The Role of Teachers in the Implementation of Primary School Music Curriculum: Strategies for Enhancing Music Aesthetic Education

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Abstract

A high-quality education for children requires that teachers perform their jobs effectively. Aesthetic education, on the other hand, fosters students' creativity and imagination, so assisting them in the development of critical thinking abilities and a heightened understanding of cultural diversity. Therefore, in this study, the influence of teaching tactics, teacher motivation, and the availability of technology on music aesthetic education and teacher performance is investigated, with a particular emphasis placed on the role that teacher's training plays in mediating those relationships. A customized questionnaire was used to collect responses from a total of 375 different music instructors for the study. After applying a structural equation modeling strategy to the data. The survey has 34 statements in it. Using a 5-point Likert scale, respondents had options for each of the assertions. The following factors were evaluated: teacher's training (4 items), technology availability (6 items), teacher motivation (6 items), and teaching strategies (7 things). Five criteria were used to assess music aesthetic education, whereas six criteria were used to assess teacher performance. We surveyed in English, as was the original questionnaire. With 30 individuals who shared comparable features, a pilot research was conducted, and the final sample was used to assess the questionnaire's dependability. The results showed that music aesthetic education and teacher performance are highly impacted by teaching methodologies, teacher motivation, and the availability of technology. In addition, the research concluded that the training of teachers plays a moderating function in the connection between the aforementioned elements and music aesthetic instruction as well as teacher performance.

Keywords: Teaching Strategies; Teacher Motivation; Availability of Technology; Teacher Performance; Music Aesthetic Education

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Introduction

The academic and personal growth of students, as well as the contribution to the improvement of schools and the promotion of economic progress, are profoundly impacted by the work that is done by their teachers. To keep their students interested and to assist them in the development of essential skills and information, effective teachers employ unique and creative teaching approaches (Copur-Gencturk & Doleck, 2021). They cultivate a constructive learning atmosphere that inspires children to learn and succeed academically by setting high expectations for themselves. As a result, it is necessary to make investments in the professional development of teachers and to offer them the necessary assistance to enhance their performance in the classroom. This investment has the potential to result in greater educational outcomes for students, increased rates of teacher retention, and a more prosperous community (Franco et al., 2023).

A person's capacity to appreciate music and musical expression can significantly benefit from participating in music aesthetic education, which is an essential component of education in the aesthetic tradition (Yen & Hsu, 2017). Individuals can learn about the historical and cultural significance of various musical styles and genres, develop their musical skills, and get an awareness of the emotive and expressive characteristics of music through the process of music aesthetic education. Aesthetic education in music can also aid in the development of cognitive abilities such as spatial reasoning, memory, and the development of language (Loutrari & Lorch, 2017).. It may also have a beneficial effect on a person's social and emotional well-being, contributing to increased self-esteem, less stress, and enhanced interpersonal connections, among other potential benefits.

Teaching strategies are the various methods that instructors implement to pass on their expertise and information to their respective classes of pupils. The utilization of a variety of teaching methods, such as lectures, demonstrations, group discussions, and practical sessions, could be one component of these tactics (Lin et al., 2022). The term "teacher motivation" refers to both the internal and the external variables that encourage educators to be engaged in their job and to carry out their duties to the best of their abilities. Technology has had a profound impact on how we educate and are educated, and it has emerged as an essential component of today's educational system (Hernández et al., 2020). The term "teacher's training" is used to describe the various professional development programs and courses that educators participate in so that they can expand both their knowledge and their skill sets (Baena-Morales et al., 2022).

Education in the aesthetics of music is a crucial component of a well-rounded education that develops creativity, imagination, and emotional expression. Yet, the effectiveness of music education is dependent on a variety of factors, including instructional methodologies, teacher motivation, the availability of technology, and the training of teachers (Zhou, 2021). The influence of these parameters on music aesthetic education and teacher performance is a crucial area of research that demands additional study. The aim of this study is to investigate the impact of teaching strategies, teacher motivation, and availability of technology on music aesthetic education and teacher performance, with the mediating role of teacher's training. This study aims to achieve the following objectives:

To examine the relationship between teaching strategies and music aesthetic education.

To investigate the impact of teacher motivation on teacher performance in music aesthetic education.

To assess the influence of the availability of technology on music aesthetic education and teacher performance.

To explore mediating role of teacher's training in the relationship between teaching strategies, teacher motivation, availability of technology, music aesthetic education, and teacher performance.

This study is unusual because it considers the mediating role of instructors' training, which has been neglected in earlier studies (Nkundabakura et al., 2022). The results of this study can aid in the development of effective music education programs that optimize teaching tactics, teacher motivation, technology availability, and teacher's training to improve music aesthetic education and teacher performance.

Literature Review

Teaching Strategies

Several researchers have looked into how various teaching methods affect students' academic performance and learning objectives. The most effective teaching techniques, according to a study by Chen et al., (2020) are those that emphasize student-centered learning, such as problem-based learning, inquiry-based learning, and cooperative learning. These techniques allow students to actively participate in their education, exercise critical thought, and collaborate with their peers. Additionally, it has been demonstrated that they support long-term knowledge and skill retention. Explicit instruction, feedback, and formative assessment were found to be quite helpful in raising student accomplishment in a study by Gandra et al. (2023) that looked at the efficacy of different instructional styles. Detailed instruction is breaking down complicated ideas into smaller, easier-to-understand steps and giving pupils detailed explanations and examples. Feedback entails giving students detailed information about their performance and making recommendations for how to improve. Formative assessment involves monitoring students' progress throughout the teaching process. This enables teachers to modify their lesson plans to better suit the requirements of their pupils. It has been demonstrated that these techniques work especially well for pupils from poor backgrounds and those who struggle academically. Generally, the research indicates that a range of instructional approaches can be successful, but that those that support explicit instruction, formative feedback, and student-centered learning are typically the most successful in raising student achievement and learning outcomes.

Teacher Motivation

Enhancing teacher performance and boosting student outcomes both depend on teacher motivation. The elements that inspire teachers, as well as the effects of teacher motivation on job satisfaction, dedication, and overall effectiveness, have been the subject of research. According to one study by Santana-Monagas et al. (2022), intrinsic motivation in teachers—such as a sense of personal fulfillment and enjoyment from teaching—is a stronger predictor of job satisfaction and commitment than an extrinsic incentive in the form of pay or job security. Also, teachers that are intrinsically motivated are more likely to be creative, innovative, and risk-taking in their teaching methods. In a separate study by Nikolopoulou et al. (2021), the effect of teacher motivation on student outcomes was investigated. It was discovered that when teachers are motivated, their pupils typically perform better academically, participate more fully, and have more favorable views toward learning. Also, motivated teachers are more likely to foster a positive learning environment, build strong connections with their pupils, and offer helpful criticism and support. According to the study, teacher motivation is a key element in fostering a positive learning environment and elevating student achievement. Overall, the research indicates that improving teacher effectiveness and student outcomes requires strong teacher motivation. Teachers that are intrinsically motivated are more likely to use innovative, creative, and successful teaching techniques, and their motivation is closely related to student involvement and achievement.

