



## A Study of Motivational Strategies in Arts Activities for Preschool Children in Special Education Units

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Among preschool children with special educational needs, art can open additional pathways to expression, safe exploration and experimentation, and it can foster motivation for creation. The purpose of the study was to determine which strategies educators in developmental departments use to encourage the active participation of preschool children in artistic activities (RQ1), and how motivation is expressed among these children during artistic creation (RQ2). A qualitative methodology was employed, using semi-structured interviews and observations of preschool children during interdisciplinary artistic activities. The results showed that educators use diverse and tailored strategies, such as linking art with play, taking children's interests into account, and creating a supportive and safe environment. Musical activities proved particularly effective, as they stimulated intrinsic motivation and acted as a bridge to visual/artistic expression. Children's motivation manifested itself in active engagement, curiosity and persistence, especially in activities that allowed for choice and sensory-adapted approaches. The findings emphasise the importance of individualisation, a process-oriented approach and interdisciplinarity for fostering intrinsic motivation in children with special needs. The study originally examines the integration of musical and visual activities as a strategy for promoting the motivation of preschool children with special needs in developmental departments. In doing so, it opens up a new research and pedagogical area and offers practical guidelines for encouraging motivation through the effective incorporation of interdisciplinary approaches into special-educational practice.

**Keywords:** artistic activities, visual arts, music education, interdisciplinary integration, motivation, developmental department, preschool children

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## INTRODUCTION

Art activities play an important role in fostering motivation during early childhood, as they enable children to express themselves creatively, explore, and experience success. For children with special educational needs, art provides a safe environment that strengthens intrinsic motivation while promoting independence and perseverance (Berlanga et al., 2024; Holochwost et al., 2021; Sicherl Kafol, 2001a).

In developmental departments, where children with various developmental differences are included, it is particularly important to create an environment that allows free, autonomous, and creative expression. Educators play a key role in shaping such supportive learning environments, where individualisation, flexible approaches, and well-considered strategies enable active participation in artistic activities (Abdelshaheed, 2025; Ari, 2025; Berlanga et al., 2024; Bevc, 2005; Wea et al., 2025; Zupančič, 2017). Motivational strategies that involve children's active participation in the planning and implementation of artistic tasks, individualisation of activities according to their needs, and the creation of a safe, encouraging atmosphere have been shown to enhance children's motivation and engagement in the artistic process (Abdelshaheed, 2025; Chen & Li, 2024; Kopačin, 2019; Kopačin & Birsa, 2022; Tolba & Youssef, 2024).

One particularly effective motivational strategy is the interdisciplinary integration of music and visual arts, which promotes multimodal learning and enhances children's creative engagement (Bravo-Fuentes et al., 2025; Campbell, 2004; Ercivan Zencirci & Sönmez, 2022; Karlsson Häikiö, 2020; Sicherl Kafol, 2001b).

The purpose of this study was to identify which strategies educators in developmental departments use to encourage the active participation of children in artistic activities, and how motivation is expressed among preschool children with special educational needs during the creative process. Special attention is given to the effectiveness of the interdisciplinary integration of musical and visual art activities as an innovative approach that contributes to the development of new motivational strategies in special educational practice.

### **Strategies for Fostering Motivation in Artistic Activities**

Motivation, in its broadest sense, represents goal-directed behaviour and action. It functions as a powerful and complex force that drives human activity (Kobal Grum & Musek, 2009). Marentič Požarnik (2020) defined motivation as a psychological mechanism that initiates, directs, and regulates an individual's activity toward achieving specific goals. In humans, motivation manifests as an accumulation of energy that is released through purposeful engagement, reducing internal tension. Similarly, Tolba and Youssef (2024) described motivation as a dynamic process that stimulates active involvement and underlies all behaviour, actions, and the desire to think, explore, and solve problems.

Motivation arises from a range of factors, which may be classified as either extrinsic or intrinsic. External factors include stimuli, incentives, environmental circumstances, social pressures, and peer influences, while internal factors involve physiological

