

EXAMINE THE EFFECT OF SELF-EFFICACY ON THE ACADEMIC OUTCOMES OF MUSIC LEARNERS

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ABSTRACT

Self-efficacy, defined as an individual's belief in his or her ability to perform tasks and achieve goals, plays a critical role in shaping learning strategies, motivation, persistence, and academic success. This study investigates the effect of self-efficacy on the academic performance of music learners, with a particular focus on potential gender-based differences. A total of 100 music students were assessed using a validated self-efficacy scale and categorized into high and low self-efficacy groups. Academic achievement was measured using cumulative music course grades, and participants were selected through a random sampling technique to ensure equal gender representation. The two null hypotheses were tested using t-test. The results showed a that there is a significant difference in academic outcomes between learners with high and low self-efficacy. However, that gender does not play a significant role in determining self-efficacy among music learners. The study concludes that self-efficacy is an important factor influencing academic success in music education, while gender does not significantly influence the level of self-efficacy. These findings underscore the importance of promoting self-efficacy among all music learners, regardless of gender, in order to enhance academic achievement.

Keywords: Self-Efficacy, Academic outcome, Music Learners, Music Education

Introduction

Music education plays a significant role in the academic and emotional development of students, offering opportunities for cognitive growth, creative expression, and cultural engagement. In particular, school music students are often required to perform complex tasks, including music theory, performance, composition, and critical listening. The ability to successfully navigate these tasks is often influenced by a student's self-efficacy — the belief in one's ability to accomplish specific academic tasks (Bandura, 1997). Self-efficacy has been identified as a crucial determinant in the academic success of students across various disciplines, including music (McPherson & McCormick, 2006). Self-efficacy, a central concept in Bandura's Social Cognitive Theory, significantly influences how students approach challenges, the effort they invest, and their perseverance in overcoming obstacles (Bandura, 1997). In music education, this concept is particularly relevant, as students with higher self-efficacy tend to be more motivated, engage in more productive practice behaviors, and ultimately achieve higher academic performance in music (McPherson & McCormick, 2006). The importance of self-efficacy in music education has been highlighted in several studies. Zimmerman (2000) found that students who believe in their ability to succeed in academic tasks demonstrate greater persistence and better academic performance. Moreover, Schunk (1991) argued that self-efficacy beliefs are directly related to the effort and strategies that students use to overcome challenges in their learning. Specifically, in the context of music, McPherson and McCormick (2006) found that students with high levels of self-efficacy in music tend to engage more in deliberate practice, resulting in better musical outcomes.

Despite these findings, research specifically exploring how self-efficacy influences academic achievement in music is still limited, particularly among secondary school students. The present study aims to fill this gap of the effect of self-Efficacy on the academic outcomes of music learners in the Moradabad district. By examining students' self-efficacy beliefs and their performance in music subjects, this research will contribute valuable insights into how self-efficacy can be leveraged to enhance academic success in music education. This study is important for both theoretical and practical reasons. It extends the existing body of research on the role of self-efficacy in academic achievement by focusing

specifically on music education, an area that has been underexplored. Furthermore, the findings may provide useful recommendations for educators, enabling them to implement strategies that enhance students' self-efficacy and, in turn, improve their academic outcomes in music.

This study is grounded primarily in Bandura's Social Cognitive Theory (1986), with a particular focus on the concept of self-efficacy, and its application to academic achievement. Self-efficacy refers to an individual's belief in their capability to perform specific tasks successfully, which influences their motivation, effort, and persistence in the face of challenges.

