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Teachers' Views: Using Body Music in Teaching and Learning Primary School Subjects

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~ The paper presents research conducted among Turkish primary school classroom teachers regarding their personal and professional views about creating and using KeKeÇa body music games as educational tools. The core principles of the KeKeÇa body music approach – embodiment, play orientation and arts integration – are increasingly recognised as important topics in education today. The research is a phenomenological study with ten young women, primary school teachers who teach at village schools in the mountains. The teachers went through the KeKeÇa training programme, which aims to enable participants to make use of body music in teaching primary school curriculum content. They designed and used body music games for all classroom subjects, especially those that were more difficult to learn in the first place. In order to investigate the teachers' views, data were collected using an open-ended questionnaire and analysed using MAXQDA software. The results show that the teachers gained more control of the lessons, which became much more fun. They reported improvement in students' motivation and joy, adding that the learning showed greater long-term retention and became less time consuming. In conclusion, according to the participant teachers, the KeKeÇa body music approach, attitude and practice made remarkable contributions to their professional skills and had a beneficial effect in teaching and learning diverse subjects, and an enriching impact on their students' motivation, joy and learning quality.

Keywords: body music, primary education, embodied learning, KeKeÇa approach, play-based learning, teacher training, student motivation

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Mnenja učiteljev: uporaba glasbe telesa pri poučevanju in učenju predmetov v osnovni šoli

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☞ Članek predstavlja raziskavo, izvedeno med turškimi učiteljicami v osnovnih šolah, o njihovih osebnih in strokovnih mnenjih o ustvarjanju in uporabi iger z glasbo telesa KeKeÇa kot izobraževalnih orodij. Osnovna načela pristopa glasbe telesa KeKeÇa – utelešenje, usmerjenost v igro in integracija umetnosti – se danes vse bolj priznavajo kot pomembne teme v izobraževanju. Raziskava je fenomenološka študija, v kateri je sodelovalo deset mladih žensk, osnovnošolskih učiteljic, ki poučujejo v vaških šolah v gorah. Učiteljice so opravile program usposabljanja KeKeÇa, katerega cilj je udeležencem omogočiti uporabo glasbe telesa pri poučevanju osnovnošolskih učnih vsebin. Oblikovale in uporabile so igre z glasbo telesa za vse predmete v razredu, zlasti za tiste, ki tudi sicer predstavljajo večji izziv za učence. Da bi raziskali mnenja učiteljic, so bili podatki zbrani z odprtim vprašalnikom in analizirani s programsko opremo MAXQDA. Izsledki kažejo, da so učiteljice pridobile večji nadzor nad poukom, ki je postal veliko zabavnejši. Poročale so o izboljšanju motivacije in veselju učencev, dodale pa so, da je učenje pokazalo večjo dolgoročno zadrževanje znanja in postalo manj časovno zahtevno. Sklepno lahko zapišemo, da so po mnenju sodelujočih učiteljic pristop, odnos in praksa glasbe telesa KeKeÇa znatno prispevali k njihovim strokovnim veščinam ter imeli koristen učinek na poučevanje in učenje različnih predmetov ter bogatili motivacijo, veselje in kakovost učenja pri njihovih učencih.

Ključne besede: glasba telesa, osnovnošolsko izobraževanje, utelešeno učenje, pristop KeKeÇa, učenje skozi igro, usposabljanje učiteljev, motivacija pri učencih

Introduction

Embodied cognition, play and the arts have become topics of interest in education (Almonacid-Fierro et al., 2022; Halverson, 2022; Shapiro & Stolz, 2019). The purpose of the present research is to contribute to practical, playful and embodied ways of teaching and learning in the classroom, and to discover the contributions and functionalities of using the KeKeÇa body music approach in teaching primary school subjects, as well as its effect on students' motivation and learning. Body music is an ancient art form that utilises sound-producing body movements, including vocals, speech and mouth sounds. KeKeÇa is a widely recognised body music approach that focuses on creating body sounds through ergonomic movement mechanisms while embracing a playful facilitation attitude.

Embodied cognition offers valuable educational insights, enhancing teaching practices and learning (Shapiro & Stolz, 2019, p. 16). "Greater awareness of embodiment can enable educators to facilitate rich, sensory learning encounters that are empowering and transformative" (Yoo & Loch, 2016, p. 528). A study carried out with 52 primary school children shows that embodied learning implemented as part of the classroom curriculum in a real classroom environment using motion-based games can have a positive impact on children's cognitive skills and academic performance (Kosmas et al., 2018, p. 70). A synthesis of scholarly empirical studies examining embodied teaching approaches in physical education suggests that embodied learning can support students in developing both critical thinking abilities and bodily awareness (Aartun et al., 2020). In addition, a study by Schmidt et al. (2019, p. 50) investigating the effects of tailored physical activities on primary school children's foreign language vocabulary and attentional performance found that children engaged in embodied learning enjoyed learning a new language more than those in a control group and demonstrated improved memory. These results replicate previous research findings.

