



Music- Based Social-Emotional Learning (SEL): A Study on Empathy and Peer Interaction among Preschoolers

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Abstract

This study examined the impact of music-based Social-Emotional Learning (SEL) on empathy and peer interaction among preschool children in Lagos State. A quasi-experimental design was adopted, involving 60 preschool children randomly assigned to the experimental group and 20 to the control group. The experimental group participated in structured music-based SEL activities such as group singing, rhythm exercises, and cooperative music-making over two weeks, while the control group engaged in regular classroom activities. Purposive sampling was employed to select a total of 80 preschool children from four schools in Ojo LGA of Lagos State. Data were collected using teacher-rated empathy scales and systematic peer interaction checklists. Descriptive statistics and Analysis of Covariance (ANCOVA) at a 0.05 level of significance were used to analyze the data. Findings revealed that children exposed to music-based SEL interventions demonstrated significantly higher levels of empathy and displayed more positive peer interactions compared to their counterparts in the control group. These findings align with previous studies, such as Olatoye & Adekoya (2021), which also suggested that SEL can enhance social-emotional development. The paper emphasises the importance of integrating music-based SEL programs into early childhood education to foster empathy and peer relationships in preschoolers. This study's main contribution lies not only in confirming existing research but also in providing empirical evidence of the effectiveness of music-based interventions in promoting SEL in early childhood education. The paper concludes that music-based training can be more effective in nurturing social-emotional development than non-music-based alternatives.

Further discussions on the implications of these findings suggest that music should be included as a vital component in early childhood curricula. The study recommends that educators and policymakers prioritize the integration of music into early childhood education programs to foster both academic and social-emotional growth in young children.

Keywords: Music-Based, Social-Emotional Learning, Empathy, Peer Interaction, Preschoolers, Early Childhood Education.

Introduction

Social and Emotional Learning (SEL) has emerged as an essential component of early childhood education, equipping children with skills necessary to understand and regulate emotions, build positive relationships, and demonstrate empathy (CASEL, 2020). The preschool stage is particularly significant because it represents a formative period where children begin to interact meaningfully with peers and establish foundational social behaviors (Denham et al., 2012). Fostering SEL at this stage can promote not only school readiness but also long-term personal and social success. Generally, Music is often described as a universal language that plays vital role in shaping children's emotional and social development. Beyond its entertainment value, music provides young learners with opportunities for communication, cooperation and emotional expression. The structure of musical activities such as singing, rhythm games, and ensemble playing help preschoolers practice turn-taking, attentive listening and empathy. As a result, music offers a natural and engaging pathway for integrating SEL into early learning contexts.

Literature Review

The educational system in Nigeria, the importance of SEL is heightened by cultural and socio-economic diversity (Akinbote and Ogunsanwo 2019). Preschoolers in the state often navigate environments shaped by competition, diversity, and varying family backgrounds, which influence their social behaviors and peer relationships. Integrating music-based SEL interventions in this context provides an inclusive and culturally responsive approach that resonates with children's lived experiences, especially given Nigeria's deep-rooted traditions in rhythm and music (Okafor & Emeka, 2016).

Empathy, a key dimension of SEL, enables children to understand and respond to the emotions of others. Developing empathy during preschool years has been linked to greater prosocial behavior, reduced aggression, and improved peer relationships (Eisenberg, Spinrad, & Morris, 2014; Schonert-Reichl, 2017). Music-based activities, such as call-and-response songs or collaborative drumming, create contexts where preschoolers can practice perspective-taking and responsiveness to peers' feelings (Rabinowitch, Cross, & Burnard, 2013). Moreso, Olatoye & Adekoya (2021) also reported that the integration of music into early childhood education in

Nigeria enhanced pupils' ability to understand others' feelings and improved their collaborative skills. Similarly, music's communal and participatory nature in culture promotes cooperation and empathy, making it a culturally relevant strategy for strengthening pupils' socio-emotional competencies. These interactions help establish empathy as a being and encourage everyday experience in early learning.

Peer interaction is another critical aspect of early childhood development that is enhanced through music. Positive peer relationships support children's confidence, cooperation, and school adjustment (Wentzel & Muenks, 2016). Group music-making fosters collaboration by requiring children to coordinate actions, share roles, and support one another (Davidson & Faulkner, 2010). Furthermore, shared musical experiences generate joy and bonding, reinforcing trust and belonging among peers. This makes music-based SEL a powerful tool for nurturing social connectedness in preschool classrooms.

