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Dance choreography education: Socio-emotional and creative thinking skills development among primary school students in China

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Abstract

This study examined the perceived effectiveness of dance choreography in promoting the social skills and creative thinking of Chinese primary school children and served as the basis for an enhancement program. A quantitative descriptive-correlational research design was employed, utilizing validated survey questionnaires administered to dance teachers from selected Chinese schools. Descriptive statistics, tests of difference, and correlation analyses were used to interpret the data. The findings revealed that most respondents were young to middle-aged adults, predominantly female, bachelor's degree holders, and in the early stage of their teaching careers. Dance choreography was perceived to be highly implemented, with social and emotional growth receiving the highest ratings, while cognitive development obtained the lowest. The respondents also rated children's social skills and creative thinking as generally high. Among the social skills dimensions, cooperation ranked highest, whereas assertiveness ranked lowest. For creative thinking, imagination received the highest rating, while flexibility emerged as the area needing the greatest improvement. No significant differences were found across age, sex, and educational attainment in all dimensions, except for creativity when grouped according to years of service. Furthermore, no significant relationship was identified between most dimensions of dance choreography and the social skills of Chinese primary school children. Based on these findings, an enhancement program entitled "Creative Steps for Growth: An Enhancement Program for Cognitive Development, Creative Flexibility, and Assertiveness through Dance Choreography among Chinese School Children" was developed. The study recommends strengthening instructional strategies, institutional support, curriculum integration, guidance interventions, extracurricular dance activities, active student participation, and further research to maximize the educational benefits of dance choreography in fostering children's holistic development.

Keywords: dance choreography, social skills, creative thinking, cognitive development, Chinese primary school children, creativity, dance education, enhancement program

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1. Introduction

This dissertation investigates the multifaceted impact of dance choreography on the social and creative thinking skills of primary school children in China, a domain where artistic expression intersects significantly with developmental psychology (Narikbayeva et al., 2025). Specifically, it examines how structured dance activities contribute to the cultivation of social rules, emotional regulation, and enhanced communication skills, while also fostering divergent thinking and problem-solving capacities through embodied artistic processes (Liu, 2024). The integration of creative arts, particularly dance, into educational curricula has been recognized for its profound impact on fostering creativity, expression, and emotional intelligence among young learners (Wang, 2024).

Dance choreography, defined here as the art of designing and arranging movement sequences, plays a pivotal role in children's cognitive and emotional development by providing a structured yet flexible framework for self-expression and collaborative creation (Borowski, 2021). This process necessitates not only the exploration and improvisation of movement material but also the development of compositional skills, which are crucial prerequisites for aesthetic and artistic growth (Pürgstaller, 2020). The collaborative nature of dance creation, particularly in group settings, has been shown to maximize children's cognitive abilities, encouraging them to combine existing concepts and dare to explore novel ideas (Paranti et al., 2019).

Meanwhile, children's social skills are critical for navigating social interactions and building relationships, and dance provides a unique platform for their development by requiring cooperation, empathy, and effective communication among participants (Tao et al., 2022). Furthermore, the structured yet expressive environment of creative dance can significantly enhance social skills by encouraging interaction and mutual understanding (Antara et al., 2023). The incorporation of creative dance within primary education settings not only fosters cooperation and communication but also provides rich social experiences, promoting the development of executive functions in children (Nicolás & Sánchez-Marroquí, 2023).

Creative Thinking Skills development is the process by which individuals generate novel and useful ideas, a faculty significantly cultivated through dance choreography that demands imaginative problem-solving and divergent ideation (Tsompanakı, 2019). This is particularly relevant in dance, where children are encouraged to explore their bodies, space, and interactions with others, thereby enhancing their artistic, aesthetic, social, cognitive, and emotional development (Tsompanakı, 2019). This dissertation will explore these interconnections, focusing on how dance choreography, through its inherent demands for collaboration and innovative expression, serves as a powerful pedagogical tool for enhancing both social and creative cognitive abilities in the specific cultural context of Chinese primary schools (Balato et al., 2022; Borowski, 2021; Ginman et al., 2022). This study aims to provide empirical evidence supporting the inclusion of dance education in Chinese primary school curricula and to advocate for its role in holistic child development (Kotaman et al., 2024). By meticulously analyzing the pedagogical practices and outcomes within this specific cultural framework, the research endeavors to uncover the nuanced ways in which choreographic activities contribute to cognitive and emotional growth, thereby informing future educational strategies. This research aims to examine how creative dance curricula can promote the development of executive functions by encouraging children to explore their bodies and environment, create movement sequences, and assemble these solutions into their own choreography (Rudd et al., 2020).

However, there remains a notable gap in systematic comparative research on cross-cultural and indigenous cultural dance education in the Chinese primary school context (Liu et al., 2024). This study aims to address this lacuna by exploring the current applications, core issues, and effective educational strategies in leveraging dance to enhance social and creative thinking skills among Chinese primary school children (M. Liu, 2024; W. Liu et al.,

2024). Such an investigation is crucial given the increasing emphasis on holistic child development and the unique pedagogical approaches prevalent in Chinese educational systems. The research will examine how creative dance, despite its occasional unfamiliarity among educators, can serve as a powerful tool for fostering creativity, bodily communication, and social intelligence in students, enabling them to navigate novel situations (Engdahl & Ceder, 2023). This is particularly relevant in China, where researchers have explored differences in creativity among children from various regions and highlighted the role of art, including dance, in fostering creative thinking (Bayanova & Chulyukin, 2018). Furthermore, the exploration of holistic and complex impacts of incorporating creative embodied activities, such as creative dance, has gained traction in nurturing individuals' creative potential, yet its specific benefits within Chinese primary education often remain underexplored (Richard et al., 2024). This study, therefore, seeks to elucidate the specific mechanisms through which engagement in dance choreography influences these critical developmental areas, building upon previous findings that highlight dance as a medium for fostering creativity and divergent thinking, particularly in the motor domain (Palmiero et al., 2019). The study also considers the extent to which these effects are mediated by a child's visuospatial body map, which has been shown to influence motor divergent thinking in dancers (Palmiero et al., 2019).

This research aims to bridge this knowledge gap by providing empirical evidence on the efficacy of dance choreography in Chinese primary schools, thereby contributing to a more comprehensive understanding of its pedagogical value in a specific cultural and educational context (Liu et al., 2024). It will further investigate the multifaceted impact of cultural preservation initiatives, such as the Qi Lin Lantern Dance, on students' literacy skills and cultural awareness, thus linking traditional practices with contemporary educational outcomes (He & Sensai, 2024). This exploration is timely given the global educational shift towards prioritizing creative skills, supported by reforms aligned with the United Nations' Sustainable Development Goal 4, which emphasizes quality education and the fostering of creativity among primary students (Liu et al., 2024).