The significance of learning through play in primary schools, the meaning of play for children and its benefits on their development is emphasised in the literature (Almonacid-Fierro et al., 2022; Breathnach et al., 2017; Hunter & Walsh, 2014; McGuinness et al., 2014; Mozelius & Öberg, 2017; Sandford et al., 2015). Accordingly, play should be included in primary education by encouraging teachers to create supportive environments that foster creative play rather than controlling it, as play is a vital and meaningful activity for children, integrating their cognitive and social development (Rantala & Määttä, 2011). However, education systems have shifted towards more structured learning

that overlooks the importance of play in fostering early literacy, numeracy, and essential social and emotional skills. Contrary to this trend, it is necessary to prioritise playful learning (Parker & Thomsen, 2019).

Body music is a term introduced by Keith Terry regarding the art form using sounding body movements such as snapping, stepping, clapping, touching (oneself or others) with hands, making mouth sounds and vocalising. The sequencing of these movements, as well as the visual and sensory integration and expression that occur while executing them, are also included in the practice. While *body percussion* and *body rhythm* are more common terms in the literature that refer to making rhythms with your body, *body music* is a broader term, especially when including vocals or speech.

Body music is primitive and easily imitable, and therefore applicable to everybody. It is a powerful tool for teaching and learning processes due to its playful and embodied nature as an art form that is also inclusive and economic. Although it has become a transdisciplinary art form used in a variety of educational areas, there are few written resources on its use in teaching school subjects other than music and dance. Among the literature is Keith Terry and Linda Akiyama's book *The Rhythm of Math* for primary school students (2015) and Anita Gritch's *Move and Groove* for teaching English (2016). Other books that suggest utilising body percussion in the fields of pre-primary and primary education are focused on competencies of music or physical education (Burrows, 2018; Glover et al. 2002; Henessy, 2016; Grieshaber et al., 2023).

*KeKeÇa*⁴ refers to a specific pedagogical environment and ensemble of body music. KeKeÇa body music is an original approach to producing and using body sounds for various purposes. This approach emphasises the acceptance and observation of body music as it emerges from the natural flow of movement that generates body rhythm and sound through lifts, drops, releases and rotations. Three movement mechanisms, which will be explained below, serve as the driving force behind the sounding body movement. Preschool and special education have been the primary areas of interest in the experience of KeKeÇa since the beginning of the 2000s, due to the efforts of its founder Tugay Başar⁵ to communicate in parenting a child with ASD and his occupation as a teacher at nurseries and kindergartens while being trained as an Orff-Schulwerk teacher trainer. Over the years, he developed the KeKeÇa approach by analysing efficient body sound production, valuing non-verbal communication, and incorporating play and acting into facilitation. Başar curated and created body percussion games with chil-

4 KeKeÇa is an abbreviation of the phrase “**K**endin **K**endini **Ç**al” in Turkish, which can be translated as “play yourself (your own body), yourself (on your own)”.

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dren, using them for educational purposes. This work established the KeKeÇa technique, its facilitation approach and its play repertoire.

The present research, which encompasses in-class applications of the KeKeÇa body music approach by primary school teachers, is in line with articles about teachers' conceptions and experiences (Cavadas, 2023; Novijan, 2022), as well as articles about teachers and students at primary school (Fernandez et al., 2024; Novijan, 2022; Tomljenović, 2019). It could also be relevant to studies concerning teacher training/education (Chilla et al., 2024; Kink-Hampersberger et al., 2023; Nijakowska, 2022). The in-class applications refer to certain body music games that are created and facilitated by teachers to help learners gain and remember scientific knowledge through embodied forms.

In 2019, the KeKeÇa Body Percussion Ensemble⁶ was invited to teach at the "Our Teachers, Insurance of Education" project, supported by the Z Zurich Foundation and carried out by the Turkish Education Association in cooperation with the Turkish Ministry of Education. During its six years of implementation, the project encompassed "a program with the ambition of supporting 1,000 female teachers assigned to villages/small towns in the first year of their career by offering tailored personal and professional development plans" (Zurich Foundation). The project had reached 1,000 teachers by 2023.

