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TRADITIONAL FOLK SONGS IN THE CONTEMPORARY CLASSROOM: MUSICAL DEVELOPMENT IN THE EARLY SCHOOL YEARS

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Abstract/Izvleček

Early musical experiences are essential for developing children's musical skills and cultural identity. This study examined vocal and rhythmic abilities of first- and second-grade primary school students following systematic engagement with traditional folk songs in a regular music education context. In a non-experimental quantitative study, eighty-six students participated in twelve weekly music lessons based on Serbian traditional songs. The results indicated higher achievement in vocal performance compared to rhythmic tasks. Statistically significant gender differences were found in vocal performance and movement-based rhythmic tasks favouring girls, and age-related advantages for older students in rhythmic tasks. No significant correlations were found between the vocal and rhythmic domains.

Tradicionalne ljudske pesmi v sodobni učilnici: glasbeni razvoj v zgodnjih šolskih letih

Zgodnje glasbene izkušnje so ključnega pomena za razvoj otrokovih glasbenih zmožnosti in kulturne identitete. V raziskavi smo preučevali vokalne in ritmične sposobnosti učencev prvega in drugega razreda osnovne šole po sistematičnem vključevanju tradicionalnih ljudskih pesmi v okvir redne glasbene vzgoje. V neeksperimentalni kvantitativni raziskavi je 86 učencev 12 tednov sodelovalo pri urah glasbenega pouka, ki so temeljile na srbskih tradicionalnih pesmih. Rezultati so pokazali višje dosežke pri vokalni izvedbi v primerjavi z ritmičnimi nalogami. Ugotovljene so bile statistično značilne razlike med spoloma pri vokalni izvedbi in gibalno-ritmičnih nalogah v korist deklic ter s starostjo povezane prednosti starejših učencev pri ritmičnih nalogah. Med vokalnim in ritmičnim področjem niso bile ugotovljene statistično značilne korelacije.

Keywords:
general music education, cultural identity, musical development, primary school students, traditional folk songs.

Ključne besede:
splošna glasbena vzgoja, kulturna identiteta, glasbeni razvoj, osnovnošolci, tradicionalne ljudske pesmi.

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Introduction

Tradition and contemporaneity in education form a dynamic, complementary relationship. Musical culture illustrates this well: traditional musical experiences transmit community values and shape students' identities, while contemporary approaches enable their meaningful application in modern educational contexts, so tradition functions as an active pedagogical resource supporting students' holistic development and connecting schooling with their cultural and social environment (Dobrota and Topić, 2018; Jeremić and Milenović, 2020; Mihelač, 2022). Singing traditional songs holds a significant role in early music education as one of the most natural and accessible forms of children's music-making, integrating voice, movement, rhythm, and emotion to develop core musical abilities and foster social interaction and cultural respect (Jeremić et al., 2023).

Contemporary music-pedagogical approaches emphasize active music-making and listening skills, musical memory, and musicality (Orff, 1963; Swanwick, 2002). Singing helps students develop intonational accuracy, voice control, phrasing, and expressiveness while encouraging cooperation and collective music-making. Including traditional repertoire in music education is thus not only about preserving heritage but also about connecting students' experiences with their cultural environment and contemporary didactic needs.

Musical activities in early primary school enhance children's motor and cognitive development: singing, rhythmic movement, and instrumental performance improve coordination and perceptual abilities, with rhythm linking movement and musical experience (Alimi Selmani, 2024), and traditional material facilitates rhythmic and melodic pattern acquisition and active participation, particularly through movement and collective music-making (Chen et al., 2024).

Vocal Development Through Traditional Songs

Singing is the most natural form of musical expression in early primary school, central to developing vocal abilities such as intonation control, tonal stability, timbre, articulation, and expressive capacity, most intensively during these years (Gordon, 2003). Systematic practice supports auditory control, musical memory, and vocal awareness, with melody central to musical memory and underscoring the importance of vocal practice (Bentley, 1996; Seashore, 1938). Traditional songs suit vocal development given their melodic simplicity, clear tonal centres, natural speech rhythm, and repetitive structure (Jeremić et al., 2025; Kovačič, 2014; Radoš, 2010),

facilitating accurate reproduction by ear, stable intonation, and melodic retention – core components of vocal performance assessed in this study.