Availability of Technology

In recent years, the accessibility of technology has grown crucial to education. research has examined how technology affects student learning results and how it might improve teaching methods. According to a study by Wu et al. (2022), access to technology can considerably raise students' math, science, and reading skills. Additionally, the study contends that the usage of technology can improve student motivation, engagement, and teamwork, which will improve learning results. Technology can be a potent instrument for improving instruction and encouraging successful pedagogical practices, according to the analysis of the effect of technology on teaching practices by Chien & Wu (2020) and Nikolopoulou et al. (2021) . According to the study, technology can make it easier to deliver individualized instruction, encourage active learning, and offer chances for formative evaluation and feedback. Moreover, technology can help with varied instruction, giving teachers the flexibility to meet the various requirements of their students. The study's findings support the idea that having access to technology can significantly improve pedagogy and teaching methods. The body of research demonstrates that having access to technology can significantly affect how well students learn as well as improve teaching methods by

allowing for opportunities for individualized education, active learning, and formative evaluation.

Music Aesthetic Education

The practice of teaching and learning music as an art form valued for its beauty, emotion, and expressiveness is referred to as music aesthetic education. The effects of music aesthetic education on students' cognitive, emotive, and social development have been the subject of research. According to one study by Yue (2022), aesthetic education in music can help kids become more creative and imaginative while also improving their ability to think critically and solve problems. Furthermore, the study contends that emotional intelligence and social awareness can be advanced by music aesthetic education, resulting in enhanced interpersonal and communication abilities. Students who receive music education typically outperform peers in arithmetic, reading, and language arts, according to a study by Mao et al. (2023) that looked at the effect of music aesthetic instruction on kids' academic accomplishment. Also, the study contends that teaching students about the aesthetics of music can increase their executive function, memory, and attention, which will boost their academic performance. According to the study, aesthetic music education can significantly influence students' cognitive, affective, and social growth as well as their general academic success. Overall, the body of research points to the potential importance of music aesthetic education for students' cognitive, affective, and social growth as well as for their overall well-being and academic achievement.

Teacher Performance

Promoting student learning outcomes and overall academic achievement depends heavily on teacher performance. The influences on teacher performance and the effects of teacher performance on student outcomes have been the subject of research. One study by Kuriloff et al. (2019) discovered that one of the most important indicators of student achievement is teacher quality. According to the survey, good teachers have a thorough understanding of their subject, employ a range of teaching techniques, and give their pupils useful feedback and assistance. Also, good instructors frequently set high standards for their pupils and foster a supportive learning atmosphere in the classroom. The effectiveness of teachers can be greatly increased by high-quality professional development, according to a different study that looked at the influence of teacher professional development on teacher performance. According to the study by Ma et al. (2021), effective professional development initiatives should be ongoing, job-integrated, and dedicated to enhancing certain teaching techniques. Professional development should also be planned to accommodate the various requirements of instructors and offer chances for peer learning and cooperation. According to the study's findings, effective professional development programs can be extremely helpful in enhancing teacher effectiveness. Teacher performance is a significant aspect of fostering student achievement. Overall, the research indicates that teacher effectiveness is a key component in fostering student learning outcomes. Effective teachers have a thorough knowledge of their subject matter, employ a range of teaching techniques, and give their students appropriate feedback and assistance (Maria Josephine Arokia Marie, 2021).

Teacher's Training

Enhancing teacher performance and boosting student outcomes depend heavily on teacher's training. The effect of teacher preparation on teachers' efficiency and the function of teacher preparation in fostering successful teaching methods have both been the subject of research. High-quality teacher preparation programs can considerably increase teachers' performance, which in turn improves student results, according to a study by Privitera (2021). According to the report, good teacher preparation programs should be built on evidence-based principles and offer the opportunity for practical instruction and practice. Moreover, training for teachers should be continual and job-integrated to enable them to apply what they have learned in actual situations. Another study by Cochran & Parker Peters (2023) evaluated the relationship between teacher preparation and teacher retention and discovered that good teacher preparation programs can increase teachers' commitment and job satisfaction, which in turn promotes better rates of teacher retention. According to the study, effective teacher preparation programs should be created to fulfill the various needs of teachers and offer chances for cooperation, mentoring, and ongoing support. To further ensure that instructors have the abilities and information required to address the requirements of their pupils, teacher's training should be coordinated with the objectives and priorities of the school or district (Rodriguez & McKee, 2022). The study finds that increasing

teacher retention, enhancing student outcomes, and encouraging teacher effectiveness all depend on teacher's training. Overall, the evidence indicates that teacher preparation programs should be founded in research-based practices, include practical learning and practice, be ongoing, and be job-embedded to effectively improve teacher performance and student outcomes.

Teaching Strategies and Music Aesthetic Education

Because they can affect student involvement, motivation, and learning outcomes, teaching tactics have a big impact on music aesthetic education. Experiential learning, which entails active and hands-on participation in musical creation and listening activities, is one efficient teaching technique in music aesthetic education. Students' understanding and appreciation of music, as well as their creativity, critical thinking, and problem-solving abilities, have all been found to improve with experiential learning (Wang, 2021). Additionally, because experiential learning offers opportunities for teamwork, communication, and self-expression, it helps improve students' social skills and emotional intelligence. Student-centered learning, which entails giving students more power and responsibility over their learning, is another excellent teaching technique in music aesthetics. It has been discovered that student-centered learning increases students' motivation and interest in music by enabling them to pursue their passions and forge their own musical identities (Chen et al., 2020). Additionally, because student-centered learning encourages active learning, self-reflection, and self-regulation, it can improve students' cognitive and metacognitive abilities. Overall, the research points to the possibility that instructional approaches like experiential learning and student-centered learning might significantly affect the way students learn about the aesthetics of music while also increasing their motivation, engagement, and academic success.

H1: Teaching strategies have a significant impact on music aesthetic education.

