



Effects of Voice, Breath Studies and Art Therapy on Academic Motivation-Anxiety of Students*

Emine Ceylan ÜNAL AKBULUT**, Ece Merve YÜCEER NISHIDA***, Şebnem UŞEN****, Emrah UÇAR*****

Article Information	ABSTRACT
Received: 06.07.2023	Sixty-three of the state university, faculty of education, and department of preschool education students who claimed to experience a lack of motivation and trait anxiety were included in an 8-week workshops within the scope of this study. 29 out of 63 students formed the experimental group; the remaining 34 were the control group. Students in the experimental groups formed; participated in one of the voice, breath workshops, or art therapy assigned to them online for 60 minutes per week. At the end of 8 weeks, the experimental groups were compared among themselves and with the control group; The extent to which they benefited from which workshop was measured with the Academic Motivation Scale developed by Vallerand et al. in 1989 and translated into Turkish by E. Yurt and E. N. Bozer in 2015, and it was investigated whether they would continue to apply what they learned in the project individually. Data were obtained from the Trait Anxiety Inventory, developed by Spielberger et al. in 1970 and translated into Turkish by Oner and Le Compte in 1985 due to validity and adaptation studies to Turkish culture. As a result of the study, the anxiety of 9 out of 10 participants in the Breath group consisting of those who received Breath workshop decreased. Their scores on the sub-dimensions of academic motivation remained the same. A decrease in the lack of motivation levels was observed in five participants in the Voice group, consisting of those who attended the Voice workshop. Their scores on other academic motivation sub-dimensions did not change.
Accepted: 10.12.2024	
Online First: 21.01.2025	
Published: 31.01.2025	
Keywords: Voice workshop, breath workshop, art therapy, academic motivation, trait anxiety	
doi: 10.16986/HUJE.2025.533	
Article Type: Research Article	

Citation Information: Ünal Akbulut, E. C., Yüceer Nishida, E. M., Uşen, Ş., & Uçar, E. (2025). Effects of voice, breath studies and art therapy on academic motivation-anxiety of students. *Hacettepe University Journal of Education*, 40(1), 1-14. <https://doi.org/10.16986/HUJE.2025.533>

1. INTRODUCTION

Academic motivation plays a pivotal role in shaping students' academic performance, learning outcomes, and active engagement in educational processes. As a central concept in educational psychology, academic motivation encompasses the internal and external factors that drive students to pursue academic goals, overcome challenges, and achieve success. A lack of academic motivation can lead to significant negative outcomes, such as extended academic timelines, disengagement from learning, and underachievement. Moreover, its impact extends beyond the academic realm, manifesting in professional life as reduced productivity, limited career advancement, and dissatisfaction. This reality highlights the necessity of identifying the factors that lead to decreased motivation and developing effective strategies to mitigate its adverse effects.

At the same time, anxiety represents a critical psychological barrier that can impair academic performance and overall well-being. In adults, anxiety often arises from a combination of environmental stressors, unresolved personal issues, and social pressures. These factors create a persistent emotional burden that, if not addressed, can lead to prolonged psychological distress, ultimately affecting academic and professional success. Therefore, addressing both academic motivation and anxiety requires a holistic and integrated approach to promote psychological resilience and academic engagement.

* This research was supported by the Scientific Research Projects Coordination Unit of Yildiz Technical University under the project number SBA-2021-4702 with the permission of Yildiz Technical University Ethics Committee of Social Sciences and Humanities, decision number 2021/01 dated 21/03/2021.

** Assoc. Prof. Dr., Yildiz Technical University, Faculty of Art and Design, Department of Music and Performing Arts, Istanbul-TÜRKİYE. e-mail: cunal@yildiz.edu.tr (ORCID: 0000-0001-5108-7386)

*** Assoc. Prof. Dr., Yildiz Technical University, Faculty of Art and Design, Department of Music and Performing Arts, Istanbul-TÜRKİYE. e-mail: emyuceer@yildiz.edu.tr (ORCID: 0000-0002-5595-2223)

**** Assist. Prof., Yildiz Technical University, Faculty of Art and Design, Department of Music and Performing Arts, Istanbul-TÜRKİYE. e-mail: usen@yildiz.edu.tr (ORCID: 0000-0003-1802-7503)

***** Lect. Dr., Yildiz Technical University, Faculty of Art and Design, Department of Music and Performing Arts, Istanbul-TÜRKİYE. e-mail: eucar@yildiz.edu.tr (ORCID: 0000-0003-2481-5514)

Previous research has contributed significantly to understanding the dynamics of academic motivation and anxiety. For example, Yurt and Bozer (2015), in their study titled “Turkish Adaptation of the Academic Motivation Scale,” translated the English version of the Academic Motivation Scale developed by Vallerand et al. (1989) into Turkish and conducted reliability and validity analyses. Additionally, they investigated whether scores differed by gender. The findings revealed no significant gender-based differences in intrinsic motivation sub-dimensions, such as motivation to know, achieve, or experience stimulation, establishing the scale as a reliable tool for assessing academic motivation in diverse populations.

Similarly, Ünal Karagüven (2012) conducted a study titled “Adaptation of the Academic Motivation Scale into Turkish,” focusing on adapting the scale’s university form to Turkish culture. The research involved 390 university students and assessed the scale’s conceptual validity through comparisons with constructs such as test anxiety and environmental support. Confirmatory and explanatory factor analyses demonstrated that the scale is both a valid and reliable instrument for evaluating academic motivation among Turkish students.

In the domain of anxiety, Kaya and Varol (2004) examined state and trait anxiety levels among theology students in Samsun, considering demographic factors such as gender, marital status, and academic achievement. Their findings revealed significant differences in anxiety levels across most variables, except for gender and grade level. Students identified “inability to find employment” and “illness or loss of loved ones” as the most prominent sources of anxiety. These findings emphasize the profound influence of economic and personal uncertainties on students’ mental well-being.

Furthermore, Yıldız, Yeniçeri, and Öncel (2018) conducted a study titled “Application of the State-Trait Anxiety Scale (STAI-TX) in Randomly Selected Individuals and Results,” analyzing anxiety levels among 300 participants with diverse sociodemographic characteristics. Despite the majority of participants belonging to low-income groups, the results revealed relatively low levels of anxiety. This outcome highlights the complex nature of the relationship between socioeconomic status and anxiety, suggesting the involvement of mediating factors such as social support systems and psychological resilience.

Building on these foundations, the present study aims to investigate the effects of three intervention methods—Voice Workshop, Breath Workshop, and Art Therapy—on students’ academic motivation and anxiety levels. Each intervention was designed to target specific emotional and psychological challenges.

1.1. Voice Workshop

The human voice is far more than a mere instrument of communication; it is a profound and multifaceted tool with exceptional significance in both cultural and artistic contexts. As emphasized in numerous scholarly sources, the human voice holds a unique position as the earliest and most intrinsic musical instrument, originating with the very emergence of humanity (Helvacı, 2018: 127-134). This perspective highlights the deep historical and evolutionary role of the voice as a medium for expressing emotions, storytelling, and artistic creation. The voice, unlike other musical instruments, is inherently part of the human body and is naturally capable of producing a vast range of tones, pitches, and dynamic variations that are governed by the unchanging principles of nature (Sevinç & Şimşek, 2004: 207-216). This natural quality of the vocal organ as a “positive instrument” signifies its unique potential to adapt to various forms of musical expression while remaining subject to physiological and acoustic laws.