This dissertation will therefore specifically examine the integration of dance education into the Chinese primary school curriculum, analyzing how indigenous cultural dance forms like the bamboo dance can uniquely contribute to the development of spatial reasoning and creative problem-solving skills, while simultaneously enhancing students' appreciation for their cultural heritage (Ananda, 2024; Liu et al., 2024).

Ultimately, the findings of this study are expected to inform evidence-based educational practices, promote cultural sustainability, and enrich students' overall educational experiences in Chinese primary schools (He & Sensai, 2024). It seeks to illuminate the synergistic relationship between structured learning environments and the innate creative impulses of dance, potentially redefining paradigms of dance education (Ušpurienė, 2023). By demonstrating the tangible benefits of dance choreography on social and creative thinking skills, this research endeavors to provide a robust framework for integrating dance into the mainstream curriculum, ensuring its recognition as a vital component of holistic child development (Yetti et al., 2023). This comprehensive investigation into the multifaceted benefits of dance will contribute to the ongoing discourse regarding innovative pedagogical approaches, particularly those that integrate motor learning with cognitive challenges, thereby addressing a current research challenge in physical education curricula (Rudd et al., 2020).

Objectives of the study - This study aims to investigate the current state of dance choreography and its role in fostering children's social skills and creative thinking in Chinese primary schools, with the goal of proposing evidence-based optimization strategies. Specifically, the study seeks to describe the respondents' demographic profile by age, sex, years of teaching experience, and highest educational attainment. It further aims to evaluate dance choreography as an educational practice by examining its contribution to creativity, motor and physical development, cultural expression, social and emotional growth, cognitive development, and student engagement and motivation. In addition, the study endeavors to determine the level of children's social skills as manifested through communication in dance, cooperation during dance activities, self-control, empathy and prosocial behavior, assertiveness, adaptability and social flexibility, as well as engagement and peer interaction. The research also analyzes creative thinking by focusing on fluency, flexibility, originality, elaboration, imagination, problem-solving ability, and risk-taking confidence. Moreover, the study seeks to test whether there are significant

differences in dance choreography, social skills, and creative thinking among educators when grouped by demographic profile, and to examine the significant relationships among these constructs. Finally, based on the research findings, the study aims to develop an action plan designed to enhance instructional practices, support institutional improvement initiatives, and deepen understanding of the key factors that contribute to effective teaching and improved student achievement in primary education.

2. Methods

Research Design - This study employed a descriptive research design to examine the relationship between dance choreography and the development of social skills and creative thinking skills among Chinese primary school children. The descriptive method was deemed appropriate as it allows for the systematic collection and analysis of data to describe existing conditions, practices, and perceptions without manipulating variables. In the context of dance education, descriptive research is widely used to document instructional practices and learners' developmental outcomes in authentic school settings (Creswell & Creswell, 2022). The study focused on describing the current level of implementation of dance choreography in Chinese primary schools and the extent to which it supports children's social interaction, cooperation, communication, imagination, and creative expression. Data were gathered through a structured survey administered to primary school teachers and/or students, designed to capture observable behaviors and perceived outcomes of dance-based learning experiences. Descriptive designs are particularly suitable for educational research, where the objective is to understand patterns and trends in learners' skill development rather than to establish causal relationships (Siedlecki, 2020). Furthermore, the design aligns with contemporary educational research emphasizing the role of arts-based learning in fostering creativity and social development among young learners. Dance choreography has been recognized as an effective medium for promoting collaborative learning, emotional expression, and creative thinking in primary education, particularly within Asian and Chinese educational contexts (UNESCO, 2021).

Participants - The participants of the study were selected from the three top primary schools in China, each with an estimated population of at least 10,000, ensuring adequate representation of teachers involved in dance and arts-related instruction. Respondents were selected based on the study's demographic profile, particularly those directly engaged in dance choreography and student development. From the estimated total population, 425 respondents were identified and included in the study sample. In terms of age, the participants were categorized into five groups: 25 years and below, 26–35 years, 36–45 years, 46–55 years, and 56 years and above. This age distribution allowed the study to capture perspectives from both early-career and veteran teachers, providing a comprehensive view of teaching practices and experiences related to dance choreography in primary education.

With respect to sex or gender, respondents were classified as male or female to ensure balanced representation and enable descriptive analysis of potential differences in instructional practices and perceptions. Regarding years of service, participants were grouped into seven categories: less than one year, 1–5 years, 6–10 years, 11–15 years, 16–20 years, and 21 years and above. This classification enabled the study to describe variations in professional experience and its possible influence on the implementation of dance choreography and the development of social and creative thinking skills among pupils. In terms of highest educational attainment, the respondents were categorized as having obtained a bachelor's, master's, or doctoral degree. This variable was included to describe teachers' academic preparation and to determine how educational background may relate to instructional competence in dance-based learning. The inclusion criteria for participation in the study required that respondents be currently employed as primary school teachers in one of the selected schools, have direct teaching responsibilities, and possess experience or involvement in dance, movement, or arts-related activities within the school curriculum. Additionally, only those who voluntarily agreed to participate and completed the survey questionnaire were included in the final sample. The exclusion criteria applied to individuals who were not teaching at the primary school level, those with purely administrative roles, substitute or temporary teachers without regular teaching assignments, and respondents who submitted incomplete or invalid survey responses. These criteria ensured that the data collected were relevant, reliable, and aligned with the study's objectives.

Data Gathering Instrument - The main instrument used in this study was a researcher-developed survey questionnaire composed of four parts, designed to collect data on respondents' profiles and to assess the role of dance choreography in relation to children's social skills and the development of creative thinking. The structure and content of the instrument were grounded in established educational and dance research literature to ensure content relevance and construct validity.

Part I, which focused on the profile of the respondents (University Dance Teachers), gathered demographic information on four variables: age, sex or gender, years of service, and highest educational attainment. Age was classified into five categories, sex or gender into two categories, years of service into six experience levels, and educational attainment into three levels. This section did not include Likert-scale indicators, as it served a descriptive purpose only, providing background information necessary for data classification and analysis. The use of demographic variables in this format is consistent with standard practices in educational research (Creswell & Creswell, 2022).

Part II examined the role of dance choreography for children and consisted of seven dimensions: creativity through choreography, motor and physical development through choreography, cultural expression through choreography, social and emotional growth through choreography, cognitive development through choreography, engagement and motivation through choreography, and overall enjoyment in learning dance. This part included 25 indicators; each was rated on a 4-point Likert scale from strongly disagree to strongly agree.

Part III measured children's social skills as influenced by dance activities and choreography. This section comprised seven dimensions: communication, cooperation, self-control, assertiveness, empathy and prosocial behavior, adaptability and social flexibility, and engagement and peer interaction. Each dimension contained four indicators, for a total of 28 indicators, all measured on a 4-point Likert scale. The items were derived from recent studies highlighting the role of dance education in promoting children's social interaction, emotional regulation, and social adaptability in group learning environments (Liu, 2024).