Teacher Motivation and Music Aesthetic Education

Since it can affect teachers' zeal, dedication, and efficacy in teaching music, teacher motivation is essential for advancing music aesthetic education. The elements that affect teachers' motivation in music education and how that motivation affects student outcomes have been the subject of numerous research. According to a study by Che et al. (2021), teachers who are enthusiastic and devoted to teaching music are more likely to participate in professional development, employ a range of teaching techniques, and provide their student's useful feedback. Also, teachers who are enthusiastic about teaching music often have high expectations for their pupils, which can have a favorable effect on motivation and performance.

H2: Teacher motivation has a significant impact on music aesthetic education.

Availability of Technology and Music Aesthetic Education

Because it has created new opportunities for music creation, performance, and teaching, technology's accessibility has had a tremendous impact on music aesthetic education. Students may now access a variety of musical instruments and software thanks to technology, allowing them to explore and experiment with a variety of musical genres and styles (Cheng et al., 2022). Also, technology has facilitated cross-cultural interchange and diversity in music education by making it simpler for students to work together with one another and with music professionals from around the world. Technology has also changed how music is taught and learned, opening up new possibilities for individualized and self-directed instruction. Internet resources have made it simpler for students to acquire lesson materials and get feedback on their performances, such as YouTube and music study applications (Upadhyaya & Vrinda, 2021). Additionally, because of technology, educators can now use a wide range of multimedia tools and instructional techniques, including interactive whiteboards and digital audio workstations, to improve their student's engagement with and knowledge of musical topics.

H3: Availability of technology has a significant impact on music aesthetic education.

Teaching Strategies and Teacher Performance

The efficacy, engagement, and work happiness of teachers can all be impacted by the teaching tactics they use, which has a big impact on how well they perform in the classroom. Cooperative learning and differentiated instruction are two effective teaching methods that can help teachers better meet the unique needs of their students, increase student engagement, and boost learning

results (Tsai et al., 2020). Furthermore, because they allow teachers to be more original and creative in their teaching methods and foster a sense of accomplishment and fulfillment in their work, effective teaching tactics can boost teachers' motivation and job satisfaction.

H4: Teaching strategies have a significant impact on teacher performance.

Teacher Motivation and Teacher Performance

A key element that might affect teacher performance is teacher motivation. Teachers that are motivated often exhibit better levels of job satisfaction, engagement, and dedication, which can enhance their ability to teach effectively and increase student results. According to studies, intrinsically motivated instructors that are, who are driven by the pleasure and fulfillment they obtain from their work tend to be more involved in their instructional strategies and deliver higher-quality lessons to their pupils (Thommen et al., 2021).

H5: Teacher motivation has a significant impact on teacher performance.

Availability of Technology and Teacher Performance

The availability of technology can have a big impact on how well teachers perform since it gives them new chances to improve their teaching methods and help students learn. By giving teachers access to tools for lesson planning, grading, and contact with students and parents, technology can increase the efficacy and efficiency of teaching (Hamzah et al., 2021). Additionally, new methods of content presentation and student involvement in the learning process can be made possible by technology, such as the use of multimedia tools, online collaboration tools, and computer-based simulations.

H6: Availability of technology has a significant impact on teacher performance.

Teacher's Training and Music Esthetic Education

As it equips teachers with the ability to successfully teach music and foster students' awareness of aesthetic experiences, teacher's training is a crucial component of developing effective music aesthetic education (Nees et al., 2021). The ability of teachers to create interesting and successful classes that foster students' aesthetic experiences can be improved, according to studies on teacher's training programs that concentrate on music aesthetic education.

H7: Teacher's training has a significant impact on music aesthetic education.

Teacher's Training and Teacher Performance

A key component of improving teacher effectiveness is providing teachers with the skills and information they need to successfully teach and support student learning outcomes. A good teacher's training program can improve a teacher's pedagogical abilities, subject-matter expertise, and capacity to create interesting, effective courses that cater to the various learning requirements of their students (Antonietti et al., 2022). The efficiency of teaching can also be increased through teacher's training programs that place a strong emphasis on motivating instructors, for instance by providing them with opportunities for professional growth.

Bortes et al. (2021) demonstrated that quality teacher preparation programs can enhance teachers' content understanding, pedagogical abilities, and self-assurance. Effective teachers are better able to control classroom dynamics, use successful teaching techniques, and give their students high-quality instruction. The promotion of continual professional development, which helps teachers to keep current on the most recent research and best practices in their field, is another way that excellent teacher's training can improve teacher effectiveness.

H8: Teacher's training has a significant impact on teacher performance.

Teacher's Training as Mediator

The knowledge and abilities of instructors in subjects like music theory, history, and analysis, as well as pedagogical methods for teaching music, can be improved by teacher's training programs that place a strong emphasis on aesthetic education in music. These programs can give teachers the resources they need to create interesting, fruitful classes that encourage students' aesthetic experiences (Molina et al., 2020). Effective teacher preparation programs can also increase teachers' motivation and engagement, which can increase their willingness to try out novel teaching techniques and modify their teaching methods to suit the various requirements of

their pupils. The relationship between teacher motivation and music aesthetic instruction is mediated by teacher's training. Promoting effective teaching strategies and improving student learning outcomes depends heavily on teacher motivation (Fütterer et al., 2023). However, without sufficient training, teachers might not have the essential abilities and understanding to adequately foster students' aesthetic experiences.

H9: Teacher's training mediates the relationship between teaching strategies and music aesthetic education.

H10: Teacher's training mediates the relationship between teacher motivation and music aesthetic education.

H11: Teacher's training mediates the relationship between the availability of technology and music aesthetic education.

The link between teaching methods and teacher effectiveness can be mediated by teacher's training. Teachers are given the skills and information they need to successfully implement specific teaching tactics in the classroom when they receive this training (Molina et al., 2020). This can then result in better teacher effectiveness and student results. The relationship between teacher motivation and performance may be moderated by teacher's training, but it is not the only element at play. Several other elements, including school culture, workload, and leadership support, might affect teachers' motivation and productivity (Nikolopoulou et al., 2021). Having said that, teacher's training can undoubtedly contribute to enhancing teacher effectiveness and motivation by supplying them with the information and abilities necessary to be successful in the classroom (Gandra et al., 2023). For instance, if a teacher receives training in a certain teaching technique that they are passionate about and believe in, they could be more inclined to employ it in their lessons, which might result in better performance. To balance the relationship between the accessibility of technology and instructor effectiveness, teacher's training is a crucial component (Islam Sarker et al., 2019). Teachers are more likely to be productive in the classroom and support their students in achieving higher learning outcomes when they have adequate training and support in using technology.

