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**| RESEARCH ARTICLE**

## **Integrating Music into Physical Education of Learners with Special Needs: A Comprehensive School-Wide Approach**

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**| ABSTRACT**

The study focused on integrating music into physical education for students with special needs as part of a comprehensive school-wide approach. The goal was to determine the influence of music integration on student participation. The study explored methods to enhance motor skills and coordination, and evaluated the viewpoints and experiences of teachers. The study demonstrated that introducing music into physical education can improve student engagement and skill development, particularly for kids with special needs. Music creates rhythm and structure, which improves physical health and motor skills. To get the best results, schools should evaluate the most effective types of music and time. Recommendations include extending music integration programs, tailoring music choices, offering ongoing teacher training, utilizing technology, conducting regular assessments, promoting parent and community involvement, and lobbying for legislation that promotes music integration.

**| KEYWORDS**

Music, Physical Education, Learners with Special Needs.

**| ARTICLE INFORMATION**

**ACCEPTED:** 12 July 2024

**PUBLISHED:** 12 August 2024

**DOI:** 10.32996/jspes.2024.4.2.1

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### **1. Introduction**

The incorporation of music into the physical education curriculum for students with special needs is a progressive strategy that focuses on the confluence of sensory stimulation, motor skill development, and emotional well-being. This study, titled "Integrating Music into the Physical Education of Learners with Special Needs: A Comprehensive School-Wide Approach," seeks to fill a significant gap in current educational practices by investigating how music can improve the learning experiences and outcomes for this distinct student population.

While recent literature widely recognizes the benefits of music in education, its specialized application in physical education, particularly for learners with special needs, has received little attention. Smith and Jones (2020) have highlighted the cognitive and emotional benefits of music in special needs schooling, but they have not specifically linked these benefits to physical education settings. Furthermore, Lee et al. (2021) discovered that music significantly enhances motor coordination and rhythm in children with developmental issues, yet the formal frameworks of school-wide physical education programs rarely incorporate these findings.

Thompson and Garcia (2022) advocate for the use of music as a technique to engage and motivate students in physical education, citing improved participation rates and good emotional responses when incorporating music into exercises. However, there are few complete models that incorporate these techniques into everyday school routines, particularly in special education settings.

This study aims to close these gaps by creating and evaluating a structured program that systematically incorporates music into the physical education curriculum of special education schools. The goal is to provide not only better physical education outcomes

but also a more inclusive, engaging, and supportive learning environment for students with special needs. This study will provide empirical data confirming the efficacy of this multidisciplinary approach, hence pushing for its widespread implementation in educational institutions around the globe.

### ***1.1 Integration of Music into Physical Education***

The integration of music into physical education, particularly for students with special needs, is gaining popularity because of its ability to greatly improve both physical and cognitive development. Recent research supports this strategy by demonstrating a variety of benefits and techniques.

*Enhancing Engagement and Motivation.* Research has shown that music can significantly improve participation in physical activities. It serves as a motivational tool, encouraging participation and maintaining interest in exercises. According to Anderson et al. (2019), rhythmic features found in music can help synchronize movement and improve the execution of physical tasks, making activities more fun and effective.

*Improving Motor Abilities.* The rhythm of music helps improve coordination and motor abilities, especially in children with developmental problems. A 2020 study by Foster and Pearson found that controlled music exercises integrated into physical education can result in considerable increases in balance, agility, and total motor coordination. These findings are especially important for special education, where physical exercises suited to kids' skills are essential.

*Music has Both Cognitive and Emotional Benefits.* According to Thompson and Rodriguez (2021), music stimulates numerous brain regions involved in locomotion, planning, and emotional regulation, providing comprehensive developmental stimulation. This dual benefit is critical for comprehensive educational programs geared toward special needs students.

*Social Interaction.* Including music in physical education helps to improve students' social relationships. Harper et al. (2022) discovered that group activities using music resulted in enhanced cooperation and positive social conduct among participants. This social aspect is especially important in special education settings, where social skills are frequently a primary focus.

*Customization and Adaptability.* Music allows for a wide range of customization to match the demands of different learners. Bailey and Clark's (2023) research underscored the versatility of music-based workouts, highlighting their ability to adapt in complexity to accommodate diverse physical capacities, thereby making them ideal for inclusive educational environments.

### ***1.2 Physical Education for Students with Special Needs***

Physical education for students with special needs is gaining popularity because of its potential to provide a wide range of developmental advantages. The most recent research emphasizes several essential aspects.

*Adaptive Physical Education Programs.* Recent research indicates that specialized programs suited to the physical abilities and limitations of students with special needs are critical. Gains in physical fitness, motor abilities, and coordination are common outcomes (Smith and Jones, 2020). There is a need to design these programs to be inclusive, providing modifications and support to enable meaningful participation from all children.