Part IV focused on the creative thinking skills of children developed through dance choreography. This part included seven dimensions, namely: fluency, flexibility, originality, elaboration, imagination, problem-solving, and risk-taking and confidence in creative expression. Each dimension was represented by four indicators, yielding a total of 28 indicators, measured using a 4-point Likert scale. The indicators were anchored on the theoretical framework of the Torrance Tests of Creative Thinking (TTCT).

Overall, the survey questionnaire comprised four parts, 21 dimensions, and 81 indicators, excluding the demographic variables. The instrument was designed to comprehensively capture teachers' perceptions of how dance choreography contributes to children's social and creative thinking development, ensuring alignment with the study's objectives and established scholarly sources.

Data Gathering Procedure - The process began with the clear identification of the study's objectives, which served as the basis for developing the research instrument and for selecting variables: dance choreography, social skills, and creative thinking skills. Guided by these objectives, the respondents were identified as University Dance teachers from selected schools in China, ensuring that the participants were appropriate and relevant to the study's scope and purpose. Prior to data collection, the survey questionnaire underwent validation to establish its content validity. The instrument was evaluated by three validators: two internal validators from the university and one external validator from outside it, all of whom had expertise in education and research. Their comments and recommendations were carefully reviewed and incorporated to improve the clarity, relevance, and appropriateness of the questionnaire items. Only after the validation process was completed was the questionnaire subjected to a reliability study to determine its internal consistency. After establishing the instrument's validity and reliability, the finalized questionnaire was administered to the respondents. Data collection was conducted using online platforms widely utilized in China, specifically QQ Star and WeChat, with survey links distributed through QR codes to ensure ease of access and higher response rates. Respondents were provided with clear instructions and were encouraged to answer the questionnaire honestly based on their own experiences and perceptions.

Participation was voluntary, and confidentiality of all responses was assured. Upon completion of the data-gathering phase, the collected data were compiled, organized, and submitted for statistical treatment.

Data Analysis - During the data analysis, various statistical tools were employed to understand the respondents' profiles and the relationships between variables. Initially, a frequency distribution analysis was conducted to understand the respondents' basic characteristics, including age, sex, years of service, and highest educational attainment. This provided a clear understanding of the population composition, forming a basis for further analysis. Weighted average and ranking calculations were then used to determine the data's average, considering the weights of different variables to more accurately reflect the data. This method provided a comprehensive and precise description of the data. The Shapiro-Wilk test was performed to check the normality of the data distribution. With p-values for the main variables under 0.05, the data set was found to be non-normally distributed, necessitating the use of non-parametric statistical methods for further analysis. To evaluate significant relationships among the three variables, the Spearman rho correlation coefficient was used. This method effectively assessed correlations between non-normally distributed variables, determining the significance, direction, and strength of their relationships.

Ethical Consideration - This study rigorously adhered to ethical principles to safeguard the rights and privacy of Chinese University Teachers who participated. Legitimacy was established by obtaining consent from schools and teachers during data collection. All questionnaires and interviews were conducted anonymously, with personally identifiable information kept strictly confidential. The researcher provided comprehensive information about the study's purpose and ensured that participation was voluntary. Potential risks were minimized, and the research results were used solely for academic purposes. These ethical considerations ensured both moral compliance and the protection of participating teachers' rights. Regarding confidentiality, respondents' personal information was not disclosed, except for sex, age, length of employment, and educational background. Throughout the study, participants were well informed about the instructions, procedures, and survey objectives. The voluntary investigation approach further safeguarded respondents' rights. Confidentiality was paramount during data collection.

3. Results and discussion

Table 1

Summary Table on the Level of Dance Choreography in Chinese University Schools

Dimensions	Composite Mean	VI	Rank
Creativity	3.15	Agree	2.5
Motor and Physical Development	3.15	Agree	2.5
Cultural Expression	3.14	Agree	4.5
Social and Emotional Growth	3.16	Agree	1
Cognitive Development	3.13	Agree	6
Engagement and Motivation	3.14	Agree	4.5
Overall Composite Mean	3.15	Agree	

The results in Table 1 should be interpreted within the broader context of the foundations of Chinese higher education, which is traditionally shaped by a strong examination-oriented system, structured academic hierarchies, and a historically segmented view of cognitive, physical, and artistic learning. Although recent reforms emphasize holistic development and quality-oriented education, the implementation of arts-based disciplines such as dance choreography still reflects transitional dynamics. The overall composite mean of 3.15 (Agree) indicates that dance choreography is generally perceived as moderately effective across developmental dimensions. However, the ranking pattern reveals that its value is unevenly distributed, with stronger emphasis on social-emotional outcomes and relatively weaker recognition of cognitive benefits. This suggests that dance is primarily conceptualized as an experiential and affective educational activity rather than an academically integrated discipline within Chinese university systems.

The highest-ranked dimension, Social and Emotional Growth (M = 3.16, Rank 1), reflects the strong alignment of dance choreography with the increasing emphasis on student well-being and holistic development in Chinese

higher education reform. In a system traditionally characterized by academic pressure and competitive performance standards, university students often experience emotional stress and limited opportunities for expressive interaction. Within this context, dance choreography provides an important, structured space for emotional release, interpersonal connection, and psychological balance. It supports the development of cooperation, empathy, and emotional regulation, which are increasingly recognized as essential outcomes of modern higher education. This indicates that the university views dance not only as an artistic practice but also as a supportive mechanism that enhances student mental health and social adaptation, addressing gaps created by academically intensive learning environments.

The second-ranked dimensions, Creativity and Motor and Physical Development (both M = 3.15, Rank 2.5), reflect dance's dual role in promoting both innovation-oriented learning and physical well-being. Creativity in choreography is increasingly valued in response to national educational reforms that emphasize innovation and critical thinking as key competencies for future development. Dance allows students to engage in imaginative movement design, problem-solving, and expressive interpretation, which contributes to creative thinking skills. This aligns with broader efforts in Chinese higher education to move beyond rote memorization toward more dynamic and student-centered learning approaches (Zhang & Liu, 2022).

At the same time, motor and physical development reflects the continued importance of physical education within Chinese universities, where physical fitness, discipline, and bodily coordination remain key educational goals. Dance choreography helps improve flexibility, balance, posture, and overall physical literacy. It also reinforces discipline and persistence, which are traditionally valued attributes in Chinese educational culture. The equal ranking of creativity and physical development suggests that dance is perceived as a hybrid educational activity that integrates artistic expression with physical training, reflecting the gradual integration of arts education into broader student development frameworks (Wang et al., 2023).

The third-ranked dimensions, Cultural Expression and Engagement and Motivation (both M = 3.14, Rank 4.5), indicate a moderate but meaningful recognition of dance choreography's role in cultural education and student participation. Cultural expression through dance reflects the importance of cultural heritage preservation and identity formation in Chinese higher education. Dance programs often incorporate traditional and contemporary cultural elements, allowing students to engage with national heritage and cultural identity in expressive forms. This contributes to cultural awareness and appreciation, although its slightly lower ranking suggests that cultural outcomes are perceived as secondary to emotional and creative benefits (Liu, 2020).