processes, genetic predispositions, needs, goals, values, and ideas. Motivation is analysed through various perspectives, such as behavioural choice, delay of action, intensity and persistence of behaviour, directionality, and affective responses (Kobal Grum & Musek, 2009; Lang & Šorgo, 2024). Understanding motivation in educational contexts requires a holistic approach, as it is not a singular concept limited to positive efforts or socially desirable behaviours. It is a dynamic psychological process that varies in intensity, from high engagement to a complete lack of interest, and is not always expressed in acceptable or expected ways (Lang & Šorgo, 2024). As motivation cannot be directly measured, it must be inferred from behavioural changes, individuals' beliefs about their own motivation, and verbal or non-verbal indicators. The key components of motivated behaviour include increased energy and persistence, goal orientation, behavioural effectiveness, and adaptability in response to internal and external motivational forces. These psychological processes are interrelated and form the motivational dynamics of an individual. They influence decision-making, emotional responses, and the way we interpret the world around us. In early childhood, recognising the diverse sources and manifestations of motivation is especially important, as children often express motivation through play, movement, or creative activity, where the underlying drivers are not always evident. Negative forms of motivation may appear as behaviours intended to attract adult attention, for instance, disrupting activities, scattering materials, or refusing to participate, when the child learns that such behaviours elicit a response. These expressions often stem from a need for safety, predictability, or significance, rather than from a deliberate intent to break rules. In developmental departments, where there is greater heterogeneity in developmental profiles, educators must be particularly attuned to such diverse expressions of motivation. Only with this sensitivity can pedagogical strategies be effectively adapted to create an environment that supports autonomous, safe, and creative self-expression (Ari, 2025; Boekaerts, 2012; Bombardelli et al., 2003; Wea et al., 2025). In this context, interdisciplinary approaches have proven particularly valuable, as they contribute to higher creativity, increased engagement, and more effective development of cognitive and social skills, effects confirmed in recent research involving interdisciplinary educational practices (Karademir, 2024).

Psychological and educational theories often distinguish between intrinsic and extrinsic motivation. Intrinsic motivation, rooted in curiosity, interest, and satisfaction in learning, is crucial in the artistic expression of preschool children. It arises from an internal drive to explore, learn, and create, independent of external rewards or pressures. This form of motivation is strongly associated with feelings of autonomy, competence, and self-directed behaviour, especially salient during early childhood when children are naturally inclined to discover the world through curiosity and exploration. In the context of artistic activities, intrinsic motivation is reflected in spontaneous expression, playful experimentation with materials, enjoyment of the creative process, and the communication of personal experiences and emotions. Educators play a central role in creating conditions that nurture intrinsic motivation by fostering a sense of safety, providing choices, and encouraging children's initiative. In contrast, extrinsic motivation is driven by external factors such as rewards, praise, adult expectations, or avoidance of negative outcomes (Abdelshaheed, 2025; Bombardelli et al., 2003;

Jurišević, 2012; Kobal Grum & Musek, 2009). In artistic expression, this may manifest as a desire for adult approval or the expectation of a reward for a completed artwork. While extrinsic motivation can be effective, especially for children who are still developing self-initiative, it cannot replace the long-term importance of internal interest (Asmus, 2021; Munnely, 2022; Ng & Wu, 2024; Wahed et al., 2019). However, the thoughtful use of external incentives, such as specific praise, constructive feedback, and clearly defined tasks, can contribute to the development of intrinsic motivation, particularly when focused on the child's effort and progress rather than on comparison with peers (Marentič Požarnik, 2020; Rotar Pance, 2006). Recent research further confirms that intrinsic motivation is not only theoretically emphasised but also empirically one of the strongest predictors of learner engagement. Tiang-uan (2024) demonstrated that intrinsic motivation was the most influential factor affecting students' participation in task-based learning, surpassing external elements such as teacher support or task structure. This finding reinforces the relevance of intrinsic motivation as a universal mechanism that supports sustained engagement across different educational settings, including early childhood artistic activities. Within educational work in developmental departments, it is essential to establish learning conditions in which children experience artistic activities as intrinsically satisfying, while also receiving external support that helps them build autonomy, creativity, and a positive self-concept (Abdelshaheed, 2025; Ari, 2025). The integration of approaches that cultivate children's internal interest, such as offering meaningful choices, ensuring sensory comfort, and designing engaging, multimodal artistic tasks, can therefore be understood as a key foundation for fostering intrinsic motivation from early childhood onwards, in line with broader motivational findings (Tiang-uan, 2024).



Figure 1

Conceptual model of motivational strategies through interdisciplinary art activities for preschool children in developmental departments

In the Slovenian context, the educational work carried out in developmental departments is also regulated by the Act on the Guidance of Children with Special Needs (ZUOPP-1, 2019), which defines children's rights, required adaptations, and forms of additional professional support. This legal framework reinforces the need for carefully planned, individualised, and developmentally appropriate artistic activities, ensuring that motivational strategies and interdisciplinary approaches are aligned with statutory requirements for supporting children with special educational needs.