Rhythmic Development Through Traditional Songs

Rhythm is a fundamental component of musical development in early school age, and traditional songs provide particularly effective material for it. In traditional music, rhythmic patterns emerge from natural language, everyday movement, and collective music-making, and pedagogical approaches accordingly emphasize rhythm acquisition through bodily movement, percussion instruments, and rhythmic games (Gordon, 2003; Orff, 1963; Swanwick, 2002). Traditional songs incorporate these elements through clapping, stepping, movement games, and instrumental accompaniment, supporting rhythmic stability, coordination, and pulse perception. These repetitive, structured patterns let children recognize, imitate, and reproduce rhythm accurately. Research confirms that such folk-based rhythmic activities support motor coordination, concentration, and group cohesion (Blažević and Žnidarec Čučković, 2021; Jeremić et al., 2023; Mesaroš-Živkov et al., 2018), making rhythm not merely a technical skill but part of self-expression and collective music-making.

In this context, the present study examines the extent to which systematically integrating traditional songs into general music education contributes to early primary school students' musical development, with a particular focus on vocal and rhythmic skills. The study addresses three components of musical performance – song reproduction by ear, rhythmic performance through movement, and rhythmic performance using instruments – linking traditional musical heritage with contemporary music-pedagogical approaches through empirical analysis.

Method

Research Purpose and Aim

The present study employed a non-experimental, quantitative research design to investigate the contribution of performing traditional folk songs to vocal and rhythmic abilities in early primary school students. This design was selected to allow for the examination of students' musical development within an authentic educational context, without experimental manipulation of instructional variables. The quantitative approach enabled systematic measurement, objective evaluation,

and statistical comparison of musical performance outcomes based on students' gender and age.

Research Question and Hypotheses

Prior research documents gender-related advantages in tasks requiring coordinated movement, balance, and temporal precision during early childhood (Esen et al., 2023; Mülazımoğlu Ballı, 2024; Piek et al., 2008), as well as gender differences in vocal performance favouring girls in the early school years (Hallam et al., 2016). Age-related progression in rhythmic performance, particularly in tasks involving sensorimotor integration and movement, has similarly been documented across the early primary years (Esen et al., 2023; Phillips-Silver and Trainor, 2005). Building on these findings, the research was guided by the following research question and hypotheses:

- RQ1: Do students' performance levels vary across musical domains — specifically, is achievement in vocal performance higher than in rhythmic performance with movement and rhythmic instrumental accompaniment?
- H1: There are statistically significant differences in vocal abilities, rhythmic performance of traditional songs through movement, and rhythmic accompaniment on children's instruments with respect to pupils' gender.
- H2: There are statistically significant differences in vocal abilities, rhythmic performance of traditional songs through movement, and rhythmic accompaniment on children's instruments with respect to pupils' age.
- H3: There are statistically significant correlations between vocal abilities, rhythmic performance of traditional songs through movement, and rhythmic accompaniment on children's instruments.

Sample

The research sample (Table 1) included eighty-six early primary school students (aged 6-8) enrolled in the first and second grades of a public elementary school in Kikinda, Vojvodina, Serbia. The sample consisted of forty-eight girls and thirty-eight boys. Participants were selected using convenience sampling based on regular attendance in general music education classes. Prior formal musical training or extracurricular musical engagement was not considered a criterion for inclusion to capture a representative range of musical abilities in the general student population.

Table 1

Sample characteristics

Demographic data	Group	N (%)
Gender	Girls	48 (56%)
	Boys	38 (44%)
Age	1st grade (aged 6-7)	44 (51%)
	2nd grade (aged 7-8)	42 (49%)

Instrument

Students' musical abilities were assessed individually, with each assessment session lasting approximately 20-30 minutes. The individualized assessment format ensured standardized and controlled conditions, minimized potential social pressure, and allowed students to perform tasks at their own pace, thereby enhancing the objectivity of the evaluation and the reliability of identifying individual differences in musical performance.