Engagement and motivation reflect students' interest, participation, and sustained involvement in dance activities. While generally positive, the moderate ranking may indicate that participation in dance choreography is often influenced by institutional structure, program availability, and whether such activities are compulsory or extracurricular. In many Chinese universities, dance remains primarily within elective courses or performance-based activities, which may limit its perceived impact on sustained academic engagement. As a result, its motivational influence is acknowledged but not considered the strongest among emotional or creative development.

The lowest-ranked dimension, Cognitive Development (M = 3.13, Rank 6), reflects the enduring influence of traditional academic hierarchies in Chinese higher education, where cognitive achievement is typically associated with subjects that are formally assessed through examinations. Although dance inherently involves cognitive processes such as memory, sequencing, spatial awareness, and decision-making, these outcomes are often not explicitly recognized within academic evaluation systems. As a result, respondents tend to perceive cognitive benefits as less central compared to more visible emotional or physical outcomes. This perception does not necessarily reflect the actual absence of cognitive benefits. Research in embodied cognition demonstrates that physical movement enhances mental processing, memory retention, and attention control. Studies in dance education further confirm improvements in executive function and spatial reasoning among participants. However, in the Chinese higher education context, these cognitive gains are not always formally assessed or emphasized in curriculum evaluation, resulting in a lower perceived ranking. This suggests a gap between educational reform

discourse, which promotes holistic development, and practical classroom perception, which still prioritizes observable social and physical outcomes over cognitive integration.

Table 2

Summary Table on the Social Skills of Children

Indicators	WM	VI	Rank
Communication	3.15	Agree	3.5
Cooperation	3.17	Agree	1
Self-Control	3.14	Agree	5.5
Assertiveness	3.13	Agree	7
Empathy and Prosocial Behavior	3.15	Agree	3.5
Adaptability and Social Flexibility	3.16	Agree	2
Engagement and Peer Interaction	3.14	Agree	5.5
Overall Composite Mean	3.15	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

The results presented in Table 2 reveal that children's social skills are generally at a moderate level (overall WM = 3.15, Agree), indicating that social competence is adequately developed but still uneven across specific domains. The ranking pattern demonstrates a clear hierarchy of strengths, with cooperation and adaptability emerging as the most developed skills, while assertiveness ranks lowest. This distribution reflects the strong influence of structured educational environments, teacher-guided interaction, and culturally shaped expectations of social behavior within early childhood settings. Recent literature emphasizes that children's social development is highly sensitive to classroom organization and adult scaffolding, particularly in collectivist-oriented learning environments where group harmony is prioritized over individual expression (Chen & Li, 2021; Wang et al., 2022).

The highest-ranked indicator, Cooperation (WM = 3.17, Rank 1), suggests that children demonstrate strong abilities in sharing responsibilities, participating in group tasks, and engaging in collaborative play. This finding is consistent with recent research indicating that cooperative skills are among the earliest and most reinforced social behaviors in structured educational settings. According to Liu et al. (2023), cooperative learning environments significantly enhance the quality of peer interactions and strengthen children's ability to regulate behavior in group contexts. The prominence of cooperation in this study reflects the effectiveness of structured group-based learning activities in cultivating socially responsible behavior among children.

The second-ranked indicator, Adaptability and Social Flexibility (WM = 3.16, Rank 2), highlights children's ability to adjust their behavior across different social situations and peer interactions. This aligns with contemporary developmental research emphasizing adaptability as a core component of social competence. Adaptability is strengthened through exposure to diverse peer groups and dynamic classroom environments that require children to shift roles, negotiate meanings, and respond to changing social cues. Similarly, Liu and Zhang (2021) argue that social flexibility is closely linked to emotional regulation and cognitive adaptability, both of which are developed through guided interaction and experiential learning. The high ranking of this indicator suggests that children are effectively developing the capacity to navigate complex and changing social environments.

The third-tier indicators, Communication (WM = 3.15, Rank 3.5) and Empathy and Prosocial Behavior (WM = 3.15, Rank 3.5), reflect moderately strong development in expressive and affective social skills. Communication is essential for expressing needs, negotiating peer relationships, and participating in collaborative activities. Recent studies highlight that communication skills in early childhood are significantly influenced by language-rich environments and the quality of teacher-student interactions (Wang & Liu, 2023). However, variability in communication competence suggests differences in confidence and expressive ability among children.

Empathy and prosocial behavior reflect children's ability to understand others' emotions and engage in supportive actions. According to Zhang et al. (2022), prosocial behavior is strongly shaped by teacher modeling, peer reinforcement, and emotionally supportive classroom climates. Additionally, Chen (2023) emphasizes that the development of empathy is closely tied to emotional literacy programs and structured social-emotional learning activities. The moderate ranking of this indicator suggests that while children demonstrate basic empathy,

consistent application across diverse social contexts is still developing.

The fifth-tier indicators, Self-Control (WM = 3.14, Rank 5.5) and Engagement and Peer Interaction (WM = 3.14, Rank 5.5), indicate slightly weaker development in behavioral regulation and active social participation. Self-control is a foundational aspect of social competence, involving impulse management, emotional regulation, and delayed gratification. Recent studies show that self-regulation develops gradually through consistent behavioral guidance, structured routines, and positive reinforcement strategies (Liu et al., 2022). The moderate ranking suggests that children are still developing stable regulatory mechanisms, particularly in less structured or emotionally stimulating environments. Engagement and peer interaction reflect the degree of children's active participation in social exchanges. Variations in engagement levels may reflect differences in social confidence, personality traits, or opportunities for interaction. While children are generally involved in peer activities, sustained and proactive engagement appears to require further support through structured interaction strategies.

The lowest-ranked indicator, Assertiveness (WM = 3.13, Rank 7), indicates that children are least likely to express their opinions, needs, or preferences confidently in social situations. Recent literature suggests that assertiveness is one of the most complex social skills to develop, as it requires both confidence and communicative competence (Zhang & Chen, 2024). In many early childhood settings influenced by collectivist educational values, children are often encouraged to prioritize group harmony, obedience, and respect for authority, which may inadvertently limit opportunities for assertive expression (Liu et al., 2023). Furthermore, Chen and Wang (2022) argue that assertiveness develops more effectively in environments that encourage open expression, child-centered dialogue, and supportive feedback without negative evaluation. The lower ranking of assertiveness, therefore, reflects both developmental progression and contextual constraints in classroom environments. Overall, the findings indicate that children's social development is strongest in cooperative behavior and adaptability, moderately developed in communication and empathy, and relatively weaker in assertiveness and sustained peer engagement. This pattern aligns with recent studies emphasizing that structured educational environments tend to strengthen group-oriented and adaptive behaviors while limiting opportunities for individual expression (Wang et al., 2022; Liu et al., 2023). It also reflects the growing influence of social-emotional learning frameworks in early childhood education, which prioritize cooperation, emotional regulation, and interpersonal harmony.