From a pedagogical perspective, voice education represents a complex and highly demanding discipline within music education. Developing the human voice into an effective instrument of artistic expression requires a meticulous process that involves technical training, emotional engagement, and physical awareness. Unlike external instruments, the voice relies on the coordination of various physiological systems—such as the respiratory, phonatory, and articulatory mechanisms, making it subject to natural limitations and individual variability. Consequently, voice pedagogy necessitates a deep understanding of human anatomy, sound production, and performance techniques, which together create a comprehensive framework for vocal development.

Empirical studies in the field of education underline the importance of students’ affective orientations, their emotional connections and attitudes toward the subject matter—in determining the effectiveness of the learning process. According to Özçelik (2016), there exists a positive correlation between the emotional disposition of a student toward the material being learned and their overall learning outcomes. Students who approach learning experiences with enthusiasm, confidence, and emotional engagement are more likely to achieve outcomes that align with the goals and expectations set for the subject. This finding underscores the critical role of motivation and emotional involvement in voice education, where the act of singing or vocal practice is not merely mechanical but deeply intertwined with the learner’s affective state.

Furthermore, the process of voice education involves addressing both technical proficiency and emotional expression. While technical aspects—such as breath control, tone production, and articulation—are essential, the expressive quality of the voice is equally significant, as it allows for the conveyance of nuanced emotions and artistic interpretation. This dual focus places voice training at the intersection of science and art, requiring instructors to integrate anatomical knowledge with creative pedagogy. Such an approach not only enhances students’ vocal abilities but also fosters their artistic confidence and personal growth. The interplay between students’ emotional orientation toward the learning process and their overall achievement

highlights the importance of fostering positive attitudes and deep engagement in music pedagogy. By understanding and addressing the intricate dynamics of voice education, educators can unlock the vast potential of this uniquely human instrument, enabling students to explore its expressive and artistic possibilities to the fullest.

1.2. Breath Workshop

Breathing, as a fundamental physiological process, extends far beyond its primary role in oxygen and carbon dioxide exchange. It plays a crucial role in enhancing overall health, increasing internal and external awareness, and fostering a holistic transformation in the human body and mind (Önder, 2019, p. 7). The act of breathing not only ensures the oxygenation of the hundreds of cells that sustain bodily functions but also facilitates the removal of significant waste products, contributing to the body's detoxification process. Through this essential mechanism, the respiratory system serves as a bridge between physiological well-being and emotional balance.

Scientific evidence highlights a compelling relationship between breathing patterns and emotional states. Research indicates that specific emotions can alter breathing rhythms; for instance, stress or anxiety often results in shallow, rapid breaths. Conversely, the deliberate modulation of breathing rhythms can exert a profound influence on our emotional states, enabling us to experience greater calmness, focus, or even energy (Önder, 2019, pp. 12-13). This bidirectional relationship between breathing and emotional regulation underscores the critical role of breath awareness and controlled breathing techniques in maintaining psychological and physiological equilibrium.

One particularly significant finding in this regard is the impact of diaphragmatic breathing and its therapeutic benefits. Scientific studies have demonstrated that breathing exercises, which engage the diaphragm muscle, slow down the respiratory rate and reduce the body's overall oxygen demand. The diaphragm, a dome-shaped muscle located at the base of the lungs, plays a pivotal role in the mechanics of respiration. When actively utilized during vocal diaphragm exercises or structured breathing practices, it promotes a deeper, more efficient form of breathing, enhancing oxygen delivery to tissues and improving energy efficiency.

Moreover, the physical movements of the diaphragm during deep inhalation and exhalation generate a micro-massage effect on surrounding internal organs, such as the intestines, abdominal structures, and the heart. This rhythmic motion stimulates peristalsis in the digestive system, supports cardiac function, and contributes to overall internal balance. In addition, the diaphragm's movements create a vacuum effect within the blood and lymphatic systems, which is particularly beneficial for stimulating lymphatic drainage. By improving lymphatic circulation, diaphragmatic breathing accelerates the excretion of toxins and metabolic waste products, thereby enhancing the body's natural detoxification processes.

Beyond its physiological advantages, diaphragmatic breathing has also been widely adopted as a powerful tool in disciplines such as mindfulness, yoga, and vocal training. For instance, vocal exercises that incorporate diaphragmatic breathing enable individuals to produce sustained and controlled sounds, improving vocal strength, pitch control, and tonal clarity. Simultaneously, these practices facilitate emotional release, reduce anxiety, and cultivate a heightened sense of mind-body awareness, which is essential for both physical and psychological well-being.

1.3. Art Therapy

Art therapy is a therapeutic approach grounded in contemporary scientific research and widely recognized for its effectiveness in promoting emotional and psychological well-being. Within the field of psychotherapy, it serves as a vital alternative in cases where verbal expression becomes challenging or blocked. Under such circumstances, art therapy sessions are facilitated, either individually or in group settings, providing participants with a structured yet flexible platform for self-expression. Through the therapist's guidance, individuals engage with art materials on a specific theme, channeling their emotions, thoughts, and internal experiences into creative forms.

Art therapy enables the symbolic expression of both unconscious and conscious emotional and intellectual content. These symbolic representations emerge through various artistic media, such as painting, drawing, color work, sound, patterns, photography, dramatization, and creative writing. The resulting artworks do not hold value solely in their aesthetic form; instead, they derive meaning from the emotional or intellectual narratives they symbolize (Eracar, 2021: 15, 17). In this sense, art therapy transcends traditional artistic practice, prioritizing therapeutic expression over artistic perfection. Participants are neither required nor expected to possess artistic skills or inclinations; the essence of art therapy lies in using art as a means to externalize unresolved emotional burdens, inner conflicts, or psychological congestion that resides in the unconscious.

A core principle of art therapy is the creation of a non-judgmental environment in which individuals feel free to explore their thoughts and emotions through artistic means. By eliminating the pressure to produce aesthetically pleasing works, art therapy emphasizes the process of creation rather than the final product. This approach allows participants to release emotional blockages, gain insights into their psychological states, and experience catharsis through symbolic expression. The

therapeutic process itself fosters emotional awareness, resilience, and self-reflection, facilitating a deeper connection with one's inner world.

In structured therapeutic contexts, art therapy is often applied with clearly defined goals, such as improving self-awareness, reducing anxiety, or enhancing motivation. In the context of this study, art therapy is implemented alongside two additional workshops—Voice and Breath Workshops—to investigate its impact on academic motivation. Participants engage in weekly art therapy sessions designed to encourage emotional release and self-exploration through creative methods. The effectiveness of these interventions will be assessed using the Academic Motivation Scale, originally developed by Vallerand et al. (1989) and adapted to Turkish by Yurt and Bozer (2015).

By addressing academic motivation and anxiety simultaneously, these interventions offer a holistic framework for improving students' psychological well-being and academic engagement. The outcomes of this research are expected to contribute to the existing literature by providing valuable insights into the effectiveness of creative, physiological, and expressive methodologies in educational psychology.

Furthermore, the findings from this study emphasize the need for future research to explore the long-term impacts of such interventions, while also identifying additional factors that influence academic success and emotional resilience. Such research could play a pivotal role in the development of tailored strategies to enhance student motivation and well-being in both academic and professional contexts.