H12: Teacher's training mediates the relationship between teaching strategies and teacher performance.

H13: Teacher's training mediates the relationship between teacher motivation and teacher performance.

H14: Teacher's training mediates the relationship between the availability of technology and teacher performance.

Thus, based on the above literature, the author developed the following conceptual framework (Figure 1).
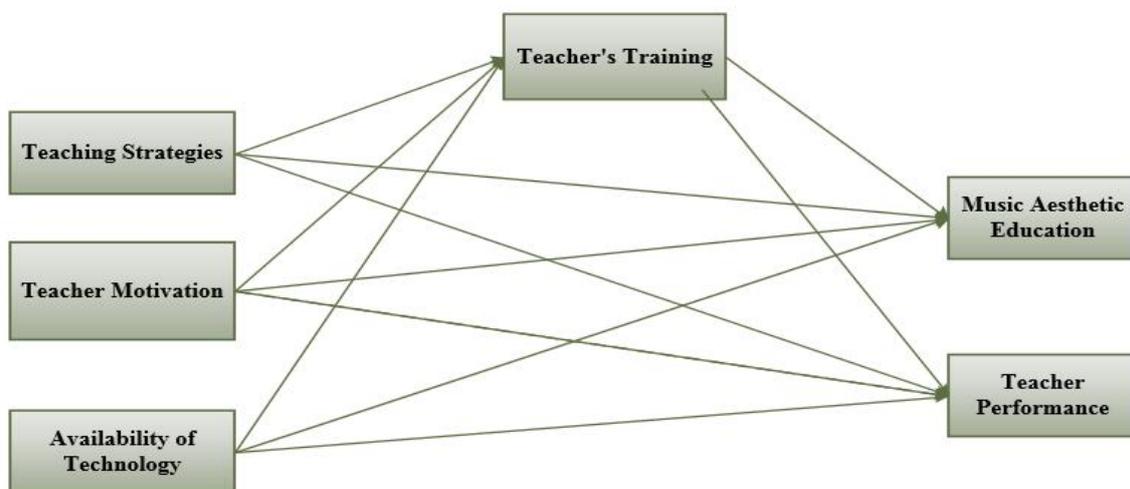

Figure 1. Conceptual Framework

Methodology

Measurement

To gather information for this investigation, a self-reported questionnaire using a Likert-type scale with 5 points was designed. Data for the study were gathered through the use of a survey questionnaire. Two components of the survey were included: (1) demographic data (gender, age, year of education, and experience) (Table 1), and (2) constructions of linked questions (teacher's training, teaching strategies, teacher motivation, availability of technology, music aesthetic education, and teacher performance.

Table 1. Demographic Profile of Respondents

Demographic Items		Frequency	Percentage
Gender	Male	210	56%
	Female	165	44%
Age	21-30	121	16%
	31-40	144	20%
	41-50	56	8%
	More than 50 years	54	7%
Education	Bachelor Degree	190	51%
	Master Degree	128	34%
	MS	45	12%
	Ph.D.	12	3%
Experience	1-2 Years		
	3-5 Years	95	25%
	More than 5 years	210	56%

For the study, we employed the survey questionnaire method. In empirical investigations, a variety of data collection methods are used. The survey has 34 statements in it. Using a 5-point Likert scale, respondents had options for each of the assertions. The following factors were evaluated: teacher's training (4 items), technology availability (6 items), teacher motivation (6 items), and teaching strategies (7 things). Five criteria were used to assess music aesthetic education, whereas six criteria were used to assess teacher performance. We surveyed in English, as was the original questionnaire. With 30 individuals who shared comparable features, a pilot research was conducted, and the final sample was used to assess the questionnaire's dependability. Based on participant input, we made adjustments to the context, face validity, and academic language of the final questionnaire, ensuring that all items would be easily understood by the participants. The participants completed the questionnaires. In China, which was chosen as the place for data collection due to the high number of teachers who are teaching at various colleges and institutions, the self-administered survey was delivered to locals. Teachers were given survey questionnaires as a result. The study's objectives were explained to the teachers, and they were afterward asked if they would be interested in taking part. These teachers received the questionnaire in either Mandarin or English, depending on their consent. About 420 survey questionnaires were distributed to teachers to complete. From January 1st, 2023, and February 15th, 2023, data collection continued. Out of 420 surveys, 375 were left after the duplicate or missing data replies were eliminated, allowing for data analysis. In the sections that follow, the findings of this analysis which examined these 375 surveys are in-depth.

Results

Data Analysis Procedures

For data analysis, we chose the Smart PLS (version 4) and SPSS software. Initially, we looked at measurement modeling for reliability measures, including factor loading, Cronbach's alpha, rho A, and composite reliability. Furthermore, guaranteed convergent and discriminant validity. We

used SPSS to examine demographic data. We also examined model fit, collinearity, and R-squared before structural equation modeling. The descriptive analysis came in. We discussed the structural modeling findings. Similar analysis techniques were applied in many studies.

