

The Influence Mechanism of Personality Traits and Teacher Support on Vocal Performance of University Vocal Music Students

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Abstract

This study explores how student personality traits and teacher support influence vocal performance. Qualitative analysis reveals that teacher support significantly affects vocal performance differently depending on student personality traits. Findings indicate that personalized teacher support enhances vocal performance based on students' traits, offering practical guidance for improving vocal education practices. This study aims to uncover how student personality traits and teacher support impact vocal performance and provide insights for personalized vocal education. Qualitative methods were employed, including interviews and observations with students and teachers at a conservatory. Data analysis identifies how different types of teacher support affect students with varying personality traits. Teacher support significantly influences vocal performance, with different impacts based on personality traits. Extraverted students benefit from emotional support, while introverted students respond better to detailed guidance. Educators can enhance vocal performance by tailoring support strategies to individual personality traits. The findings also suggest developing personalized teacher training to improve support effectiveness. This study offers new insights into how personality traits and teacher support affect vocal performance, improving vocal education practices and contributing to educational policy development and innovation.

Keywords: Personality Traits; Teacher Support; Vocal Performance; Influence Mechanism; Qualitative Research

1. Introduction

In the field of vocal music education, teacher support and student personality traits are widely recognized as two critical factors shaping students' vocal performance. However, the interplay between these factors, as well as the mechanisms through which they jointly affect students' performance, has received relatively limited scholarly attention (Katz, 2020). Addressing this gap

is essential, as vocal music education requires not only the transfer of technical knowledge but also the cultivation of psychological resilience, motivation, and artistic expression. Personality traits play a fundamental role in students' musical learning and performance. Traits such as perseverance, extroversion, conscientiousness, and emotional stability influence not only the strategies students adopt in practice but also their overall persistence and performance outcomes (Zakaria et al., 2023). For instance, perseverance has been identified as a mediating factor that enhances learning effectiveness and improves vocal outcomes (Zhang, 2020). At the same time, teacher support—encompassing emotional, instructional, and evaluative dimensions—is indispensable in guiding students' technical skills, reducing music performance anxiety, and creating a safe environment that fosters self-efficacy and confidence (Nagórka & Tempczyk-Nagórka, 2024).

Recent research highlights that one-on-one tutorials and personalized teaching strategies play a particularly important role in vocal performance training. Teachers who integrate multiple forms of support can help students develop accurate self-perceptions and enhance their self-belief in their musical abilities. Such emotional and instructional interactions are crucial for motivating students, especially in managing the high levels of anxiety often associated with vocal performance (Kaleńska-Rodzaj, 2023). Moreover, integrating diverse musical experiences and creating supportive environments significantly enhance students' motivation and enthusiasm, underscoring the importance of teacher support in higher education contexts (Minors et al., 2024).

Beyond traditional teaching methods, innovation and reform in vocal pedagogy are also necessary to align instructional strategies with contemporary talent development needs. The incorporation of technology and creative teaching models has been shown to cultivate students' comprehensive musical ability and increase engagement with vocal training courses (Xi, 2024). Such practices emphasize that the effectiveness of vocal music education depends not only on technical expertise but also on the synergy between students' individual characteristics and the support structures provided by their teachers.

Despite these insights, several challenges remain. First, most existing studies explore the effects of teacher support or personality traits in isolation, with few systematically examining their interactive effects on vocal performance. Second, research in this area has relied heavily on quantitative approaches such as surveys and statistical modeling, which often overlook the deeper psychological and behavioral mechanisms that shape performance outcomes. Third, although teacher support has been shown to significantly influence student learning, insufficient attention has been given to differentiating the impact of emotional, academic, and evaluative support. Finally, current pedagogical strategies often fail to account for the diverse needs of students with different personality traits, resulting in a lack of personalized educational approaches (Zakaria et al., 2023; Minors et al., 2024).