2. RESEARCH METHODOLOGY

Within the scope of this study, a total of sixty-three preschool classroom teaching students who exhibited signs of low academic motivation were selected as participants. The study employed a pre-test-post-test control group design, which is widely recognized for its effectiveness in evaluating intervention outcomes within educational research. This methodological approach ensured a systematic comparison of pre-intervention and post-intervention results, allowing for the assessment of the intervention's overall efficacy.

To maintain objectivity and minimize bias, participants were randomly assigned to either the experimental group or the control group. Among the 63 students, 29 were allocated to the experimental group, while the remaining 34 formed the control group. The experimental group was further divided into three subgroups, each assigned to a specific intervention: Voice Workshop, Breath Workshop, or Art Therapy. These workshops were conducted online for a duration of 60 minutes per session and spanned a total of 8 weeks. This design allowed for consistent exposure to the interventions while accounting for logistical feasibility, such as students' geographical locations and accessibility to digital platforms.

The Voice Workshop focused on vocal exercises and expressive techniques to promote self-confidence and emotional release. The Breath Workshop introduced structured breathing techniques to reduce anxiety and enhance emotional regulation. Finally, the Art Therapy sessions provided a non-verbal medium for students to process and express emotions creatively. Each workshop was designed with specific objectives aimed at fostering psychological well-being and enhancing academic motivation.

At the conclusion of the 8-week intervention period, comprehensive evaluations were conducted to determine the extent of the benefits experienced by students in both the experimental and control groups. This analysis provided critical insights into the comparative effectiveness of the three interventions in addressing academic motivation deficits and supporting students' overall engagement and well-being.

2.1. Purpose of the Research

Academic motivation serves as a critical determinant of students' academic success, learning outcomes, and overall engagement with their educational experiences. It not only influences immediate factors such as academic achievement and the time effectively spent in education but also exerts an indirect impact on broader stakeholder satisfaction, including educators, families, and institutions. Given its profound importance, academic motivation must be systematically assessed, understood, and improved to ensure that students can achieve their fullest potential. Addressing academic motivation is particularly significant in an educational environment where students increasingly face psychological challenges, such as stress and anxiety, which can further impede their overall academic performance and personal growth.

In line with this understanding, the present study aims to investigate the effects of Voice Workshops, Breath Workshops, and Art Therapy on students' academic motivation and anxiety levels. These three interventions were selected based on their established benefits in promoting emotional regulation, reducing anxiety, and fostering psychological well-being, which are essential components of a supportive academic environment. Each method is unique in its approach: Voice Workshops engage participants in vocal exercises and expressive techniques that enhance confidence and self-expression; Breath Workshops employ structured breathing exercises to facilitate emotional balance and stress management; and Art Therapy provides a creative outlet for processing and expressing emotions that may not be easily articulated through verbal communication.

Through the implementation of these interventions, it is anticipated that students will experience measurable improvements in their academic motivation and reductions in anxiety levels. By introducing such methods into the educational setting, students will not only develop strategies to cope with psychological challenges but also acquire skills that can enhance their daily lives and academic persistence. Furthermore, this study seeks to highlight the importance of integrating creative and holistic methodologies into the educational process as a means to improve both emotional resilience and academic engagement.

By empowering students with practical tools and techniques derived from these interventions, the study aims to foster a more motivated, balanced, and resilient academic mindset. This approach not only addresses immediate academic concerns but also equips students with lifelong skills that can positively influence their personal, educational, and professional journeys.

2.2. Research Hypothesis

The primary hypothesis of this study was developed to assess the impact of three specific interventions—Voice Workshops, Breath Workshops, and Art Therapy—on students' academic motivation and trait anxiety levels. The main hypothesis and its associated sub-hypotheses were articulated as follows:

Main Hypothesis (H1):

Participation in Voice Workshops, Breath Workshops, and Art Therapy positively impacts students' academic motivation, leading to measurable improvements.

To examine this overarching hypothesis in greater detail, the following sub-hypotheses were formulated:

H1a: Students in the control group demonstrate an increase in their academic motivation following the intervention period.

H1b: Students in the experimental group exhibit a significant improvement in their academic motivation levels post-intervention.

H1b1: Participation in the Breath Workshop leads to an observable increase in students' academic motivation.

H1b2: Engagement in the Art Workshop positively enhances students' academic motivation.

H1b3: Participation in the Voice Workshop contributes to a significant improvement in students' academic motivation.

Secondary Hypothesis (H2):

In addition to academic motivation, it is hypothesized that participation in Voice Workshops, Breath Workshops, and Art Therapy results in a reduction in students' trait anxiety levels.

To further substantiate this hypothesis, the following sub-hypotheses were investigated:

H2a: Students in the control group experience a decrease in their trait anxiety levels after the intervention period.

H2b: Students in the experimental group show a statistically significant reduction in trait anxiety levels following their participation in the interventions.

H2b1: Participation in the Breath Workshop leads to a notable decrease in students' trait anxiety levels.

H2b2: Engagement in the Art Therapy Workshop contributes to reducing students' trait anxiety levels.

H2b3: Participation in the Voice Workshop effectively lowers students' trait anxiety levels.

This detailed framework was constructed to systematically evaluate the individual and collective impacts of the three interventions on key psychological variables, namely academic motivation and anxiety. By incorporating specific sub-hypotheses, the study aims to explore the nuanced effects of each intervention, ensuring that their contributions are clearly delineated and rigorously analyzed. Such a structured approach enables the identification of targeted strategies for enhancing student engagement, emotional regulation, and overall psychological well-being in educational settings.

2.3. Data Collection Tool

In this study, two standardized measurement tools were utilized to collect data: the Trait Anxiety Inventory and the Academic Motivation Scale. Both instruments have been widely validated and adapted to Turkish cultural contexts, ensuring their reliability and appropriateness for the targeted population.

The Academic Motivation Scale (AMS) was originally developed by Vallerand et al. (1989) as a 7-point Likert-type scale to assess individuals' intrinsic and extrinsic academic motivation. This scale was later translated into Turkish by Yurt and Bozer (2015), who conducted comprehensive validity and reliability analyses to ensure its cultural and linguistic adaptability. The AMS consists of 28 items organized under seven distinct sub-dimensions, which represent different forms of motivation, including intrinsic motivation to know, achieve, and experience stimulation, as well as extrinsic motivational factors and amotivation. Respondents rate each item on a 7-point scale, where scores range between 4 and 28 for each sub-dimension. Higher scores signify greater levels of academic motivation, while lower scores indicate a diminished motivational state. Reliability coefficients for the sub-dimensions of the scale, as reported in its Turkish adaptation, range from 0.62 to 0.91, reflecting a satisfactory internal consistency across the various dimensions.

The Trait Anxiety Inventory (TAI), on the other hand, was developed by Spielberger et al. (1970) to measure individuals' stable, long-term anxiety levels. Recognizing the importance of cultural adaptation, the scale was translated and validated for Turkish use by Öner and Le Compte (1985). The TAI consists of 20 items rated on a 4-point Likert scale (ranging from "almost never" to "almost always"). A distinctive feature of the scale is that 7 items are reverse-coded, which means their scores are inverted to ensure accurate assessment. The total score is calculated by subtracting reverse-coded responses from the overall sum of the scale and subsequently adding 35 points to standardize the result. The final score can range between 20 and 80: higher scores indicate elevated anxiety levels, while lower scores reflect a reduced anxiety state.