KeKeÇa's tailored training programme consisted of four modules. The first three modules encompass competencies related to body percussion and rhythm. The fourth involves action research lasting eight weeks, carried out with volunteer teachers, where each participant generates instructional body music games for their current class subjects, applies them in class, gives/gets online feedback from KeKeÇa instructors (two of the authors), and reapplies the games until a mature version emerges. The present research was motivated by observing the success stories of past participants regarding in-class applications.

The first module was carried out through four online meetings of one hour each, focused on the competencies of KeKeÇa Mechanisms, KeKeÇa Vocabulary, and Beginner Games. *KeKeÇa Mechanisms* mainly address using the body as an instrument of movements that ergonomically create sound, focusing on the main three mechanisms that create sound: "Gravity", "Chinese Drum" and "Upside-Down U". We then studied *KeKeÇa Vocabulary*, in which each body part has a unique syllabic name: the syllable "şık (shæck) [S]" refers to

6 "KeKeÇa Body Percussion Ensemble; founded by Tugay Başar and Timuçin Gürer, have been working since 2002; doing performances, trainings and workshops, working for international and local projects for culture, arts and education through body percussion and body music. The group has performances, workshops with various diverse groups and ages, as well as inclusive, disabled, and disadvantaged groups." (KeKeÇa, 2025).

snapping fingers, “şak (shuck) [X]” refers to clapping hands, “tak (tuck) [T]” refers to touching the thighs, “dum (doom) [D]” to the chest and “bum (boom) [B]” to footsteps. Working on the *KeKeÇa Beginners' Repertoire of Body Music Games* in the training programme, we shared the “Body Percussion Massage” as part of the warm-up, “Mirror” and “Echo” as non-verbal communication games, followed by “Laptop”, a four-line body poem using the body sounds T, S and X, and another game called “ŞIKIŞIKI”, which uses S, X, T and B. The three other basic body percussion games of the first module are “Body Drum” [DSXS], “Keith Terry’s Rhythm Blocks” and “KeKeÇa Puzzle Pieces”. In addition, we practised a simple selection of the rhythm patterns of classical Turkish Music, called “usûls”. The second module was carried out in four face-to-face sessions of 90 minutes each. The aim was to let the participants experience the body music medium while observing how online-instructed games are played and facilitated within a group. In the third module of six online sessions, we focused on the competencies of realising and creating embodied movement sets and rhythm patterns in body music. The first four sessions consisted of theoretical descriptions and practice of rhythmic translations of speech, forms, visuals and daily life to body sounds. Sample games were played representing each topic. The last two meetings involved applications of the theoretical material from the prior sessions.

The fourth blended module comprised eight online meetings, each lasting 90 minutes, followed by a two-day, in-person camp. The first half of each of the first six meetings was devoted to reviewing the previous modules. The remaining sessions were dedicated to the creation and refinement of didactic games, facilitated through the sharing of in-class video recordings and the completion of KeKeÇa Body Music Game Design forms. Throughout the KeKeÇa training period, the participant teachers sent video recordings of the didactic body music games that they created and applied with their students.

Finally, the ten participant teachers created 16 didactic KeKeÇa body music games and applied them in the classroom. Following this period, we came together with the teachers and filmed video instructions for the games covering the following subjects: months; regional public directors; numbers of corners and sides of a square, triangle and circle; writing question suffixes in Turkish; adding odd and even numbers; finding the unknown in subtraction; seasons and their characteristics; a quarter and half hour; movements of the planet Earth in relation with the day and year; use of a full stop; use of a comma; introduction to body percussion; states of matter; antonyms; common characteristics of living creatures; and counting by 6’s. These instructional videos will be published in the future.

The present study investigates the teachers' experience when applying the KeKeÇa body music approach to teaching and learning primary school subjects. Specifically, the following research questions were formulated to gather the insights of female teachers who utilise body music in their primary school classrooms.

1. What do female teachers think about the contribution of using the KeKeÇa body music approach to their professional skills?
2. What do female teachers think about the functions of using the KeKeÇa body music approach?
3. What do female teachers think about the effects of using the KeKeÇa body music approach on student motivation?
4. What do female teachers think about the effects of using the KeKeÇa body music approach on student achievements?

Method

Participants

The participant group consisted of ten female teachers in the early stages of their careers, who were assigned to schools in villages or small towns. These participants had received training to facilitate their effective use of the KeKeÇa body music approach in teaching self-selected primary school subjects. Demographic information for the ten participants, coded P01 to P10, is presented in Table 1 below.

