



RESEARCH ARTICLE

Teacher Self-Efficacy, Student Motivation, and Student Academic Achievement: A Case Study of Music Teachers and Students in Chinese Higher Education Institutions

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ARTICLE INFO	ABSTRACT
Received: Jul 13, 2024 Accepted: Sep 10, 2024	This study explores the interconnections between teacher self-efficacy, student motivation, and academic achievement within music education. Conducting a thorough interdisciplinary quantitative and qualitative analysis across ten higher education institutions in China, the research assesses teacher self-efficacy across various dimensions, including emotional support, instructional strategies, and classroom management. It also examines how these dimensions impact student academic performance and motivation. The findings indicate that teachers' emotional support significantly positively affects student motivation, whereas an overly rigorous focus on instructional strategies may exert a dampening effect. Moreover, the study reveals a positive correlation between teacher self-efficacy and student academic achievement, though the strength of this relationship is modest. The results highlight the importance of balancing instructional support with student autonomy in music education. By analyzing differences in the perceptions of teacher self-efficacy between teachers and students, this research offers insights for enhancing teacher professional development and educational practice. These findings have substantial theoretical and practical implications for the design of teacher training and curriculum development tailored to music education. Such efforts aim to refine teacher behaviors and meet students' educational needs, thereby improving students' learning outcomes and overall educational experience.
Keywords	
Teacher Self-Efficacy	
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INTRODUCTION

Teacher self-efficacy, referring to teachers' beliefs and confidence in their teaching abilities, has been extensively demonstrated to impact students' learning motivation and academic achievement significantly (Sehgal et al., 2017; Tschannen-Moran & Woolfolk Hoy, 2001; Zee & Koomen, 2016; Bandura, 1977; Yoo, 2016). Recent studies further highlight a dynamic relationship between teacher self-efficacy and students' intrinsic motivation, playing a pivotal role in enhancing students' academic performance and motivation (Eccles & Wigfield, 2020; Hornstra et al., 2018; Mojavezi & Tamiz, 2012; Barni et al., 2019; Warren & Hale, 2016).

In music education, which highly depends on close teacher-student interaction (Navbakhor, 2020; Dong, 2023), teacher self-efficacy may uniquely influence student learning outcomes (Biasutti & Concina, 2018). Music education requires teachers not only to impart technical skills but also to nurture students' creativity and artistic understanding (Biasutti & Concina, 2018; Laird, 2015;

Kupana, 2015; Hong & Luo, 2021; McPherson & O'Neill, 2010). Although existing research reveals the promotive effects of teacher self-efficacy on teaching effectiveness, its role and specific mechanisms of influence within the unique environment of music education remain unclear (Zee & Koomen, 2016; Jerrim et al., 2023; Perera & John, 2020). Therefore, exploring the practical impact of teacher self-efficacy from the dual perspectives of music education teachers and students is of practical significance (Regier, 2019; Biasutti & Concina, 2018).

This study aims to provide strategies and insights to teachers and higher education institutions to help music educators support and motivate students more effectively, enhancing teaching quality and academic achievement. The specific objectives are as follows:

RO 1: Assess the association between teacher self-efficacy and student learning motivation in music education.

RO 2: Analyze the relationship between teacher self-efficacy and its various dimensions with music students' academic achievement.

RO 3: Explore the differences and impacts in the perception of teacher self-efficacy between teachers and students.

LITERATURE REVIEW

Theoretical Foundations of Self-Efficacy and its General Impact on Teacher Self-Efficacy

Self-efficacy, a core component of social cognitive theory, describes an individual's belief in their ability to execute specific tasks (Bandura, 1977) successfully. It is critical in an individual's determination and resilience when facing challenges, enhancing problem-solving capabilities and anticipating success, facilitating effective goal-setting and strategic responses (Schunk & Pajares, 2002; Bandura, 1986).