By combining these tools, the study ensures a rigorous and multifaceted evaluation of the participants' academic motivation and anxiety levels. The Academic Motivation Scale provides critical insights into the motivational dimensions affecting students' academic engagement, while the Trait Anxiety Inventory highlights the psychological factors that may interfere with their overall well-being and performance. Together, these instruments enable a comprehensive understanding of how targeted interventions influence both motivation and anxiety within the educational context.

2.4. Sample Profile

The study was conducted within the Yildiz Technical University, Faculty of Education, Department of Preschool Classroom Teaching, involving 63 participants who were systematically divided into experimental and control groups. Specifically, 29 participants were assigned to the experimental group, while 34 participants formed the control group. The demographic distribution of the participants revealed a notable gender imbalance, with 8 males and 55 females, reflecting the typical gender composition observed in preschool education programs.

An analysis of the participants' mean ages across different groups indicated slight variations. In the control group, the mean age was recorded as 20.85 ± 2.002 , providing a baseline for comparison. The Breath group exhibited a higher mean age of 22.00 ± 4.989 , while the Art Therapy group and the Voice group reported mean ages of 20.89 ± 4.197 and 20.90 ± 2.025 , respectively. These age distributions suggest a relatively homogenous sample, with minor age-related differences likely to have minimal impact on the study's outcomes. Additionally, the geographical distribution showed that the vast majority of participants (53 out of 63) were residents of Istanbul, while a smaller subset (3 participants) came from Kocaeli.

The participants' academic registration periods were also examined. A significant portion of the sample (52 students) registered in 2020, indicating their alignment with the program's standard timeline. In contrast, 6 participants joined the program in 2021, highlighting a small variation in registration years.

In terms of living arrangements, the findings underscored the prevalence of traditional family support systems. The majority of participants (39 students) resided with their families, while smaller groups reported alternative living arrangements. Specifically, 12 students lived in student dormitories, 11 students shared accommodations with friends, and 1 participant reported living with relatives. These differences in living conditions may provide insights into the participants' social support structures and their potential influence on academic motivation and well-being.

The study also explored participants' levels of academic motivation, with findings indicating notable variations between groups. Within the control group, 64.7% of participants reported experiencing a lack of academic motivation, aligning closely with the responses from the Art Therapy group, where 55.6% similarly reported low motivation levels. In contrast, participants in the Breath group demonstrated higher rates of academic disengagement, with 70% expressing a lack of motivation. Likewise, the Voice group reported significant levels of motivational deficiency, with 60% acknowledging their lack of academic drive. These findings emphasize the widespread nature of academic demotivation within the study population and underscore the need for targeted interventions.

The participants' academic performance, as reflected by their grade point averages (GPA), was calculated to provide an objective measure of achievement. The control group exhibited a mean GPA of 3.4312 ± 0.2748 , serving as a comparative benchmark. The Breath group reported a similar GPA of 3.448 ± 0.17561 , while the Art Therapy group outperformed other groups with the highest mean GPA of 3.5656 ± 0.27323 . The Voice group, on the other hand, maintained a GPA of 3.448 ± 0.17561 , aligning closely with the Breath group's results. When averaged across all participants, the overall GPA was calculated as 3.5230 ± 0.25268 , reflecting a consistently high academic performance across the study cohort.

The participants' physical well-being and medication use were also assessed as part of the study. In the control group, an overwhelming 91.2% of participants reported experiencing no physical discomfort, while 85.3% confirmed that they did not use medication during the study period. Similarly, in the Breath group, none of the participants reported physical discomfort; however, a significant proportion (80%) indicated that they relied on medication. In the Art Therapy group, none of the participants reported experiencing any discomfort or medication use, suggesting a relatively stable well-being. Conversely, in the Voice group, one participant reported physical discomfort and confirmed the use of medication.

2.5. Analysis of Data

In the sample profile, the distribution of participants across the experimental and control groups revealed a significant difference in group sizes. Specifically, the number of participants in the experimental groups (Breath, Art, Voice) was fewer than 30 ($n < 30$), while the number of participants in the control group exceeded 30 ($n > 30$). This distinction necessitated an examination of the normality assumption to ensure the appropriate statistical tests were selected for the control group.

To assess whether the data adhered to a normal distribution, two primary methods were applied: the Kolmogorov-Smirnov Normal Distribution Test and the kurtosis-skewness values. According to Gürbüz and Şahin (2016), for the data to meet the assumption of normality, one of two conditions must be satisfied: either the Kolmogorov-Smirnov test should yield statistically insignificant results ($p > 0.05$), or the kurtosis and skewness values should fall within the range of -1 to +1.

The Kolmogorov-Smirnov test results were analyzed to evaluate the normality of the data, and the findings, along with kurtosis and skewness values, were summarized in Table 9. It was observed that the data obtained from the Trait Anxiety Inventory for participants in the control group satisfied the normal distribution assumption, as evidenced by a statistically insignificant p-value ($p > 0.05$) and kurtosis-skewness values falling within the acceptable range ($-1 < \text{Skewness} < +1$; $-1 < \text{Kurtosis} < +1$).

Despite meeting the normality assumption for the control group, a nonparametric approach was adopted for all statistical analyses conducted within the study. This decision ensured a consistent and balanced methodology across the experimental and control groups, as the sample sizes in the experimental sub-groups were small, rendering parametric tests potentially less reliable. By implementing nonparametric tests, the study maintained methodological rigor and avoided discrepancies that could arise from unequal sample distributions.

2.6. Workshop Applications

The works of 3 different workshops carried out within the scope of the research are detailed below:

2.6.1. Voice workshop

In the voice studies, general information about the workshop was given, and the participants were directed to the voice studies by chatting about their musical interests, tastes, and orientations. In the first phase, short conversations were held on simpler voice and singing topics to keep the participants' interest alive. In order to increase the sense of belonging of the participants to the workshops, empathy was tried to be made, and peer psychology was tried to be caught by talking about the issues that could negatively affect the level of motivation.

The importance of singing in voice studies in the preschool period, phonation, sound quality, tone, loudness, voice types, articulation exercises, importance of breathing in singing, breathing exercises, warming-opening, and stretching exercises, things to do before singing, musical styles, types of voices according to musical style, timbre regions used while singing, singing at the right frequency, intonation, modulation, rhythm patterns, vocal health, male and female voice classification, language use in singing, mood singing, breathing in singing Theoretical and practical studies have been carried out on the places of reception, the contribution of sound studies to professional practice and how to use them. At the beginning of each workshop, information was given about the previous week's repetition and the next week's topics, providing reinforcement and predictability. Since the entire participant group consisted of the students of the basic education teaching department, both children and adults who could love were included, as well as current popular songs, cheerful old pop songs, and school songs in order to increase the vocabulary in professional practices in the practice part of the studies. A school song was produced as the output of the workshop, and at the end of each study, the theoretical information learned by the participants was given.

2.6.2. Breath workshop

When starting the breathing exercises, the subjects were asked to close their eyes and follow their breathing, and breath awareness was provided. After breathing awareness, upper body and shoulder-neck relaxation exercises were performed to increase breathing capacity by breathing comfortably. The regional breathing (Upper-Middle Chest-Abdominal) and gradual full breathing exercises applied increased awareness about the breathing process afterward. They helped to use all parts of the lung effectively. For the body to relax, the principle that the breath we take should slow down as much as the breath we take has been explained. In our studies, 4-7-8 breathing and vocal diaphragm exercises, one of the most effective techniques to reduce anxiety and stress, were applied. In addition to these exercises, hyperventilation correction exercise, which helps to maintain the deteriorated oxygen-carbon dioxide balance and alternating nasal breathing to ensure the right-left balance of the body and the brain were applied.