The assessment instrument was an adapted version of the Vocal Skills Assessment Scale (VSAS; Jeremić, 2015). Three subscales from the original five were retained as they aligned with the study's aims. The emotional-aesthetic dimension and overall singing quality were excluded to focus on objectively measurable indicators of vocal and rhythmic development. The following dimensions were evaluated:

1) *Vocal performance* – examined the accuracy and stability of vocal performance following the instructional cycle based on traditional folk songs. Students were evaluated on their ability to perform a traditional song by ear, perform the same melodic line transposed a minor third upward and downward, and maintain intonational stability throughout performance;
2) *Rhythmic performance with movement* – assessed students' rhythmic-motor coordination, specifically their ability to express the rhythmic structure of traditional songs through coordinated movement. Evaluation criteria included accuracy in performing rhythmic patterns in synchrony with movement and the ability to maintain a stable tempo throughout performance;
3) *Instrumental rhythmic accompaniment* – focused on students' ability to perform basic rhythmic patterns of traditional songs using children's percussion instruments. Assessment criteria included precision of rhythmic execution and consistency of rhythmic pulse throughout performance.

The researcher conducted assessments using a five-point Likert scale (1 = unable to perform; 2 = significant difficulties; 3 = minor difficulties; 4 = mostly accurate; 5 =

accurate and independent) to quantify and compare scores across variables. The selected assessment dimensions directly reflect musical skills developed through systematic engagement with traditional folk songs. The instrument was adapted by selecting traditional songs with appropriate tonal ranges and defining clear performance criteria for vocal and rhythmic tasks.

The chosen traditional songs and assessment framework were aligned with the national curricula for the first and second grades of primary education (Ministry of Education, Science and Technological Development of the Republic of Serbia, 2017; 2018). Although the curricula allow for the inclusion of various musical genres and pedagogical materials, the present study strictly adhered to the recommended repertoire and implemented exclusively traditional folk songs suggested within the national curricula. No additional songs or musical material outside the official recommended folk repertoire were used at any stage of instruction or assessment, ensuring consistency with the study's objectives.

Procedure

The instructional interventions were implemented during the first semester of the 2025/26 school year as part of the regular general music curriculum. Over a period of 12 weeks, students participated in one 45-minute music lesson per week that was systematically designed around traditional Serbian folk songs and games. Instructional activities included singing traditional melodies, performing rhythmic patterns through coordinated movement, and accompanying songs using children's percussion instruments. All activities were adapted to early primary school students' developmental characteristics and progressively structured to support skill acquisition.

Specific traditional folk songs were systematically assigned to each assessment dimension. Vocal performance was assessed using folk songs taught exclusively through singing, without movement or instrumental accompaniment, to allow focused evaluation of pitch accuracy, melodic memory, and intonation. These songs included *Višnjičica rod rodila, Došla mi baka na pazar, Sedi ćira, Savila se bela loza vinova, Berem, berem grožđe, Na kraj sela,* and *Zeleni se jagodo*. Rhythmic performance with movement was assessed using traditional folk songs with prescribed movement patterns, performed in accordance with the movement structures provided in the official music textbooks. Songs in this category included *Ja posejah lan, Ja posejah lubenice*, and *Dunje Ranke*. Instrumental rhythmic accompaniment was assessed

through students' performance of basic rhythmic patterns using children's percussion instruments from the Orff instrumentarium. After learning the songs through singing, students were encouraged to independently choose percussion instruments (hand drums, rhythm sticks) and creatively apply these in rhythmic accompaniment.

Students learned three traditional folk dances and seven traditional folk songs during the instructional period. Two lessons focused on consolidating the material. The instructional process integrated traditional musical content through experiential learning, active participation, and movement-based musical engagement. Detailed documentation, including lesson plans, song selection criteria, and assessment protocols, is available from the corresponding author upon request.

Traditional songs served as musical material and structured pedagogical resources for developing core music skills, while culturally familiar repertoire supported student engagement.

Data Analysis

Data analysis was conducted using the statistical software Jamovi (Version 2.3). Prior to statistical processing, the dataset was carefully screened and prepared, including the identification and removal of incomplete or inconsistent records, to ensure the quality, accuracy, and reliability of the data used for subsequent analyses.

Prior to inferential analysis, the assumptions for parametric testing were examined. Although the Shapiro-Wilk test indicated departures from normality for all three domains (vocal performance: $W=.89$; rhythm with movement: $W=.91$; rhythmic instrumental accompaniment: $W=.91$; all $p < .001$), as is common for five-point ordinal rating scales, the skewness (-.37 to .09) and kurtosis (-.83 to -.75) values remained within commonly accepted limits (skewness < 2, kurtosis < 7; West et al., 1995). Homogenity of variance was confirmed by Levene's test for all gender and age comparisons (all $p > .41$). Given these results, the relatively large and balanced subsamples, and the robustness of the t-test to moderate departures from normality, parametric procedures were applied.

