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The Impact of Music Teaching and Classroom Management on the Academic Anxiety of Junior High School Students in Chengdu, China

Yayun Hu

Rajamangala University of Technology Krungthep, Thailand

Rawi Buaduang

Rajamangala University of Technology Krungthep, Thailand

Supot Rattanapun

Rajamangala University of Technology Krungthep, Thailand

Abstract

This study examined the impact of teaching, music classroom management, and classroom management on the academic anxiety of junior high school students in Chengdu, China. Based on the ideas of emotional regulation and self-determination theories, this study sought to determine whether music instruction and classroom management had direct effects on students' academic anxiety levels and to examine the mediating effect of classroom management. A total of 400 valid samples were obtained from three junior secondary schools in Chengdu, China, using a quantitative cross-sectional survey. Three five-point Likert scales were used to collect data on music classroom teaching, classroom management, and academic anxiety. The reliability analysis indicated high internal consistency, with Cronbach's alpha ranging from 0.897 to 0.912. The data obtained were analyzed descriptively using Pearson's correlation and multiple regression analyses. The results revealed that academic anxiety was significantly decreased by music classroom teaching ($\beta = -0.352$, $p < 0.001$) and negatively predicted by classroom management ($\beta = -0.389$, $p < 0.001$). Classroom music teaching positively predicted classroom management ($\beta = 0.417$, $p < 0.001$). In addition, classroom management moderated the relationship between music teaching and academic anxiety ($\beta = -0.173$, $p < 0.001$). The regression model accounted for 48.6% of the variance in academic anxiety. The study concludes that good teaching of music and appropriate classroom control are applicable, which can alleviate pupils' academic anxiety and enhance their psychological well-being. Further studies could utilize a longitudinal or mixed-methods approach and explore other factors that affect students' emotional growth.

Keywords: Music Education, Classroom Management, Academic Anxiety, Student Well-being, Music Pedagogy, Junior High School Students in China

Introduction

The study of academic anxiety is becoming an increasingly relevant phenomenon for Chinese junior high school students as a result of the high level of academic competition, high school entrance examinations, and high expectations of parents. Academic performance and transition examinations are major sources of psychological stress in Chinese compulsory education. High levels of academic anxiety negatively impact cognitive functioning, learning motivation, emotional health, self-esteem, and lifelong mental health. Early adolescence is a sensitive developmental period as students experience simultaneous cognitive, emotional, and social shifts. Thus, academic stress has emerged as a problem in education and psychology in modern Chinese classrooms.

To address this, the Chinese education system has undergone changes in recent years, with a greater focus on the well-being of students, a more balanced approach to academic performance and development, and a decrease in the pressure to achieve high scores on standardized tests. With the objective of easing homework burden, eliminating off-campus tutoring, improving educational quality, and fostering aesthetic education and mental health development of students, the Chinese government has enacted a range of policies, such as the “Double Reduction” policy. In this reform environment, music education has become increasingly important to be included in the whole education system as a means of creating ability, nurturing emotion, and improving mental health. However, empirical research on the effect of music teaching on the academic anxiety reduction of junior high school students is still limited, especially in the context of Chinese education.

Classroom environments have been found to have a significant impact on students’ emotional and academic experiences in prior research. Teacher–student interactions, instructional methods, and a positive climate influence students’ motivation, engagement, emotional regulation, and learning outcomes. Quality classrooms create learning opportunities and foster students’ emotional involvement and psychological health. Recent studies have also highlighted the importance of using an interactive and student-centered learning environment to reinforce students’ self-regulated learning, engagement, and adaptive learning behaviors in a modern educational context ([Rattanapun et al., 2026](#)). A supportive classroom atmosphere and structure can diminish stress and foster academic resilience. However, most research has been conducted in the area of academic achievement, most notably in mathematics and language learning, and the emotional and psychological impact of music classroom instruction has not been well studied.