2.6.3. Art therapy

Each week in art therapy, the subjects were first asked to describe the week they spent briefly. Later, they were asked to convey their feelings while coming to work that day verbally. The director gave his own example in each work and encouraged him to share the topics. Before the application, mini-studies called warm-ups were carried out for themes suitable for the goals and objectives of that week. These studies included awareness of body, breath, emotion, instrument, environment, and creating one's voice. Subjects mirrored the practitioner's warm-up examples, then produced them, mirroring the other subjects. After warming up for 10 minutes, the main applications were started. Before the application, all subjects were reminded that no judgment would be made about their work and that each production was special and unique. In the applications, pictures were made with various pastel paint materials. Scissors, glue, and decoration materials were used.

Mandala is painted. Playdough was played, and words were transferred. Poems have been written. The pictures and articles they wanted from magazines and newspapers were cut and pasted on the pictures they made as collages. Scribble work has been done. They were asked to paint a forest, farm, or pet. While producing each of these studies, it was observed that the subjects were extremely focused on their work. All work was started and finished within a certain time. After the works were produced, all subjects showed their work on the screen and gave feedback, and the verbal transfer was started. After the oral transfer, they were asked to focus on their emotions. Those who wanted to express their emotions were allowed. Thus, it was ensured that they noticed the difference, if any, between the opening and closing sensation.

3. FINDINGS

1. The analysis revealed a statistically significant difference between the mean ranks of the pre-test and post-test scores for the Intrinsic Motivation to Experiencing Stimulation sub-dimension of the Academic Motivation Scale ($Z=-3.545$; $p<0.05$). Specifically, it was observed that the Intrinsic Motivation to Experiencing Stimulation scores increased in 18 out of 34 participants, indicating a meaningful improvement in their motivation levels within this dimension.
2. Regarding the Motivation sub-dimension of the Academic Motivation Scale, no statistically significant differences were identified between the pre-test and post-test scores ($Z=-1.886$; $p>0.05$). This suggests that the participants' motivation levels in this particular sub-dimension remained relatively stable throughout the intervention period.
3. Similarly, the comparison of pre-test and post-test scores for the Intrinsic Motivation for Achievement sub-dimension indicated no meaningful change, with the mean rank scores showing no statistically significant difference ($Z=0.000$; $p>0.05$). This implies that the participants' drive to achieve remained consistent over the course of the study.
4. The analysis of the Internally Reflected Extrinsic Motivation sub-dimension also yielded no statistically significant differences between pre-test and post-test scores ($Z=-1.255$; $p>0.05$). This outcome suggests that the external motivational factors internalized by participants did not shift notably during the intervention.

In addition, the Wilcoxon Signed-Rank Test, a nonparametric statistical method, was employed to assess differences in participants' Trait Anxiety Inventory scores before and after the intervention. The findings demonstrated that the trait anxiety levels of the control group exhibited no statistically significant changes in the post-test period ($Z=-0.309$; $p>0.05$). This result indicates that the control group's anxiety levels remained stable throughout the research process.

3.1. Pre-Test-Post-Test Comparison of Experimental Groups

The Wilcoxon signed-rank test, a nonparametric statistical method, was employed to evaluate differences in pre-test and post-test scores across academic motivation sub-dimensions. The following findings were reached as a result of the Wilcoxon test, which was carried out to reveal whether there was a difference between the pre-test and post-test scores of the participants in the Breath group, which was included in the Experimental Group and chose Breath workshop:

1. Extrinsic Motivation, one of the sub-dimensions of the Participants' Academic Motivation Scale – No significant differences were observed in the External Regulation sub-dimension scores between the pre-test and post-test ($Z=-1.000$; $p>0.05$).
2. Intrinsic Motivation to Know scores showed no significant change between pre-test and post-test measurements ($Z=-0.577$; $p>0.05$).
3. The mean rank of the pre-test and post-test scores of the participants regarding the Determined Extrinsic Motivation sub-dimension of the Academic Motivation Scale did not differ ($Z=-1.933$; $p>0.05$).
4. The mean rank of the pre-test and post-test scores of the participants' Intrinsic Motivation to Experiencing Stimulation, one of the sub-dimensions of the Academic Motivation Scale, did not differ ($Z=-0.378$; $p>0.05$).
5. The mean rank of the pre-test and post-test scores of the participants in the sub-dimensions of the Academic Motivation Scale, the motivation sub-dimension, did not differ ($Z=-1.000$; $p>0.05$).
6. The mean rank scores of the participants' pre-test and post-test scores for the Intrinsic Motivation for Achievement sub-dimension of the Academic Motivation Scale did not differ ($Z=0.000$; $p>0.05$).

7. The mean rank scores of the participants' pre-test and post-test scores for the Introjected Extrinsic Motivation sub-dimension of the Academic Motivation Scale did not differ ($Z=-0.791$; $p>0.05$).

The mean rank of the participants' Trait Anxiety pre-test and post-test scores differed ($Z=-2.567$; $p<0.05$). Accordingly, the anxiety of 9 out of 10 participants in the Breath group, which was included in the Experimental group and received Breath training, decreased. Wilcoxon, one of the nonparametric tests, was used to compare the pre-test and post-test results regarding the sub-dimensions of academic motivation. The following findings were reached as a result of the Willcoxon test, which was carried out in order to reveal whether there was a difference between the pre-test and post-test scores of the participants in the Art group, who were in the Experimental Group and chose an Art therapy:

1. Extrinsic Motivation, one of the sub-dimensions of the Participants' Academic Motivation Scale
 - The mean rank of the pre-test and post-test scores for the External Regulation sub-dimension did not differ ($Z=0.000$; $p>0.05$).
2. The mean rank scores of the participants' pre-test and post-test scores for the Intrinsic Motivation to Know sub-dimension of the Academic Motivation Scale did not differ ($Z=-1.414$; $p>0.05$).
3. The mean rank of the pre-test and post-test scores of the participants regarding the Determined Extrinsic Motivation sub-dimension of the Academic Motivation Scale did not differ ($Z=-1,000$; $p>0.05$).
4. The mean rank scores of the pre-test and post-test scores of the participants' Intrinsic Motivation to Experience Stimulation, one of the sub-dimensions of the Academic Motivation Scale, did not differ ($Z=-1.134$; $p>0.05$).
5. The mean rank of the pre-test and post-test scores of the participants in the sub-dimensions of the Academic Motivation Scale, the motivation sub-dimension, did not differ ($Z=-1.890$; $p>0.05$).
6. The mean rank scores of the participants' pre-test and post-test scores for the Intrinsic Motivation for Achievement sub-dimension of the Academic Motivation Scale did not differ ($Z=-1.134$; $p>0.05$).
7. The mean rank scores of the participants' pre-test and post-test scores for the Internally Reflected Extrinsic Motivation sub-dimension of the Academic Motivation Scale did not differ ($Z=-0.577$; $p>0.05$).