All assessments were conducted by a single trained researcher applying clearly defined scoring criteria for each task, so that measurement reliability was ensured through a standardized individual assessment procedure rather than through inter-rater agreement.

As each performance domain was scored on a single holistic five-point scale, internal-consistency reliability across the three conceptually distinct domains was not applicable – a separation subsequently confirmed by the absence of significant inter-domain correlations (see H3).

Descriptive statistics were calculated to provide an overview of the sample characteristics and students' performance across the three assessed domains. Measures included frequencies, means, and standard deviations.

In accordance with the research hypotheses, independent samples t-tests were used to examine differences in vocal abilities, rhythmic performance with movement, and rhythmic accompaniment in relation to students' gender and age, while Pearson's correlation analysis was employed to determine the relationships among the three measured constructs.

The study was conducted in accordance with ethical principles. Student participation was voluntary and approved by the school and classroom teachers, and all data were collected and analysed anonymously. Particular attention was given to preserving students' spontaneity and enjoyment of music-making, as traditional music naturally encourages authentic and developmentally appropriate musical expression in children.

Results and Discussion

This study examined vocal performance, rhythmic performance with movement, and rhythmic instrumental accompaniment in early primary school students engaged in systematic performance of traditional folk songs (TFS). Gender- and age-related differences were analysed, along with relationships among the assessed musical domains.

Descriptive Statistics of Assessed Musical Performance Domains

Descriptive analysis indicated clear differences across the three assessed domains (Figure 1). Vocal performance achieved the highest mean score (M = 3.58, SD = 1.17), followed by rhythmic performance with movement (M = 3.15, SD = 1.18), while rhythmic instrumental accompaniment yielded the lowest mean score (M = 2.86, SD = 1.16). In relation to RQ1, which asked whether performance levels vary across musical domains with higher achievement in vocal performance, the descriptive findings support this expectation. A repeated-measures ANOVA confirmed that these domain differences were statistically significant, $F(2, 170)$ =

8.69, $p < .001$, partial $\eta^2 = .09$ (N=86); Holm-corrected post-hoc comparisons showed that vocal performance significantly exceeded both rhythmic performance with movement ($p = .031$) and instrumental rhythmic accompaniment ($p < .001$), while the two rhythmic domains did not differ significantly ($p = .109$).

Table 2

Descriptive Statistics of Musical Performance Domains

Musical Performance Domain	*M*	*SD*	Skewness	Kurtosis
Vocal performance	3.58	1.17	-.37	-.83
Rhythmic performance with movement	3.15	1.18	-.16	-.80
Rhythmic instrumental accompaniment	2.86	1.16	-.09	-.75

Note. Skewness and kurtosis are reported as excess kurtosis (normal distribution = 0), consistent with Jamovi output. All absolute values fall within the commonly accepted limits of skewness < 2 and kurtosis < 7 (West et al., 1995), supporting the use of parametric statistical procedures. N = 86 for all domains.

This pattern suggests that singing-based tasks are more accessible to students aged 6-8, whereas rhythm-based tasks – particularly those requiring instrumental coordination – present greater developmental and motor demands. The higher achievement in vocal performance aligns with developmental models emphasizing earlier stabilization of vocal abilities compared to rhythm-based motor coordination (Gordon, 2003; Welch, 2006). Wolfs et al. (2023) similarly argue that singing relies heavily on early auditory perception and accessible vocal mechanisms, whereas rhythmic performance depends more strongly on the maturation of motor and cognitive timing skills.

Lower achievement in rhythmic domains, particularly instrumental rhythm, may reflect the gradual development of auditory-motor integration, fine motor coordination, and temporal control in early childhood (McPherson and Gabrielsson, 2002; Tierney and Kraus, 2014). While children aged 6–8 can reproduce basic rhythmic patterns, performance becomes more variable as task complexity increases, especially in instrumental execution. Accordingly, rhythmic instrumental accompaniment emerged as the weakest domain, indicating its greater motor and coordinative demands. Systematic engagement with TFS supports musical development by making vocal performance accessible and using culturally familiar melodic-rhythmic structures, which enhance emotional engagement, motivation, and intuitive responses (Dobrota and Topić, 2018; Jenkins, 2011; Jeremić et al., 2023).