### PROBLEM STATEMENT

Artistic activities play a vital role in the holistic development of preschool children, as they stimulate creativity, imagination, and the expression of thoughts and emotions through non-verbal means (Kopačin & Birsa, 2022; Sicherl Kafol, 2001b). In developmental departments, it is essential that activities are carefully planned and

adapted to the diverse developmental needs of children. One effective strategy is the active involvement of children in planning the activities, which enhances their sense of belonging and motivation for artistic expression (Zupančič, 2017; Žerovnik, 2004). Educators must foster a supportive and safe environment rooted in positive communication and respect for children's individual needs. Such an environment plays a key role in the development of children's artistic abilities. Appropriately structured spaces and a variety of artistic and didactic stimuli enable children to express their creativity across multiple domains, including the arts. To achieve high-quality educational and developmental outcomes, artistic activities must be carefully planned, tailored to the age and individual characteristics of children, and supported by effective motivational strategies. It is also important to provide children with opportunities for independent exploration, experimentation, and creative expression. Interdisciplinary connections play a crucial role in this process, as they allow for a comprehensive experience of the arts and support the development of diverse expressive and interpretive abilities, contributing to the child's overall growth (Kopačin, 2019; Kopačin & Birsa, 2022; Munnely, 2022; Sicherl Kafol, 2001b; Wea et al., 2025; Zupančič, 2017; Žnidaršič, 2017).

#### **AIM OF THE STUDY**

The aim of the study was to explore how, in a developmental preschool setting, the use of appropriate planning and implementation strategies in artistic activities can motivate preschool children to actively engage in the creative process, thereby enhancing their motivation and interest in artistic expression.

#### **RESEARCH OBJECTIVES**

Based on the aim of the study, the following research objectives were formulated:

RO1: To analyse and identify the strategies used by preschool educators in developmental departments to foster children's motivation for participation in artistic activities.

RO2: To examine the expression and characteristics of motivation among preschool children in developmental departments during their engagement in artistic creation.

#### **Research Questions**

The following research questions were posed:

RQ1: What motivational strategies do preschool educators in developmental departments use to encourage the active participation of children in artistic activities?

RQ2: How is motivation expressed among preschool children in developmental departments during their participation in artistic creation?

#### **METHOD**

As part of a qualitative research design, we employed the descriptive method of educational research, aiming to thoroughly describe and analyse strategies used to motivate preschool children to participate in artistic activities in developmental

departments. The focus was placed on the opinions and perspectives of educators, as well as on the direct responses of children observed during the implementation of interdisciplinary artistic activities (Krmac & Cencič, 2023; Sagadin, 1991, 1993).

Special attention was given to expressions of children's motivation, engagement, creativity, and interest in continued artistic expression. Non-traditional recyclable materials, along with various auditory and visual stimuli, were used to examine the connection between creative environments and children's motivation. In addition to behavioural responses, we observed the children's final artistic products, as they often reflect children's expressive intent, aesthetic awareness, perseverance, and interest in the creative process.

### **Participants**

The study involved 27 preschool educators from developmental departments in the Coastal-Karst region of Slovenia. The majority of participants were women, with only one male educator participating. The educators had extensive professional experience working with children with special needs. The average length of service in developmental departments was 14.03 years ( $\pm$  9.20), and the average age of participants was 39.51 years ( $\pm$  9.51). Their insights significantly contributed to understanding the implementation of motivational strategies in artistic activities.

Additionally, a group of seven children aged six to seven years, attending various developmental departments in the same region, participated in the study. Among them, six children were diagnosed with autism spectrum disorder, and one child had a diagnosis of Cabezas Syndrome. The children took part in carefully designed interdisciplinary artistic activities, and their motivational responses and level of engagement were observed throughout the creative process.

### **Ethical Approval and Informed Consent**

The study was conducted in accordance with established ethical standards for research in preschool educational settings. Although no formal institutional ethics committee approval was required for this type of educational research in Slovenia, all necessary procedures to ensure ethical conduct were strictly followed.

Approval to conduct the study was obtained from the head teachers of all participating preschools. In addition, written informed consent was secured from the parents or legal guardians of all children involved in the research. Participation was voluntary, and all data were anonymised to protect the privacy and confidentiality of both educators and children.