The benefits of music education on the psychological and emotional aspects of children have been widely recognized. Music learning can help express emotions, reduce stress, increase self-confidence, and create social connections for adolescents. Music education also plays an

important role in socio-emotional learning and in the psychological health of students, as the educational process fosters creativity, empathy, emotional awareness, and collaborative learning according to research ([Váradi, 2022](#); [Walzer, 2021](#)). The emotional and/or social traits of music classrooms can potentially lower students’ academic anxiety and help regulate their emotions. Although these advantages are assumed, few empirical studies on the direct relationship between music classroom teaching and the academic anxiety of junior high school students have been conducted in China.

Classroom management is also a key component of students’ emotional and academic experiences, in addition to instructional methods. Effective classroom management results in organized, supportive, and psychologically safe classroom settings that positively impact students’ engagement and positive emotions. In addition, a meta-analysis conducted by [Korpershoek et al. \(2016\)](#) showed that good classroom management correlates positively with students’ academic, behavioral, emotional, and motivational outcomes. On the other hand, ill-managed classrooms can lead to further confusion, disaffection, and anxiety among students. While classroom management in general education has been widely researched, little research has been conducted on the topic in the context of music education and its connection to students’ academic anxiety.

Moreover, there has been a lack of empirical research investigating the complex interactions among music classroom instruction, classroom management, and academic anxiety in a cohesive analysis. Music education studies are often small-scale or qualitative observations that are not easily generalizable. Large-scale quantitative studies are still needed to explore the interaction between teaching music and classroom management that affects students’ emotional results. This research gap is especially crucial in competitive educational contexts like Chengdu, where many junior high school students are under significant stress from high school entrance exams and academic performance.

Therefore, this study aimed to examine the linkages between music classroom teaching, classroom control, and academic anxiety of junior high school students in Chengdu, China. Specifically,

this study explored whether classroom management plays a mediating role between music classroom teaching and students' academic anxiety. The results will serve as a foundation for research in educational psychology, music education, and classroom management, as well as for current educational reforms being implemented in China to foster well-being and holism in students.

Research Objectives

- To examine the effect of music classroom teaching and classroom teaching management on students' academic anxiety.
- To examine the effect of music classroom teaching on classroom teaching management,
- To examine the mediating role of classroom management in the relationship between music classroom teaching and students' academic anxiety

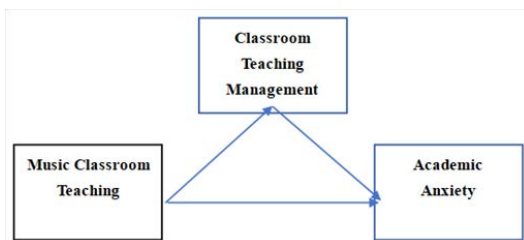


Figure 1 Conceptual Model

Literature Reviews

The teacher, home and social situations, are all factors that affect academic anxiety in junior high school students. Strategies to lessen anxiety involve correct recognition and positive psychological approaches, indicating the significant role that constructive teaching styles such as music teaching and classroom management can play in mediating anxiety (Yu et al., 2023).

There is a mediating effect between teacher support and academic achievement as students' academic self-concept is positively influenced by teacher support, whereas academic anxiety has a negative influence. Academic anxiety can be mitigated and classroom performance enhanced through the effective management of the classroom, which involves teacher-student interactions (Xue et al., 2026).

Cognitive symptoms of anxiety are associated with a decrease in cognitive ability, and junior high school students have a high prevalence of anxiety and mental health problems are also strongly associated with academic anxiety. This highlights the importance of positive education interventions, such as music instruction, that could help reduce anxiety and enhance cognitive functioning (Shen et al., 2025).

Among Chinese junior high school students, psychological factors including perfectionism and self-efficacy have been found to be related to test anxiety. Anxiety may be lowered through adaptive educational approaches that encourage self-efficacy, such as activities in the music classroom and effective classroom management, which are likely to be available in music education (Wan et al., 2022).