Gender Differences in Musical Performance (H1)

Gender differences in musical performance based on TFS were examined using independent samples t-tests across vocal performance, rhythmic performance with movement, and rhythmic instrumental accompaniment (Table 3; Figure 1).

A statistically significant gender difference was found in vocal performance ($t = 2.70$, $p = .008$), with female students scoring higher ($M = 3.88$, $SD = 1.14$) than male students ($M = 3.21$, $SD = 1.12$). The effect size (Cohen's d = .587) indicates a moderate difference between groups. This finding aligns with previous research demonstrating greater vocal accuracy and intonational stability among girls in early school years, often attributed to earlier maturation of pitch perception, vocal control, and auditory discrimination (Barrett et al., 2018; Welch, 2006). Hallam et al. (2016) similarly report that gender differences in musical performance are more likely to emerge in aspects such as intonation and consistency.

Rhythmic performance with movement ($t = 2.01$, $p = .048$) also demonstrated a significant gender difference, again favouring female students ($M = 2.87$, $SD = 1.23$), with a moderate effect size (Cohen's d =.436). This result suggests stronger rhythmic-motor synchronization among girls, consistent with previous developmental and psychomotor research (Mülazımoğlu Ballı, 2024; Piek et al., 2008), indicating that tasks requiring coordinated movement, balance, and temporal precision often favour girls in early childhood, likely because of differences in neuromotor development and bodily control (Esen et al., 2023).

In contrast, no statistically significant gender difference was observed in rhythmic instrumental accompaniment ($t = 1.26$, $p = .212$). Achievement levels were comparable for female ($M = 3.00$, $SD = 1.22$) and male students ($M = 2.68$, $SD = 1.07$), with a small effect size (Cohen's d = .273). Instrumental rhythmic performance, requiring fine motor coordination, temporal accuracy, and control of sound production, remains highly variable at this age and is less influenced by gender, particularly in short-term instructional contexts (Hallam et al., 2016).

Overall, gender differences were evident in vocal performance and rhythmic performance with movement, but not in rhythmic instrumental accompaniment (H1). These findings indicate that gender may influence musical domains closely linked to vocal and embodied expression, while instrumental rhythm performance appears to depend more strongly on motor development and learning experience. Pedagogically, the results support the use of TFS as an effective medium for vocal and movement-based learning, while emphasizing the need for gradual and well-supported introduction of instrumental rhythm activities.

Table 3

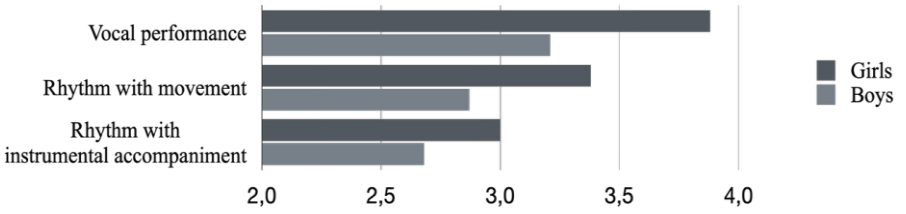
Independent samples t-test of gender differences

Musical skill domains	M difference	95% CI	SE difference
Vocal performance	.664	[.18, 1.15]	.246
Rhythm with movement	.507	[.00, 1.01]	.253
Rhythm with instrumental accompaniment	.316	[-.18, 0.82]	.251

Note. Independent samples t-tests: Vocal performance: t(84) =2.70, p=.008, Cohen's d=.587; Rhythmic performance with movement: t(84) =2.01, p = .048, Cohen's d=.436; Rhythmic instrumental accompaniment: t(84) =1.26, p = .212, Cohen's d=.273. \n* p < .05, ** p < .01, *** p < .001.

Figure 1

Gender differences regarding students' vocal performance, rhythm with movement, and rhythm with instrumental accompaniment



Age Differences in Musical Performance (H2)

Age-related differences were examined using independent samples *t*-tests across first-grade (aged 6-7) and second grade (aged 7-8) students (Table 4; Figure 2).