The impact of self-efficacy has been substantiated through numerous practical applications and is widely applied across various research fields (Irie, 2021; Bandura, 1977; Gainor, 2006). Within the realm of education, research on teacher self-efficacy has revealed how teachers' beliefs significantly influence students' learning processes and classroom management effectiveness (Tschannen-Moran & Hoy, 2001; Schunk & Pajares, 2002; Asyanova et al., 2024; Klassen & Tze, 2014). Teachers' beliefs not only determine their teaching strategies and expectations of students (Lauermann & Berger, 2021; Murayama et al., 2017) but also have a significant impact on students' learning motivation and academic performance (Deci et al., 1991; Steenbeek & van Geert, 2013; Lauermann & Berger, 2021; Klassen et al., 2009; Klassen & Tze, 2014; Tschannen-Moran & Hoy, 2001). Empirical studies consistently demonstrate that teachers with high self-efficacy are inclined to adopt more innovative teaching methods and more effective classroom management strategies and commit to continuous professional development, significantly enhancing overall teaching effectiveness (Caprara et al., 2006; Lazarides et al., 2020; Goddard et al., 2000; Tschannen-Moran & Hoy, 2001). Furthermore, positive feedback from students can enhance teachers' self-efficacy, increase job satisfaction, and reduce professional burnout (Skaalvik & Skaalvik, 2010; Benevene et al., 2019; Caprara et al., 2003; Ortan et al., 2021).

Although the positive effects of teacher self-efficacy are widely recognized, current research also reveals its complexity and potential limitations within different cultural contexts and educational systems (Zee & Koomen, 2016; Jerrim et al., 2023). Some scholars highlight these complexities and limitations, which can, to some extent, affect educational outcomes (Bonneville-Roussy et al., 2019). Some studies even find that the correlation between teacher self-efficacy and student academic performance must be more robust or present (Caprara et al., 2006; Jerrim et al., 2023). Therefore, further exploration is needed into the relationship between teacher self-efficacy and educational

outcomes—specifically student motivation and academic achievement—under varying educational realities (Lazarides & Warner, 2020; Martin & Mulvihill, 2019).

The Specificity of Teacher Self-Efficacy in Music Education

As an artistic discipline, music education emphasizes close interaction and emotional resonance between teachers and students (Navbakhor, 2020; Dong, 2023). These characteristics make teacher self-efficacy essential in teaching (Ryu, 2024; Iorga et al., 2016). In such environments, teachers must impart technical skills and foster emotional expression and creativity in students, making teacher self-efficacy particularly crucial in music education (O'Neill, 2012; Biasutti & Concina, 2018). Music education also demands that teachers integrate technical and artistic elements, enabling students to fully understand and master musical knowledge (Gumm, 2003; Aderibigbe et al., 2024). Studies show that music teachers with high self-efficacy are more effective in enhancing students' artistic understanding and creativity (Taş & Atılgan, 2022; Perera et al., 2019; Burak, 2019; Lev et al., 2018; Dobbins, 2016; Regier, 2021; Biasutti & Concina, 2018; Bi, 2023; Du, 2023), particularly in music classroom settings that require high creativity and flexibility, such as improvisation, group collaboration, or musical production (Gumm, 2003; Biasutti & Concina, 2018). The success of these activities largely depends on the teachers' level of self-efficacy—their confidence and ability to effectively guide and motivate students (Biasutti & Concina, 2018).

Although theoretical foundations such as the theory of teacher self-efficacy and self-determination theory suggest a positive link between teacher self-efficacy, student motivation, and academic achievement, empirical results in education often show that this relationship is only sometimes significant. The teaching environment may influence this variability, individual student differences, and the complexity of evaluation methods. Based on the theory of teacher self-efficacy and existing research data, teachers with high self-efficacy may be better able to stimulate student interest and participation. However, the inconsistent findings from existing research indicate the need for more comprehensive and in-depth exploration (Regier, 2019; Zee & Koomen, 2016). Additionally, current studies often need to fully consider the critical role of emotional support by music teachers in influencing student motivation and academic achievement. This suggests that future research should delve deeper into how teacher self-efficacy can impact students' artistic understanding and creativity through emotional support (Biasutti, 2018; Zelenak, 2015).

The Impact of Teacher Self-Efficacy in Music Education on Student Motivation and Academic Achievement

In music education, Teacher Self-Efficacy (TSE) influences teaching strategies, classroom management, emotional support, and student engagement (Burić & Kim, 2020; Shaukat & Iqbal, 2012; Caprara et al., 2006). Teachers impact students' artistic and technical skill development through these dimensions, thereby indirectly influencing students' learning motivation and academic achievement (McPherson, 2009; Moore et al., 2003).