Social Cognitive Theory and Self-Efficacy

Albert Bandura's Social Cognitive Theory (1986) emphasizes the role of cognitive processes in the way individuals interpret, act on, and influence their environment. According to this theory, people learn not only through direct experiences but also through the observation of others, which is crucial in educational settings. A key component of the theory is self-efficacy, which refers to one's confidence in their ability to organize and execute the actions required to achieve specific outcomes (Bandura, 1997). In the context of education, self-efficacy influences how students set goals, approach learning tasks, and persist in the face of difficulties. Bandura posits that self-efficacy is shaped by four primary sources:

- **Mastery Experiences:** Successful academic activities are the most effective source of self-efficacy. When students complete tasks or make progress in their studies, they gain confidence in their capacity to achieve in the future. Repeated success in certain disciplines or activities solidifies this notion over time.
- **Vicarious Experiences:** Observing others, particularly peers, succeed in tasks similar to one's own can enhance self-efficacy. Seeing a peer achieve success through effort and persistence can inspire a student to believe they too can succeed through similar effort.
- **Verbal Persuasion:** Positive reinforcement from teachers, peers, and family can strengthen self-efficacy. Encouragement and constructive feedback help students believe in their abilities and motivate them to continue working toward their goals.
- **Physiological and Emotional States:** Students' emotional and physical states, such as stress, anxiety, or excitement, can impact their self-efficacy. Negative emotions, like fear of failure, can reduce self-efficacy, while positive emotions, like pride in accomplishments, can enhance it.



Figure 1 <https://www.dreamstime.com/stock-illustration-self-efficacy-important-drivers-self-efficacy-image97287082>

The role of self-efficacy is particularly important in academic settings, where students with high self-efficacy tend to set more challenging goals, put in more effort, and persist longer on difficult tasks. Zimmerman (2000) suggests that self-efficacy beliefs influence motivation, which in turn, affects academic achievement.

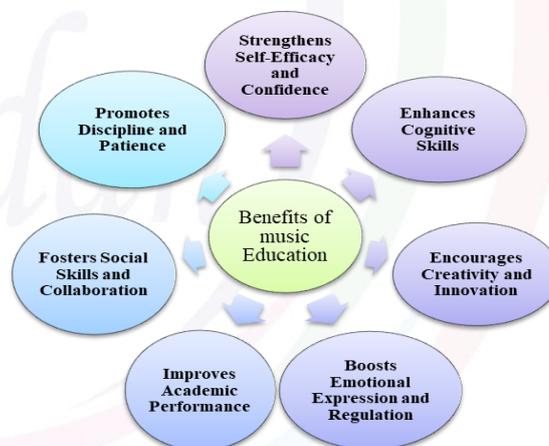
Self-Efficacy in Music Education

In the specific context of music education, self-efficacy has been found to significantly influence students' engagement, practice habits, and overall performance. McPherson and McCormick (2006) found that students with high self-efficacy in music are more likely to engage in deliberate practice, an essential factor for success in musical learning. Deliberate practice, as defined by Ericsson et al. (1993), refers to purposeful and effortful practice that is designed to improve specific skills. High self-efficacy in music students encourages them to set higher musical goals, practice more consistently, and handle performance anxiety better, thus enhancing their academic achievement. In contrast, students with lower self-efficacy in music are more likely to avoid challenges, put in less effort, and give up more easily when confronted with difficulties (Schunk, 1991). Therefore, self-efficacy is not just a predictor of academic performance but also plays a crucial role in fostering intrinsic motivation and goal-setting in music education.

Benefits of Music Education

Music education is a powerful way to develop students' appreciation of music. But music education can also enhance children's skills, abilities and self-efficacy outside of music. The following benefits of music education illustrate some of the ways students are impacted.

- **Enhances Cognitive Skills:** Music education supports the development of memory, attention, and critical thinking. It has been shown to improve areas like language development, mathematical reasoning, and spatial-temporal skills (Hallam, 2010).
- **Boosts Emotional Expression and Regulation:** Music offers a healthy outlet for emotional expression and helps students manage stress, anxiety, and mood. Engaging with music can promote emotional resilience and self-awareness.
- **Strengthens Self-Efficacy and Confidence:** Learning an instrument or performing builds a sense of accomplishment. Overcoming challenges in music encourages persistence and belief in one's capabilities (McPherson & McCormick, 2006).
- **Promotes Discipline and Patience:** Regular practice teaches goal setting, delayed gratification, and the value of consistent effort over time—key traits in academic and personal success.
- **Fosters Social Skills and Collaboration:** Group music activities like bands, choirs, or ensembles develop teamwork, communication, empathy, and mutual respect.
- **Encourages Creativity and Innovation:** Music provides space for creativity, helping students think outside the box, explore new ideas, and express unique perspectives.