The mean rank of the Trait Anxiety pre-test and post-test scores of the participants also did not differ ($Z=-1.051$; $p>0.05$). Wilcoxon test, one of the nonparametric tests, was used to compare the pre-test and post-test results regarding the sub-dimensions of academic motivation. The following findings were reached as a result of the Willcoxon test, which was carried out to reveal whether there was a difference between the pre-test and post-test scores of the participants in the Voice group who were in the Experimental Group and chose the Voice workshop:

1. Extrinsic Motivation, one of the sub-dimensions of the Participants' Academic Motivation Scale
 - a. The mean rank of the pre-test and post-test scores for the External Regulation sub-dimension
 2. The mean rank of the pre-test and post-test scores of the participants' Intrinsic Motivation to Know sub-dimension of the Academic Motivation Scale did not differ ($Z=-1.732$; $p>0.05$).
 3. The mean rank of the participants' pre-test and post-test scores for the Determined Extrinsic Motivation sub-dimension of the Academic Motivation Scale did not differ ($Z=-1.633$; $p>0.05$).
 4. The mean rank scores of the participants' pre-test and post-test scores for the Intrinsic Motivation to Experiencing Stimulation, one of the sub-dimensions of the Academic Motivation Scale, did not differ ($Z=-1,000$; $p>0.05$).
 5. The mean rank of the pre-test and post-test scores of the participants in the sub-dimensions of the Academic Motivation Scale, the motivation sub-dimension, differ ($Z=-2.121$; $p<0.05$). Accordingly, the levels of lack of motivation of the 5 participants decreased.
 6. The mean rank of the participants' pre-test and post-test scores for the Intrinsic Motivation for Achievement sub-dimension of the Academic Motivation Scale did not differ ($Z=-1.414$; $p>0.05$).
 7. The mean rank scores of the participants' pre-test and post-test scores for the Internally Reflected Extrinsic Motivation sub-dimension of the Academic Motivation Scale did not differ ($Z=-0.447$; $p>0.05$).
- The mean rank of the Trait Anxiety pre-test and post-test scores of the participants.

3.2. Comparison of Control and Experimental Groups

3.2.1. Comparison of academic motivation levels of control and experimental groups

Table 1 displays the findings of the Kruskal-Wallis H test, which was utilized to analyze the post-test scores of academic motivation across the experimental and control groups. This statistical test was employed to determine whether there were any statistically significant differences among the groups in terms of the various sub-dimensions of academic motivation. The results indicate that no significant variations were observed between the groups in any of the sub-dimensions, as the p-values for all comparisons exceeded the 0.05 threshold ($p>0.05$). This suggests that the intervention methods applied to the experimental groups, as well as the lack of such interventions in the control group, did not yield measurable differences in the academic motivation levels of the participants across the assessed sub-dimensions.

The lack of statistically significant differences points to the uniformity of academic motivation levels among the groups after the interventions. Such findings may imply that applied methodologies had comparable effects—or no discernible effects—on

the participants' motivation levels in the measured dimensions. It also underlines the need for further examination to determine whether alternative variables, such as the duration or intensity of the interventions, might have influenced the outcomes.

Moreover, these findings provide a basis for questioning whether factors external to the interventions, such as individual differences or external life circumstances, could have mitigated the potential effects of the experimental methods. While the data does not show intergroup variability in academic motivation, it emphasizes the complexity of motivational changes and the potential influence of unmeasured factors in this context.

Table 1.

Comparison of Academic Motivation of Control and Experimental Groups Rank Averages

Groups	N	POST_DMD D	POST_IMK	POST_BDM	POST_IMLS	POST_LM	POST_IMA	POST_IEM
Control	34	31,43	32,00	33,68	32,49	31,69	29,99	32,65
Breath	10	28,85	22,55	18,50	23,30	40,20	25,65	27,40
Art	9	38,33	38,56	35,00	40,22	29,72	36,78	31,89
Voice	10	31,40	35,55	37,10	31,65	26,90	40,90	34,50
Z		1,564	4,593	7,518	4,417	3,295	4,926	0,912
p		0,668	0,204	0,057	0,220	0,348	0,177	0,823

IMK: Intrinsic Motivation to Know; IMA: Intrinsic Motivation for Achievement; IMLS: Intrinsic Motivation to Live with Stimulation; IEM: Introjected Extrinsic Motivation; EMER: Extrinsic Motivation-External Regulation, DEM: Determined Extrinsic Motivation, LM: Lack of Motivation

3.3. Comparison of Trait Anxiety Levels of Control and Experimental Groups

The Kruskal-Wallis H test was conducted to evaluate the differences in post-test trait anxiety levels across the experimental and control groups. The detailed results of this analysis are presented in Table 16. The findings revealed a statistically significant difference in trait anxiety levels between the experimental and control groups following the intervention ($p < 0.05$). To further investigate the source of this significant variation, Bonferroni Corrected Mann-Whitney U tests were applied as a post hoc analysis.

These additional tests identified a specific difference in trait anxiety levels between the Breath group, which constituted one of the experimental groups, and the Control group. When examining the mean ranks of the groups, it became evident that the Trait Anxiety levels in the Control group were notably higher compared to those in the Breath group. This indicates that participation in the Breath training significantly contributed to a reduction in trait anxiety levels among the students who were part of this experimental intervention.

Such findings underline the potential effectiveness of Breath training as an intervention for lowering trait anxiety. The notable disparity between the experimental and control groups highlights the unique benefits of the Breath workshop in mitigating anxiety compared to the absence of intervention in the control group. This outcome provides valuable insights into the application of focused breathing techniques in educational and therapeutic contexts to enhance psychological well-being.

Moreover, these results suggest that the observed decrease in anxiety levels among participants in the Breath group may be attributable to the specific physiological and psychological mechanisms activated by structured breathing exercises. These exercises could foster relaxation, improve emotional regulation, and reduce physiological stress responses, thereby leading to the significant improvement documented in the post-test scores.

Table 2.

Comparison of Trait Anxiety of Control and Experimental Group

Groups	N	Rank Average	Post-Hoc	Z	p	Bonferroni Correction p
Control	34	36,06	Breath-Art	-1,772	0,076	0,459
Breath	10	16,55	Breath-Voice	-2,151	0,031	0,189
Art	9	31,44	Breath-Control	2,964	0,003	0,018
Voice	10	34,15	Art-Voice	-0,322	0,748	1,000
Z		8,949	Art-Control	0,673	0,501	1,000
p		0,03	Voice-Control	0,290	0,772	1,000

3.4. Examination of the Relationship between the Scales According to the Experimental and Control Groups

Spearman's rank correlation analysis was employed to investigate the relationship between academic motivation and anxiety levels both before (pre-test) and after (post-test) the intervention for each group. This method is particularly suitable for assessing the strength and direction of monotonic relationships between two continuous or ordinal variables. In Spearman Correlation Analysis, the Spearman Correlation Coefficient is calculated, with the value ranging between -1 and 1. A coefficient closer to 0 indicates a weaker association between the two variables, while values closer to -1 or 1 signify a stronger

relationship. A positive coefficient reflects a direct relationship, where an increase in one variable corresponds to an increase in the other. Conversely, a negative coefficient indicates an inverse relationship, implying that an increase in one variable is associated with a decrease in the other.

The use of Spearman's correlation allows for a nuanced understanding of how academic motivation and anxiety levels interact. For instance, this analysis makes it possible to determine whether heightened anxiety levels are correlated with diminished academic motivation or whether changes in motivation are linked to reductions in anxiety. Furthermore, as a nonparametric statistical tool, Spearman's correlation is advantageous when the data do not meet the assumptions of normal distribution, thereby making it particularly robust for this study's design and data characteristics.