To address these gaps, this study investigates the interaction between personality traits and teacher support in shaping the vocal performance of university vocal music students. Specifically, it seeks to explore how distinct personality traits influence students' reception of teacher support, how different forms of support impact performance, and whether self-efficacy mediates these relationships. By integrating qualitative methods, the study aims to uncover the psychological and

behavioral processes underlying vocal performance and contribute to the design of more effective, individualized pedagogical strategies (Zhang, 2020; Xi, 2024).

In sum, this research provides new insights into the dynamic interplay between personality traits and teacher support in vocal music education. It highlights the importance of fostering effective teacher-student relationships, tailoring support to individual needs, and innovating teaching models to enhance both the technical and expressive dimensions of student performance. The findings are expected to offer practical guidance for educators in creating personalized and inclusive vocal training programs that align with the diverse learning needs of students in higher education (Nagórka & Tempczyk-Nagórka, 2024; Kaleńska-Rodzaj, 2023).

2. Literature Review

The influence of personality traits and teacher support on academic performance has been extensively studied across various educational domains, yet their combined impact on vocal performance in university vocal music students remains under explored (Nauzeer & Jaunky, 2021). Personality traits, as defined by the Big Five model, encompass dimensions such as openness, conscientiousness, extra version, agreeableness, and neuroticism, each contributing differently to learning outcomes and personal development (Hou, 2023). For instance, students high in conscientiousness are often more disciplined and goal-oriented, which can positively influence their practice habits and performance quality in vocal music (Lin et al., 2022).

Teacher support, encompassing emotional, academic, and evaluative dimensions, plays a crucial role in fostering a conducive learning environment (Bremmer & Nijs, 2020). Emotional support involves providing encouragement and empathy, academic support includes offering instructional guidance and resources (Tahirbegi, 2021), and evaluative support pertains to giving constructive feedback (Zhang, 2022). Research indicates that supportive teacher-student relationships enhance students' motivation, self-efficacy, and overall academic success. In the context of vocal music education, teacher support can significantly impact students' confidence, technical skills, and expressive abilities (Liu et al., 2021).

The influence mechanism of personality traits and teacher support on vocal performance of university vocal music students is a multifaceted area that involves various factors contributing to the development of students' vocal skills. Research in the field emphasizes the importance of personalized teaching methods and support systems tailored to individual students' needs (Zhu, 2024). Teachers play a crucial role in considering factors such as students' personal abilities, professional foundations, and available teaching resources to enhance students' vocal music performance (Xi, 2024).

Moreover, the cultivation of students' song-singing ability has become a focal point in vocal music teaching, promoting students' professional progress and comprehensive development (Chen, 2024). In addition to teacher support, students' personality traits and attitudes significantly impact their vocal learning skills. Studies have shown a positive correlation between students' learning attitudes and vocal learning skills, indicating that a positive attitude can enhance students' understanding of vocal music basics and improve their learning outcomes (Yang, 2024).

Furthermore, the application of positive psychology in vocal music classroom teaching has been highlighted as a beneficial approach. Correctly guiding students in the vocal learning process can greatly aid students in their vocal music learning journey (Zhang, 2020).

Innovative teaching methods, such as the integration of audio-visual multi-sensory teaching modes, have been shown to strengthen students' singing abilities and drive reform and innovation in the teaching profession (Zhang, 2023). Additionally, the use of information fusion technology has proven effective in improving the quality of vocal music teaching, leading to enhanced student performance (Chen, 2024). Furthermore, the application of big data technology in vocal music teaching has been recognized for its ability to reform educational methods, improve teaching efficiency, and elevate students' vocal music levels (Hu, 2024). Overall, the synthesis of these studies underscores the importance of personalized teaching approaches, teacher support, positive attitudes, innovative teaching methods, and the integration of technology in enhancing the vocal performance of university vocal music students. By considering these factors collectively, educators can create a conducive learning environment that nurtures students' vocal skills and fosters their overall development in the field of vocal music.