Improves Academic Performance: Research links participation in music education with better grades and higher standardized test scores due to improved brain development and engagement.

The Relationship between Self-Efficacy and Academic Achievement

The relationship between self-efficacy and academic achievement has been widely documented in various fields. Studies have shown that self-efficacy has a direct positive impact on students' academic outcomes across disciplines, including music (Pajares & Valiante, 1999). In music education, self-efficacy influences how students approach musical tasks such as learning a new piece of music, performing, or engaging in music theory. The higher the level of self-efficacy, the more likely students are to engage in productive learning behaviors that enhance their academic performance. The relationship between self-efficacy and academic achievement has been widely studied and consistently shown to be positively correlated. Self-efficacy, defined as an individual's belief in their ability to succeed in specific tasks, plays a crucial role in shaping students' motivation, behavior, and performance in academic settings. Students with high self-efficacy are more likely to set challenging goals, persist in the face of difficulties, and utilize effective learning strategies, all of which contribute to higher academic achievement. On the other hand, students with low self-efficacy often experience doubt, anxiety, and a lack of motivation, which can negatively affect their academic performance. Theoretical frameworks such as Bandura's Social Cognitive Theory emphasize that self-efficacy is influenced by past experiences, social encouragement, and emotional states, and in turn, affects how students approach learning tasks. Empirical studies have consistently supported this relationship, showing that students who believe in their academic capabilities tend to perform better than those who do not, regardless of their actual ability levels. Therefore, fostering self-efficacy in students is essential for improving academic outcomes and promoting lifelong learning.

Objectives of the study

- To compare the academic outcomes of high and low self-efficacy groups.
- To assess the level of self-efficacy among the male and female music learners

Hypothesis

- **H₀:** There is no significant difference in the academic outcomes of music learners with high self-efficacy and those with low self-efficacy.
- **H₀:** There is no significant difference in the level of self-efficacy between male and female music learners.

Delimitations of the Study

- This study is restricted to music learners in the Moradabad region only.

Research Design

This study uses a quantitative, comparative research design to examine differences in academic outcomes among music learners, categorized based on their levels of self-efficacy. The research involved a randomly selected sample of 100 students (50 males and 50 females) enrolled in music education programs, ensuring balanced gender representation and minimizing sampling bias. Participants were divided into two groups based on self-efficacy: high self-efficacy and low self-efficacy. Data were collected using two instruments: a validated self-efficacy scale that measured students' beliefs in their academic capabilities in music, and academic performance records obtained from school transcripts, reflecting cumulative music course grades. Participants completed the self-efficacy questionnaire, after which they were categorized into high and low self-efficacy groups based on their scores. These groupings were then compared using statistical analysis to determine differences in academic outcomes and to assess whether gender influenced self-efficacy levels.

Results and Analysis

Table:1 H₀: There is no significant difference in the academic outcomes of music learners with high self-efficacy and those with low self-efficacy.

Group	Sample Size (n)	Mean Score	Standard Deviation (SD)	t-value	p-value	Significance
High Self-Efficacy	50	82.4	8.7	4.52	0.00002	Significant
Low Self-Efficacy	50	74.1	9.5			

Interpretation

The above table shows that music learners with high self-efficacy (n = 50) had a mean academic score of 82.4 with a standard deviation of 8.7, whereas those with low self-efficacy (n = 50) had a mean score of 74.1 with a standard deviation of 9.5. The statistical analysis using an independent samples t-test resulted in a t-value of 4.52 and a p-value of 0.00002. Since the p-value is far below the standard significance level of 0.05, this indicates that the difference in academic performance between the two groups is statistically significant. In other words, the higher academic achievement observed in the high self-efficacy group is unlikely to be due to random chance. Therefore, we reject the null hypothesis (H₀) and conclude that there is a significant difference in academic outcomes between learners with high and low self-efficacy. This suggests that self-efficacy plays a meaningful role in influencing students' academic performance in music education.

