Game Nexus

Dimensions of Coordination Learning in Parkour-Inspired School Activities: An Ethnographic Inquiry

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ABSTRACT

This study aimed to identify and analyze the dimensions of coordination learning as experienced by students and teachers engaged in parkour-inspired school activities in Canada. A qualitative ethnographic design was employed to capture the lived experiences and cultural meanings associated with coordination learning. Data were collected through semi-structured interviews with 23 participants (15 students and 8 teachers) recruited from Canadian schools. Participants were selected through purposive sampling, and data collection continued until theoretical saturation was achieved. Interviews were audio-recorded, transcribed verbatim, and analyzed using NVivo 14 software. Thematic coding followed an inductive approach, including open, axial, and selective coding, to derive core themes and subthemes from the data. Credibility was enhanced through member checking, peer debriefing, and maintaining an audit trail. Analysis revealed four overarching themes that represent the dimensions of coordination learning in parkour-inspired activities. Physical adaptability encompassed balance, spatial awareness, motor variability, injury prevention, and physical conditioning. Cognitive flexibility included problem-solving, risk assessment, focus, creativity, and memory. Social interaction and collaboration involved peer learning, communication, trust, motivation, and cultural sharing. Emotional regulation reflected confidence building, fear management, resilience, enjoyment, and self-reflection. Quotations from participants illustrated the embodied, cognitive, social, and emotional layers of learning, highlighting how parkour-inspired environments foster both motor and psychosocial development. Parkour-inspired school activities provide a unique and holistic context for cultivating coordination learning. Beyond motor skills, they foster adaptability, problem-solving, collaboration, and emotional growth, making them a valuable addition to physical education curricula. Ethnographic inquiry offers deep insights into these processes, emphasizing the interconnection of physical, cognitive, social, and affective dimensions of learning.

Keywords: coordination learning; parkour-inspired activities; ethnography; physical education; qualitative research; Canada

Introduction

Coordination learning is a foundational element of physical education, underpinning not only athletic performance but also broader aspects of motor development, cognitive engagement, and psychosocial growth. The development of coordination in school contexts has been increasingly linked to innovative, movement-based practices that engage students in dynamic and adaptable environments. Among these, parkour-inspired activities have emerged as a promising approach to cultivate agility, adaptability, and problem-solving skills within educational settings (1). Parkour's emphasis on negotiating obstacles, maintaining body control, and adapting movements to changing contexts aligns closely with the pedagogical goals of fostering physical literacy and lifelong movement competence. In school-based applications, these practices represent both a challenge

and an opportunity: a challenge in terms of integrating non-traditional physical activities into formal curricula, and an opportunity to enhance students' engagement, creativity, and resilience.

The growing integration of parkour-inspired content in school physical education builds on prior work that examined the generalization of movement skills beyond traditional gym lessons. Research has demonstrated that skills developed in structured environments can transfer to less formal settings such as recess, highlighting the educational value of continuity between instruction and free play (2). More recent studies have specifically explored how parkour trials in schools promote motor learning, adaptability, and sustained participation (3). When combined with other activities such as team handball, these interventions have been shown to support long-term engagement and broaden the repertoire of student experiences (1). The significance of these findings lies in their ability to connect the structured world of physical education with the more fluid and self-directed world of children's play, underscoring the centrality of coordination learning.

Beyond motor skill development, parkour-inspired activities offer fertile ground for examining broader psychosocial dimensions of learning. Students are required to problem-solve, manage risk, and collaborate with peers in ways that extend beyond physical execution. Ethnographic approaches are particularly suited to capturing these multilayered experiences, as they allow researchers to explore not only what students do but how they interpret and make meaning from their participation (4). Ethnography provides the lens to observe embodied practices, cultural dynamics, and interpersonal negotiations within the unique contexts of school environments (5). By documenting the lived realities of participants, ethnographic inquiry makes visible the tacit skills and hidden processes that quantitative methods may overlook.

Methodological debates around ethnography in education and health contexts further underscore its relevance. While some scholars highlight the strengths of ethnography in accessing nuanced, situated knowledge (6), others stress the importance of reflexivity and methodological rigor to avoid oversimplification (7). Visual ethnography has been proposed as a powerful extension of traditional observation, enabling researchers to capture embodied movement and non-verbal interaction in richer ways (8). Synthetic ethnography and new technological adaptations also suggest ways to engage with complex, mediated environments such as digitally enhanced or parkour-inspired activities (9). Together, these methodological innovations affirm the suitability of ethnography for exploring the dynamic, culturally embedded dimensions of school-based physical practices.

At the same time, critiques of ethnographic practice remind researchers to consider issues of representation and interpretation. Some argue that ethnographic knowledge remains caught in the "jungle of misguided paths" when methodological clarity is lacking (10). Collaborative action ethnography has been suggested as a corrective approach, promoting co-construction of meaning and shared ownership of findings between researchers and participants (11). Others highlight the role of ethnography in comparative politics (12) and in domains such as simulation training (13), illustrating its adaptability across fields while also emphasizing the need for careful contextualization. These debates resonate strongly with the present study, which seeks to balance rigor, reflexivity, and participant engagement in documenting coordination learning in Canadian schools.

The integration of technology into educational ethnography adds another layer of relevance. Digital tools have been shown to enrich both the process of learning and the process of research. For example, micro-ethnographic approaches have been used to analyze technology-supported interactions in classrooms (14). Similarly, the potential for ethnography to intersect with machine learning opens new avenues for analyzing complex data while retaining interpretive depth (15, 16). In this regard, combining traditional field methods with analytical technologies offers promising synergies for studying fast-paced, movement-oriented activities such as parkour. The present study, while grounded in semi-structured interviews and thematic analysis, acknowledges these future directions and situates itself within a methodological continuum that spans from classical ethnography to innovative, technology-enhanced approaches.