Measurement Model

In Smart PLS, the CFA (confirmatory factor analysis) was utilized to evaluate the validity and dependability of the scales (version 4). Smart PLS is advised because it is more statistically effective and less sample size sensitive than other statistical programs used in covariance-based structural equation modeling (Avotra et al., 2021; Nawaz et al., 2023; Sandra Marcelline et al., 2022). Before beginning the final data analysis, we made sure that each construct was valid and reliable. Before doing the SEM analysis, a measure modeling analysis approach was used to ensure the reliability and validity of each construct. The approaches employed were factor loading, Cronbach's alpha, rho A, composite reliability, and AVE (average variance extracted).
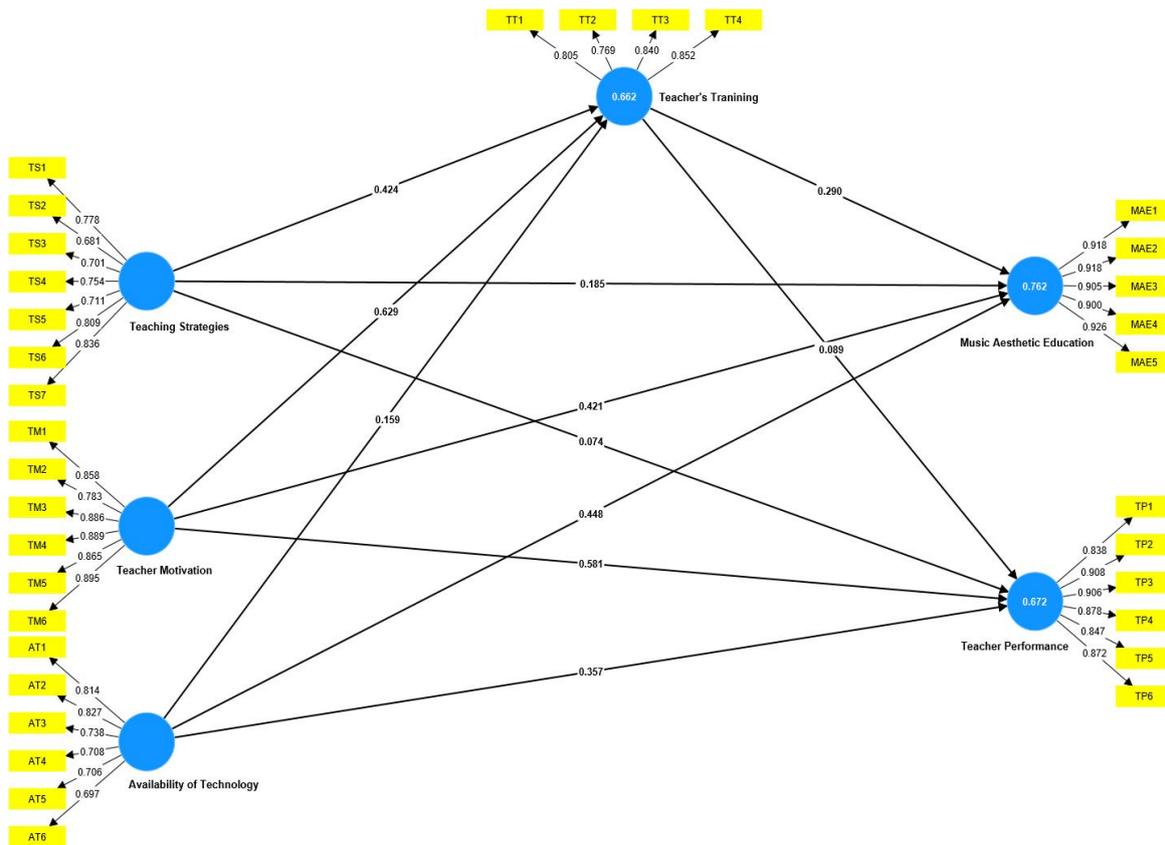

Figure 2. Measurement Model

For each item, the factor loading threshold value was more than 0.60. Also greater than 0.70 were Cronbach's alpha, rho A, and composite reliability threshold values. Also, convergent validity was examined using AVE. Every construct should have an AVE value greater than 0.5. The factor loading statistics are higher than the 0.6 threshold value, as shown in Table 2. Also above 0.70 are the values for Cronbach's alpha, rho A, and composite reliability. The scale employed in the study was valid and reliable because the AVE value is over 0.5. (Table 2 and Figure 2).

Table 2. Construct Reliability and Validity

	Items	Outer Loading	Cronbach's alpha	roh	CR	AVE
Availability of Technology	AT1	0.814	0.847	0.862	0.885	0.563
	AT2	0.827				
	AT3	0.738				

	Items	Outer Loading	Cronbach's alpha	roh	CR	AVE
	AT4	0.708				
	AT5	0.706				
	AT6	0.697				
Music Aesthetic Education	MAE1	0.918	0.950	0.951	0.962	0.835
	MAE2	0.918				
	MAE3	0.905				
	MAE4	0.900				
	MAE5	0.926				
Teacher Motivation	TM1	0.858	0.931	0.933	0.946	0.746
	TM2	0.783				
	TM3	0.886				
	TM4	0.889				
	TM5	0.865				
	TM6	0.895				
Teacher Performance	TP1	0.838	0.939	0.943	0.952	0.766
	TP2	0.908				
	TP3	0.906				
	TP4	0.878				
	TP5	0.847				
	TP6	0.872				
Teacher's Training	TT1	0.805	0.834	0.837	0.889	0.668
	TT2	0.769				
	TT3	0.840				
	TT4	0.852				
Teaching Strategies	TS1	0.778	0.875	0.893	0.902	0.570
	TS2	0.681				
	TS3	0.701				
	TS4	0.754				
	TS5	0.711				
	TS6	0.809				
	TS7	0.836				

The heterotrait:monotrait (HTMT) ratio can be used to gauge the discriminant validity. The discriminant validity of reflective scales utilized in the research model was evaluated by the researchers using the HTMT method. According to the HTMT technique, the geometric mean of the average relationships between the evaluated items and their relevant concept is related to the mean score value of the item correlations among constructs (Henseler et al., 2015). Compared to other ways, such as Fonrell and Larcker's criterion approach (Fornell & Larcker, 1981), which has been questioned by scholars, the approach is more valid and trustworthy in SEM analysis. Fornell and Larcker's method proposes less than the 0.90 threshold value established by the HTMT. When the HTMT value is more than 0.90, discriminant validity problems are present (Nawaz &

Guribie, 2022). The results in Table 3 show that each construct's HTMT values are less than 0.90. As a result, the scale met the criteria for discriminant validity.

Table 3. Discriminant Validity (HTMT)

	AT	MAE	TM	TP	TT	TS
Availability of Technology						
Music Aesthetic Education	0.763					
Teacher Motivation	0.616	0.847				
Teacher Performance	0.742	0.840	0.801			
Teacher's Training	0.526	0.781	0.846	0.629		
Teaching Strategies	0.691	0.500	0.533	0.556	0.728	

Through the Variance Inflation Factor, the structural equation modeling technique typically ensures the eradication of the problem of collinearity among variables (VIF). The VIF cutoff value is less than 5. A collinearity issue between variables is present when the VIF value is more than 5. The study's VIF value, which ranges from 1.320 to 1.737 and is less than 5, shows that there are no issues with collinearity among the variables (Table 4).

Table 4. Collinearity

	Music Aesthetic Education	Teacher Performance	Teacher's Training
Availability of Technology	2.050	2.050	1.975
Teacher Motivation	2.696	2.696	1.526
Teacher's Training	2.962	2.962	
Teaching Strategies	2.310	2.310	1.778

For the range of R2 between 0 and 1, we used SEM analysis to evaluate the output model's explanatory ability. Table 5 shows that music aesthetic education, teacher performance, and teachers training have explanatory powers of 0.762, 0.672, and 0.662 respectively. All variables have a fair amount of explanatory power. As a result, the study's model reveals that the latent variables are suitable for the level of explanatory power.