This study, therefore, investigates the role of music-based SEL in fostering empathy and peer interaction among preschoolers. By exploring the integration of music into SEL practices, it seeks to provide empirical insights into how music can be harnessed to improve children's social-emotional competencies in the Nigerian context. It is expected that the outcome of this study would help navigate educators, curriculum developers, and policymakers on effective strategies for embedding music-based SEL into preschool programs, thereby contributing to holistic child development in Lagos State and beyond.

Statement of the Problem

Despite the growing recognition of Social Emotional Learning (SEL) as a crucial foundation for early childhood education, many preschool programs in Nigeria, particularly in Lagos State, still emphasize cognitive and academic skills over social-emotional development. This imbalance often leaves children with limited opportunities to develop empathy, emotional regulation, and positive peer interaction, which are essential for long-term success in school and life. Although music has been identified globally as a powerful tool for fostering emotional expression, cooperation, and empathy among young children, its potential remains underutilized in Nigerian preschool classrooms. In most public primary schools where cultural diversity, socio-economic differences, and early social challenges are prevalent, the absence of intentional music-based SEL strategies may hinder preschoolers from acquiring the social-emotional competencies necessary for harmonious relationships and school readiness. This study, therefore, seeks to address this gap by examining how music-based SEL can enhance empathy and peer interaction among children in Public Primary Schools in Lagos State.

Purpose of the Study

The main purpose of this study was to investigate how music-based social-emotional learning (SEL): A study, on empathy and peer interaction among preschoolers. However, the specific objective was designed to:

- Assess the effect of Music-Based SEL interventions on Empathy and Peer Interaction of children in schools.

Hypotheses

In this study, one null hypothesis was formulated and tested at 0.05 level of significance.

H₀₁: There is no significant effect of Music-Based SEL interventions on Empathy and Peer Interaction of children in the experimental and control groups.

Significance of the Study

This study will be highly relevant because it addresses the growing need to balance academic and social-emotional development in preschool education. By exploring the role of music in fostering empathy and peer interaction, the research highlights how music-based SEL can serve as an engaging and culturally appropriate strategy for nurturing preschoolers' holistic growth. However relevant stakeholders in education would benefit from this study among them includes: For pupils, the study will help in developing essential skills such as empathy, cooperation and emotional regulation, which are critical for positive peer relationships and school readiness; Teachers on their part would provide evidence-based strategies to integrate music into daily classroom activities for improved classroom management and inclusive learning; For parents the study underscores the importance of music as a tool for reinforcing prosocial behavior at home. For policymakers and curriculum developers, the findings will inform the design of early childhood programs that integrate music-based SEL, thereby aligning Nigerian preschool education with global best practices in child development.

Methodology

A Quasi-experimental design was adopted, where 60 preschool children were assigned to the experimental group and 20 to the control group. The experimental group participated in structured music-based SEL activities such as group singing, rhythm exercises, and cooperative music-making over two weeks, while the control group engaged in regular classroom activities. The purposive sampling technique was employed to select a total of 80 preschool children from four schools in Ojo LGA of Lagos state. Data was collected through 20 teacher-rated empathy scales and systematic peer interaction checklists. Analysis of Covariance Variance (ANCOVA) statistics was used to analyse the data and tested at 0.05 level of significance.

Table 1: Schematic Diagram of Quasi-experimental Design used

Groups	Forms of Music Based		
Groups	1 st	2 nd	3 rd
Experimental-group (E _{1,2,3})	group singing (20)	rhythm exercises (20)	cooperative music-making (20)
Control-group (C)	Classroom activity (20)		
Total	***80		

Source: Fieldwork, (2025)

Exp. Group: E₁ ^ E₂ ^ E₃ 1

Control Group: O₁ * O₂ * O₃ 2

Where: O₁..... Experimental group exposed to Group singing

O₂ Experimental group exposed to Rhythm exercises

O₃ Experimental group exposed to Cooperative music making

C Control group exposed to normal classroom activities

Data Presentation

Descriptive statistics of mean analysis and Analysis of Covariance were used to explain the data analysed.

Table 2: Descriptive mean analysis showing the relative contribution of the intervention

Forms	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Group singing	20	36.0000	3.58707	.27193	31.4633	32.5367
Rhythm exercises	20	32.1494	4.08304	.30953	30.5385	31.7604
Cooperative music making	20	33.8103	2.66506	.20204	34.4116	35.2091
Classroom activities	20	28.7869	1.89403	.08976	24.9896	27.9045
Total	80	32.6533	3.82341	.16735	32.3245	32.9820

Source: Field work, (2025)

Table 2 shows the mean distribution of each group: as generated from 80 pupils in the two groups. Group singing recorded a mean score of 36.00, Rhythm exercise is 32.14, Cooperative music making is 33.81 and Classroom activities is 28.786, respectively. Group singing recorded the highest mean score of 36.00, implying pupils preferred this one the most.