The teaching style has a positive effect on academic engagement and self-efficacy in junior high students. The role of caring and sharing teaching methods or "music fun" teaching methods in enhancing the interest of student learning has the potential to alleviate students' anxiety, making the classroom environment more supportive and interesting (Geng et al., 2024).

Anxiety can be expressed in social situations, such as social anxiety disorder in junior high school students. Although innovative teaching models like scaffolding in English classes have proven effective in alleviating social anxiety and fear, it is suggested that classroom management and teaching strategies that provide structure and support, such as music education, could also help to decrease academic anxiety (He, 2023).

A significant predictor of anxiety is the pressure in the academic environment (extreme pressure is more likely to lead to moderate to severe anxiety). Academic workload control and use of effective classroom management, such as music teaching, in engaging ways, can be helpful for balancing academic demands and reducing anxiety (Wen et al., 2020).

Classrooms can benefit from the use of aromatherapy, as it has been found to positively affect the academic emotions of the students, by boosting positive emotions and lowering negative ones associated with academic stress; using such

methods in combination with music lessons and proper classroom management may lead to a reduction in academic anxiety ([Ma, 2022](#)).

Studies on the negative effects of too much external academic stress, such as private supplementary tutoring, on student's academic performance and anxiety, indicate that in-class strategies, including music teaching and effective classroom management can be protective factors from external academic stress-induced anxiety ([Zhang et al., 2024](#)).

The classroom teaching style is a key factor in explaining self-efficacy and interest, which in turn are important in engagement and anxiety reduction. Using music teaching in classroom management may improve either aspect, thereby alleviate the academic anxiety of junior high school students ([Geng et al., 2024](#)).

Methods

Participants and Sampling

The study sample included 3,200 full-time junior high school students (Years 7–9) from three secondary schools in Chengdu, Sichuan Province, China. Junior high school students were chosen because they are said to be in early adolescence and have experienced more academic stress and are at a higher risk of encountering academic stress in this age group. Because music education is a mandatory subject in Chinese junior secondary schools, this population was suitable for the researcher to explore the correlation between music classroom teaching, classroom management, and academic anxiety.

The minimum sample size was calculated at a 95% confidence level, 5% margin of error, and using [Yamane's \(1967\)](#) formula, which yielded a minimum of 357 respondents. A total of 430 questionnaires were sent out, with 400 being returned, giving a response rate of approximately 93.0% (allowing for the possibility of non-response).

A stratified random sampling technique was employed. The schools were considered strata, and year groups (Years 7-9) were considered sub-strata. Random sampling was conducted proportionately within each year group to ensure balance. Demographic data of students, such as gender, year group, and whether they took part in extra-curricular music training, were gathered and analyzed descriptively.

Research Instrument

This study used a structured questionnaire based on existing domestic and international questionnaires that have been validated and are related to music classroom teaching, classroom management, and academic anxiety ([Sovacool et al., 2018](#)). The questionnaire was translated from English into Chinese with the help of bilingual experts using a translation and back-translation procedure to guarantee its linguistic and cultural appropriateness. All inconsistencies were edited for semantic and contextual accuracy.

Three experts in the fields of education, psychology, music education, and research methodology evaluated the content validity. Minor revisions were made based on their suggestions to enhance clarity and appropriateness for the Chinese junior high school audience. A small pilot study with 36 students was then conducted to test readability and item comprehension.

Reliability

Cronbach's alpha coefficient was used to determine the reliability of the instruments. The internal consistency reliability of the pilot study was high, with an overall Cronbach's alpha of 0.89. Furthermore, the corrected item-total correlation (CITC) was > 0.4 for all items, suggesting item consistency and acceptable reliability. The results indicate that the instrument was suitable for further statistical analyses.