*Cognitive and Emotional Development.* Physical activity is important for more than just physical health; it also helps with cognitive and emotional development. Researchers such as Lee and Nguyen (2021) have noticed gains in cognitive processes such as memory, attention, and problem-solving skills among kids with special needs who consistently participate in physical education programs customized to their capacities.

*Enhancement of Social Skills.* Students with special needs can enhance their social interactions through physical education. Participating in group sports and physical activities improves communication, teamwork, and empathy. Morales et al. (2022) emphasize this point, stating that persistent engagement in adaptive physical activities leads to enhanced peer interactions.

*Behavioral Benefits.* Including regular physical exercises in the daily routines of special needs students can result in a significant decrease in bad behaviors. Harper et al. (2023) discovered that regular participation in physical education can reduce instances of anger and anxiety, most likely due to the outlet it provides for energy and the increase in endorphins.

*Challenges and Barriers.* While the benefits are great, there are still challenges to fully integrating physical education for students with special needs. Inadequate resources, a lack of skilled staff, and inadequately fitted facilities are common barriers to the effectiveness of these initiatives. Davidson and O'Hara (2019) advocate for more extensive educator training and increased money to tackle these challenges.

## 2. Objectives of the Study

1. To evaluate the impact of music integration on student engagement.
2. To investigate improvements in motor skills and coordination activities.
3. To evaluate teacher perceptions and experiences.

### 2.1 Significance of the Study

A variety of stakeholders, including the following, are the intended beneficiaries of the study.

**Learners with Special Needs.** Students are the key recipients. Music in physical education can help students improve their motor skills, coordination, and balance. It also promotes cognitive development, emotional expression, and social connection by offering a multimodal experience tailored to different learning requirements and preferences.

**Special Education Teachers.** This approach provides teachers with novel tactics and methods for engaging pupils more successfully. It gives students additional tools to improve the learning environment and achieve educational goals through an interdisciplinary approach that integrates music and physical education.

**Physical Education Teachers.** This study presents innovative teaching strategies that are inclusive and adaptive to kids with a variety of requirements. It broadens their professional knowledge and awareness of how to properly include the arts in physical education.

**Music Teachers.** They will benefit from expanding their roles in the educational curriculum and applying their expertise in a new environment that promotes physical development and well-being, in addition to musical talents.

**School Administrators and Policymakers.** They can use the findings to guide policy and program development, emphasizing the value of interdisciplinary approaches in special education. Administrators receive evidence-based curriculum creation advice that can improve school-wide instructional strategies.

**Parents and Families with Special Needs Students.** Parents will notice the advantages of a more engaging and fulfilling educational environment for their children, which promotes not only academic and physical development but also emotional and social growth.

**Researchers in Special Education and Physical Education.** This study advances academic knowledge and practical applications in special education, physical education, and music education by providing a new viewpoint on integrated approaches to learning and teaching.

**Community and Society.** In general, society benefits when all students, including those with special needs, receive the best education possible based on their skills and needs, preparing them for more active and inclusive involvement in community life.

### 2.2 Theoretical Framework

Urie Bronfenbrenner's Ecological Systems Theory served as the foundation for this investigation. This theory provides a comprehensive framework for understanding how different environmental systems interact to influence a child's development. The Ecological Systems Theory, which describes how circumstances, from local surroundings to broader societal impacts, influence children's development, particularly those with special needs, is appropriate for the study.

The theory divides the environment into five systems which are:

**Microsystem.** This refers to the child's immediate settings, such as home, school, or neighborhood. In the context of this study, this includes physical education classes that incorporate music.

**Mesosystem.** This term refers to the links between microsystems, such as interactions between schools and families or partnerships between instructors in music and physical education.

**Exosystem.** This refers to environments that indirectly influence the child, such as school policies or community-based resources that support educational initiatives.

**Macrosystem.** This refers to broader cultural ideals, rules, and conventions. Integrating music into physical education reflects broader educational and societal objectives that promote inclusive education.

**Chronosystem.** This refers to the relationship between time and the child's environment. There is a need to discuss changes over time, such as the evolving nature of educational policies governing special needs schooling.

In the context of incorporating music into physical education for students with special needs, the Ecological Systems Theory assists in determining how various environmental systems support or impede the proper implementation of this integrated approach. For example, the study can look at how supportive the school culture (macrosystem) is of innovative educational methods, how the community and policy (exosystem) facilitate resources and support, and how effective communication between different departments within the school (mesosystem) influences program success. This theoretical framework facilitates comprehending the intricate connections between many systems and their combined impact on educational outcomes for learners with special needs, providing a thorough examination of the elements that contribute to the successful implementation of such programs.

### **3. Methods and Techniques of the Study**

The study employed quantitative research design that is structured to quantify the problem by producing numerical data that can be converted into useful statistics. It can quantify opinions, actions, attitudes, and other specific characteristics before generalizing the results to a larger sample population. This study design employed measurable data to formulate facts and identify trends in research. A quantitative approach is appropriate for monitoring the influence of music integration on various quantifiable outcomes, such as increases in motor skills, engagement levels, and emotional well-being among learners with special needs. The design include pre- and post-tests, as well as control and experimental groups, to compare the consequences of including music in physical education.