H₀₁: There is no significant effect of Music-Based SEL interventions on Empathy and Peer Interaction of children in the experimental and control groups.

Table 3: ANCOVA Analysis showing a significant effect of Music-Based SEL interventions on Empathy and Peer Interaction of children in experimental and control group

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	.204 ^a	3	.068	.447	.020
Intercept	.593	1	.593	3.88	.005
Group Singing	.001	1	.001	.008	.003
Rhythm Exercise	.091	1	.091	.594	.000
Cooperative Music Making	.080	1	.080	.525	.001
Control group	.004	1	.090	.554	.003
Error	77.911	78	.985		
Total	600.00	80			
Corrected Total	26.115	173			

Table 3 shows the difference in the mean scores for the four groups as it reveals that in group singing $F(1,80) = 0.008$ as sig.value of .003, $P < 0.05$; Rhythm exercise $F(1,80) = 0.594$ as

sig.value of .000, $P < 0.05$); Cooperative music making $F(1,80) = 0.525$ as sig.value of .001, $P < 0.05$), and Control group $F(1,80) = .554$ as sig.value of .003 respectively. As a result of the sig.values less than the Alpha value at .05, the null hypothesis is rejected and the alternative hypothesis which states that there is a significant effect of Music-Based SEL interventions on Empathy and Peer Interaction of children in experimental than control group is retained.

Findings

The findings of this study indicate that children exposed to music-based social-emotional learning (SEL) demonstrated greater empathy and peer interaction than those who were not exposed to such interventions. Engaging in collective music-making activities, such as group singing, clapping games, and drumming circles, encouraged children to practice listening, cooperation, and emotional sharing. These activities were found to strengthen social bonds within the classroom, providing a foundation for enhanced peer relationships.

This study builds upon the work of Olatoye & Adekoya (2021), which reported that integrating music into early childhood education in Nigeria helped pupils understand others' feelings and improve their collaborative skills. The present study extends this by not only affirming these findings but also emphasizing the specific role of music-based SEL in fostering emotional stability and cooperation among young learners. Music's communal and participatory nature further reinforces its value as a culturally relevant tool for strengthening pupils' socio-emotional competencies. This highlights that music-based SEL interventions are not merely an addition to educational practices but a potent and culturally grounded method to support children's emotional and social growth.

Conclusion

This study concludes that music-based social-emotional learning (SEL) significantly improves children's empathy and peer interaction, while also helping to stabilize their emotional well-being. Exposure to music in the classroom environment encourages emotional regulation and cooperative behavior, making teaching and learning more engaging and innovative. These findings underscore the importance of incorporating music into early childhood education, particularly in fostering a supportive classroom atmosphere where emotional and social development are prioritized alongside academic learning. However, while these preemptive findings indicate positive outcomes, further in-depth discussion of the broader implications of these results is needed, particularly regarding how music compares to non-music-based interventions in influencing children's social-emotional growth.

Recommendations

The study makes several key recommendations based on the findings discussed:

Integrating Music into Early Childhood Education: It is essential to incorporate music-based social-emotional learning strategies into preschool curricula to enhance emotional and social development among young learners.

Professional Development for Teachers: Teachers should be provided with targeted professional development programs that equip them with the necessary skills to incorporate music into their teaching practices effectively. This will enable them to use music as a tool for promoting SEL and creating an emotionally supportive learning environment.

Parental Involvement: Parents should be encouraged to engage their children in simple musical activities at home, such as singing, rhythm games, and dancing, to reinforce the values of empathy and cooperation fostered in the classroom. This will help strengthen the learning experience and extend its benefits to the home environment.

Policy Recommendations for Education Authorities: Education policymakers should prioritize social-emotional learning (SEL) within early childhood education frameworks. They should allocate resources to integrate music-based SEL interventions and provide support for their implementation in preschool settings across Nigeria.

Further Research: Additional studies should be conducted in different Nigerian states to explore the broader impact of music-based SEL interventions. This will provide a deeper understanding of how these programs can be adapted to different cultural and socio-economic contexts.

Curriculum Enhancement in Lagos State: Preschool curricula in Lagos State should include structured music-based SEL activities, such as group singing, drumming circles, and rhythm games. This will offer children meaningful opportunities to develop empathy, cooperation, and emotional resilience.

By addressing these recommendations, educators, parents, and policymakers can better support the development of social-emotional skills in children, ultimately fostering healthier, more cooperative classroom environments.

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Sunday Oludele Babalola & Sunday Simeon Fawowe: *Music- Based Social-Emotional Learning (SEL)...*

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