Teacher support can be categorized into emotional, academic, and evaluative forms. Emotional support involves the teacher's encouragement and empathy, which are crucial in reducing performance anxiety and fostering a positive learning environment (Tahirbegi, 2021). Academic support includes the provision of instructional resources and guidance, which directly affect students' technical proficiency and confidence (Bremmer & Nijs, 2020). Evaluative support, through feedback and assessments, plays a critical role in helping students identify areas for improvement and refining their performance (Zhang, 2022). Research has consistently shown that each type of support interacts differently with students' personality traits, impacting their vocal performance.

3. Theories Underpinning the Study

This study on "The Influence Mechanism of Personality Traits and Teacher Support on Vocal Performance of University Vocal Music Students" is underpinned by two primary theoretical frameworks: Bandura's theory of personality traits and the theory of social support.

3.1. Bandura's Theory of Personality Traits

Albert Bandura's social cognitive theory emphasizes the role of observational learning, social experiences, and reciprocal determinism in the development of personality traits (Butković, 2024). Bandura posits that individuals are not merely products of their environments but actively shape their behaviors through cognitive processes (Yang, 2024). Key components of Bandura's theory relevant to this study include:

Reciprocal Determinism: This principle highlights the dynamic and reciprocal interaction between personal factors, behavior, and the environment. In the context of vocal performance, this means that a student's personality traits influence their vocal behaviors (Panda, 2023), which in turn are affected by their interactions with their environment, including their teachers and peers

(Desire et al., 2019). A crucial aspect of Bandura's theory, self-efficacy refers to an individual's belief in their capability to execute behaviors necessary to produce specific performance attainments (Zhang, 2022). Higher self-efficacy can enhance motivation and persistence, which are essential for vocal performance and practice (Heriani, 2024).

The theory of social support, which encompasses various forms of support including emotional, informational, and instrumental support, is critical in understanding the external factors that influence vocal performance. In an educational context, teacher support is a significant component of social support. Key aspects include:

(1) Emotional Support: This involves expressions of empathy, care, and encouragement from teachers. Emotional support can boost students' confidence and reduce performance anxiety, leading to better vocal performance (Zhang, 2023).

(2) Informational Support: Providing students with feedback, guidance, and information on vocal techniques and performance can help them improve their skills and knowledge. This type of support is essential for the technical and artistic development of vocal students.

(3) Instrumental Support: This includes tangible resources and assistance, such as providing practice materials, arranging performance opportunities, and offering logistical support. Instrumental support can help students focus on their practice and performance without being hindered by external challenges.

Combining Bandura's theory of personality traits with the theory of social support provides a comprehensive framework for exploring the mechanisms through which personality traits and teacher support influence the vocal performance of university vocal music students (Chudari et al., 2020). This integrated approach acknowledges the interplay between intrinsic personal factors and extrinsic social factors in shaping students' vocal achievements (Ngobeni, 2024). By examining these interactions, the study aims to uncover the complex processes that contribute to vocal performance in an educational setting (Zakaria et al., 2023).

Bandura's theory of personality traits theoretically supported by the Big Five personality traits theory, which encompasses openness, conscientiousness, extraversion, agreeableness, and neuroticism (Holman & Hughes, 2021). This theory posits that individuals exhibit varying degrees of these personality traits, which can influence their behaviors, responses to stimuli, and interactions with their environment. Specifically, conscientiousness has been linked to job characteristics and academic performance, highlighting its importance in predicting outcomes in various domains.

Furthermore, the study incorporates the Trait and Factor theory, which posits that an individual's personality can be explained by identifying a set of traits determined by psychological tests measuring aspects of personality (Ngobeni, 2024). This theory underscores the importance of considering personality traits in career counseling and decision-making processes to align individuals with suitable career paths based on their traits and preferences. In summary, the theoretical framework of the study integrates the Big Five personality traits theory, the Theory of Planned Behavior, the association between personality traits and learning strategies, and the

Trait and Factor theory to elucidate how personality traits and teacher support influence the vocal performance of university vocal music students (Sun, 2023).

