technology University demonstrated very high levels of collaborative learning and social-emotional development. This indicates that the students generally manifested positive behaviors involving cooperation, communication, peer support, shared responsibility, emotional regulation, empathy, respect, and interpersonal relationships. However, opportunities for participation in music ensembles were only moderate, suggesting that students had opportunities to engage in music-related activities but that these opportunities were comparatively less extensive.

The study further concludes that age, sex, year level, campus, and parents' occupation did not significantly influence the students' collaborative learning, social-emotional development, or opportunities in music ensembles. The significant positive relationship between collaborative learning and music ensemble opportunities indicates that students who reported stronger collaborative learning experiences also tended to report greater opportunities to participate in music ensembles. However,

collaborative learning was not significantly related to social-emotional development, and social-emotional development was not significantly related to opportunities in music ensembles.

Recommendations

It is recommended that Iloilo Science and Technology University continue to strengthen collaborative learning practices through group activities, cooperative projects, peer learning, and other classroom strategies that encourage communication, teamwork, shared responsibility, and active participation. Faculty members may also integrate appropriate music-related collaborative activities into academic and extracurricular programs to provide students with additional opportunities to develop teamwork and interpersonal skills.

The university administration may consider expanding music ensemble opportunities by providing adequate facilities, equipment, training, workshops, performances, competitions, and leadership activities. Students are encouraged to actively participate in available music organizations and ensemble activities, while future researchers may conduct similar studies in other universities and educational settings and consider additional variables or qualitative approaches to gain a deeper understanding of collaborative learning, social-emotional development, and students' participation in music ensembles.

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