Learning motivation, as a primary driver of student academic achievement, plays a crucial role in music education (Schatt, 2011; Linnenbrink-Garcia et al., 2011). Music learning motivation often stems from students' passion for music, a desire for artistic expression, and a pursuit of skill improvement (MacIntyre et al., 2018; Woody, 2021). This motivation is deeply rooted in students' emotions and their pursuit of self-actualization, with teacher self-efficacy directly affecting whether students can achieve emotional release and self-expression through musical activities (Khomenko et al., 2021; Woody, 2021; O'Neill, 2012). Teachers with high self-efficacy can create a supportive learning environment that encourages students to explore various musical styles and techniques, thus enhancing their technical proficiency and confidence by providing precise feedback, which profoundly stimulates students' intrinsic motivation and extrinsic curiosity (Caprara et al., 2006;

Künsting et al., 2016; Zimmerman, 2000; Ritchie & Williamon, 2011; Lauermann et al., 2022; Serin, 2018; Moore et al., 2003; McPherson, 2005).

Teacher self-efficacy has been shown to impact students' academic achievement in general education positively (Caprara et al., 2006; Künsting et al., 2016; Tschannen-Moran & Hoy, 2001; Schunk & Pajares, 2002; Asyanova et al., 2024). Studies indicate that teachers with high self-efficacy are more likely to employ effective teaching methods, such as using open-ended questions and personalized teaching strategies for differentiated instruction, to meet diverse students' learning needs, and can manage classrooms more adeptly, thereby creating a more efficient learning environment (Caprara et al., 2006; Künsting et al., 2016). However, despite widespread recognition of the positive effects of teacher self-efficacy, the field of music education lacks in-depth research on this topic. This study will explore the relationship between different levels of teacher self-efficacy and student learning motivation and achievement (Regier, 2019; Zelenak, 2015; Hossain et al., 2024).

Gaps in Existing Literature

Despite the undeniable impact of Teacher Self-Efficacy (TSE) on student academic achievement and motivation, empirical research within the specific field of music education still needs to be explored. Existing literature primarily focuses on general educational settings, with less in-depth exploration of the unique role of teacher self-efficacy in music education. Here are the significant research gaps that need further investigation in this field:

Relationship between Teacher Self-Efficacy, Student Motivation, and Academic Achievement:

While these three elements are well-supported by substantial data in general education, the mechanisms by which teacher self-efficacy and its related dimensions specifically affect students' learning motivation and artistic performance in music education have not been fully explored. This research gap limits researchers' understanding of its potential effects (Biasutti & Concina, 2018). However, the uniqueness of music education requires teachers to impart technical skills and cultivate students' artistic perception and creativity. The self-efficacy of teachers plays a crucial role in developing student capabilities. Thus, addressing this research gap is a primary objective of this study.

Differences in Teacher-Student Perspectives: Most studies utilize perspectives from teachers and student performance data. However, there is often a significant disparity between teachers' assessments of their efficacy and students' actual experiences, along with various contributing factors to student performance. This can lead to diverse and inconsistent research outcomes (Burak, 2019). More research is needed to explore these perceptual differences and their impact on research outcomes. Therefore, this study also investigates this research gap as an objective.

This study aims to fill the existing research voids by exploring the relationship between teacher self-efficacy, student motivation, and academic achievement in music education. Assessing teacher and student perspectives provides an empirical foundation for enhancing music education practices, promoting innovation in teaching methods, and improving student learning outcomes, thus advancing the development of higher music education in China (Regier, 2019; Altassan et al., 2023).

Theoretical Framework

To better understand and illustrate how teacher self-efficacy (TSE) influences student learning motivation and academic achievement in music education through multiple mediating variables (emotional support, instructional strategies, classroom management, and student engagement) and to analyze the role of perceptual differences as a moderating variable in these relationships, this study constructs a theoretical framework. The research will reveal the unique impact mechanisms of teacher self-efficacy in the music education environment through an in-depth analysis of these critical variables and pathways.

Teacher Self-Efficacy Mediated by Emotional Support Affecting Student Learning Motivation and Academic Achievement

According to Fredrickson's (2001) Broaden-and-Build Theory of positive emotions, emotional support plays a pivotal role in educational interactions. High teacher self-efficacy is often accompanied by more robust emotional support capabilities, which enhance students' emotional engagement and intrinsic motivation by establishing positive teacher-student relationships. This process resonates with Bandura's (1997) self-efficacy theory, emphasizing the importance of trust and security in learning. Ultimately, teachers' emotional support boosts students' learning motivation and fosters their academic achievements by enhancing their emotional investment.