3.2. The Cognitive Theory

Here is another theory, the cognitive theory. Cognitive theory is a broad framework focusing on mental processes and how individuals acquire, process, and use information. This theory asserts that thinking, perception, memory, and problem-solving are critical cognitive processes that influence how individuals learn and interact with the world (Çeliköz et al., 2019). One of the prominent cognitive theories is the information processing theory. This theory proposes that individuals process information in a step-by-step manner, akin to a computer's processing of data. It involves sensory input, attention, perception, memory, and retrieval processes, and it posits that these processes work together to influence learning and problem-solving. Another influential cognitive theory is the social cognitive theory, which focuses on how individuals learn and acquire knowledge through their social interactions and experiences (Özcan, 2023). This theory posits that individuals learn from observing and modeling the behavior of others, and that their beliefs, attitudes, and values are shaped by their social experiences. Finally, the cognitive load theory is another important cognitive theory that focuses on how the cognitive resources of individuals are used during learning and problem-solving. This theory posits that individuals have a limited amount of cognitive resources available, and that learning and problem-solving tasks that require significant cognitive resources can overload the system and lead to poor learning outcomes. The theory proposes strategies to manage cognitive load, such as breaking down complex tasks into smaller, more manageable components (Sui et al., 2020). Overall, the cognitive theory is a rich and complex framework that has important implications for understanding how individuals learn and process information. It provides valuable insights into the mental processes that underlie human behavior and cognition, and it has informed the development of many influential theories and approaches to education and learning (Turda, 2024).

4. Research methodology

This study employs a qualitative research design to explore the nuanced ways in which personality traits and teacher support influence vocal performance (Sari et al., 2021). Qualitative methods are particularly suited for this study as they allow for an in-depth exploration of participants' experiences, perceptions, and interactions within their educational environment (Radil et al., 2023).

The sample for this study consists of 20 university vocal music students, selected using purposive sampling based on their personality traits, specifically targeting students with high levels of extraversion and introversion. Interviews were conducted to assess how these traits influence their reception of teacher support and vocal performance. Data analysis followed a thematic approach, with responses categorized according to the types of teacher support (emotional, academic, evaluative) and the students' personality traits. Thematic coding was employed to identify common patterns and differences across the interviews.

4. Discussion

This section interprets and discusses the qualitative findings of the study "The Influence Mechanism of Personality Traits and Teacher Support on Vocal Performance of University Vocal Music Students." The discussion will focus on the main themes that emerged, exploring how personality traits and teacher support interact to influence students' vocal performance (Castillo-Allendes, 2024).

4.1. Personality Traits and Vocal Performance

The findings reveal that personality traits significantly shape the vocal performance of university vocal music students. Key traits identified include self-efficacy, resilience, and openness to experience (Zhang, 2022).

4.1.1. Self-Efficacy

Self-efficacy, or the belief in one's capabilities to achieve goals, emerged as a critical factor. Students with high self-efficacy displayed greater motivation, persistence, and confidence in their vocal practice and performance. This aligns with Bandura's self-efficacy theory, which suggests that individuals with higher self-efficacy are more likely to take on challenges and persist in the face of difficulties (Peng, 2023). High self-efficacy students were observed to set higher performance goals, engage in more effective practice routines, and recover more quickly from performance setbacks.

4.1.2. Resilience

Resilience, the ability to bounce back from setbacks, was another crucial trait. Resilient students were better at coping with criticism and failures, maintaining a positive outlook towards their vocal development. They tended to view setbacks as learning opportunities rather than failures, which is vital in the demanding field of vocal performance. This trait helps students to sustain their efforts and continue improving despite the inevitable challenges they face in their training (Castillo-Allendes, 2024).

4.1.3. Openness to Experience

Openness to experience, characterized by a willingness to explore new ideas and take creative risks, also played a significant role. Students high in this trait were more receptive to innovative vocal techniques and diverse musical genres. They showed a greater propensity for experimenting with their vocal abilities, which enhanced their overall artistic expression and versatility. This openness was crucial for artistic growth, allowing students to develop unique performance styles (Alzugaray et al., 2020).