### **Data Collection**

Empirical data were collected using two methods. First, we conducted semi-structured interviews with preschool educators in developmental departments, focusing on strategies used to motivate children during artistic activities. This was followed by direct participant observation of children during pre-planned interdisciplinary activities combining music and visual arts. The activities were specifically designed to support flexible participation and expression for children with diverse developmental needs. We

used various textures, recycled materials, rhythmic patterns, self-made and improvised instruments, and other tools to promote accessibility and independence in artistic creation. Children's verbal and non-verbal responses to activities were recorded according to predefined motivation-related criteria, including their persistence, level of involvement, and willingness to engage in creative work. A purpose-designed observation checklist was used, containing selected indicators of verbal and non-verbal behaviour during artistic activities. These criteria included: interest shown during the initial presentation of the activity, ability to concentrate and persist during the task, visible enjoyment and emotional responsiveness during the creative process, and willingness to engage in group work. Particular attention was also given to the children's exploratory approaches to materials, initiative, problem-solving in artistic challenges, and expressions of interest in continued activity. In addition to quantitative markings (e.g., present/absent, rarely/often), descriptive annotations were made, allowing for deeper qualitative interpretation of the children's motivation. This approach provided insight not only into behavioural responses but also into individual characteristics that contributed to the children's engagement in the artistic process. Observations were conducted in the natural setting of the preschool classroom, allowing for a more authentic view of the children's involvement and creative expression.

#### **Data Analysis**

The collected data were analysed using qualitative methods, combining content and thematic analysis (Krmac & Cencič, 2023). This allowed for an in-depth understanding of the connection between motivational strategies used by educators and the expression of motivation in children during artistic activities.

The interviews with educators were first transcribed and subsequently analysed using content analysis. The coding procedure was carried out in several sequential stages. In the open coding phase, initial codes were generated from individual meaning units (e.g., verbal praise, adaptation of activities, interdisciplinary integration, and similar). This was followed by axial coding, in which related codes were grouped into broader thematic categories, and then by selective coding, where core themes were formed to capture recurring patterns in participants' responses. These developed categories were interpreted in relation to the research objectives, enabling a systematic identification of the key characteristics of the motivational strategies employed by educators in artistic activities within developmental departments.

Thematic analysis was used to interpret children's observed behaviour during artistic activities. Patterns of motivational responses were identified, including levels of engagement, persistence, spontaneity in creative expression, and willingness to participate further. Observational data were also analysed descriptively, with children's verbal and non-verbal reactions compared and categorised to reflect degrees of expressed motivation and types of engagement in artistic work. These comparisons enabled us to identify core features of children's motivation and their responses to various elements of artistic activities. To ensure reliability, we employed a consensual qualitative approach to coding. All three researchers conducted the coding process collaboratively, continuously comparing and aligning their interpretations of meaning

units, initial codes and emerging categories. Any discrepancies were resolved through discussion and consensus. In the development of analytical categories, codes were grouped into subcategories based on conceptual similarity and their relevance to the research aims. Subcategories representing educators' motivational strategies (e.g., forms of verbal encouragement, adaptations of materials, opportunities for choice) were linked to RO1, while subcategories reflecting children's motivational expressions (e.g., engagement indicators, exploratory behaviour, persistence) were linked to RO2. This approach enhanced the transparency and stability of the coding system and provided collective validation of the interpretations, in line with established recommendations for ensuring reliability in qualitative data analysis. By explicitly aligning subcategories with the research objectives, the coding process ensured that the analytical structure remained theoretically coherent and directly grounded in the data.

Based on the research questions and findings, two thematic categories were developed: (1) motivational strategies in artistic activities in preschool developmental departments, and (2) expression of motivation in children during artistic creation. The combination of interview and observational data enabled a comprehensive understanding of how motivational strategies function in practice and how they influence children's creative involvement in developmental preschool settings.

To further clarify the findings, selected verbatim quotes from participants are included in the results section. Following the interviews, consensual validation was employed to strengthen the reliability and validity of the analysis (Mesec, 1998; Onwuegbuzie & Leech, 2006, p. 238; Williams & Hill, 2012, p. 175), allowing the interviewees to verify and confirm the accuracy of their recorded responses and ensure that the presented data reflect their actual views on the issues discussed.

## FINDINGS

### **RQ1: Motivational strategies used by preschool educators in developmental departments**

Analysis of the interviews revealed a set of consistent motivational strategies that educators use to support children's engagement in artistic activities. The data showed that educators rely on structured, yet flexible routines and often integrate artistic forms into daily practice to ensure predictability and encourage spontaneous participation. One educator emphasised the importance of this approach by noting: "I include singing, music, visual arts, and play in our everyday routine, because children need consistency and opportunities to express themselves."