No statistically significant age difference was found in vocal performance ($t = 1.59$, $p = .115$), although second-grade students achieved slightly higher mean scores. The effect size was small (Cohen's d = .344). This demonstrates that core vocal abilities (e.g., melodic reproduction, intonational stability, and vocal control) stabilize early in primary education. Given the narrow melodic range, clear tonal organization, and repetitive structure of the TFS used, both age groups were similarly able to meet the vocal demands of the repertoire, consistent with theoretical perspectives emphasizing early development and gradual refinement of foundational vocal skills (Gordon, 2003; Welch, 2006).

In contrast, a statistically significant age difference was found in rhythmic performance with movement ($t = 2.17$, $p = .033$), favouring second-grade students, with a moderate effect size (Cohen's d = .468). Older students demonstrated greater rhythmic precision and more stable movement-music coordination.

This pattern is consistent with research indicating that rhythm skills involving movement develop progressively with neuromotor maturation and sensorimotor integration (Esen et al., 2023; Phillips-Silver and Trainor, 2005), and with Orff's (1963) principle that rhythm is first internalized through bodily movement before being transferred to more abstract or instrumental musical forms.

A similar developmental pattern emerged in rhythmic instrumental accompaniment, with second-grade students outperforming first-grade students ($t = 2.26$, $p = .026$), with a moderate effect size (Cohen's d = .487). Although derived from the same TFS repertoire, instrumental tasks imposed additional demands related to fine motor coordination, precise temporal control, and the ability to translate rhythmic structures into instrumental action. The better performance of older students likely reflects increased motor maturity and greater experience with structured classroom activities – abilities that continue to develop throughout the early primary years.

Overall, vocal performance remained stable across age groups, whereas rhythmic performance with movement and rhythmic instrumental accompaniment showed clear developmental progression (H2). This demonstrates that vocal and rhythmic abilities follow different developmental trajectories: vocal skills tend to stabilize earlier, while rhythmic skills – particularly those involving movement and instruments – require a longer maturation period and sustained pedagogical support.

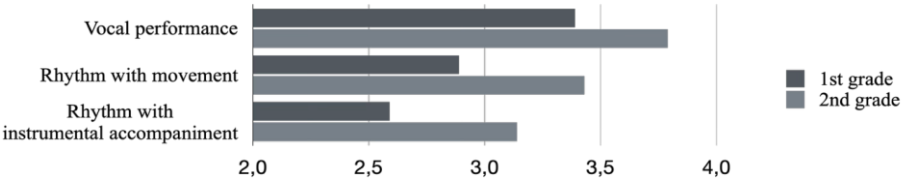
Table 4
Independent samples t-test of age differences

Musical skill domains	M difference	95% CI	SE difference
Vocal performance	.399	[-.10, .90]	.251
Rhythm with movement	.542	[.05, 1.04]	.250
Rhythm with instrumental accompaniment	.552	[.07, 1.04]	.244

Note. Independent samples t-tests: Vocal performance: t(84) = 1.59, p = .115, Cohen's d = .344; Rhythmic performance with movement: t(84) = 2.17, p = .033, Cohen's d = .468; Rhythmic instrumental accompaniment: t(84) = 2.26, p = .026, Cohen's d = .487. \n* p < .05, ** p < .01, *** p < .001.

Figure 2

Age differences regarding students' vocal performance, rhythm with movement, and rhythm with instrumental accompaniment.



Relationships Among Musical Performance Domains (H3)

Pearson's correlation analysis examined relationships among vocal performance, rhythmic performance with movement, and rhythmic instrumental accompaniment based on TFS (Table 5).

No statistically significant correlations were found between any of the assessed domains. Vocal performance showed no association with rhythmic performance through movement (r = .063, p = .564), nor with rhythmic instrumental accompaniment (r = .104, p =.343), indicating that singing does not necessarily correspond to rhythmic-motor or instrumental competence. These skills develop independently, despite being embedded in the same instructional framework.

Similarly, no significant correlation was observed between rhythmic performance with movement and rhythmic instrumental accompaniment (r =.010, p =.926), despite their apparent conceptual similarities. This suggests that these two rhythmic domains involve distinct perceptual and motor demands. While movement-based rhythm relies primarily on global motor coordination and embodied rhythm perception, instrumental accompaniment requires fine motor control and precise temporal regulation, which may present greater developmental challenges for children aged 6–8.