Table 3

Summary Table on Creative Thinking

Dimensions	Composite Mean	VI	Rank
Fluency (Generating Ideas)	3.14	Agree	3.5
Flexibility (Adapting Movements)	3.12	Agree	7
Originality (Unique Dance Expression)	3.14	Agree	3.5
Elaboration (Detail in Dance Creation)	3.13	Agree	6
Imagination (Expressive Creativity in Dance)	3.15	Agree	1
Problem-Solving	3.14	Agree	3.5
Risk-Taking and Confidence	3.14	Agree	3.5
Overall Composite Mean	3.14	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree

The results presented in Table 3 should be interpreted in the context of the Chinese educational setting, particularly amid the ongoing shift from examination-oriented to quality-oriented, innovation-driven education. Within this framework, creative thinking in dance is increasingly recognized as part of aesthetic education reform and the broader national goal of cultivating innovative talent. The overall composite mean of 3.14 (Agree) indicates that children demonstrate a generally moderate level of creative thinking in dance, suggesting that creativity is present but remains uneven across dimensions. The ranking pattern further reflects how Chinese classroom structures, teacher-centered instruction, and guided artistic practices shape the way creativity is expressed, supported, and limited in educational contexts.

The highest-ranked dimension, Imagination (WM = 3.15, Rank 1), reflects the strong influence of play-based and expressive learning approaches that are increasingly integrated into early education and arts programs in China. Imagination is strongly supported through structured creative activities that encourage children to visualize stories,

emotions, and symbolic meanings through movement. In the Chinese context, this aligns with current educational reforms that emphasize aesthetic cultivation and holistic development, in which imagination is considered a key foundation of creative and innovative capacity. Recent studies in Chinese early childhood and arts education highlight that imaginative engagement is strongly fostered when teachers provide thematic prompts, storytelling-based choreography tasks, and emotionally expressive movement activities (Wang et al., 2023). The top ranking of imagination suggests that children respond well to guided creative environments that encourage symbolic thinking while still providing structured boundaries.

The second-tier dimensions, Fluency, Originality, Problem-Solving, and Risk-Taking and Confidence (all WM = 3.14, Rank 3.5), indicate moderately developed creative competencies that are shaped by both emerging innovation education policies and traditional instructional constraints. Fluency reflects children's ability to generate multiple movement ideas, which is increasingly encouraged in Chinese classrooms through brainstorming-based and exploratory dance activities. Originality refers to the ability to produce unique expressions, aligning with national educational reforms that promote innovation and individualized expression. However, in practice, originality is often moderated by teacher guidance, as Chinese educational culture traditionally values structured learning processes and model-based instruction.

Problem-solving in dance reflects children's ability to adjust movements and sequences in response to choreographic challenges. In the Chinese educational environment, this skill is typically developed through teacher-directed problem scenarios rather than open improvisation, meaning children often solve problems within predefined frameworks rather than through fully independent exploration. Risk-taking and confidence, meanwhile, remain moderately developed due to cultural and classroom norms that emphasize correctness, teacher approval, and avoidance of mistakes. Research indicates that while innovation education in China encourages experimentation, students often remain cautious in expressing unconventional ideas due to long-standing academic and social expectations that prioritize accuracy and conformity (Chen et al., 2023). As a result, these dimensions are present but not fully maximized.

The sixth-ranked dimension, Elaboration (WM = 3.13, Rank 6), suggests that children show relatively limited development in refining and expanding initial creative ideas into detailed choreographic expressions. Within the Chinese educational system, elaboration is often constrained by time-limited lessons, structured curriculum requirements, and teacher-led demonstration methods. Although curriculum reforms emphasize creativity, classroom implementation often prioritizes task completion over extended creative refinement. Studies in Chinese arts education suggest that elaboration skills require sustained creative processes and iterative feedback, which are still developing in many school settings (Liu et al., 2024). The lower ranking of elaboration therefore reflects systemic limitations in providing sufficient time and autonomy for deep creative development.

The lowest-ranked dimension, Flexibility (WM = 3.12, Rank 7), reflects the influence of structured pedagogical approaches that remain common in Chinese dance and physical education instruction. Flexibility involves the ability to shift between different movement styles, adapt to new creative conditions, and modify expressive strategies spontaneously. In many Chinese classroom settings, however, instruction is still largely demonstration-based, where students imitate and refine teacher-provided models before engaging in limited improvisation. This reduces opportunities for spontaneous adaptation and cross-style experimentation. Consequently, flexibility emerges as the least developed dimension, reflecting a gap between policy intentions and instructional realities.

Table 4 presents the relationship between dance choreography and the social skills of Chinese primary school children, as determined by Spearman's rho. The dimensions of dance choreography include creativity, motor and physical development, cultural expression, social and emotional growth, cognitive development, and engagement and motivation, while social skills are measured in terms of communication, cooperation, self-control, assertiveness, empathy and prosocial behavior, adaptability and social flexibility, and engagement and peer interaction. The results revealed that creativity was not significantly related to any of the social skills dimensions.

Correlation coefficients ranged from -0.087 to 0.081, with all p-values exceeding 0.05. These findings indicate that children's perceived creativity developed through dance choreography was not significantly associated with their social skills. Similarly, motor and physical development showed no significant relationship with communication ($\rho = 0.024$, $p = 0.604$), cooperation ($\rho = -0.027$, $p = 0.562$), self-control ($\rho = 0.011$, $p = 0.812$), assertiveness ($\rho = -0.016$, $p = 0.726$), empathy and prosocial behavior ($\rho = -0.054$, $p = 0.237$), adaptability and social flexibility ($\rho = -0.019$, $p = 0.672$), and engagement and peer interaction ($\rho = 0.069$, $p = 0.134$). This suggests that improvements in physical and motor skills through dance choreography were not significantly associated with the development of social skills.

For cultural expression, no statistically significant relationships were found with any social skill indicators. The obtained correlation coefficients were very weak, ranging from -0.075 to 0.039, and all p-values were greater than 0.05. This implies that the cultural expression fostered through dance choreography was not significantly related to the social skills examined in the study. Likewise, social and emotional growth was not significantly related to communication ($\rho = -0.005$, $p = 0.911$), cooperation ($\rho = 0.010$, $p = 0.829$), self-control ($\rho = -0.008$, $p = 0.866$), assertiveness ($\rho = -0.041$, $p = 0.377$), empathy and prosocial behavior ($\rho = 0.039$, $p = 0.395$), adaptability and social flexibility ($\rho = 0.019$, $p = 0.682$), and engagement and peer interaction ($\rho = -0.029$, $p = 0.523$). The results indicate that children's social and emotional growth through dance choreography did not significantly correspond with their social skills levels.