Teacher Self-Efficacy Mediated by Instructional Strategies and Classroom Management Affecting Student Learning Motivation and Academic Achievement

Enhanced teacher self-efficacy leads to more effective instructional strategies and classroom management. Hattie (2009) noted that innovative teaching strategies, such as collaborative learning and metacognitive skills, significantly improve students' learning efficiency and engagement. These strategies facilitate effective knowledge absorption and enhance students' sense of control over their learning processes. Additionally, Emmer and Stough (2001) emphasized that effective classroom management reduces disruptions, increases student engagement, and thus creates a learning environment conducive to academic achievement. These mediating variables reflect how teacher self-efficacy impacts student academic performance through specific teaching behaviors.

Student Engagement as a Mediating Variable Linking Teacher Self-Efficacy to Student Motivation and Academic Achievement

Student engagement is a crucial mediating variable that links teacher self-efficacy to student learning motivation and academic achievement. Teachers with high self-efficacy can create a supportive learning environment that fosters active student participation. This positive engagement enhances students' motivation and strengthens their academic performance. Deci and Ryan's (1985) Self-Determination Theory supports this view by highlighting that enhancing intrinsic motivation is critical to improving academic engagement and achievement. In music education, active student participation is essential as it directly influences the development of technical skills and artistic expression.

The Role of Perceptual Differences as a Moderating Variable

Perceptual differences, i.e., the disparity between teachers' and students' evaluations of teacher self-efficacy, may moderate the effectiveness of all the pathways above. If teachers perceive high self-efficacy while students perceive it as low, this may weaken the actual impact of teacher behaviors. Conversely, if teacher and student perceptions align, it may enhance the positive effects of teacher behaviors. Particularly in emotional support and student engagement, the moderating role of perceptual differences could significantly alter the strength and direction of the impact of teacher self-efficacy on student motivation and academic achievement.

This study's theoretical framework not only links teachers' internal beliefs with external teaching behaviors and student responses but also, by examining the roles of mediating and moderating variables, reveals the complex mechanisms of teacher influence in music education. Through this comprehensive perspective, the study provides theoretical support for understanding the role of teacher self-efficacy in the specific context of music education. It offers valuable empirical foundations for educational practice and policy formulation.

METHODOLOGY

Participants

Music education programs are offered at most higher education institutions in China, but the proportion of music education students and teachers is relatively tiny compared to other disciplines. To ensure the applicability of the research, we randomly selected teachers and students from ten universities in China as the study sample. An approximate coverage of 1,200 teachers and 20,000 students was estimated. Based on G*Power analysis to ensure statistical power, the minimum sample sizes were calculated to be 292 teachers and 377 students. The actual effective questionnaire responses were 310 for teachers and 381 for students. Additionally, purposive sampling was used to select 12 students who provided contact information for in-depth qualitative interviews to explore their perspectives and experiences with music education, focusing on multiple dimensions of teacher self-efficacy.

Instruments

The quantitative part used an adapted version of the Teacher Self-Efficacy Scale by Tschannen-Moran and Hoy (2001), customized for the music education environment. It includes dimensions of student engagement, classroom management, emotional support, and instructional strategies, each rated on a five-point Likert scale. The suitability and measurement accuracy of the questionnaire were verified through extensive literature review and pilot testing. Reliability was confirmed through Cronbach's alpha ($\alpha = 0.923$), and construct validity was supported by a KMO index (0.948) and Bartlett's test of sphericity.

A second questionnaire, adapted from a 2004 template by the Hong Kong Ministry of Education, was modified for suitability. Reliability (Cronbach's alpha = 0.776) and validity (KMO = 0.83) were verified to ensure scientific rigor and applicability.

Qualitative research was conducted through semi-structured interviews to deeply explore students' perceptions of teacher self-efficacy and its impact on learning motivation. The interviews were recorded, transcribed, and subjected to detailed content analysis.

Procedure

Data collection for the study was completed in June 2024. Before the study commenced, all participants received detailed information about the research purpose and procedures and signed informed consent forms, ensuring they fully understood the importance and voluntariness of their participation. To ensure the privacy and confidentiality of the data, all information was processed anonymously.