A recurring motivational strategy was linking artistic activities to children's interests and offering choices regarding materials and techniques. Educators explained that allowing children to select themes or preferred materials increased their sense of autonomy and willingness to participate. Another educator highlighted this by saying: "If I ask the child what they are interested in or which materials they prefer, they want to join in, because they feel heard." Verbal praise and reinforcement of effort, not outcomes, were frequently used to sustain engagement. Acknowledging children's

attempts and progress was described as supporting their persistence and readiness to re-engage in activities.

Another theme that emerged was the importance of real-time adjustments based on children's sensory or emotional responses. Educators often modified activities when materials or stimuli were uncomfortable for children. They stressed that careful observation and flexibility were essential to maintaining motivation and preventing withdrawal from activities.

Music activities emerged as a particularly powerful motivational strategy. Educators described how musical stimuli often elicited emotional responses, supported focus, promoted movement and prepared children for subsequent artistic expression. Repetitive rhythms and familiar melodies were especially effective for children with autism spectrum disorder and helped them regulate their behaviour. One educator described this impact: "When we play small instruments or sing, the children relax, start listening, begin moving and then settle more easily into creating."

Visual arts activities were also recognised as an important motivational tool, particularly when using varied, unconventional or recycled materials. Educators noted that children were more engaged when offered materials they could knead, tear, glue or construct with, instead of relying solely on pencils or markers. This variety enabled children with sensory sensitivities to choose materials that were comfortable and stimulating.

Interview data further revealed that interdisciplinary integration, combining music, movement, storytelling and visual arts, was frequently used to enhance motivation. Activities based on stories, picture books or thematic songs allowed children to move fluidly between expressive modes. Educators consistently observed that such multimodal sequences increased engagement, supported expression and facilitated participation, even among children who typically struggled with traditional artistic tasks.

Overall, the educators in developmental departments applied individualised, encouraging and developmentally appropriate strategies, grounded in respect for the child's pace, interests and sensory needs. Their approaches consistently aimed to strengthen intrinsic motivation for artistic creation and to provide children with a sense of safety, competence and expressive freedom.

### **RQ2: Children's manifestations of motivation during artistic creation**

Observations conducted during interdisciplinary artistic activities revealed diverse motivational expressions among the seven participating children. Activities combining listening to programme music, expressive movement and visual representation allowed children to translate sensory and emotional experiences into creative forms. Children with autism spectrum disorder frequently demonstrated strong intrinsic motivation during structured instrumental music listening. Their behaviour, including focused attention, calm posture and expressive facial responses, indicated emotional engagement. As one educator explained, "Structured instrumental music often calms or activates children, which helps them begin their artistic expression more easily." For

some children, music served as both a calming and activating stimulus, supporting emotional regulation and enabling smoother entry into artistic expression.

During visual art activities, children employed various expressive strategies such as circular strokes, straight lines, dotting and rhythmic mark-making. Several children synchronised their drawing movements with the rhythm of the music, drawing faster during lively passages and slower during calm segments. Persistence varied: some required verbal prompts or modelling to maintain engagement, whereas others demonstrated sustained, self-directed involvement with minimal adult support. One educator noted that “Some children draw more confidently when the music guides their tempo, because it helps them focus.”, indicating the role of musical structure in sustaining motivation.

Motivation was particularly evident during the creation of improvised instruments, where the combination of tactile exploration and sound experimentation elicited high levels of interest and joy. Children eagerly explored sound qualities of different materials and engaged in constructing rattles and other simple instruments. Educators reported strong motivational responses in these activities, with one stating, “When they can make their own instruments, they become curious, they want to try everything and they stay involved much longer.”.

Some children displayed shorter attention spans or difficulty sustaining group engagement, often linked to sensory sensitivities. The presence of an additional adult was effective in maintaining emotional regulation and preventing disruptive behaviours. Even in cases of limited initial motivation, children’s engagement increased notably when activities were adapted to their sensory preferences, such as offering quieter materials or more predictable auditory stimuli.

Children who participated enthusiastically across all stages, from listening to movement to drawing and sound-making, exhibited fluid transitions between artistic modalities, high involvement and strong emotional responsiveness. These children demonstrated intrinsic motivation supported by the carefully structured, multimodal and individualised pedagogical approach.