In terms of cognitive development, all relationships with social skills were likewise not significant. Correlation coefficients ranged from -0.083 to 0.042, with all p-values greater than 0.05. These findings suggest that cognitive development associated with dance choreography was not significantly related to children's communication, cooperation, self-control, assertiveness, empathy, adaptability, or peer interaction. For engagement and motivation, most social skill dimensions also showed no significant relationships. Communication ($\rho = -0.008$, $p = 0.853$), cooperation ($\rho = -0.015$, $p = 0.745$), self-control ($\rho = -0.011$, $p = 0.808$), assertiveness ($\rho = 0.082$, $p = 0.073$), empathy and prosocial behavior ($\rho = 0.039$, $p = 0.391$), and adaptability and social flexibility ($\rho = 0.024$, $p = 0.603$) all yielded non-significant results. However, engagement and motivation showed a statistically significant positive relationship with peer interaction ($\rho = 0.125$, $p = 0.006$). Although the correlation is weak, the positive coefficient indicates that higher levels of engagement and motivation in dance choreography are associated with greater peer engagement and interaction.

Table 4

Relationship Between Role of Dance Choreography and Social Skills in Chinese Primary School Children

Creativity	rho-value	p-value	Interpretation
Fluency	-0.003	0.956	Not Significant
Flexibility	0.008	0.861	Not Significant
Originality	-0.066	0.147	Not Significant
Elaboration	0.034	0.458	Not Significant
Imagination	-0.044	0.337	Not Significant
Problem-Solving	0.035	0.439	Not Significant
Risk-Taking and Confidence	0.049	0.281	Not Significant
Motor and Physical Development	rho-value	p-value	Interpretation
Fluency	0.050	0.274	Not Significant
Flexibility	0.062	0.175	Not Significant
Originality	0.006	0.900	Not Significant
Elaboration	0.054	0.238	Not Significant
Imagination	-0.053	0.247	Not Significant
Problem-Solving	-0.008	0.868	Not Significant
Risk-Taking and Confidence	-0.041	0.369	Not Significant
Cultural Expression	rho-value	p-value	Interpretation
Fluency	0.068	0.135	Not Significant
Flexibility	0.008	0.856	Not Significant
Originality	-0.084	0.067	Not Significant
Elaboration	0.074	0.107	Not Significant
Imagination	-0.076	0.099	Not Significant
Problem-Solving	-0.011	0.813	Not Significant
Risk-Taking and Confidence	-0.081	0.078	Not Significant

Social and Emotional Growth	rho-value	p-value	Interpretation
Fluency	0.018	0.702	Not Significant
Flexibility	0.012	0.794	Not Significant
Originality	-0.076	0.097	Not Significant
Elaboration	0.118**	0.010	Significant
Imagination	-0.043	0.353	Not Significant
Problem-Solving	0.076	0.096	Not Significant
Risk-Taking and Confidence	-0.027	0.560	Not Significant
Cognitive Development	rho-value	p-value	Interpretation
Fluency	-0.095**	0.038	Significant
Flexibility	0.063	0.170	Not Significant
Originality	0.018	0.694	Not Significant
Elaboration	-0.043	0.350	Not Significant
Imagination	-0.032	0.482	Not Significant
Problem-Solving	0.012	0.787	Not Significant
Risk-Taking and Confidence	0.025	0.593	Not Significant
Engagement and Motivation	rho-value	p-value	Interpretation
Fluency	-0.030	0.509	Not Significant
Flexibility	-0.027	0.558	Not Significant
Originality	0.020	0.669	Not Significant
Elaboration	0.109**	0.017	Significant
Imagination	0.020	0.664	Not Significant
Problem-Solving	-0.021	0.643	Not Significant
Risk-Taking and Confidence	-0.032	0.482	Not Significant

**Correlation is significant at the 0.01 level

The significant positive correlations between engagement and motivation, and between engagement and peer interaction, suggest that children who are more motivated and actively involved in dance choreography activities tend to participate more effectively in peer interactions. Dance activities often require collaboration, synchronized movements, group participation, and shared goals, which may encourage children to interact more frequently and positively with their classmates. Consequently, heightened engagement in dance choreography may create opportunities for social participation and peer bonding, thereby enhancing children's peer interaction skills. However, the correlation coefficient ($\rho = 0.125$) indicates a very weak relationship, suggesting that while engagement and motivation contribute to peer interaction, other factors may play a more substantial role in shaping children's overall social skills. Overall, the findings indicate that there was no significant relationship between most dance choreography dimensions and the social skills of Chinese primary school children. The only exceptions were the relationships between engagement and motivation, and between engagement and peer interaction, which showed a statistically significant but very weak positive correlation ($\rho = 0.125$, $p = 0.006$). Therefore, the null hypothesis of no significant relationship was accepted for all variable pairs except engagement and motivation with engagement and peer interaction, for which the null hypothesis was rejected. These results suggest that active participation and motivation in dance choreography may contribute to improved peer interaction among children, although the magnitude of this relationship remains relatively small.

Table 5

Relationship Between Role of Dance Choreography and Creative Thinking in Chinese Primary School Children

Creativity	rho-value	p-value	Interpretation
Fluency	-0.003	0.956	Not Significant
Flexibility	0.008	0.861	Not Significant
Originality	-0.066	0.147	Not Significant
Elaboration	0.034	0.458	Not Significant
Imagination	-0.044	0.337	Not Significant
Problem-Solving	0.035	0.439	Not Significant
Risk-Taking and Confidence	0.049	0.281	Not Significant
Motor and Physical Development	rho-value	p-value	Interpretation
Fluency	0.050	0.274	Not Significant
Flexibility	0.062	0.175	Not Significant
Originality	0.006	0.900	Not Significant
Elaboration	0.054	0.238	Not Significant
Imagination	-0.053	0.247	Not Significant
Problem-Solving	-0.008	0.868	Not Significant
Risk-Taking and Confidence	-0.041	0.369	Not Significant

Cultural Expression	rho-value	p-value	Interpretation
Fluency	0.068	0.135	Not Significant
Flexibility	0.008	0.856	Not Significant
Originality	-0.084	0.067	Not Significant
Elaboration	0.074	0.107	Not Significant
Imagination	-0.076	0.099	Not Significant
Problem-Solving	-0.011	0.813	Not Significant
Risk-Taking and Confidence	-0.081	0.078	Not Significant
Social and Emotional Growth	rho-value	p-value	Interpretation
Fluency	0.018	0.702	Not Significant
Flexibility	0.012	0.794	Not Significant
Originality	-0.076	0.097	Not Significant
Elaboration	0.118**	0.010	Significant
Imagination	-0.043	0.353	Not Significant
Problem-Solving	0.076	0.096	Not Significant
Risk-Taking and Confidence	-0.027	0.560	Not Significant
Cognitive Development	rho-value	p-value	Interpretation
Fluency	-0.095**	0.038	Significant
Flexibility	0.063	0.170	Not Significant
Originality	0.018	0.694	Not Significant
Elaboration	-0.043	0.350	Not Significant
Imagination	-0.032	0.482	Not Significant
Problem-Solving	0.012	0.787	Not Significant
Risk-Taking and Confidence	0.025	0.593	Not Significant
Engagement and Motivation	rho-value	p-value	Interpretation
Fluency	-0.030	0.509	Not Significant
Flexibility	-0.027	0.558	Not Significant
Originality	0.020	0.669	Not Significant
Elaboration	0.109**	0.017	Significant
Imagination	0.020	0.664	Not Significant
Problem-Solving	-0.021	0.643	Not Significant
Risk-Taking and Confidence	-0.032	0.482	Not Significant