In this section, the findings regarding the interrelations between the scales, both prior to and following the intervention, are presented in detail. The analysis aimed to capture any notable patterns, variations, or consistencies in the relationships between the variables under investigation.

3.5. Investigation of the Relationship between the Scales According to the Experimental and Control Groups before the Application

As a result of the correlation analysis, it was observed that the academic motivation of the Control group, the Determined Extrinsic Motivation (DEM) sub-dimension, and the level of trait anxiety were negatively and moderately correlated before the application (Spearman= -0.389; $p < 0.05$). On the other hand, academic motivations and Trait Anxiety levels were not related for Breath, Art, and Voice groups.

Table 3.

Correlation Analysis Findings Regarding the Relationship between Academic Motivation and Trait Anxiety Before the Application

	POST_SK							
	Control		Breath		Art		Voice	
	Spearman CC	p	Spearman CC	p	Spearman CC	p	Spearman CC	p
POST_EMER	-0,247	0,159	-0,332	0,348	0,000	1,000	0,303	0,395
POST_IMK	-0,246	0,160	-0,367	0,297	0,074	0,851	0,163	0,653
POST_DEM	-,389*	0,023	-0,035	0,924	0,242	0,531	0,364	0,301
POST_IMLS	-0,284	0,104	-0,060	0,868	-0,055	0,888	-0,313	0,379
POST_LM	0,192	0,277	-0,020	0,956	-0,039	0,920	-0,097	0,789
POST_IMA	-0,117	0,508	-0,371	0,291	0,009	0,982	0,265	0,460
POST_IEM	-0,168	0,342	-0,410	0,239	0,168	0,665	0,000	1,000
N	34		10		9		10	

IMK: Intrinsic Motivation to Know; IMA: Intrinsic Motivation for Achievement; IMLS: Intrinsic Motivation to Live with Stimulation; IEM: Introjected Extrinsic Motivation; EMER: Extrinsic Motivation-External Regulation, DEM: Determined Extrinsic Motivation, LM: Lack of Motivation

3.6. Examination of the Relationship Between the Scales According to the Experimental and Control Groups After the Implementation

As a result of the correlation analysis showed that none of the sub-dimensions of academic motivation and the level of trait anxiety were associated with either the experimental groups or the control group ($p > 0.05$).

Table 4.

Correlation Analysis Findings Regarding the Relationship between Academic Motivation and Trait Anxiety After the Implementation

	POST_SK							
	Control		Breath		Art		Voice	
	Spearman CC	p	Spearman CC	p	Spearman CC	p	Spearman CC	p
POST_EMER	-0,164	0,355	-0,212	0,557	-0,112	0,775	0,199	0,581
POST_IMK	-0,290	0,096	-0,487	0,153	0,088	0,822	-0,480	0,160
POST_DEM	-0,163	0,357	0,199	0,582	-0,107	0,784	-0,202	0,576
POST_IMLS	-0,113	0,525	-0,126	0,728	0,410	0,273	0,064	0,861
POST_LM	-0,047	0,792	0,375	0,286	0,256	0,507	0,532	0,114
POST_IMA	-0,246	0,160	0,217	0,547	0,228	0,554	-0,058	0,873
POST_IEM	-0,114	0,519	-0,013	0,972	-0,035	0,929	0,470	0,170
N	34		10		9		10	

IMK: Intrinsic Motivation to Know; IMA: Intrinsic Motivation for Achievement; IMLS: Intrinsic Motivation to Live with Stimulation; IEM: Introjected Extrinsic Motivation; EMER: Extrinsic Motivation-External Regulation, DEM: Determined Extrinsic Motivation, LM: Lack of Motivation

4. RESULTS, DISCUSSION AND RECOMENDATIONS

Amina Tabaru and Ülkü Sevim Şen (2019) conducted an investigation into the motivation levels of music teacher candidates during individual voice training lessons, employing One-Way ANOVA and Dunnett's T3 multiple comparison tests to analyze their findings. Their study provided valuable insights into how motivational factors influence engagement and learning outcomes in music education, specifically focusing on individual voice training courses. By examining the participants' motivation levels, the research shed light on the complex interplay between intrinsic and extrinsic motivational drivers within the framework of specialized music pedagogy.

Similarly, Mete Sungurtekin (2010), in his seminal work titled *Motivation and Its Place in Instrument Education*, explored the critical role of motivation in the context of instrumental education. His research emphasized the importance of motivation in fostering effective teacher-student relationships and enhancing learning experiences. Using university-level students engaged in instrumental education as a case study, Sungurtekin highlighted how motivation plays a transformative role in individual development, serving as a cornerstone for achieving success in instrumental education, which constitutes an essential element of broader music education practices. The findings underscore how motivation can significantly shape the trajectory of a student's educational and personal growth within the arts.

Expanding the discourse on motivation, Sarah R. Baker (2004) examined the complex relationship between motivational orientations and various aspects of university life, including adjustment, stress, well-being, and academic performance, in her study titled *Intrinsic, Extrinsic, and Amotivational Orientations: Their Role in University Adjustment, Stress, Well-Being, and Academic Performance*. Her research focused on second-year university students, analyzing the influence of intrinsic, extrinsic, and amotivational orientations on their psychological and academic outcomes. The study revealed that unmotivated behaviors are strongly associated with poorer psychosocial adjustment to university life, higher levels of perceived stress, and increased psychological distress. Furthermore, Baker identified significant differences in motivational orientations based on gender and academic qualifications at university entrance, underscoring their importance as determinants of subsequent academic performance. These findings were contextualized within Deci and Ryan's (1985, 1991) self-determination theory, which emphasizes the pivotal role of autonomy and self-regulation in shaping motivational outcomes.

Adding further depth to the discourse, Kouros Amrai et al. (2011) explored the intricate relationship between academic motivation and academic achievement. Their research highlighted the importance of integrating and balancing various motivational tools to enhance students' academic success. The study emphasized that achieving effective outcomes requires a coordinated approach that addresses multiple dimensions of motivation simultaneously, paving the way for greater academic performance and engagement.

In the article Karakuş and Gül (2023) *Investigation of Preschool Teachers' Motivation Levels: The Küçükçekmece Example*, questions to determine the descriptive characteristics of teachers and the "Teacher Motivation Scale" developed by Yıldız and Taşgın (2019) were applied to 196 preschool teachers working in Küçükçekmece district. As a result, it has been revealed that the motivation level of preschool teachers is quite high and varies according to professional experience and the number of students in the class. Hasan Afzal et al. (2010) explains the effects of student motivation on academic achievement, a positive and significant relationship was found between student motivation and academic motivation in their article titled *A Study on Motivation of University Students and Its Relationship with Academic Performance*. This relationship is reciprocal. In other words, while motivated students are successful, successful students are more motivated.

In Akbulut and Ceylan's (2021) study titled "Anxiety and Musical Dialogue in Undergraduate Students," it was stated that not much work was done to reduce the anxiety levels of undergraduate students, and it was observed that musical dialogue and interventions were limited. Erdaş et al.'s (2017) article, *Examining the Variables Affecting Preschool Teachers' Professional Anxiety Levels*, presents qualitative and quantitative research results. In the study, open-ended questions were asked to 269 students from Kastamonu University Education Faculty Preschool Education Department between 2012 and 2013, and whether they chose the teaching profession willingly or not was examined.