Table 5. Coefficient of Determination

	R Square	R Square Adjusted
Music Aesthetic Education	0.762	0.759
Teacher Performance	0.672	0.668
Teacher's Training	0.662	0.660

Structure Equation Modeling

Smart PLS 4.0 was used to apply structural equation modeling using the bootstrapping method. In this investigation, the method was used to measure the confidence intervals, p-values, t-values, and path estimates. The correlations between the constructs used in the research model, both direct and indirect, were measured. The analysis's findings support hypothesis H1 by demonstrating that Teaching styles significantly affect music aesthetic education ($\beta = 0.185$, $p < 0.05$).
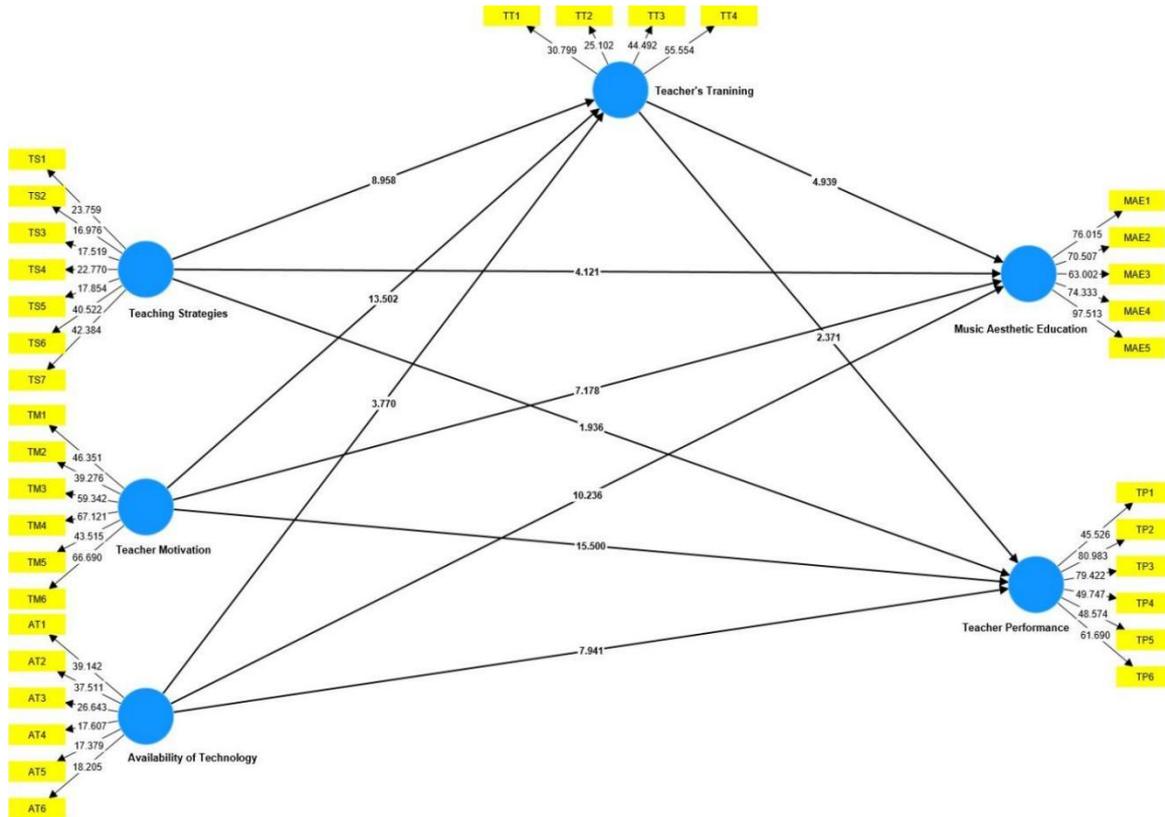
Figure 3. Structural Model

The evidence supports hypothesis H2 that teacher motivation has a substantial effect on music aesthetic education (β = 0.421, p < 0.05). On the other hand, hypothesis H3 is rejected since the availability of technology significantly affects music aesthetic education (β = 0.448, p < 0.05). By the findings, hypothesis H4 is supported because Teaching strategies significantly affect teacher performance (β = 0.074, p < 0.05). Also, the findings show that teacher motivation significantly affects teacher performance (β = 0.581, p < 0.05), supporting hypothesis H5. Technology accessibility significantly affects teacher performance (β = 0.357, p < 0.05), which is consistent with hypothesis H6. Hypothesis H7 is supported by the finding that teacher education has a substantial impact on music aesthetic education (β = 0.290, p < 0.05). Moreover, hypothesis H8 is accepted because teacher's training significantly affects teacher performance (β = 0.089, p < 0.05). Figure 3 and Table 6 show the results of the path coefficient.

Table 6. Path Coefficient

	Original Sample	**T Values**	**P Values**
TS -> MAE	0.185	4.121	0.0001
TM -> MAE	0.421	7.178	0.0001
AT -> MAE	0.448	10.236	0.0001
TS -> TP	0.074	1.936	0.026
TM -> TP	0.581	15.500	0.0001
AT -> TP	0.357	7.941	0.0001
TT -> MAE	0.290	4.939	0.0001
TT -> TP	0.089	2.371	0.009

As a mediator variable, teacher's training was employed to examine the indirect association between emotional intelligence and teaching strategies, teacher motivation, technological accessibility, music aesthetic education, and teacher performance. The regression coefficient and other mean values from path analysis are taken into account by PLS-SEM. Hypothesis H9 is accepted because Table 8's findings show that teacher's training mediates the link between instructional strategies and musical aesthetic education (β = 0.123, p < 0.05). The association

between teacher motivation and music aesthetic education is mediated by teacher's training (β = 0.182, p < 0.05), which supports hypothesis H10. The existence of technology and music aesthetic education is mediated by teacher preparation (β = 0.046, p < 0.05), supporting hypothesis H11. As a result, hypothesis H12 is accepted. Teacher's training mediates the link between instructional techniques and teacher performance (β = 0.038, p < 0.05). The connection between teacher motivation and performance is mediated by teacher's training (β = 0.056, p < 0.05), supporting hypothesis H13. The association between the availability of technology and teacher effectiveness is mediated by teacher's training (β = 0.014, p < 0.05), supporting hypothesis H14. The findings show that all of the hypotheses in Table 8 are supported. The model's route coefficients are also displayed in Table 7.