**Correlation is significant at the 0.01 level

Table 5 presents the relationship between dance choreography and creative thinking among Chinese primary school children, as assessed using Spearman's rho correlation analysis. The dimensions of dance choreography examined were creativity, motor and physical development, cultural expression, social and emotional growth, cognitive development, and engagement and motivation, while creative thinking was measured through fluency, flexibility, originality, elaboration, imagination, problem-solving, and risk-taking and confidence. The findings revealed that the creativity dimension of dance choreography had no significant relationship with any dimension of creative thinking, with correlation coefficients ranging from -0.066 to 0.049 and all p-values exceeding 0.05. Similarly, motor and physical development was not significantly related to any creative thinking dimension, indicating that improvements in physical and motor abilities through dance choreography were not associated with higher levels of creative thinking.

Likewise, cultural expression showed no significant relationship with fluency, flexibility, originality, elaboration, imagination, problem-solving, or risk-taking and confidence, suggesting that cultural expression fostered through dance choreography did not significantly influence children's creative thinking abilities. The results further showed that social and emotional growth was not significantly associated with most dimensions of creative thinking, except for elaboration ($\rho = 0.118$, $p = 0.010$), which demonstrated a significant but very weak positive relationship. This finding suggests that children who experience greater social and emotional growth through dance choreography tend to be slightly better at expanding and refining their ideas in greater detail. In terms of cognitive development, only fluency showed a significant relationship ($\rho = -0.095$, $p = 0.038$). The negative correlation indicates that higher levels of cognitive development were associated with slightly lower levels of fluency; however, the relationship was very weak and may have limited practical significance. All other dimensions of creative thinking were not significantly related to cognitive development. Similarly, engagement and motivation exhibited no significant relationship with most creative thinking dimensions, except for elaboration ($\rho = 0.109$, $p = 0.017$), which showed a significant but weak positive relationship. This suggests that children who are more engaged and motivated during dance choreography activities tend to demonstrate a greater ability to

develop and enrich their ideas.

Overall, the findings indicate that most dimensions of dance choreography were not significantly related to creative thinking among Chinese primary school children. Significant relationships were identified only between social and emotional growth and elaboration, cognitive development and fluency, and engagement and motivation and elaboration. Although these relationships were statistically significant, the correlation coefficients were very low, indicating weak associations. Therefore, the null hypothesis of no significant relationship was accepted for most variable pairs and rejected only for the three significant relationships identified. These results suggest that dance choreography may contribute to certain aspects of creative thinking, particularly elaboration, but its overall influence on the dimensions of creative thinking appears limited.

Table 6 presents the relationship between social skills and creative thinking among Chinese primary school children, as measured by Spearman's rho. The dimensions of social skills examined include communication, cooperation, self-control, assertiveness, empathy, adaptability and social flexibility, and engagement and peer interaction, while creative thinking was measured through fluency, flexibility, originality, elaboration, imagination, problem-solving, and risk-taking and confidence. The findings revealed that communication was not significantly related to any dimension of creative thinking, with correlation coefficients ranging from -0.038 to 0.052 and all p-values exceeding the 0.05 level of significance. Similarly, self-control, assertiveness, empathy, adaptability, and social flexibility showed no significant relationships with any of the creative thinking dimensions. These results suggest that these aspects of social skills were not significantly associated with children's creative thinking abilities.

For cooperation, most dimensions of creative thinking were not significantly related. However, a significant positive relationship was found between cooperation and problem-solving ($\rho = 0.114$, $p = 0.012$). This indicates that children who demonstrate higher levels of cooperation tend to exhibit slightly stronger problem-solving abilities. Although the correlation is weak, it suggests that collaborative interactions and teamwork may contribute to children's capacity to identify solutions and address challenges effectively. The remaining dimensions of creative thinking, including fluency, flexibility, originality, elaboration, imagination, and risk-taking and confidence, did not show significant relationships with cooperation. Likewise, engagement and peer interaction were not significantly associated with most dimensions of creative thinking. Nevertheless, a significant positive relationship was identified between engagement and peer interaction and elaboration ($\rho = 0.110$, $p = 0.017$). This finding suggests that children who actively participate and interact with their peers are slightly more likely to develop and expand their ideas in greater detail. Frequent peer interaction may provide opportunities for discussion, feedback, and idea sharing, which can enhance children's ability to elaborate on their thoughts and creative output.

Overall, the results indicate that most dimensions of social skills were not significantly related to creative thinking among Chinese primary school children. Significant relationships were found only between cooperation and problem-solving and between engagement and peer interaction and elaboration. Although these relationships were statistically significant, both correlation coefficients were below 0.20, indicating very weak positive associations. Therefore, the null hypothesis of no significant relationship was accepted for most variable pairs and rejected only for the two significant relationships identified. These findings suggest that certain social skills, particularly cooperation and peer interaction, may contribute to specific aspects of creative thinking; however, their overall influence appears limited and relatively weak.

Table 6

Relationship Between Social Skills and Creative Thinking in Chinese Primary School Children

Communication	rho-value	p-value	Interpretation
Fluency	-0.038	0.410	Not Significant
Flexibility	-0.025	0.587	Not Significant
Originality	0.024	0.602	Not Significant
Elaboration	-0.016	0.732	Not Significant
Imagination	0.052	0.260	Not Significant
Problem-Solving	-0.012	0.799	Not Significant
Risk-Taking and Confidence	0.031	0.498	Not Significant