Results

Table 1 Overview of Respondents' Demographic Characteristics (Note: n=400)

Variable	Category	Number	%
Gender	Male	196	49.0
	Female	204	51.0
Age	12 years old	78	19.5
	13 years old	132	33.0
	14 years old	118	29.5
	15 years old	72	18.0
Year group	Year 7	132	33.0
	Second Year of Junior High School	138	34.5
	Year 9	130	32.5

School	Chengdu A Secondary School	136	34.0
	Chengdu Secondary School B	128	32.0
	Chengdu City Secondary School C	136	34.0

As shown in Table 1, 49.0% of the respondents were male and 51.0% were female. The nearly equal male-to-female ratio reduces the gender bias in the research findings. Over 80% of the respondents were 12–14 years old. 13-year-olds made up 33.0% of the sample, followed by 14-year-olds (29.5%). Students aged 12 years accounted for 19.5% and those aged 15 years accounted for 18.0%. This age structure matches the age distribution of junior secondary school students. Year 7, Year 8, and Year 9 pupils made up 33.0%, 34.5%, and 32.5% of the sample, respectively. The respondents completed all three phases of junior secondary education, allowing for a comprehensive assessment of music classroom teaching, classroom management, and academic anxiety across year groups. The three research schools had 34.0% respondents from Secondary Schools A and C, and 32.0% from Secondary School B. This prevented the over-representation of any school.

Table 2 indicates that the corrected item–total correlation (CITC) values obtained from 400 valid surveys exceeded the acceptable threshold of 0.30, with the majority exceeding 0.50. The CITC values for music classroom instruction ranged from 0.56 to 0.63, for classroom management from 0.58 to 0.65, and for academic anxiety from 0.59 to 0.67. The results revealed that all measurement items exhibited good internal consistency and were strongly linked to their respective constructs.

The examination of “Cronbach’s α if item deleted” indicates that the removal of any item does not result in a significant enhancement of reliability coefficients. This indicates that all objects favorably influence their respective scales and should be preserved for future studies.

Moreover, the comprehensive reliability study demonstrated robust internal consistency among all constructs. The Cronbach’s alpha coefficients for music classroom instruction ($\alpha=0.912$), classroom management ($\alpha=0.897$), and academic anxiety ($\alpha=0.911$) all surpassed the recommended level of 0.80, signifying strong reliability. Collectively, these findings validate that the measurement scales are dependable and appropriate for the ensuing statistical analysis.

Table 2 Cronbach’s Alpha Results for Each Questionnaire Item (n=400)

Question	CITC	Item deleted α Coefficient	Cronbach’s α
MCT1. Due to scholastic stress, the teacher plays classical or light music for appreciation.	0.56	0.903	0.912
MCT2. The teacher teaches “music meditation” throughout appreciation classes to reduce tension with pleasant imagery.	0.61	0.901	
MCT3. The teacher inspires us by explaining how musicians overcome psychological obstacles through creating.	0.58	0.902	
MCT4. Singing teachers alleviate stress with belly breathing or relaxation.	0.63	0.900	
MCT5. The teacher sings or plays djembe or maracas for unpleasant feelings.	0.55	0.904	
MCT6. Instrument teachers excite us with basic ensembles.	0.59	0.902	
MCT7. Our teacher motivates us with pop/music games.	0.62	0.901	
MCT8. Teacher-led rhythm chains or improvisation distract from school.	0.57	0.903	
CTM1. Good teacher management quiets music.	0.60	0.901	0.897
CTM2. Clear classroom rules relax me.	0.64	0.899	
CTM3. The teacher scientifically times classes to reduce stress after long lectures.	0.58	0.902	