Table 1

Demographic characteristics of the participants

Participant	Gender	Age	Professional Seniority (Years)	Region/Province
P01	F	32	4	Erzurum
P02	F	33	8	Eastern Anatolia
P03	F	29	5	Southeast Anatolia
P04	F	34	4	Sivas
P05	F	35	8	Ankara
P06	F	35	8	Ankara
P07	F	26	3	Sanliurfa
P08	F	29	8	Erzurum
P09	F	31	8	Marmara Region
P10	F	25	3	Mardin

Table 1 shows that all of the participants are female. Their ages ranged from 25 to 35, and their professional seniority is between 3 and 8 years. Four of the participants reside in Central Anatolia and Marmara Regions, while six reside in Eastern and South-Eastern regions.

Instrument

The data collection tool was an open-ended questionnaire containing eight questions. The first four questions were about the teachers' gender, age, years of experience and region of assignment. The other four questions concerned the teachers' professional experience and the perception of their students. The document was sent to the participants via Google Forms immediately after the end of the 2023–2024 Spring semester. The participants were asked to return the document within one month. The four questions concerning the teachers' professional experience and the perception of their students were:

1. What are the contributions of the KeKeÇa body music approach to your professional skills?
2. For which functions did you use KeKeÇa body music approach achievements in your professional practices?
3. What do you think are the effects of KeKeÇa body music activities on your students' motivation?
4. What is your assessment of the relationship between KeKeÇa body music activities and your students' achievements?

Data Analysis

Within the scope of the research, a content analysis method was used to analyse the interview data. An inductive approach was followed. MAXQDA 2020 software was used to analyse the data. Two researchers coded independently and reached 104 codes in total. The following equation was used to calculate consistency (Miles & Huberman, 1994):

$$\text{Consistency} = \frac{\text{Number of agreements}}{\text{Total coding}} \times 100$$

Consensus was reached in a total of 97 codes. When substituted in the equation, $(97/104) \times 100 = 93\%$ consensus was achieved. The coding consistency in the research is high. The seven codes that could not be reconciled were re-evaluated and reconciliation was achieved.

Research Design

The present qualitative phenomenological study investigates the perspectives of female teachers who utilise the KeKeÇa body music approach in primary school classrooms, investigating their experiences throughout the teaching process.

Phenomenology, as developed by Husserl, is a philosophical method focused on the direct experience of consciousness. Later, Husserl's work, as expanded by Heidegger, Sartre and Merleau-Ponty, influenced psychology and existentialism. Phenomenology emphasises describing lived experiences without preconceived frameworks. Researchers using phenomenology focus on understanding social and psychological phenomena from the perspectives of those involved (Groenewald, 2004).

In the present study, the phenomenon explored is the participating teachers' experiences of intentionally using the KeKeÇa body music approach to teach curriculum subjects in their classrooms. The object of the phenomenon refers to educational body music games grounded in the KeKeÇa approach, created by teachers and applied during lessons. The essence of the phenomenon emerges from the teachers' experiences of perceiving and implementing the educational potential of the self-developed games in their teaching practice. In this context, the act of experience relates to the meaning that the teachers assign to the phenomenon. Thus, the study seeks to understand their experiences and perceptions of the KeKeÇa body music approach, highlighting how they interpret and make sense of its educational applications within the classroom setting (Yüksel & Yıldırım, 2015, p. 6).

Results

Teachers' views on the contribution of using the KeKeÇa body music approach in the class to their professional skills

Table 2

The contribution of using the KeKeÇa body music approach in teaching primary school subjects to the teachers' professional skills

Theme	Code	Frequency	Participants (P) ⁷
<i>Classroom Management</i>		11	
	Lessons are more fun	7	01, 02, 03, 04, 06, 08, 10
	Managing the learning and teaching process	1	07
	Development in music and rhythm	1	03
	Attracting attention	1	05
	Classroom layout	1	05
<i>Ensuring Quality and Continuity of Learning</i>		9	
	Long-term retention of student	2	02, 04
	Using time correctly	2	04, 06
	Adapting the acquisition to body music	1	09
	Reinforcing the outcomes learned	1	05
	All-round professional development	1	04
	Using different senses	1	10
	Continuity of the learning process	1	05
<i>Creativity and Activity Generation Skills</i>		4	
	Enabling nursery rhyme writing	1	03
	Being creative	1	05
	Designing education tailored to learners	1	04
	Investigate different methods	1	05
<i>Motivation</i>		3	
	Students' participation in the learning process	1	01
	Motivating students	1	04
	Teacher motivation	1	05
Total		27	

⁷ The term learning refers to that of students throughout the text.