4.2. Teacher Support and Vocal Performance

Teacher support was identified as a pivotal external factor influencing students' vocal performance. The support provided by teachers can be categorized into emotional, informational, and instrumental support (Tahirbegi, 2021).

4.2.1. Emotional Support

Emotional support, which includes empathy, encouragement, and positive reinforcement, was vital in boosting students' confidence and reducing performance anxiety. Students who felt emotionally supported by their teachers were more likely to take risks and push their boundaries in vocal performance. This support helped create a safe and nurturing environment, essential for fostering artistic growth and exploration (Zelenak, 2020).

4.2.2. Informational Support

Informational support, such as constructive feedback, technical guidance, and performance advice, directly impacted students' skill development and performance quality (Wang, 2022). Effective feedback helped students identify their strengths and areas for improvement, leading to more focused and effective practice sessions. Informational support also deepened students' understanding of vocal techniques and musical interpretation, essential for achieving high levels of performance (Bulut, 2021).

4.2.3. Instrumental Support

Instrumental support, including providing resources like practice materials, performance opportunities, and logistical assistance, facilitated students' practical needs (Cao, 2024). This type of support ensured that students had access to the necessary tools and platforms to hone their skills and showcase their talent. Instrumental support alleviated practical barriers to consistent practice and performance preparation, enabling students to focus more on their artistic development (Lewis & Hendricks, 2022).

4.3. Interaction Between Personality Traits and Teacher Support

The interaction between personality traits and teacher support was found to be a complex yet influential factor in vocal performance (Ritchie & Sharpe, 2021). The synergy between intrinsic traits and extrinsic support significantly enhanced students' performance outcomes.

4.3.1. Enhancing Self-Efficacy Through Support

Teacher support played a crucial role in enhancing students' self-efficacy. Positive reinforcement and constructive feedback from teachers bolstered students' belief in their abilities, motivating them to strive for higher levels of performance (Xi, 2024). This reciprocal relationship aligns with Bandura's concept of reciprocal determinism, where personal factors, behavior, and environmental influences interact dynamically (Khan, 2020).

4.3.2. Resilience and Adaptive Support

Students with high resilience benefited from adaptive support tailored to their individual needs (Jones, 2020). Teachers who recognized the unique challenges faced by each student and provided personalized support helped these students navigate difficulties more effectively. This personalized approach fostered a growth mindset, encouraging students to view challenges as opportunities for learning rather than insurmountable obstacles (Wong, 2020).

4.3.3. Openness to Experience and Creative Encouragement

Teachers who encouraged creativity and exploration helped students with high openness to experience to flourish (Khan, 2020). By fostering an environment that valued innovation and artistic expression, teachers enabled these students to experiment with new techniques and styles. This encouragement not only enhanced students' technical skills but also their artistic individuality and expression (Wang, 2024).

Student feedback revealed that extraverted students responded more positively to emotional support, citing feelings of increased motivation and reduced anxiety. In contrast, introverted students found academic and evaluative support more beneficial, with many highlighting the detailed feedback they received. Quantitative data, where available, indicated a noticeable improvement in performance for extraverted students who received higher emotional support, suggesting that personality traits play a significant role in the effectiveness of teacher support.

4.4. Implications for Practice

The findings have several practical implications for vocal music education:

(1) **Holistic Support:** Educators should provide a holistic support system that addresses emotional, informational, and instrumental needs (Cui, 2021). This approach ensures that students receive comprehensive support that fosters both technical and personal growth.

(2) **Personalized Feedback:** Tailoring feedback and support to individual students' personality traits and needs can significantly enhance their learning experience and performance outcomes. Recognizing and nurturing each student's unique strengths and addressing their specific challenges is key to effective teaching (Wang & Webb, 2023).

(3) **Fostering Self-Efficacy:** Teachers should focus on building students' self-efficacy through positive reinforcement, constructive feedback, and opportunities for success. A strong sense of self-efficacy empowers students to take on challenges and persist in their efforts (Cheng et al., 2022).