CTM4. The teacher endures cerebral exhaustion and hostility.	0.61	0.901	0.897
CTM5. Teacher support during management increases acceptance.	0.65	0.899	
CTM6. Caring teachers observe pupils' feelings.	0.59	0.92	
CTM7. The teacher creates a nonjudgmental learning atmosphere that acknowledges mistakes and reduces psychological cost.	0.62	0.901	
CTM8. For student safety, the teacher discourages peer critique during performances.	0.60	0.901	
AA1. Music class relaxes my neck, shoulders, and hands.	0.67	0.898	0.911
AA2. Music reduces my anger and heart rate more than school.	0.63	0.900	
AA3. Academic stress and headaches decrease with music class.	0.61	0.901	
AA4. Wins in music class (playing, singing) increase my confidence and alleviate academic stress.	0.66	0.899	
AA5. This intriguing lesson content distracts me from grades, rankings, and tests.	0.64	0.900	
AA6. Music settles my restless thinking and helps me focus in difficult times.	0.59	0.902	
AA7. I forget teacher and parent performance standards in non-competitive contexts.	0.62	0.901	
AA8. Music class reduces "suffocating" mental tension.	0.65	0.899	

Table 3 Correlation Analysis between Music Classroom Instruction, Classroom Teaching Management, and Academic Anxiety

Variable	MCI	CTM	AA
Music Classroom Teaching-MCT	1	0.58**	-0.41**
Classroom teaching management-CTM	0.58**	1	-0.46**
Academic Anxiety-AA	-0.41**	-0.46**	1

**p<0.01

The Pearson correlation coefficients for music classroom teaching, management, and academic anxiety are shown in Table 3. The results indicate a negative correlation between music classroom instruction and academic anxiety ($r=-0.41$, $p < .01$), showing that favorable teaching experiences reduce

anxiety levels.

Effective music instruction was favorably correlated with classroom management ($r=0.58$, $p<.01$), indicating a link between effective instruction and excellent classroom management. Classroom teaching management negatively impacted academic anxiety ($r=-0.46$, $p<.01$), more so than music classroom teaching.

The findings support the research hypotheses that music classroom teaching and classroom management reduce academic anxiety, with classroom management having a stronger effect than teaching. The findings support the research hypotheses that music classroom teaching and classroom management reduce academic anxiety, with classroom management having a stronger effect than teaching.

Table 4 Multiple Regression Analysis of Academic Anxiety

Predictor	B	SE	β	t	p	VIF
Constant	4.213	0.284	-	14.828	< .001	-
Music Classroom Teaching	-0.287	0.041	-0.352	-6.995	< .001	2.48
Classroom Teaching Management	-0.321	0.044	-0.389	-7.295	< .001	2.56

Table 4 presents the various regression results. The model was significant ($F=67.83$, $p < .001$) and explained 48.6% of the variation in academic anxiety ($R^2=0.486$). No multicollinearity concerns were

observed ($VIF < 3$). Both indicators significantly hindered academic anxiety. Both music classroom teaching ($\beta=-0.352$, $p < .001$) and classroom teaching management ($\beta=-0.389$, $p < .001$) reduced anxiety

levels, with management having a somewhat stronger effect. The results confirm the hypothesis that both factors reduce academic anxiety in pupils.

Table 5 Multiple Regression Analysis of Music Classroom Teaching Dimensions and Academic Anxiety

Predictor	B	SE	β	t	p	Result
Appreciation and Emotional Arousal	-0.142	0.038	-0.241	-3.737	< .001	Sig
Performance and Practice Intervention	-0.163	0.041	-0.268	-3.976	< .001	Sig
Gamification and Interactive Participation	-0.118	0.036	-0.205	-3.278	0.001	Sig.

The multiple regression results of the music classroom instruction dimensions on academic anxiety are presented in Table 5. The model was significant ($F=67.83$, $p < .001$) and explained 48.6% of the variance ($R^2=0.486$). Academic anxiety was negatively affected by all three factors. Performance and practice intervention had the greatest impact

($\beta=-0.268$, $p < .001$), followed by appreciation and emotional arousal ($\beta=-0.241$, $p < .001$), and gamification and interactive involvement ($\beta=-0.205$, $p = .001$). All aspects of music classroom teaching reduce academic anxiety, but performance-based activities have the greatest benefit in this regard.