Table 2 shows that four themes – “Classroom Management” ($f = 11$), “Ensuring the Quality and Continuity of Learning” ($f = 9$), “Creativity and Ability to Produce Activities” ($f = 4$) and “Motivation” ($f = 3$) – and 27 opinions related to these themes emerged.

Regarding the theme of classroom management, most of the participants ($f = 7$) emphasised that the lessons were more fun. A sample opinion is given below:

“It allowed me to make the lessons fun.” (Po1)

Sample opinions about other issues related to classroom management stated by the participants are as follows:

“It helped me to manage the learning and teaching process.” (Po7, Code: Managing the learning and teaching process)

The participants expressed nine opinions on the theme “Ensuring the Quality and Continuity of Learning”. Sample opinions are as follows:

“Enhances long-term retention and fun in teaching.” (Po2, Code: Long-term retention of student)

“It enabled me to spend fun and productive time with children in lessons and free time activities.” (Po6, Code: Using time correctly)

The participants expressed four opinions on the theme “Creativity and Activity Generation Skills”. Sample opinions are given below:

“I had never tried to write nursery rhymes; it helped me to write nursery rhymes.” (Po3, Code: Enabling nursery rhyme writing)

The participants expressed three opinions on the theme of “Motivation”. A sample opinion is as follows:

“For three years, it has been highly beneficial in capturing attention, reinforcing acquired skills and maintaining classroom order. Professionally, it has encouraged me, as a teacher, to explore different methods, be more creative, ensure continuity in my learning process and further enhance my motivation within the school environment.” (Po5, Code: Motivation)

Teachers' views on the functions of using the KeKeÇa body music approach in teaching

Table 3

The functions of using the KeKeÇa body music approach in teaching

Theme	Code	Frequency	Participants (P)
<i>Course Diversity</i>		10	
	Use in mathematics	3	04, 08, 10
	Use in life science	2	09, 10
	Use in abstract subjects	1	04
	Use in science	1	04
	Use in physical education	1	04
	Use for rhythmic practices	1	08
	Use in Turkish	1	09
<i>Quality of Learning</i>		10	
	Use in subjects that students have difficulty with	3	02, 07, 09
	Use in hard-to-learn subjects	2	03, 05
	Reinforcement of course outcomes	1	01
	Active participation of students in the learning process	1	05
	Developing creative thinking skills	1	05
	Attention gathering	1	05
	Reinforcement	1	07
<i>Sport and Movement</i>		1	
	Using it instead of morning exercise	1	06
Total		21	

Table 3 shows three themes – “Course Diversity” ($f = 10$), “Learning Quality” ($f = 10$) and “Sports and Movement” ($f = 1$) – and 21 opinions related to these themes that emerged based on the participant views.

Regarding the theme “Course Diversity”, the use in mathematics was emphasised by the most participants ($f = 3$). The opinion of Po4 regarding both this code and its application in science, physical education and abstract subjects is given below as an example:

“I have utilised Body Percussion more in activities involving abstract concepts rather than in my professional practice. While designing activities based on the learning objectives of Mathematics, Turkish and Science lessons, I incorporated rhythm patterns with my students to create tongue twisters and songs, making the process both enjoyable and educational. In

addition to learning activities, I have effectively used Body Percussion at the beginning of the week and during Physical Education lessons through stretching and game activities to enhance my students' readiness and motivation while fostering their body awareness.” (Po4)

Two opinions were expressed regarding use of the KeKeÇa body music approach in life science. A sample opinion on its use in life science and Turkish lessons is as follows:

“I applied it to the subjects that children often confuse in Turkish and Life Science lessons.” (Po9)

There were ten opinions on the theme of “Quality of Learning”. Most students had difficulty ($f = 3$) and emphasis was put on the use of the KeKeÇa body music approach in subjects that are difficult to learn ($f = 2$). A sample opinion is given below:

“I used it in subjects where children had difficulty and I was successful.” (Po2)

Examples of other opinions about the quality of learning are as follows:

“Gathering distracted children’s attention, attracting their attention when they move on to a new subject. Teaching the subjects they have difficulty with easily by having fun. I used it to help them get to know their bodies, to develop their creative thinking skills and to ensure their active participation in the learning process.” (Po5, Code: Active participation in the learning process, Developing creative thinking skills, Gathering attention)

Po6 expressed an opinion on the theme of “Sports and Movement”:

“When I was explaining the lessons, I used it to develop rhythm perception in music lessons instead of a mini morning sport, aiming to clear children's heads from sleep in the school in the morning.” (Po6)

Views on the effects of using the KeKeÇa body music approach in teaching on students' motivation

Table 4

The effects of using the KeKeÇa body music approach in teaching on students' motivation

Theme	Code	Frequency	Participants (P)
Motivation and Joy		13	
	Enjoyment	6	01, 03, 04, 05, 07, 08
	Increased motivation	2	04, 10
	Motivation	1	09
	Positive impact	1	06
	Cheerfulness	1	08
	Increase in demand	1	05
	Positive attitude	1	07
Attracting Attention and Interest		10	
	Increased interest	3	01, 03, 04
	Focusing attention	2	01, 03
	Increased excitement	2	07, 09
	Different activities	1	06
	Bringing new breath into lessons	1	09
	Attracting attention	1	10
Quality of Learning		4	
	Fast feedback	1	02
	Spontaneous learning	1	08
	Supporting long-term retention	1	04
	All-round development	1	04
Skill Development		3	
	Independent thinking skills	1	04
	Becoming aware of their bodies	1	09
	Increased self-confidence	1	07
Total		30	

Table 4 shows four themes – “Motivation and Joy” ($f = 13$), “Attracting Attention and Interest” ($f = 10$), “Quality of Learning” ($f = 4$) and “Skill Development” ($f = 3$) – and 30 opinions related to these themes.

Regarding the theme “Motivation and Joy”, the most frequent emphasis was on having fun ($f = 6$). A sample opinion is given below:

“Children are cheerful in every activity; they have fun and learning happens spontaneously. They take it as the flow of life, not forced.” (Po8)

There were two opinions about the increase in motivation. A sample opinion is as follows:

“It increases motivation because this way of learning attracts their attention.” (P10)

There were ten statements related to the theme “Attracting Attention and Interest”. Sample opinions are given below:

“Their interest in the lesson increases. I usually do the activities when they are very bored; they immediately pay attention, try to do them and have fun. We both learn and have fun.” (Po1, Code: Increased interest, Attention gathering)

“It helped my students to have a positive attitude towards the lesson, the class, the school, the teacher and their friends. Doing something they had never done, making their brains work both verbally and physically, and learning by having fun increased their excitement.” (Po7, Code: Increased excitement)

Four opinions were expressed about the theme “Quality of Learning”. Sample opinions are given below:

“KeKeÇa Body Music activities increased my students’ interest and motivation in the lessons. It supported their long-term retention in abstract and difficult-to-understand subjects by providing fun learning. In addition, taking an active role in the studies improved my students’ all-around development and independent thinking skills.” (Po4, Code: Supporting long-term retention, All-round development)

There were three opinions on the theme “Skill Development”. The sample opinion is as follows:

“They became aware of their bodies; the fact that it brought a new breath to the lessons motivated and excited them.” (Po9, Code: Becoming aware of their bodies)

Views on the effects of using the KeKeÇa body music approach in teaching on students' achievements

Table 5

The effects of using the KeKeÇa body music approach in teaching on students' achievements

Theme	Code	Frequency	Participants
Quality of Learning		13	
	Learning with body percussion	2	01, 03
	Absorbing subtle details beside the main outcomes	2	01, 03
	Understanding the acquisition	1	08
	Internalising the acquisition	1	08
	Breaking free from boring lecture memorisation	1	09
	Learning all outcomes in difficult subjects	1	05
	Better use of body language	1	07
	Increased body awareness	1	07
	Better learning	1	07
	Increased self-confidence	1	08
	Facilitating the learning process	1	05
Duration		9	
	Greater long-term retention	6	01, 02, 03, 04, 06, 10
	Achieving achievements in a shorter time	2	02, 05
	Faster learning	2	08, 09
Motivation		4	
	Development of teamwork	1	07
	Positive effects on other courses	1	08
	Gamifying the lesson	1	07
	Enjoyment	1	09
Total		26	

Table 5 shows that three themes – “Learning Quality” ($f = 13$), “Duration” ($f = 9$) and “Motivation” ($f = 4$) – and 26 opinions related to these themes that emerged based on the participants' views.