Table 7. Mediation Analysis

	Original Sample	T Values	P Values
TS -> TT -> MAE	0.123	4.056	0.0001
TM -> TT -> MAE	0.182	5.030	0.0001
AT -> TT -> MAE	0.046	3.177	0.001
TS -> TT -> TP	0.038	2.387	0.009
TM -> TT -> TP	0.056	2.260	0.012
AT -> TT -> TP	0.014	2.026	0.021

Discussion

The impact of teaching strategies has a significant impact on music aesthetic education was the first aim. According to the findings of recent studies, the methods of instruction have a considerable bearing on the aesthetic education students receive regarding music. For instance, a study carried out by Ritchie & Sharpe (2021) discovered that employing interactive and participatory teaching strategies, such as group discussions and peer evaluations, can help students improve their comprehension and appreciation of the aesthetics of music. Students are encouraged to think critically and reflect on their own musical experiences through the use of these tactics, which ultimately assists in the development of a more profound understanding of music on the part of the students. Using a wide range of musical genres and styles is an additional productive method of instruction for providing an aesthetic education in music. Students may have a better understanding of the various cultural and historical settings of music, as well as the various techniques and structures utilized in various musical genres, as a result of this activity. Students' levels of involvement and interest in music, as well as their appreciation for the aesthetic characteristics of music, were found to rise when they were exposed to a variety of musical genres, according to a study that was conducted by Jorgensen and Lehman (2018). Hence, hypothesis H1 is supported.

The impact of teacher Motivation has a significant impact on music aesthetic education was the second aim. One way in which a teacher's passion for their subject matter might influence the aesthetic education of their students towards music. According to the findings of a study that was conducted by Che et al. (2021), it was observed that when music teachers showed enthusiasm and passion for their subject, it had a beneficial impact on the motivation and engagement of their students in the classroom. This is because enthusiastic teachers create a pleasant learning environment, which encourages students to participate actively in class and promotes their love for music. This is one reason why kids develop a love for music. Furthermore, when teachers are motivated, they are more likely to be imaginative and creative in the ways that they use to teach their students. Teachers who are motivated to improve their teaching skills are more likely to experiment with new teaching techniques, such as incorporating technology into their lessons or using different teaching materials, to create a more engaging and dynamic learning experience for their students, as found in a study conducted by Tsai et al. (2020). Hence, hypothesis H2 is supported.

The impact of Availability of Technology has a significant impact on music aesthetic education was the third aim. Peng (2021) found that technology could be utilized to build virtual instruments that replicated the sounds and functionalities of conventional musical instruments.

Students are allowed to enhance their musical abilities and experiment with a variety of instruments thanks to this, which is not possible with traditional instruments. Students can enhance their musical creativity as well as their ability to communicate and collaborate through the use of digital instruments, which may be utilized to make music in a way that is both interactive and collaborative. In addition to that, students can be given access to a far wider variety of musical resources by utilizing technology in the classroom. Students can develop a deeper understanding and appreciation of music as well as experience a variety of musical traditions thanks to this opportunity. Hence, hypothesis H3 is supported.

The impact of teaching strategies has a significant impact on teacher performance was the fourth aim. The effectiveness of teachers can be significantly boosted by implementing various teaching tactics. According to the findings of a study that was conducted by Cai et al. (2022) and Guo et al. (2020), the techniques and methods that are utilized by the instructor are what determine the efficacy of the teaching. The findings of this study underscore how important it is for educators to use instructional practices that are supported by evidence and have been shown to increase student results. When educators make use of instructional methods that are shown to be effective, there is a greater possibility that they will obtain favorable results in terms of the learning and engagement of their students. According to the findings of a study conducted by Ritchie & Sharpe (2021), implementing teaching methodologies gives students the opportunity to play an active role in the process of their education and encourages the development of autonomous learning skills. This method encourages teachers to adopt a more facilitative approach to the classroom, guiding and supporting students as they investigate new ideas and concepts and giving them direction as they do so. When teachers use student-centered learning, they are able to create a learning environment that is more interactive and collaborative, both of which can contribute to enhanced student results. Hence, hypothesis H4 is supported.

The impact of Teacher Motivation has a significant impact on Teacher Performance was the fifth aim. According to Parr et al. (2021), teachers that are driven to educate are more effective in their classroom practices, which ultimately leads to greater levels of student accomplishment. Teachers that are motivated to do their jobs tend to be more committed to their careers overall and have a greater ability to manage their classrooms. In addition, teachers who are motivated are more likely to participate in professional development activities, which can improve both their teaching abilities and their subject matter expertise. These findings are corroborated by a study that was carried out by Kuriloff et al. (2019). In their research, the authors discovered a substantial positive link between the motivation of teachers and the performance of their students. Hence, hypothesis H5 is supported.

The impact of the availability of Technology has a significant impact on Teacher Performance was the sixth aim. Teachers now have access to a plethora of tools that can assist in their continued professional development because of technological advancements. For instance, online communities of educators let teachers share ideas and resources, cooperate on lesson planning, and receive feedback on their teaching by providing teachers with the opportunity to discuss their lessons (Nunes et al., 2023). As a result, educators are better able to keep their teaching tactics up to date with current educational best practices and enhance them over time. The accessibility of technological resources has a considerable bearing on the effectiveness of teaching. It improves instructional methods, makes classroom administration easier, and gives teachers access to a wide variety of resources that can aid in their further professional growth. Hence, hypothesis H6 is supported.

The impact of teacher's training has a significant impact on music aesthetic education was the seventh aim. The training that teachers receive helps them to cultivate their aesthetic sensibility as well as a respect for music. For educators to effectively instill the values of aesthetic education in their students, they must, first and foremost, comprehend and cherish the characteristics of music that give the medium its potent artistic status (Sajnani et al., 2020; Zhang, 2022). This demands not only an understanding of music theory and history but also a profound appreciation for the influence that music can have both emotionally and intellectually. Teacher's training programs assist instructors to develop this appreciation by exposing them to a wide variety of musical styles, performances, and teaching approaches. These programs also help teachers strengthen their teaching skills. Hence, hypothesis H7 is supported.