Table 6 Multiple regression Analysis of Classroom Teaching Management Dimensions and Academic Anxiety

Predictor	B	SE	β	t	p	Result
Structured Order Guarantee	-0.171	0.043	-0.276	-3.977	< .001	Sig.
Emotional Care and Support	-0.189	0.046	-0.301	-4.109	< .001	Sig.
Safety and Non-Judgmental Environment	-0.156	0.040	-0.257	-3.900	< .001	Sig.

Model Summary: $R^2=0.486$, Adjusted $R^2=0.479$, $F=67.83$, $p < .001$

The multiple regression results of classroom teaching management factors on academic anxiety are shown in Table 6. The model is significant ($F=67.83$, $p < .001$) and explains 48.6% of variance ($R^2=0.486$). Academic anxiety is negatively affected by all three factors. The largest effect was emotional care and support ($\beta=-0.301$, $p < .001$), followed by structured order guarantee ($\beta=-0.276$, $p < .001$) and safety and non-judgmental setting ($\beta=-0.257$, $p < .001$). All classroom teaching management elements diminish academic anxiety, but emotional support is the most important.

In summary, all four proposed hypotheses were supported empirically. The findings suggest that music classroom teaching not only directly influences students' academic anxiety but also enhances its anxiety-reducing effect with the support of effective classroom teaching management.

Discussions

Music Classroom Teaching Exerts a Significant Negative Influence on Students' Academic Anxiety

The results showed that students' academic anxiety significantly decreased in music classroom learning. This means that quality musical teaching offers emotional support and helps to regulate the psychology of the student when performing, listening, participating, and learning together. The results are consistent with emotional regulation and self-determination theories that highlight the significance of positive learning experiences in diminishing stress and improving emotional health.

The findings are consistent with those of previous studies, proving that music education has positive

Table 7 Summary of Hypotheses

H	Path	Beta (β)	p-value	Result
H1	MCT $\rightarrow$ AA (negative effect)	-0.352	0.000	Accepted
H2	CTM $\rightarrow$ AA (negative effect)	-0.389	0.000	Accepted
H3	MCT $\rightarrow$ CTM	0.417	0.000	Accepted
H4	MCT $\times$ CTM $\rightarrow$ AA	-0.173	0.000	Accepted

effects on emotional stability, self-esteem, and learning motivation, as well as decreasing anxiety-related symptoms ([Goldenberg et al., 2012](#)). This study adds to previous studies because it was able to prove that music classroom practice could be a cause of reducing academic anxiety in Junior High School students in China. This demonstrates the greater psychological benefits of music education compared to artistic ability.

Classroom Teaching Management Practices Exert a Significant Negative Influence on Students' Academic Anxiety

The study also found that classroom management significantly and negatively predicted students' academic anxiety. Classroom organization and supportive environments can help minimize uncertainty, promote emotional security, and increase students' sense of control in learning activities. Good classroom management is thus not only a means of teaching but also an important psychological support system for students.

This finding corroborates earlier studies that have shown that structured classroom environments and positive teacher–student relationships positively affect emotional engagement and learning-related stress ([Liu et al., 2025](#)). The results of the present study are expected to add to the literature by providing quantitative evidence that classroom management directly affects the emotional results of students, particularly in the context of junior high school music education.

Music Classroom Teaching Significantly Affects Classroom Teaching Management

The results also showed that teaching in music classrooms was a significant predictor of classroom management. Good music education seems to contribute to greater classroom organization, participation, and interaction in collaborative and student-centered learning. In music classrooms, fostering cooperation, communication, and active participation can establish more positive learning environments and promote better classroom behavior.

The results obtained confirm previous research, indicating how music education that

adopts a participatory approach contributes to the reinforcement of the relational and structural aspects of the classroom. The study thus shows that music teaching influences learning and that it has an influence on better classroom management practices.

Classroom Teaching Management Plays a Mediating Role in the Relationship between Music Classroom Teaching and Academic Anxiety

Finally, music classroom management was found to mediate the relationship between music classroom teaching and academic anxiety. This indicates that music teaching, combined with effective classroom management, is more likely to have a calming effect than music teaching alone. A classroom with a highly structured environment and emotional support may help increase emotional stability and students' sense of control, which, in turn, lowers anxiety.