The quantitative data were collected through two expert-reviewed, theory-based questionnaires covering teacher self-efficacy and its impact on student learning motivation. Data were cleaned and statistically analyzed using SPSS software to ensure accuracy. The qualitative part involved exploring students' views on teacher behavior through semi-structured interviews, with the content recorded, transcribed, and analyzed using content analysis methods.

Data Analysis

This study thoroughly cleaned all collected data before the primary analysis, including handling missing values and outlier detection. Missing values were addressed by replacing them with the median values of respective variables to ensure data consistency. The scales for quantitative data had been validated for reliability before use, ensuring the accuracy of the results. Qualitative data were categorized and thematically analyzed through open coding.

For Research Objective 1: Assess the association between teacher self-efficacy and student learning motivation in music education.

Table 1: Correlations between all dimensions of teacher self-efficacy and students' motivation to learn

Variable Name	Correlation coefficient (r)	P-value	Remarks
Student Engagement	0.385	<0.001	Significant positive correlation
Emotional Support	0.474	<0.001	Moderately strong positive correlation
Teaching Strategy	0.421	<0.001	Significant positive correlation
Classroom Management	0.377	<0.001	Weak positive correlation
Teacher Self-Efficacy	0.486	<0.001	Moderately strong positive correlation

Table 1 indicates significant positive correlations between teacher self-efficacy and student learning motivation dimensions. The qualitative results further support this finding, with most students reporting that perceiving high efficacy in teachers significantly enhances their emotional engagement and investment in learning. Emotional Support (ESAv) has the highest correlation coefficient at 0.474, signalling the most influential factor among the dimensions, with a significance level of $p < 0.001$. This suggests that stronger teacher self-efficacy in emotional support corresponds to higher student motivation. Interview results also reflect this, with 80% of students indicating that teachers' emotional support significantly influences their learning motivation. In contrast, Classroom Management (CMAv) has a correlation coefficient of 0.377, which, while statistically significant, is comparatively weaker. Interview data revealed that 80% of students feel that strict classroom management reduces their learning enthusiasm, as this approach makes them feel oppressed—an observation corroborated by the multiple linear regression analysis.

Table 2: Multiple Linear Regression Analysis : Specific impacts of these dimensions on student learning motivation

Variable Name	Unstandardized Coefficients	P-value	Remark
TSEAverage	1.447	<0.001	Significant positive effects
TSAv	-0.414	0.046	Significant negative effects
SEAv	-0.158	>0.05	insignificant
CMAv	-0.039	>0.05	insignificant
EMAv	0.641	0.042	Significant positive effects

Table 2 further verifies the specific impacts of these dimensions on student learning motivation through multiple linear regression analysis. The results show that the overall average of Teacher Self-Efficacy (TSEAverage) is a significant predictor of student learning motivation, with a regression coefficient of 1.447, standardized coefficient of 0.849, and highly significant statistical value ($p < 0.001$). This indicates a close connection between the improvement in teacher self-efficacy and the enhancement of student learning motivation. However, the effect of Teaching Strategies (TSAv) displays an unexpected negative correlation ($\beta = -0.272$, $p = 0.046$), suggesting that overemphasis on teaching strategies might negatively impact student motivation, a point that requires further research. Interviews revealed that while students appreciate diverse teaching strategies from

teachers during the initial stages of learning new knowledge in music—a discipline that demands high technical skills—they prefer reduced teacher intervention during practice phases, as excessive attention can make them feel embarrassed and pressured.

The effects of ESAV and CMAV in the regression analysis were insignificant ($p > 0.05$), indicating a weaker predictive power for these dimensions on student motivation. Moreover, although most students stated that classroom participation does not fully represent their learning motivation, continuous high-intensity participation is related to high motivation. These findings suggest that student engagement may relate to individual personality traits and should not be interpreted as a direct reflection of learning motivation solely based on this single dimension.