The absence of significant correlations indicates that vocal abilities, rhythmic performance with movement, and rhythmic instrumental accompaniment function as relatively independent dimensions of musical performance at this developmental stage and within the present sample. This finding aligns with Gordon's (2003) view of musical abilities as relatively autonomous components following different developmental trajectories, as well as with research suggesting that vocal and rhythmic skills may diverge in their development during early childhood (Sloboda, 2008; Welch, 2006).

Table 5
Correlation Matrix

Domains		Vocal performance	Rhythm with movement	Rhythm with instrumental accompaniment
Vocal performance	Pearson's r	—		
	df	—		
	p-value	—		
	N	—		
Rhythm with movement	Pearson's r	.063	—	
	df	84	—	
	p-value	.564	—	
	N	86	—	
Rhythm with instrumental accompaniment	Pearson's r	.104	-.010	—
	df	84	84	—
	p-value	.343	.926	—
	N	86	86	—

Note. * p < .05, ** p < .01, *** p < .001

Overall, TFS emerge as a developmentally appropriate pedagogical resource, supporting early vocal development through simple melodic structures (Radoš, 2010). However, rhythmic skills, especially instrumental, require longer and more gradual support.

Conclusion

The study explored the pedagogical potential of TFS for supporting vocal and rhythmic development in early primary school students within regular music education. By considering age and gender differences and associations among vocal performance, rhythmic performance with movement, and rhythmic instrumental accompaniment, the findings offer insight into early patterns of musical development at the beginning of formal schooling.

The results indicate that vocal and rhythmic abilities do not develop uniformly and may function as relatively independent dimensions of musical performance. While engagement with TFS appears to particularly support vocal development, rhythmic competences – especially those involving instrumental performance – demonstrate greater variability and a slower developmental progression. These findings suggest that strong singing skills may emerge even when rhythmic coordination and instrumental control are still developing, underscoring the importance of recognizing individual developmental trajectories in early primary school music education.

TFS melodic simplicity and tonal clarity support vocal development, while folk-based rhythmic activities promote embodied learning through movement. Progress in one domain should not be assumed to predict progress in others, underscoring the need for differentiated and responsive instructional approaches.

Several limitations should be acknowledged. The study was conducted within a single educational setting over a limited instructional period, and the absence of a control group restricts the generalizability of the findings. Future research should employ longitudinal and comparative designs, include larger and more diverse samples, and integrate quantitative and qualitative methods (e.g., pre- and post-intervention measurements, reflexive and observational diaries) to better understand the long-term effects of folk song-based instruction on children's musical and cultural growth. Furthermore, future studies could examine whether the observed outcomes are specific to traditional folk songs or attributable to the general structural characteristics of the repertoire (e.g., melodic simplicity, clear rhythmic patterns). Including a comparative group of students engaging with authored children's songs selected according to the same structural criteria as the traditional songs would allow for a more rigorous examination of the distinctive role of traditional musical content in supporting musical development.

TFS can be effectively integrated into early primary music education as a flexible pedagogical resource supporting vocal and rhythmic development through multiple learning mechanisms. Professional development for teachers can enhance the use of traditional repertoire for musically responsive, culturally grounded, and developmentally appropriate instruction.

Author Contribution Statement

Conceptualization and methodology: B. J. and J. B.; data collection: B. J.; data analysis: J. B.; writing – original draft preparation: J. B.; literature review and interpretation of results: M. T. and F. J. V.; writing – review and editing: J. B., M. T. and F. J. V.; supervision: B. J. All authors have read and agreed to the published version of the manuscript.

Data Availability Statement

The article is based on research data that are not publicly available due to the protection of personal data of minor participants; anonymised data are available from the corresponding author upon a reasoned request.

Statement on the Use of Generative AI Tools

No generative AI tools were used in the preparation of this article for generating text, data, code, analyses, interpretations or visual content. All content of the article is the result of the authors' own scientific and professional work.

Informed Consent Statement

All participants and their parents or legal guardians were adequately informed about the purpose of the research prior to participation, and parents or legal guardians provided informed consent for the children's participation.

Declaration of Conflicting Interests

The authors declare no conflicts of interest regarding the publication of this paper.

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