Teacher's training has a significant impact on teacher performance was the eighth objective of the study. Yeh and Chen (2019) found that teacher's training significantly improves teacher knowledge and teaching effectiveness. The study found that teachers who had received training were more likely to use innovative teaching strategies and had a better understanding of the subject matter. Additionally, the study found that training positively impacted student learning outcomes. Furthermore, a study by Darling-Hammond and Sykes (2022) found that teacher's training programs that focused on improving content knowledge and pedagogical skills had a significant impact on teacher performance. The study found that teachers who had received training in these areas were more likely to use effective teaching strategies, promote student engagement, and improve student achievement. Moreover, teacher's training can also impact teacher attitudes and beliefs about teaching. A study by Darling-Hammond et al. (2019) found that high-quality teacher's training programs positively impacted teachers' attitudes toward teaching and their commitment to the profession. The study found that teachers who had received training were more likely to feel confident in their ability to teach, more satisfied with their job, and more committed to their student's success. Hence, hypothesis H8 is supported.

The mediating role of teacher's training on the relationship between teaching strategies, teacher motivation, and availability of technology and music aesthetic education was the 9th, 10th, and 11th aim of this research. The provision of high-quality music education requires the utilization of instructive methods that are successful. Music instructors have the opportunity to expand their knowledge of effective teaching methods and strategies by participating in professional development programs designed specifically for teachers. For instance, a study that was carried out by Hanno (2022) discovered that teacher's training in inquiry-based learning methods resulted in a considerable improvement in the quality of music instruction. Teacher's training can offer educators the opportunity to learn about a variety of teaching tactics and approaches, as well as how to effectively use such strategies and techniques in their music classrooms. This has the potential to result in increased teacher performance, which will ultimately lead to better outcomes for students. similarly Teachers of music can increase their self-efficacy, obtain opportunities for professional development, and learn new information and abilities by participating in programs designed specifically for teacher's training. This has the potential to boost the motivation of teachers, which in turn can lead to more efficient instruction and improved results in music aesthetic education. Training for teachers can assist educators to learn how to successfully incorporate technology into their music lessons, which will ultimately result in enhanced teaching performance and improved learning outcomes for students. According to the findings of a study that was conducted by Soto-Lillo and Quiroga-Lobos (2021), teacher's training in the integration of technology led to a considerable improvement in the quality of music instruction. Hence, hypothesis H9, H10, and H11 are supported.

The mediating role of teacher's training on the relationship between teaching strategies, teacher motivation, and availability of technology and teacher performance was the 12th, 13th, and 14th aim of this research. The effectiveness of a teacher can be significantly influenced by the instructional methods they employ. Educators can get knowledge about various teaching strategies and methods that can improve the learning results for their students by participating in training programs designed specifically for teachers. For example, a study that was carried out by Liang and Law (2023) revealed that the training of teachers on formative assessment procedures led to a considerable improvement in student performance. Teachers can build an awareness of how to use formative assessment approaches to provide feedback to students and adapt their teaching to this new knowledge by participating in the training of this kind. Students may see improvements in their performance as well as improvements in their outcomes as a result of this. Educators improve their skills and knowledge through participation in professional development opportunities and continual training. This, in turn, can lead to more effective teaching and improved outcomes for students. Schools and districts must make opportunities for teacher's training and professional development a priority to guarantee that educators have the resources they need to provide a high-quality education to the students in their care. Hence, hypothesis H12, H13, and H14 are supported.

Conclusion

This study provides a conclusion showing the influence that teaching strategies, teacher motivation, the availability of technology, and teachers' training have on the aesthetic education of music and the performance of music teachers. The research shows that successful teaching strategies, such as interactive learning activities and the use of technology, have a good impact on students' musical abilities as well as their music appreciation. In addition, the study emphasizes the significance of both the motivation and training of teachers in providing students with high-quality music education. It is more likely that a good and engaging learning environment will be created by teachers who are driven to teach music and who receive proper training. This will ultimately lead to higher student results and improved teacher performance. In addition, the findings of the study indicate that the training of teachers acts as a mediator in the connection between teaching methodologies, the motivation of instructors, the availability of technology, and music aesthetic education. Instructors who participate in ongoing and pertinent professional development are in a better position to apply successful teaching tactics, incorporate technology into their lessons, and motivate their students to learn to play musical instruments. In a nutshell, the findings of this research article suggest that a concerted effort to improve music education should focus on addressing issues of the accessibility of technology, the motivation of teachers, effective teaching strategies, and the provision of adequate training for teachers.

Implications

Practical Implications

The degree to which teaching strategies, teacher motivation, and the availability of technology all have an impact on music aesthetic education and teacher performance is significantly mediated by the amount of teacher's training that is received. Regular training opportunities should be provided to educators to keep them abreast of the most recent developments in pedagogy, musical technology, and motivational strategies. These possibilities should be made available by institutions. Because of this, teachers will be able to improve their performance, which will, in turn, improve the learning outcomes for children. The degree to which one has access to various forms of technology is an essential component that determines the standard of one's musical training. Digital audio workstations, music notation software, and music production software are examples of cutting-edge musical technologies that educational institutions ought to consider purchasing. Also, there should be an emphasis placed on getting music teachers to use technology in their lesson plans. Students will have access to a wider variety of musical resources as a result of this, which will stimulate their creativity and encourage them to participate actively in the creation of musical works. In a similar vein, the motivation of teachers is necessary to accomplish high levels of performance in music instruction. Teachers should be encouraged to engage in professional development events, cooperate with colleagues, and participate in musical performances if educational institutions are to successfully build a friendly and motivating work environment for their employees.

Future Recommendation and Limitation

In the future, the research could use longitudinal designs to investigate the potential impact that teaching tactics, teacher motivation, and technological advancements have had and continue to have on the aesthetic education of music students and the performance of music teachers. These kinds of research could follow instructors throughout time and analyze how their performance and use of technology developed over that time. In subsequent research, the efficacy of various instructional approaches and the application of various forms of technology might be compared and contrasted. For instance, a study may compare the effects of utilizing conventional instructional strategies with those of utilizing multimedia presentations on the aesthetic education of music students. In conclusion, further research might investigate the effects that diverse cultural settings have on the aesthetic education of music teachers as well as the effectiveness of

various teaching styles, levels of teacher motivation, and technological advancements.

Studies that examine the impact of teaching tactics, teacher motivation, and technology on music aesthetic education and teacher performance may have some potential limitations because of the small sample sizes used in the investigations. the findings of Che et al., (2021) research can only be generalized to a certain extent because the sample size of the study was so small (only 72 music teachers). A further shortcoming is the absence of control over extraneous variables that could potentially affect the findings of the study. It's possible, for instance, that various teachers have varying degrees of expertise or access to diverse resources, both of which might have an impact on how well they do their jobs. The dependence on self-reported data, which may be prone to bias, constitutes a third drawback of this study. Educators could tend to exaggerate their proficiency with technology or their degree of motivation.

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