Sample opinions on the theme “Quality of Learning” are given below:

“They learn the outcomes unconsciously while engaging in body percussion. Besides the main outcomes, they also absorb the subtle details we implicitly embed in the process. I can deliver much more than I normally would and in a more enduring way.” (P01, Code: Learning with body

percussion, Absorbing subtle details beside the main outcomes)

“A child who enjoys themselves and feels a sense of presence learns quickly and internalises their achievements. This positively impacts their self-confidence, reinforcing their belief in their abilities. When a child gains a sense of accomplishment from effective learning, their confidence grows, often leading to improved performance in other subjects as well.” (Po8, Code: Understanding the outcome, Internalising the outcome, Increased self-confidence)

There were nine opinions about the theme “Duration”. Sample opinions are given below:

“It enhances long-term retention in learning.” (P10, Code: Greater long-term retention)

“In even the most challenging subjects, it enabled all the children in my large class to acquire fundamental knowledge and skills. It heightened their awareness and made them more eager to learn, thus easing the learning process. Although some learning objectives were designed to take three to four lessons, they were achieved within a single lesson.” (Po9, Code: Faster learning)

Discussion and Conclusions

Mazzella and Ambretti (2023) explore body percussion as a practice rooted in embodied cognition, highlighting its role in enhancing cognitive functions, motor skills and social inclusion. By engaging the body as a primary instrument for learning, body percussion facilitates cognitive processes and promotes emotional expression, making learning more interactive and inclusive. This approach underscores the role of the body in shaping cognition and fostering social interaction.

According to Kosmas et al. (2018, p. 61), “the sensorimotor activity, the relevance of gestures to the theme that is to be reproduced, and the emotional involvement of the participant in the whole process” are the primary principles of the implementation of embodied learning.

The participating teachers’ answers to the first question show *the contribution of “using body music in teaching” on teachers’ professional development* is that the practice helps *classroom management* ($f = 11$) as well as *ensuring quality and continuity of learning* ($f = 9$) and *creativity and activity generation skills* ($f = 4$), all of which foster the cognitive functions.

According to the teachers’ replies to the second question, the *functions of using body music in teaching* are *course diversity* ($f = 10$) and *quality of learning*

($f=10$). The first finding shows that the adaptability rate of KeKeÇa body music activities to the primary school curriculum is quite high, which supports the idea that the rhythmic transcription processes (i.e., from language or visuals to body music) included in the training provided the participating teachers with the ability to prepare activities for a variety of subjects from the curriculum.

Regarding the teachers' third response, *an effect of using body music in teaching* is that it *raises motivation and joy* ($f=13$), one of the most popular themes that supports the emotional involvement of the participants and influences cognitive functions, as well as the second theme *attracting attention and interest* ($f=10$), which is a cognitive function itself.

The first two themes of the fourth question, *the effects of using body music in teaching on students' achievements*, which are *quality of learning* ($f=13$) and *duration* ($f=9$), are directly linked to cognitive functions, whereas the third theme, *motivation* ($f=4$), is also closely related, as it influences these functions.

In addition, the codes "use in physical education", "using instead of morning exercise", "becoming aware of their bodies" and "increased body awareness" point to effects on motor skills, whereas "active participation of students in the learning process", "increased self-confidence", again "increased self-confidence" and "development of teamwork" are codes that feed social inclusion. Considering all of the codings made, the most popular two are *enjoyment* ($f=6$), as *an effect of using body music in teaching on students' motivation*, and *greater long-term retention* ($f=6$), as *an effect of using body music in teaching on students' achievements*.

Accordingly, the themes in order of popularity would be *motivation and joy* ($f=13$), *quality of learning* ($f=13$), *classroom management* ($f=11$), *quality of learning* ($f=10$), *course diversity* ($f=10$), *attracting attention and interest* ($f=10$), *ensuring quality and continuity of learning* ($f=9$) and *duration* ($f=9$), all of which are related to cognitive functions.

The integration of body music as an educational tool aligns closely with principles highlighted in various studies, such as embodied cognition, fostering cognitive functions and promoting inclusivity. Cavadas and Sá-Pinto (2023) explored real-life teaching practices, emphasising the importance of interactive and engaging approaches in teacher education. Their findings resonate with the benefits of body music, such as increasing motivation, fostering creativity and ensuring continuity in learning, as observed in the responses from teachers using KeKeÇa body music activities.

Kink-Hampersberger et al. (2023) discuss the tension between theoretical frameworks and practical applications in teacher training, noting that reflexivity can bridge this gap. The application of body music games in classrooms,

as reported, serves as an example of such reflexivity, where teachers adapted theoretical knowledge into practical, playful and engaging activities.