For Research Objective 2: Analyzing the Impact of Teacher Self-Efficacy and Its Different Dimensions on Students' Academic Achievement in Music

Table 3 : Correlations between all dimensions of teacher self-efficacy and student academic achievement

Variable Name	Correlation coefficient (r)	P-value	Remarks
Student Engagement	0.178	<0.001	Weak positive correlation
Emotional Support	0.256	<0.001	Moderately strong positive correlation
Teaching Strategy	0.214	<0.001	Significant positive correlation
Classroom Management	0.262	<0.001	Moderately strong positive correlation
Teacher Self-Efficacy	0.261	<0.001	Moderately strong positive correlation

The correlation analysis in Table 3 reveals significant positive correlations between all dimensions of teacher self-efficacy and students' academic achievement, although the degrees of correlation range from weak to moderate. This suggests that teacher self-efficacy impacts students' academic achievement, but the strength of this impact is limited. The regression analysis model further shows that these dimensions can explain about 8.7% of the variance in students' academic achievement scores, with the overall model being significant ($F = 8.931$, $p < 0.001$). However, despite the overall model's significance, the independent effects of individual dimensions are insignificant, which may be due to multicollinearity—i.e., the interaction of multiple correlated predictor variables within the same regression model. Only the composite dimension (TSEAverage) has a significant positive impact on students' academic achievement.

Students' perceptions of the impact of teacher self-efficacy show apparent differences. Some students in specialized courses (such as instrumental or vocal music) report that high teacher self-efficacy significantly enhances their professional performance and grades. However, other students report that despite high teaching quality, they need help understanding new concepts and do not believe this relates to teacher self-efficacy. For example, one student mentioned, "Sometimes, even though the teacher teaches well and most students understand, I just can't grasp the key points, so my performance isn't ideal, and I think this is unrelated to the teacher's self-efficacy."

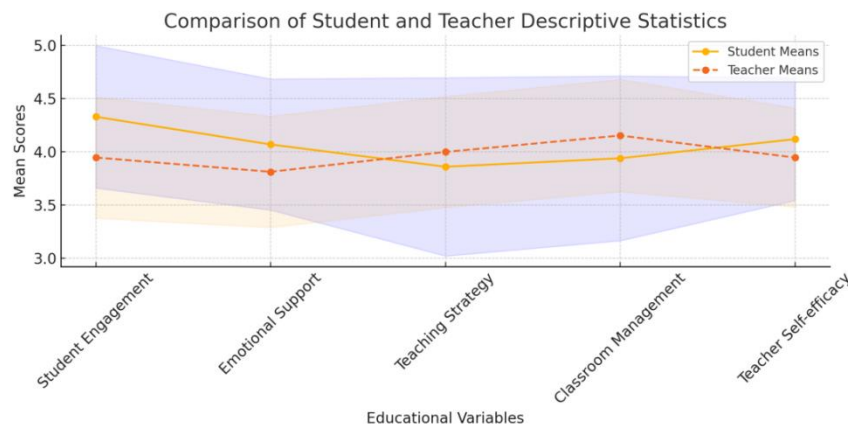
Another group of students noted that teachers with high self-efficacy often raise academic expectations accordingly. Therefore, when teachers display excessive self-efficacy in specialized courses, it may lead to some students feeling overwhelmed and unable to concentrate, ultimately affecting their learning outcomes. These conflicting views highlight teacher self-efficacy's complex and individualized impact on academic performance. However, data analysis shows that most students consistently see teacher self-efficacy as pivotal in promoting academic development. The

emotional connection between teachers and students is this relationship's most central influencing dimension.

In qualitative data, we found a novel perspective. Although high levels of teacher self-efficacy do not necessarily improve students' academic scores, low levels of teacher self-efficacy negatively impact students' academic achievement. One student illustrated this with an example where the entire class's performance declined following a teacher change in a theory course. She attributed this decline to the teacher's poor performance in teaching strategies, classroom management, and emotional support, directly affecting students' classroom participation and academic achievement. However, this argument was not tested in the quantitative study, so further research is needed to support this claim.

Despite the overall significance of the regression model, the low R-squared value indicates that the current model's variables only explain a small part of the variance in student academic achievement. This suggests that future research should incorporate more variables, such as students' backgrounds and prior academic performance, to enhance the model's explanatory power and prediction accuracy. Such extensions would not only help to understand the impact of teacher self-efficacy better but also provide a more comprehensive evaluation of the effectiveness of educational interventions.