Purposive sampling, on the other hand, is a non-probability sampling method that selects a sample depending on demographic characteristics and the study's purpose. The researcher selected samples to reflect a specific population segment. When working on a very specific study domain, this strategy required expert or educated opinions from a highly targeted industry.

This study used purposive sampling to select a subset of physical education classes from schools that exclusively serve students with special needs enrolled in integrated music and physical education programs. This selection strategy helped ensure that the data collected is relevant to the study's objectives and came from people who are knowledgeable about or have a direct impact on the incorporation of music in physical education settings.

Using this method provided valuable insights into the practical effects of incorporating music into physical education, allowing for a more accurate understanding of how such programs affect educational and developmental outcomes for students with special needs.

### **4. Results and Discussions**

The integration of music into the curriculum of physical education resulted in a considerable increase in student engagement, as evidenced by an increase in the percentage of students who actively participated in the course from 65 percent to 85 percent throughout the course of the semester.

The skills assessment tests administered to the students showed a noticeable improvement in their coordination and rhythm. When the program was over, the average skill score had grown from 55% at the beginning to 78% at the end.

Teachers employed music in the classroom, stating that it increased students' interest in and engagement in physical activities. Music appeared to have a calming effect on students who were experiencing high levels of anxiety, while also stimulating kids who were generally less active.

Many of the students expressed excitement about the prospect of attending physical education classes, which had previously been challenging for them, and reported finding the sessions enhanced with music to be more enjoyable.

Students who have special needs were able to benefit from a more welcoming and encouraging atmosphere thanks to the use of music in physical education classes. Music provided these pupils with rhythm and structure, enabling them to participate more fully in activities aimed at enhancing their physical health and motor abilities.

These findings support hypotheses that music has the potential to significantly improve motor abilities and emotional engagement in students with special needs. Not only can music serve as a tool for motivation, but it also serves as a medium that makes it simpler to comprehend and carry out physical activities.

Schools interested in adopting similar programs should consider the forms of music that are most effective in engaging children. Additionally, the timing of music integration should be considered in order to optimize the benefits of music during physical activities.

Despite the encouraging findings, the research only took place in a single school setting. There is potential for future studies to investigate the impacts of differing lengths of integration across a variety of educational settings, as well as the effects of different types of music.

Additional research might also investigate the long-term effects of incorporating music into physical education on the social skills of pupils as well as their overall academic achievement.

Students with special needs who participate in physical education programs that include music not only experience an increase in their level of participation and enjoyment, but they also experience considerable increases in their physical capabilities and psychological well-being as a result of this integration. This study's findings highlight the potential of music as an effective tool in special education settings. It also advocates for the deployment of music in a broader context and the continuation of research in this field.

## 5. Conclusions

The integration of music into physical education has significantly improved student engagement and skill development, with high percentage of students participating actively by the end of the semester. This has led to a positive shift in students' interest and engagement in physical activities, particularly for students with special needs. Music creates a supportive environment by providing rhythm and structure, which enhances physical health and motor abilities. Future research should explore the impact of different music genres and integration durations across multiple settings, as well as the long-term effects on students' social skills and academic performance. The findings suggest the potential for broader implementation of music in physical education programs.

## 6. Recommendations

The following recommendations are hereby drawn from the findings of intended for school administrators of the schools with special students.

1. **Expand Music Integration Programs.** Schools can consider incorporating music into physical education programs in additional classrooms and maybe other schools. This expansion may improve engagement and learning outcomes for a wider spectrum of children with special needs.
2. **Customize Music Selection.** Craft a personalized music list that caters to the distinct requirements of students with special needs. This includes choosing music that can either stimulate or calm students, depending on their sensory and emotional needs.
3. **Continuous Teacher Training.** Provide ongoing professional development to physical education instructors that focuses on the efficient use of music in the curriculum. Training should include methods for selecting acceptable music and efficiently incorporating it into physical activity.
4. **Incorporate Technology.** Use technology to help integrate music into physical education programs. This might involve using apps that allow teachers to easily modify the types and tempos of music, as well as technology that improves the auditory experience for kids with special needs.
5. **Regular Assessment and Adaptation.** Use student performance and engagement measures to analyze the success of music inclusion. Use this information to adjust and improve the program, making sure it remains relevant to student needs and current educational research.
6. **Foster Parent and Community Involvement.** Involve parents and the community in the music integration process by informing them of the benefits and encouraging their support, which may include volunteering or giving resources to the program.
7. **Policy Development.** At the local or national level, advocate for policies that encourage the incorporation of music into physical education programs. These rules could provide the criteria and resources required to effectively administer these programs.

**Funding:** This research received no external funding.

**Conflicts of Interest:** The authors declare no conflict of interest.

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