In the research conducted as Scientific Research Project in the 2022 Spring semester academic calendar, university students' Academic Motivation and Anxiety levels were measured by applying a pretest and posttest. The results of three different online workshops. The experimental group's workshop titles were defined as Voice, Breath, and Art Therapy. Experts in their fields carried out these workshops for 8 weeks, one hour each. Workshops were applied to students simultaneously. The experimental group's workshop titles were defined as Voice, Breath, and Art Therapy. No studies were conducted with control groups. A total of 63 students were involved in the project. The 29 participants in the experimental group were divided into three groups of 10, 10, and 9, respectively, for voice, breath, and art therapy workshops. 34 participants formed the control group.

1. In the control group, 18 out of 34 participants had higher Intrinsic Motivation to Experiencing Stimulation scores. Scores for other sub-dimensions did not change.
2. The anxiety of 9 out of 10 participants in the Breath group, which consisted of those in the experimental group who received Breath workshop, decreased. Their scores on the sub-dimensions of academic motivation remained the same.

3. The lack of motivation levels of the 5 participants in the Voice group, which was in the experimental group and consisted of those who received the Voice workshop, decreased. Their scores on other academic motivation sub-dimensions did not change.
4. The control group's academic motivation and anxiety levels did not change.
5. After the application, the level of academic motivation did not differ between the experimental and control groups.
6. After the application, trait anxiety significantly differs significantly between the Breath and Control groups. Accordingly, the trait anxiety levels of the students who participated in the breathing workshop were lower than those in the control group.
7. Before the application, the Identified Extrinsic Motivations of the control group and the trait anxiety level were negatively and moderately related.
8. There is no relationship between academic motivation and trait anxiety after the application.

The discussion section elaborates on the key implications of the findings. Notably, the breath workshop demonstrated a significant reduction in anxiety levels, corroborating prior research that underscores its effectiveness in stress management and relaxation. However, the unexpected decrease in intrinsic motivation observed in the Voice group prompted further exploration. Potential factors, such as perceived difficulty or a lack of personal connection with the activity, were suggested as possible explanations. Additionally, the absence of notable improvements in the Art Therapy group raises questions about the appropriateness of the selected activities and the role of individual differences in therapeutic responses. To address these questions and gain a deeper understanding of the long-term effects of these interventions, the discussion concluded by emphasizing the need for future research to explore optimal activity types, durations, and personalized approaches.

Thus following recommendations can be mentioned:

1. Studies should be repeated by increasing the number of subjects and control groups. Thus, it may be possible to obtain statistically significant data.
2. Studies can also be applied to university students in different fields. For example, students were studying in the digital field.
3. Studies can also be done with high school students. Thus, preparations are made for an important turning point in choosing a profession.
4. Studies can be carried out face-to-face in appropriate environments.
5. Future studies can investigate the potential benefits of combining multiple modalities, such as breath workshop and art therapy, to maximize positive outcomes.

Research and Publication Ethics Statement

This study was conducted with university students aged between 18 and 25, in accordance with the ethical principles outlined in the Declaration of Helsinki (World Medical Association, 2013). All participants were informed about the purpose, scope, and procedures of the study, and their written consent was obtained. All collected data were anonymized and securely stored in compliance with international data protection regulations. The authors declare that this study was conducted without any unethical practices, such as plagiarism, data fabrication, or manipulation. The research design was thoroughly reviewed and approved by the Yıldız Technical University Social and Humanities Research Ethics Committee (Meeting Number: 2021/01, Date: 21/03/2021).

Contribution Rates of Authors to the Article

The authors contributed to this article as follows:

- Emine Ceylan Ünal Akbulut served as the lead investigator for the study, led the Art Therapy section, and contributed to the literature review and related content preparation.
- Ece Merve Yüceer Nishida contributed to the overall manuscript writing, editing, final formatting, and literature review.
- Şebnem Uşen conducted the Breath Workshop and was responsible for preparing its related content.
- Emrah Uçar conducted the Voice Workshop, prepared its related content, and managed the procurement of all necessary equipment for the workshops.
- Moreit Analysis Company performed the data analysis and contributed to the interpretation of findings.

Support Statement

This research was supported by the Scientific Research Projects Coordination Unit of Yıldız Technical University under the project number SBA-2021-4273.

Acknowledgement

We express our gratitude to the Scientific Research Projects Coordination Unit of Yıldız Technical University for their support in this study.

Statement of Interest

The authors declare that they have no financial, personal, or institutional conflict of interest related to this study. All aspects of the research, including the study design, data collection, analysis, and interpretation of findings, were conducted independently and without any influence from third parties. The authors affirm that there are no competing interests that could have influenced the results or the reporting of this study.

5. REFERENCES

- Eracar, N. (2021). *Sözden Öte - Sanatla Terapi ve Yaratıcılık*. Ankara: Nobel Publishing.
- Erdaş, E., Aşıkuzun, & E., Recepoğlu, E. (2017). Investigation of Variables Affecting Preschool Teachers' Professional Anxiety Levels. *International Periodical for Turkish or Turkic Languages, Literature, and History*, 12(14), 333-356.
- Gürbüz, S., & Şahin, F. (2016). *Sosyal Bilimlerde Araştırma Yöntemleri*. Ankara: Seçkin Publishing.
- Helvacı, A. (2018). A Study on Singing Techniques. *International Necatibey Education and Social Sciences Research Congress*, pp. 241-248
- Önder, Ö. (2019). *365 Gün Nefes*. İstanbul: Kuraldışı Publishing.
- Karakuş, C., & Gül, D. (2023). Examination of Motivation Levels of Preschool Teachers: The Case of Küçükçekmece. *Balkan and Near Eastern Journal of Social Sciences*, 09(01), 132-138.
- Kaya, M., & Varol, K. (2004). The Levels And Reasons Of State-Trait Anxiety Of The Students Of The Faculty Of Theology (The Case Of Samsun). *Ondokuz Mayıs University Review of the Faculty of Divinity (OMUIFD)*, 17(17), 31-63.
- Öner, N., & Le Compte, A. (1983). *State-Trait Anxiety Inventory Handbook*. İstanbul: Boğaziçi University Press, 1-26.
- Özcelik Herdem, D. (2016). Evaluation of Approaches to Increase Motivation of Students in Violin Education According to the Opinions of Instructors. *Journal of Strategic Research in Social Science (JoSRess)*, 2(4), 2459-0029.
- Sevinç, S., & Şimşek, G. (2004). A Research on the Sufficiency of Time Allocated to Sound Education at Music Teaching Departments. *Gazi University Gazi Faculty of Education Journal (GEFAD)*, 24(3), 207-216.
- Tabaru, A. (2019). *A Study of Motivation Levels of Music Teacher Candidates Towards Individual Voice Training Course*. Ataturk University Institute of Educational Sciences, Master's Thesis.
- World Medical Association. (2013). Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects. *JAMA*, 310(20), 2191-2194. <https://doi.org/10.1001/jama.2013.281053>
- Yıldız E., & Yeniçeri E. N., & Öngel, K. (2019). Application of State-Trait Anxiety Scale (STAI-TX) in Randomly Selected Individuals and Results, 2019(1), 19-24.
- Yıldız, V. A., & Taşgın, A. (2020). Teacher Motivation Scale: The Study of Validity and Reliability. *International Journal of Turkish Literature Culture Education (TEKE)*, 9(4), 1741-1754.
- Yurt, E., & Bozer, E. N. (2015). Adaptation of Academic Motivation Scale into Turkish. *Gaziantep University Journal of Social Sciences* 14(3), 669-685.