Table 1  
Summary of Findings for Each Research Question

Research Question	Themes / Categories Identified	Key Codes (Examples)
RQ1: What motivational strategies do preschool educators in developmental departments use to encourage children's active participation in artistic activities?	<ul style="list-style-type: none"> <li>• Structured but flexible routines</li> <li>• Child-centred choice and autonomy</li> <li>• Verbal encouragement and reinforcement of effort</li> <li>• Real-time adaptation to sensory/emotional responses</li> <li>• Motivational role of music activities</li> <li>• Use of diverse and recycled art materials</li> <li>• Interdisciplinary integration (music–art–movement–story)</li> </ul>	<ul style="list-style-type: none"> <li>• verbal praise</li> <li>• adaptation of activities</li> <li>• choice of materials</li> <li>• structured routines</li> <li>• rhythmic patterns</li> <li>• recycled/unconventional materials</li> <li>• linking to picture books or stories</li> </ul>
RQ2: How is motivation expressed among preschool children in developmental departments during artistic creation?	<ul style="list-style-type: none"> <li>• Emotional engagement during music listening</li> <li>• Focused attention and behavioural regulation</li> <li>• Rhythmic and movement-based artistic expression</li> <li>• Varied persistence and task engagement</li> <li>• Enthusiasm and exploratory behaviour with materials</li> <li>• Increased motivation with adapted, sensory-friendly approaches</li> <li>• Smooth transitions between artistic modalities (music → movement → visual art)</li> </ul>	<ul style="list-style-type: none"> <li>• focused attention</li> <li>• calm physical posture</li> <li>• emotional responsiveness</li> <li>• synchronised drawing with music</li> <li>• exploratory manipulation of materials</li> <li>• spontaneous initiative</li> <li>• need for adult support (in some cases)</li> </ul>

## DISCUSSION

The findings of the study show that preschool educators in developmental departments rely on a set of motivational strategies that are consistent with, yet extend beyond, existing theoretical frameworks on motivation, arts education, and work with children with special educational needs (SEN). The results confirm the central role of a supportive, structured, and adaptable learning environment, as emphasised in previous research (Boekaerts, 2012; Zupančič, 2017), while offering new insights into the

specific mechanisms through which interdisciplinary arts-based strategies can enhance motivation in children with diverse developmental profiles.

### **Motivational strategies and their theoretical grounding**

The study confirms that children's intrinsic motivation is strengthened when artistic activities are embedded in predictable routines and when educators provide flexible, autonomy-supportive structures. This finding corresponds with established motivational theories (Marentič Požarnik, 2020) and the preschool curriculum's emphasis on play, exploration, and creativity (Antič et al., 2025; Konavec, 2006). It is also consistent with research on the importance of a supportive socio-pedagogical environment, where sensitive, relationally attuned educator behaviour enhances children's sense of safety and belonging, both of which are essential for intrinsic engagement (Berdajs & Marovič, 2018).

Educators' use of verbal encouragement, process-oriented feedback, and opportunities for choice aligns with literature highlighting the importance of autonomy, competence, and relatedness in fostering intrinsic motivation (Kopačin & Birsa, 2022; Rotar Pance, 2006). The role of individualisation and careful adaptation of activities—which educators emphasised as essential—also corresponds with research on differentiated support for children with SEN (López-Escribano & Orío-Aparicio, 2024; Jovanović, 2019).

### **Interdisciplinary integration as a motivational mechanism**

The results reveal that interdisciplinary integration, particularly music combined with visual arts, significantly enhances children's motivation, a finding consistent with previous studies demonstrating the affective, regulatory, and activating functions of music in early childhood (Abdelshaheed, 2025; Brumen Žarn & Plemeniti, 2017; Chen & Li, 2024).

The study contributes new evidence by showing that music serves not only as independent content but as a motivational entry point into visual expression. This supports the observations of Campbell (2004) and extends current understanding of multimodal learning by demonstrating how auditory and visual modalities interact within SEN contexts.

The educators' use of rhythm, sound, movement, and tactile materials aligns with theories of multimodal learning (Ercivan Zencirci & Sönmez, 2022), but this study provides concrete empirical confirmation from developmental departments, where such integration appears particularly effective. These findings also resonate with research by Li and Frishman (2023), who demonstrate that combined visual and auditory stimuli have a pronounced impact on emotional responsiveness, indicating that the interaction between art and music can intensify engagement and support deeper emotional processing, a mechanism that was clearly reflected in the children's motivational responses in our study. This is further supported by findings from Jelovčan et al. (2020), who showed that integrating storytelling with movement, language, and music fosters deeper engagement and enables children to participate in artistic activities through

multiple expressive channels, reinforcing the value of multimodal approaches in enhancing motivation and creative involvement.