For Research Objective 3: Exploring the Differences and Impacts of Teacher and Student Perceptions of Teacher Self-Efficacy



Graph 1: Comparative Analysis of Student and Teacher Perceptions across Educational Variables

Graph 1 presents the essential characteristics of teacher self-efficacy and students' academic achievement scores. The means of these dimensions are close to 4, indicating that teachers generally highly self-assess their self-efficacy. The minor standard deviations suggest slight variation among teachers in these assessments. Notably, in dimensions such as Classroom Management (CMAv) and Overall Self-Efficacy (TSEAverage), scores are exceptionally high, reflecting teachers' confidence in these areas. Simultaneously, qualitative and quantitative data indicate that students generally have a positive perception of their teachers' self-efficacy, with means ranging from 3.86 to 4.33, suggesting that students perceive their teachers as performing well in terms of self-efficacy. Although some teachers are perceived as lacking in self-efficacy, overall, students give teachers high favorable ratings.

The data also reveal inconsistencies in perceptions between students and teachers across different dimensions. For instance, students' perceived mean (4.33) is higher in student engagement than teachers' self-ratings (3.9469). In interviews, students expressed that they consider mere attendance classroom participation, whereas teachers may believe active questioning and speaking are

necessary for authentic engagement. This discrepancy in expectations and definitions is a primary cause of perceptual differences. Regarding teaching strategies, students' perception of teachers' capability is slightly lower (mean 3.86) but close to teachers' self-evaluations, indicating that students understand teachers' teaching strategies well. Although students did not mention doubts about teaching strategies in interviews, this suggests that teachers' methods generally meet students' expectations.

Regarding perceptions of classroom management and emotional support, students perceive classroom management (mean 3.94) as lower than teachers' self-assessment (4.1540). Over half of the students in interviews believe that an effective classroom requires good discipline and active participation from everyone. Teachers, however, think that as long as the class is quiet and smooth, it indicates good classroom management. For emotional support, students' perception (mean 4.07) is higher than teachers' self-rating (3.8129), indicating that teachers' encouragement and praise positively impact students. However, teachers may need to be fully aware of the occurrence of these behaviors.

DISCUSSION, CONCLUSION, LIMITATIONS

This study's findings support existing literature, confirming a significant positive correlation between teacher self-efficacy and student learning motivation, especially in emotional support ($r=0.474$, $p<0.001$). This discovery underscores the importance of emotional support in music education, aligning with Bandura's (1997) theory of self-efficacy and the research of Caprara et al. (2006), who also identified emotional support as a critical factor in enhancing student motivation. Teachers' emotional support not only boosts students' emotional involvement but may also foster a long-term interest in and commitment to music subjects. However, this study found that overemphasis on teaching strategies could have adverse effects, highlighting the need to balance necessary instructional support with promoting student autonomy, especially in skill-intensive music education, aligning with the views of Vrieling et al. (2018), who argued for a balance between teacher control and student autonomy.

Although the relationship between teacher self-efficacy and student academic achievement is weak, this study shows that overall, teacher self-efficacy is a significant predictor of student academic success. This is consistent with Tschannen-Moran and Woolfolk Hoy's (2001) findings, who observed that teachers' self-efficacy directly influences students' academic performance. Moreover, this study reveals the significant negative impact of low self-efficacy on student academic achievement, providing important implications for teacher training and educational practice, indicating that enhancing teachers' self-efficacy can improve teaching quality and guarantee student academic success.

The study also observed significant differences in self-efficacy perceptions between students and teachers, particularly in classroom management and emotional support. Students tend to believe that teachers' emotional support and positive classroom interactions are crucial to their learning experience, aligning with the studies by Budge and Cowlshaw (2012), who noted that inconsistent perceptions of the teaching process between teachers and students could affect teaching effectiveness. Poulou (2009) also stated that teachers' behaviors must match students' expectations to enhance teaching effectiveness.

Integrating new findings with existing literature, this study emphasizes the significant role of teacher self-efficacy in music education, particularly its impact on student motivation and academic achievement. However, the limitations of this study include the potential influence of multicollinearity on the interpretation of results, suggesting that future research should introduce more potential variables to more comprehensively explore the pathways and mechanisms by which teacher self-efficacy affects student performance. Additionally, the current literature on the

relationship between teacher self-efficacy, student motivation, and academic achievement in music education still needs to be improved. Future research should explore this topic in a broader context. Meanwhile, policymakers and educators should consider these findings in designing professional development courses to ensure that teachers' behaviors meet students' needs, optimizing students' learning outcomes and overall educational experience.

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