(4) **Encouraging Resilience:** Developing resilience should be an integral part of vocal training programs. Educators can help students build resilience by providing a supportive environment, encouraging a growth mindset, and offering strategies for coping with setbacks (Yue, 2023).

(5) **Promoting Openness and Creativity:** Encouraging students to explore and experiment with their vocal performance can lead to greater artistic development (Liu & Zhou, 2021). Teachers should create opportunities for creative expression and innovation within their curriculum.

4.5. Limitations and Future Research

While this study provides valuable insights, it has certain limitations that should be acknowledged. The qualitative nature of the study means that findings may not be generalizable to all vocal music students (Chen, 2023). Future research could employ a mixed-methods approach to validate these findings across a larger, more diverse sample. Additionally, longitudinal studies could provide deeper insights into how personality traits and teacher support interact over time to influence vocal performance (Lu, 2023).

In conclusion, this study highlights the intricate interplay between personality traits and teacher support in shaping the vocal performance of university vocal music students. By understanding these dynamics, educators can develop more effective teaching strategies that cater to the individual needs of their students, ultimately enhancing their vocal performance and overall educational experience (Hao et al., 2023).

Practical Implications for Personalized Pedagogy

Based on the interaction patterns, we propose a 2×3 support matrix

Extroverted students → Emotion-focused support (e.g., public praise, master-class exposure).

Introverted students → Academic-detail support (e.g., annotated scores, micro-targets).

High-neuroticism students → Evaluative support with sandwich feedback to buffer anxiety.

These strategies can be integrated into faculty-development workshops and syllabi redesign.

4. Conclusion & Proposed Framework

This study examined how specific personality traits and different dimensions of teacher support jointly shape students' vocal performance. Using qualitative methods, the findings revealed self-efficacy, resilience, and openness to experience as the most influential personality traits affecting students' learning strategies and artistic expression. Among these, self-efficacy proved to be a foundational factor: students with stronger beliefs in their own abilities demonstrated greater motivation, persistence, and confidence in practice and performance. Resilience further enabled students to overcome criticism and setbacks with a constructive mindset, sustaining long-term improvement in vocal training. Meanwhile, openness to experience encouraged exploration of diverse vocal styles and techniques, thereby enriching artistic growth and performance versatility.

The study also emphasized the crucial role of teacher support as an external driver of vocal achievement. Emotional support created a safe and trusting learning environment, reducing performance anxiety and encouraging expressive risk-taking. Informational support, such as targeted feedback and technical guidance, enhanced students' mastery of vocal techniques. Instrumental support, including provision of resources and performance opportunities, allowed students to fully participate in their training and showcase their abilities.

Importantly, the interaction between personality traits and teacher support was shown to be dynamic and reciprocal. Teacher support amplified the positive effects of traits such as self-efficacy and resilience, reinforcing students' confidence and motivation while simultaneously shaping their learning behaviors. This highlights the necessity of adopting tailored pedagogical strategies, in which teachers align support with students' individual personality characteristics.

In practice, this means that educators should design personalized teaching approaches. For instance, students with higher extroversion may benefit more from emotional encouragement, while introverted students may respond more positively to evaluative feedback and detailed academic guidance. Such differentiation not only enhances individual performance outcomes but

also fosters an inclusive, supportive learning environment that accommodates the diverse needs of vocal music students.

Overall, this study contributes to both theory and practice by demonstrating how the synergy between personality traits and teacher support drives vocal performance. Future vocal pedagogy can build on these insights to develop individualized teaching frameworks that maximize student potential, improve learning effectiveness, and promote sustainable artistic development.

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Conceptualization, M.H and G.NA; methodology, M.H and G.NA; software, M.H and G.NA; validation, M.H and G.NA; formal analysis, M.H and G.NA; investigation, M.H and G.NA; resources, M.H and G.NA; data curation, M.H and G.NA; writing—original draft preparation, M.H and G.NA; writing—review and editing, M.H and G.NA; All authors have read and agreed to the published version of the manuscript.

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