### **Motivation among children with autism spectrum disorder**

The findings regarding children with autism spectrum disorder (ASD) provide important clarifications to existing research. Although previous authors have highlighted sensory sensitivities and possible aversions to sound (Tomchek & Dunn, 2007), this study found that structured, melodic instrumental music often contributed to calmness, focus, and emotional engagement. These results align with Margetts (2025), who emphasises the regulatory role of predictable musical patterns for some children with ASD. In addition, recent neurodevelopmental research shows that children with ASD often exhibit distinct motor signatures and differences in sensorimotor integration, which may help explain why activities combining movement, rhythm and predictable auditory patterns can support behavioural regulation and increase motivation (Butera et al., 2025; Chazin et al., 2025; Danek, 2024; Erim & Caferoglu, 2017).

Similarly, children's visual expression while listening to music, such as adjusting drawing tempo to musical rhythm, supports claims of cross-modal sensory integration (Bernier et al., 2022) and suggests that rhythm-based arts activities may stimulate intrinsic motivation in ways not yet fully explored in literature. This represents a novel contribution to research on motivation in developmental preschool settings.

In addition to children with ASD, one participant in our study was diagnosed with Cabezas syndrome, a rare X-linked neurodevelopmental condition. Research by Okamoto et al. (2017) highlights the genetic basis and associated developmental characteristics of this syndrome, including delays in motor and cognitive functioning. These insights provide an important contextual frame for interpreting the child's responses in our study, as the need for highly individualised, sensory-adapted approaches observed during the artistic activities aligns with documented developmental profiles in children with Cabezas syndrome. The findings therefore demonstrate that carefully structured, multisensory artistic experiences may hold meaningful motivational and expressive potential even for children with more complex genetic developmental conditions.

### **Practical implications for educators**

The findings of the study offer several important implications for pedagogical work in developmental preschool settings, particularly in relation to planning, structuring, and adapting artistic activities for children with diverse developmental needs. The results show that music can be used not only as an independent artistic domain but also as a preparatory and regulatory phase that enhances children's emotional readiness, attention, and engagement. This aligns with research emphasising the regulatory function of musical structure (Margetts, 2025) and demonstrates that carefully selected musical stimuli can support children's entry into visual expression and sustain their motivation throughout the creative process.

The study also highlights the importance of supporting autonomy by offering children meaningful choices in the selection of materials, techniques, and expressive modes.

This finding corresponds with motivational frameworks focusing on autonomy and competence (Rotar Pance, 2006) and confirms that choice-making strengthens children's intrinsic motivation and persistence. Furthermore, the results underscore the value of sensory-adapted materials, such as recycled objects and varied textures, which enable participation among children with sensory sensitivities and reduce avoidance behaviours, as previously suggested by Valdes (2013).

Process-oriented artistic approaches emerged as particularly effective, as they encourage exploration, experimentation, and intrinsic engagement rather than performance-based outcomes. This observation supports recommendations by Kopačin and Birsa (2022) and confirms that sustained motivation is fostered when children are allowed to create freely, at their own pace, and with minimal pressure to produce a final product. These implications are highly relevant for working with children with autism spectrum disorder, for whom predictability, multimodal sequencing, and flexibility can significantly enhance motivation and engagement in artistic activities.

### **Original scientific contribution**

The study provides several original contributions to the field of early childhood arts education and motivation in developmental preschool settings. One of the most significant findings is the empirical confirmation that interdisciplinary integration, particularly the combination of music and visual art, functions as a motivation-enhancing sequence for children with special educational needs. This extends existing theoretical discussions on multimodal learning (Ercivan Zencirci & Sönmez, 2022) by offering concrete evidence from developmental departments, where such integration proved to be especially effective.

The study further contributes to understanding cross-modal motivational patterns by documenting how some children synchronised their drawing tempo with the musical rhythm, thus providing empirical support for emerging theories of sensory interaction in artistic expression (Bernier et al., 2022). These observations enrich current knowledge about the relationship between auditory and visual modalities and suggest that rhythm-based activities may stimulate intrinsic motivation in ways not yet fully examined in the literature.

In addition, the findings challenge prevailing assumptions regarding negative auditory sensitivities in autism. While previous authors have reported aversive responses to sound among some children with ASD (Tomchek & Dunn, 2007), the present study demonstrates that structured, melodic instrumental music can elicit calmness, focus, and emotional engagement. This nuance adds an important corrective to existing discourse and suggests that musical structure may have motivational benefits for specific subgroups of children on the autism spectrum.