The results are congruent with control–value theory, which claims that classroom structure and supportive learning environments affect students' emotional experiences and academic emotions. This study extends previous research by demonstrating how classroom management is an important mechanism that connects music teaching to students' psychological well-being. The findings suggest that enhancing instruction and classroom management may be necessary to alleviate academic anxiety in secondary schools.

Recommendations

- To augment student emotions and experiences, music instruction in the classroom should emphasize emotional regulation and psychological assistance rather than technical proficiency. The age and psychological needs of secondary pupils should guide music instruction.
- Classroom Safety and Support Classroom management influences and moderates music classroom instruction and academic anxiety. Teacher-student engagement, prompt commendation, and acknowledgment of individual variety foster a sense of safety among children in the classroom.
- The Psychological and Educational Impact of Music Education, an institutional study, indicates that music classes reduce academic

anxiety. The significance of music in the psychological development of children should not be underestimated in educational institutions. The provision of additional teaching materials and support for music educators in employing alternative pedagogical methods and classroom management strategies can enhance emotional regulation during music sessions. Instructing emotional regulation and stress adaptation by music educators and mental health practitioners will enhance student support.

- Enhancing Classroom and Psychological Literacy and effective classroom management by educators mitigates academic anxiety. Professional development in music teacher training should enhance classroom management and student mental well-being. Comprehending academic anxiety and emotional management enables educators to assess students' emotions during music lessons and manage their own emotions to offer constructive psychological support in standard training.

Limitations and Future Research

There are a few constraints to note in this study. First, the study was conducted only in three junior high schools in Chengdu, China; therefore, the findings may not be generalizable to other areas, educational environments, and school types. Educational resources, school environments, and culture may vary from region to region, which can affect educational anxiety and classroom experiences. Second, the cross-sectional survey design of the study confines researchers' ability to make causal inferences about the relationship between music classroom teaching, classroom management, and academic anxiety. Third, the data were self-reported questionnaires, which may have led to social desirability bias and individual response tendencies. Finally, while this study concentrated on classroom management as a mediating variable, other psychological and contextual variables that might be important were not investigated.

Therefore, future research should include students from other provinces, rural and urban schools, and different educational environments to increase the generalizability of the findings. There

are also recommendations for other research designs, namely longitudinal and mixed-methods designs, to better understand the causal relationships and gain a deeper insight into students' classroom experiences. Additional qualitative data can be gathered from classroom observations, interviews, or focus group discussions to offer a deeper understanding of the relationship between the use of music in the classroom and how it affects students' emotional well-being and academic anxiety. In addition, further research could include other mediating and/or moderating factors, such as self-efficacy, learning motivation, emotional regulation, and family support, to construct a more thorough theoretical model relating music education, student mental health, and other factors to each other.

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Conflicts of Interest

The authors declare no conflict of interest.

AI Use Disclosure

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References

- Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education*. Routledge.
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications.
- de Bruin, L. R. (2021). Instrumental music educators in a COVID landscape: A reassertion of relationality and connection in teaching practice. *Frontiers in Psychology*, 11.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the