Table: 2 H₀: There is no significant difference in the level of self-efficacy between male and female music learners.

Gender	Sample Size (n)	Mean Score	Standard Deviation (SD)	t-value	p-value	Significance
Male	50	76.8	9.2	1.25	0.214	Not Significant
Female	50	79.1	8.5			

Interpretation

The above table shows that self-efficacy levels between male and female music learners, Male learners (n = 50) had a mean score of 76.8 with a standard deviation of 9.2. The statistical analysis yielded a t-value of 1.25 and a p-value of 0.214. Since the p-value (0.214) is greater than the conventional significance level of 0.05, the result is not statistically significant. This means there is no sufficient evidence to conclude that male and female music learners differ in their levels of self-efficacy. Therefore, we fail to reject the null hypothesis (H₀). The small difference in mean scores between male and female learners is likely due to chance, suggesting that gender does not play a significant role in determining self-efficacy among music learners in this sample.

Discussion

The first analysis clearly showed that music learners with high self-efficacy significantly outperformed those with low self-efficacy in their academic outcomes. the result is highly statistically significant. This implies that learners who believe in their own ability to succeed are more likely to perform better academically. These findings are consistent with Bandura's theory of self-efficacy, which posits that self-belief influences motivation, persistence, and learning behavior—factors critical to academic achievement, particularly in skill-based disciplines like music. In contrast, the second analysis examined gender differences in self-efficacy and revealed no significant difference between male and female learners. Although females had a slightly higher mean self-efficacy score than males, this difference is not statistically significant. This suggests that both male and female learners perceive their abilities similarly, and gender does not substantially influence self-efficacy within the context of music education.

This finding supports the view that self-efficacy is shaped more by individual experiences, feedback, and learning environments rather than gender-related factors.

Conclusion

In conclusion, the study demonstrates that self-efficacy plays a significant role in shaping the academic outcomes of music learners. Learners with high self-efficacy achieved notably higher academic scores compared to those with low self-efficacy, indicating that a strong belief in one's abilities positively influences learning outcomes. This underscores the importance of fostering self-efficacy through supportive teaching strategies, goal-setting, and positive feedback. Additionally, the findings revealed no significant difference in self-efficacy levels between male and female learners, suggesting that gender does not influence how students perceive their capabilities in music education. These results highlight the value of focusing on individual learner development rather than demographic factors, emphasizing that building self-confidence is key to academic success in music learning environments.

Recommendations

Based on the findings of this study, the following recommendations are made to enhance self-efficacy and academic outcomes among music learners:

- Provide regular, constructive feedback to help students recognize their progress and build belief in their abilities.
- Encourage a growth mindset by emphasizing effort, practice, and resilience over natural talent.
- Introduce mentorship programs where students can learn from peers or professionals who model strong self-efficacy.
- Train music educators on techniques to foster self-efficacy and identify students who may require additional motivational support.
- Ensure gender-neutral encouragement since gender was not found to significantly influence self-efficacy levels.
- Promote peer learning and support systems to provide vicarious learning experiences that enhance confidence.

Educational Implications

The findings of this study highlight the significant role of self-efficacy in influencing the academic performance of music learners. Based on the results, several educational implications can be drawn to improve both self-efficacy and academic outcomes in music education:

- Fostering students' belief in their abilities can improve motivation and persistence in music education.
- Provide additional support and encouragement for students with low self-efficacy, while challenging those with higher self-efficacy.
- Ensure that teaching practices are gender-neutral and provide equal opportunities for both male and female students.
- Role models and peer support can help students with lower self-belief improve their confidence and skills.

- Provide feedback to help learners track their development, reinforcing their belief that effort leads to success.
- Teachers should also receive training on promoting inclusive classrooms and addressing gender-related disparities in self-efficacy.

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