Chilla et al. (2024) highlighted the role of teacher preparedness and adaptability in education. Similarly, the adaptability of rhythmic transcription processes to primary school curricula demonstrates the flexibility and inclusivity of body music, enhancing course diversity and the quality of learning. This adaptability supports diverse classroom needs and fosters a holistic educational approach.

Fernandez et al. (2024) investigated the role of creative methodologies in science classes, illustrating how interactive, embodied approaches can ignite curiosity and improve learning outcomes. Similarly, the reported effects of body music, such as motivation, joy and teamwork, as well as its interactive learning environment (Özgu Bulut, 2012, p. 753), reflect the potential of such creative interventions to enhance student engagement and achievements.

Nijakowska (2022) discussed the impact of inclusive teaching practices on learners with specific needs, emphasising the importance of emotional involvement and active participation. Body music, as observed in this study, promotes self-confidence, body awareness and active engagement, aligning with these principles to create an inclusive and supportive learning environment.

Novljan and Pavlin (2022) explored the impact of outdoor lessons on primary education, emphasising hands-on, experiential learning. Body music, with its emphasis on movement and sound, complements this approach by enabling students to explore learning through physical engagement and sensory experiences.

Tomljenović and Novaković (2019) examined the competence of student teachers in the visual arts, pointing out the value of creative pedagogies. The KeKeÇa body music approach similarly empowers teachers to design innovative, arts-based learning activities, enhancing their creativity and pedagogical skills.

By connecting body music practice to these studies, it is evident that this approach not only enriches teaching and learning experiences, but also aligns with broader trends in contemporary educational research. Future research could investigate its long-term impacts, especially as a structured component of teacher training programmes.

The product of this project will be an addition to certain literature that contains explanations of body music games (Bulut, 2020; Popović & Karl, 2021; Goodkin, 2008). In addition, workshops and training targeting teachers, aimed at letting them experience certain games and gain the necessary skills of facilitation, will be organised. A follow-up study on the functionality of this educational product can be undertaken in the coming years.

The present study has successfully contributed to the use of a movement and sound-based approach by primary school teachers who created and applied their games with their students in the class. In the videos they sent, we could observe children playing the games in the garden in a circle formation during breaks. Additional therapeutic benefits of the KeKeÇa body music approach are the self-touch (Cristobal, 2018; Moffitt, 2018; Seoane, 2016; Young, 2007) and the circle formation (Karampoula & Panhofer, 2018).

The present research has created a useful mindset in young teachers' approach to practical, fun and embodied ways of teaching and learning in the classroom. The aim was to explore teachers' experience of using the KeKeÇa body music approach in teaching primary school subjects. In the videos that were sent during the training, the enthusiastic and motivated attitude of the students playing the games in the classroom and school garden, both during lessons and breaks, is observable, supporting the results of the content analysis. Considering body music as a powerful and therapeutic educational tool that combines embodiment, play-based learning and art education, we suggest versions of KeKeÇa Body Music Training as a single-term course to be included in teacher training programmes at the Faculty of Education, tailored according to the needs of the specific branch.

In brief, the present study explores the integration of the KeKeÇa body music approach in primary education, highlighting its impact on teachers' professional development and students' cognitive, emotional and social outcomes. The participating teachers reported improved classroom management, creativity in activity design and enhanced teaching effectiveness, while the students demonstrated increased motivation, joy and attention, as well as improved learning quality, with additional benefits for motor skills and social inclusion. The findings align with principles of embodied cognition, emphasising the role of sensorimotor activity, emotional engagement and creative pedagogy in fostering inclusive and interactive learning environments.

However, certain limitations exist. The study's sample size was limited to a specific group of primary school teachers, restricting generalisability. Furthermore, the reliance on qualitative methods, while insightful, could benefit from complementary quantitative data to strengthen the findings. The observations were based on teacher-reported outcomes and videos, which might introduce subjective biases. Finally, the long-term impacts of the approach on both teachers and students remain unexplored.

Future research could address these limitations by conducting longitudinal studies with diverse teacher and student populations, employing mixed methods to validate findings. Investigating the effects of KeKeÇa Body

Music Training on specific subjects, such as mathematics or science, as well as its application for students with special educational needs, could further expand its scope. Practical implications suggest including Body Music Training in teacher education programmes, focusing on activity design and embodied learning. This would ensure that teachers are equipped to integrate such creative methodologies, fostering an inclusive, dynamic and interactive classroom environment.

Ethical statement

This research study was approved by the Ondokuz Mayıs University Social Sciences and Humanities Ethical Research Committee.

Disclosure statement

The authors have no conflict of interest to declare.

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