Finally, the study proposes a practice-grounded conceptual model of motivational strategies that synthesises the roles of structure, autonomy, sensory adaptation, and interdisciplinary integration. This model has practical relevance for educators in developmental departments and offers a theoretical foundation for future research on

motivation and artistic engagement among children with diverse developmental profiles.

## **CONCLUSION**

Artistic expression in early childhood plays a vital role in supporting holistic child development, particularly in educational environments that require more individualised and adapted pedagogical approaches, such as developmental departments. The aim of this study was to explore the motivational strategies used by preschool educators to encourage the active participation of children with special educational needs in artistic activities, and to examine how children's motivation manifests during the creative process. The research was guided by the objective of analysing existing practices and identifying pedagogical approaches that support children's motivation and willingness to engage in artistic expression. Particular attention was devoted to interdisciplinary integration, especially the fusion of visual and musical elements, as previous studies (Bernier et al., 2022; Margetts, 2025; Wright, 2023) have shown that such approaches can significantly enhance children's engagement, artistic expression, and overall development.

The findings confirm that thoughtfully selected and appropriately adapted motivational strategies play a crucial role in encouraging artistic activity among preschool children in developmental departments. The study revealed that educators employ a wide range of strategies grounded in individualisation, pedagogical flexibility, sensory-adjusted environments, and the creation of a safe and stimulating learning atmosphere. Educators deliberately construct pedagogical situations that support children's motivation by gradually introducing artistic activities, enabling the selection of expressive tools, acknowledging children's interests, and providing both verbal and non-verbal encouragement, all of which foster self-confidence, a sense of competence, and willingness to participate.

A key finding of the study is that the interdisciplinary integration of music and visual arts constitutes an effective motivational strategy for children in developmental departments. Activities combining rhythm, movement, sound and visual creation facilitate multimodal expression and provide rich sensory experiences, which is particularly important for children with diverse sensory profiles. Musical activities frequently acted as triggers for intrinsic motivation, offering preparatory, regulatory and expressive functions. The study shows that structured instrumental music, characterised by clear rhythmic and melodic patterns, supported calmness, focus and emotional engagement in children with autism spectrum disorder, thereby enabling smoother transitions into visual expression and sustaining motivation throughout the creative process. The findings further indicate that some children required sensory-adapted visual art approaches that enabled free expression without pressure to produce a specific outcome, and that real-time adjustments based on children's emotional states, sensory reactions or momentary interests were essential for maintaining motivation.

On the basis of these findings, we conclude that motivation for artistic expression in developmental departments does not arise spontaneously, but is the result of a complex interaction between pedagogical guidance, content planning, sensory appropriateness

and opportunities for creative freedom. Active involvement of children in planning artistic tasks further strengthens their sense of belonging, shared responsibility and intrinsic engagement. The study offers several original contributions, including empirical confirmation of interdisciplinary integration as a motivation-enhancing sequence, documentation of cross-modal motivational patterns such as the synchronisation of drawing with musical rhythm, and evidence that structured instrumental music did not elicit negative auditory responses in any participating child with autism, thereby offering an important nuance to existing research. At the same time, the study acknowledges its limitations, particularly the small and regionally restricted sample and the predominance of children with autism spectrum disorder, which require caution when generalising results.

The implications for pedagogical practice emerging from this study suggest that carefully structured and musically enriched artistic environments can greatly enhance children's emotional readiness, attention and motivation. In practice, this means that music can be intentionally used as a preparatory and regulatory phase leading into visual expression; that children's intrinsic motivation may be strengthened when they are offered meaningful choices regarding materials, techniques and expressive modes; and that sensory-adapted materials, such as recycled items and varied textures, are essential for ensuring participation among children with sensory sensitivities. Moreover, the findings underscore the importance of process-oriented artistic approaches, which encourage exploration and experimentation rather than focusing on the final product, and highlight that predictability, multimodal sequencing and pedagogical flexibility are particularly beneficial for children with autism spectrum disorder. Such insights provide concrete guidance for educators seeking to develop inclusive, motivating and developmentally attuned artistic practices in developmental preschool settings.

In terms of future research, the study indicates the need for broader investigations that would include larger and more diverse groups of children with special educational needs across different regions, as well as longitudinal studies capable of capturing changes in motivation over time. Further research could examine other forms of interdisciplinary integration, explore the comparative impact of different motivational strategies and employ experimental or quasi-experimental designs to more precisely isolate the effects of specific pedagogical approaches. These directions would deepen understanding of how motivation develops within multimodal artistic contexts and contribute to the ongoing refinement of inclusive pedagogical practices in developmental departments.

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