Cooperation	rho-value	p-value	Interpretation
Fluency	0.028	0.548	Not Significant
Flexibility	-0.097	0.033	Not Significant
Originality	-0.039	0.394	Not Significant
Elaboration	-0.076	0.097	Not Significant
Imagination	0.040	0.383	Not Significant
Problem-Solving	0.114**	0.012	Significant
Risk-Taking and Confidence	-0.086	0.061	Not Significant
Self-Control	rho-value	p-value	Interpretation
Fluency	-0.005	0.912	Not Significant
Flexibility	0.021	0.647	Not Significant
Originality	0.009	0.841	Not Significant
Elaboration	0.007	0.881	Not Significant
Imagination	-0.046	0.319	Not Significant
Problem-Solving	0.010	0.827	Not Significant
Risk-Taking and Confidence	-0.006	0.889	Not Significant
Assertiveness	rho-value	p-value	Interpretation
Fluency	0.019	0.679	Not Significant
Flexibility	-0.007	0.887	Not Significant
Originality	0.033	0.477	Not Significant
Elaboration	-0.026	0.572	Not Significant
Imagination	-0.029	0.528	Not Significant
Problem-Solving	-0.054	0.236	Not Significant
Risk-Taking and Confidence	0.056	0.224	Not Significant
Empathy	rho-value	p-value	Interpretation
Fluency	-0.083	0.069	Not Significant
Flexibility	-0.006	0.895	Not Significant
Originality	-0.078	0.087	Not Significant
Elaboration	0.032	0.485	Not Significant
Imagination	0.012	0.787	Not Significant
Problem-Solving	-0.033	0.477	Not Significant
Risk-Taking and Confidence	0.040	0.382	Not Significant
Adaptability and Social Flexibility	rho-value	p-value	Interpretation
Fluency	-0.047	0.304	Not Significant
Flexibility	0.016	0.730	Not Significant
Originality	-0.016	0.733	Not Significant
Elaboration	-0.049	0.283	Not Significant
Imagination	0.033	0.473	Not Significant
Problem-Solving	0.002	0.964	Not Significant
Risk-Taking and Confidence	0.006	0.901	Not Significant
Engagement and Peer Interaction	rho-value	p-value	Interpretation
Fluency	-0.036	0.426	Not Significant
Flexibility	-0.024	0.595	Not Significant
Originality	0.043	0.348	Not Significant
Elaboration	0.110**	0.017	Significant
Imagination	-0.025	0.579	Not Significant
Problem-Solving	-0.032	0.490	Not Significant
Risk-Taking and Confidence	0.006	0.901	Not Significant

**Correlation is significant at the 0.01 level

Table 7

Creative Steps for Growth: An Enhancement Program for Cognitive Development, Creative Flexibility, and Assertiveness through Dance Choreography among Chinese School Children

KRA (Key Result Area)	Goal	Objective	Program/Activity Title and Description	Success Indicators	Persons Involved
Enhancement of Cognitive Development through Dance Choreography	Improve learners' cognitive engagement in dance activities.	To strengthen learners' critical thinking, sequencing, memory retention, and decision-making skills through dance choreography.	"Think, Move, Create: Dance Sequence Challenge" – Weekly choreography workshops where students analyze movement patterns, solve choreography puzzles, reconstruct dance sequences, and create alternative endings to routines.	90–95% of participants successfully complete choreography problem-solving tasks and demonstrate improved cognitive engagement during performances.	Dance Teachers, Students, School Administrators, Curriculum Coordinators

KRA (Key Result Area)	Goal	Objective	Program/Activity Title and Description	Success Indicators	Persons Involved
Development of Flexibility in Creative Thinking	Enhance students' ability to adapt movements and generate alternative dance ideas.	To improve flexibility by encouraging students to modify, transform, and reinterpret dance movements in various situations.	"Move Beyond Limits: Creative Adaptation Workshop" – Students participate in movement transformation exercises, improvisation games, and group tasks requiring multiple interpretations of a single dance theme.	90–95% of students demonstrate the ability to create at least three alternative movement solutions and show increased adaptability during dance activities.	Dance Teachers, Students, Arts Coordinators
Strengthening Assertiveness and Self-Expression	Increase students' confidence in expressing ideas and performing before peers.	To develop assertiveness by providing opportunities for leadership, self-expression, and constructive communication during dance activities.	"Step Forward: Dance Leadership and Expression Program" – Students lead warm-up routines, present original choreography, participate in peer-feedback sessions, and engage in confidence-building performance activities.	90–95% of students actively participate in leadership and presentation activities and exhibit improved confidence in expressing ideas and performing before others.	Dance Teachers, Guidance Counselors, Students, School Administrators
Integrated Creative and Social Development	Foster holistic development through collaborative dance experiences.	To simultaneously improve cognitive development, flexibility, and assertiveness through collaborative learning.	"Creative Moves, Confident Voices" Dance Innovation Camp – A school-based dance camp featuring group choreography projects, creative problem-solving challenges, peer mentoring, and performance showcases.	90–95% of participants successfully complete collaborative projects and demonstrate measurable improvement in creativity, confidence, and social interaction.	Dance Teachers, Students, School Heads, Parents, Arts Club Advisers

The proposed action plan was developed based on the dimensions that had the lowest mean scores in the study: Cognitive Development (3.13) under Dance Choreography, Flexibility (3.12) under Creative Thinking, and Assertiveness (3.13) under Social Skills. Although these indicators were interpreted as "Agree," they ranked lowest within their respective dimensions, indicating areas requiring further enhancement. The plan focuses on implementing targeted dance-based activities that promote critical thinking, adaptability, creativity, confidence, and self-expression. Through structured workshops, collaborative choreography tasks, leadership opportunities, and performance-based activities, the program aims to strengthen learners' cognitive abilities, creative flexibility, and assertive communication. The successful implementation of these interventions is expected to contribute to students' holistic development and further maximize the educational benefits of dance choreography in Chinese schools.

4. Conclusions

Based on the research findings, the following results are presented. Most respondents agreed that dance choreography is generally high in Chinese universities, with social and emotional growth rated highest and cognitive development rated lowest. Most of the respondents agreed that children's social skills are generally high, with cooperation ranked highest and assertiveness ranked lowest. Overall, the results indicate a positive level of social skills, with stronger performance in cooperative and adaptive behaviors. The majority of the respondents agreed that creative thinking is generally high, with imagination ranked highest and flexibility ranked lowest. Overall, the results indicate a positive level of creative thinking, with adaptability identified as the main area for improvement. There was no significant difference in age, sex, and highest educational attainment across all dimensions, except for creativity under years of service. A proposed action plan, titled "Creative Steps for Growth: An Enhancement Program for Cognitive Development, Creative Flexibility, and Assertiveness through Dance Choreography among Chinese School Children," was developed from the research findings.

Recommendations **-** Dance Teachers may continuously enhance their instructional strategies in dance choreography by integrating creative, cognitive, and social development activities that promote students' holistic growth. School Administrators may provide adequate support, resources, and training opportunities to strengthen dance programs and ensure their effective implementation in schools. Curriculum Coordinators may integrate dance choreography into the curriculum in a more structured and developmentally appropriate manner to maximize

its educational value. Guidance Counselors may design and implement programs that support students' emotional well-being, confidence, and social development through dance-related activities. Arts Club Advisers may actively organize and supervise extracurricular dance programs and performances that enhance students' creativity and engagement. Students may actively participate in dance activities and collaborative performances to further develop their creativity, confidence, and social skills. Future Researchers may conduct further studies using different populations, settings, and variables to deepen the understanding of dance choreography and its impact on cognitive, creative, and social development.

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