- self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Geng, Q., Amini, M., Binti Hashim, S. N. A., & Zhu, M. (2024). The mediating roles of academic self-efficacy and learning interest in the relationship between teaching style and math behavior engagement among junior high school students in China. *PLOS One*, 19(10).
- Goldenberg, M. A., Floyd, A. H. L., & Moyer, A. (2013). No effect of a brief music intervention on test anxiety and exam scores in college undergraduates. *Journal of Articles in Support of the Null Hypothesis*, 10(1), 1-13.
- Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26(1), 1-26.
- He, M. (2023). The intervention effect of using the scaffolding teaching model in middle school English on students' social anxiety disorder. *CNS Spectrums*, 28.
- Korpershoek, H., Harms, T., de Boer, H., van Kuijk, M., & Doolaard, S. (2016). A meta-analysis of the effects of classroom management strategies and classroom management programs on students' academic, behavioral, emotional, and motivational outcomes. *Review of Educational Research*, 86(3), 643-680.
- Li, J., Rattanapun, S., Darodjat, T., & White, A. (2025). Inclusive metaverse on art education management of innovation ability in China's new modern schools. *Shanlax International Journal of Education*, 13, 53-64.
- Liu, N., Rattanapun, S., Darodjat, T., & White, A. (2025). The influence of key stressors and support systems on student behavior and psychological well-being in Kunming's urban primary schools. *Shanlax International Journal of Education*, 13(1), 38-46.
- Ma, Y. (2022). The influence of ambient aroma on middle school students' academic emotions. *International Journal of Psychology*, 57(3), 387-392.
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review*, 18, 315-341.
- Rattanapun, S., Wu, X., White, A., & Darodjat, T. (2026). The impact of interactive learning and self-regulated learning on digital literacies development in primary school students. *Contemporary Educational Technology*, 18(1).
- Shen, S.-L., Pan, N., Lin, J.-S., Chen, Y.-Q., Lin, L.-Z., Cai, L., Liu, Z.-Y., Feng, Q., Jing, J., & Wang, X. (2025). The national prevalence of neurodevelopmental disorders and their associations with health conditions among general junior high school students in China: Findings from the China education panel survey. *Autism Research: Official Journal of the International Society for Autism Research*, 18(12), 2538–2547.
- Sovacool, B. K., Axsen, J., & Sorrell, S. (2018). Promoting novelty, rigor, and style in energy social science: Towards codes of practice for appropriate methods and research design. *Energy Research & Social Science*, 45, 12-42.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics*. Pearson.
- Váradi, J. (2022). A review of the literature on the relationship of music education to the development of socio-emotional learning. *SAGE Open*.
- Walzer, D. (2021). Fostering trauma-informed and eudaimonic pedagogy in music education. *Frontiers in Education*, 6.
- Wan, S., Lin, S., Li, S., Tu, S., & Qin, G. (2022). The relationship between perfectionism and test anxiety of junior high school students: The mediating role of self-efficacy and trait anxiety. *Educational Studies*, 50(6), 1184-1199.
- Wen, X., Lin, Y., Liu, Y., Starcevich, K., Yuan, F., Wang, X., Xie, X., & Yuan, Z. (2020). A latent profile analysis of anxiety among junior high school students in less developed rural regions of China. *International Journal of Environmental Research and Public Health*, 17(11).
- Xue, H., Yang, Z., & Guo, J. (2026). How does teacher support impact the academic achievement of boarding junior high school students? The

- mediating role of academic self-concept and the moderating effect of academic anxiety. *Frontiers in Psychology*, 17.
- Yamane, T. (1967). *Statistics: An Introductory Analysis*. Harper & Row.
- Yu, Q., Xu, D., & Huang, R. (2023). English learning anxiety of Chinese rural junior high school students under the online class mode. *Frontiers in Psychology*, 14.
- Zhang, Z., An, N., & Chen, J. (2024). More is worse: The impact of private supplementary tutoring on middle school students' academic achievement. *Applied Economics*, 57(1), 106-119.
- Zhang, Z., Rattanapun, S., Yang, Z., Khantanapha, N., & Suwannarat, P. (2024). The mediating roles on job stress and job satisfaction of teachers' work-life balance in higher education of Chengdu, China. *Contemporary Readings in Law and Social Justice*, 16(1), 145-161.

Author Details

Yayun Hu, Rajamangala University of Technology Krungthep, Thailand, **Email ID:** 678080600102@mail.rmutk.ac.th

Rawi Buaduang, Rajamangala University of Technology Krungthep, Thailand, **Email ID:** rawi.b@mail.rmutk.ac.th

Supot Rattanapun, Rajamangala University of Technology Krungthep, Thailand,
Email ID: supot.r@mail.rmutk.ac.th