Ethnographic inquiry has also been productively applied in diverse cultural and educational contexts. Focused ethnographies have captured the process of professional learning in health settings (17), while classroom ethnographies have been employed in language education (18, 19). Visual and cultural studies have used ethnography to examine animation and media in local contexts (20). Each of these examples demonstrates how ethnography adapts to different learning environments, preserving its ability to uncover tacit knowledge and participant perspectives. In the case of parkour, which itself blends physical, cultural, and creative elements, ethnography is particularly suited to illuminating both the explicit coordination skills and the implicit cultural meanings attached to movement practices in schools.

The international literature also emphasizes the role of ethnography in synthesizing qualitative insights across contexts. Meta-ethnography has been developed as a method for integrating qualitative findings and producing conceptual advancements (21). Yet concerns remain about how such syntheses are represented, with some suggesting that meta-ethnography has been misapplied or misunderstood (10). In parallel, meta-ethnographic approaches have been used to study simulation debrief practices (13) and pedagogical strategies in religious or cultural education (22). These methodological considerations reaffirm the value of careful, context-sensitive analysis in this study's attempt to derive meaningful dimensions of coordination learning from school-based parkour activities.

In practical terms, educational innovations using embodied, play-based methods have gained traction in recent years. For example, studies have reported the effectiveness of creative tools such as alternative media for mathematics learning (23) and service learning-based game design for accessibility (24). Ethnographic documentation of such practices helps clarify how learners engage with novel approaches and how these experiences shape broader educational outcomes. In a similar vein, parkour-inspired school activities not only serve as a physical training ground but also create opportunities for identity formation, resilience, and cultural expression. By examining these processes ethnographically, this study contributes to a deeper understanding of how coordination learning emerges within innovative, movement-centered pedagogies.

The Canadian school context offers unique conditions for this inquiry. The post-pandemic shift in education has reinvigorated interest in flexible, embodied, and socially engaging forms of learning (11). Global insights into technology integration in Kenya (25) or the preservation of regional languages in Indonesia (26) highlight the adaptability of ethnographic methods to diverse cultural circumstances. Within Canada, parkour-inspired activities resonate with broader educational priorities around inclusivity, student engagement, and holistic development. Ethnographic inquiry into these practices provides both a local and globally relevant perspective on coordination learning as a multidimensional construct.

In sum, the literature converges on several key points: coordination is a vital yet complex aspect of motor development; parkour-inspired school activities offer a rich context for cultivating coordination skills; and ethnography provides the methodological depth required to capture these processes. At the same time, methodological debates underscore the importance of reflexivity, collaboration, and adaptation to contemporary conditions. By situating itself at the intersection of physical education, innovative pedagogy, and qualitative methodology, this study aims to illuminate the dimensions of coordination learning as they unfold in real school settings. The objective of this research is therefore to identify and analyze the dimensions of coordination learning in parkour-inspired school activities through an ethnographic inquiry in the Canadian context.

Methods and Materials

Study Design and Participants

This research employed a qualitative ethnographic design to explore the dimensions of coordination learning within parkour-inspired school activities. An ethnographic approach was selected because it provides the means to capture participants' lived

experiences, cultural context, and interaction patterns in a naturalistic setting. The study population consisted of 23 participants drawn from schools in Canada, including both students who engaged in parkour-inspired activities and teachers who facilitated them. Participants were selected through purposive sampling to ensure diversity in age, gender, and level of involvement. Recruitment continued until theoretical saturation was achieved, meaning that no new themes emerged from additional interviews.

Data Collection

Data were collected through semi-structured interviews, which allowed participants to reflect on their personal experiences, perceptions, and interpretations of coordination learning within the context of parkour-inspired school activities. An interview guide with open-ended questions was used to provide consistency across sessions while allowing for flexibility in probing participants' responses. Each interview lasted between 45 and 60 minutes and was conducted either face-to-face or online, depending on participants' availability and preferences. All interviews were audio-recorded with consent and subsequently transcribed verbatim. To enhance contextual richness, the researcher maintained field notes to capture non-verbal cues, environmental details, and reflective observations during the interviews.

Data analysis

The transcribed interview data were analyzed using NVivo 14 software to ensure systematic coding and theme development. Analysis followed an inductive approach, beginning with open coding to identify initial concepts and patterns. Codes were then grouped into categories through axial coding, which facilitated the identification of relationships between concepts. Finally, selective coding was employed to refine these categories into overarching dimensions of coordination learning. To ensure the trustworthiness of the findings, the researcher employed strategies such as member checking, peer debriefing, and maintaining a detailed audit trail. Emerging themes were constantly compared across interviews until theoretical saturation was confirmed.

Findings and Results

The study sample consisted of 23 participants from schools across Canada, including both students and teachers engaged in parkour-inspired activities. Of these, 15 were students (65.2%) and 8 were teachers (34.8%). The student group comprised 9 males (39.1%) and 6 females (26.1%), with ages ranging from 13 to 17 years (M = 15.2). The teacher group included 5 males (21.7%) and 3 females (13.0%), with teaching experience varying between 3 and 18 years (M = 9.6). Participants represented diverse educational settings, including urban (n = 14, 60.9%) and suburban (n = 9, 39.1%) schools. Recruitment continued until theoretical saturation was achieved, ensuring that the demographic spread adequately captured varied experiences and perspectives related to coordination learning in parkour-inspired school activities.

Table 1. Themes, Subthemes, and Concepts of Coordination Learning in Parkour-Inspired School Activities

Category (Theme)	Subcategory	Concepts (Open Codes)
1. Physical Adaptability	Balance and Stability	core alignment, body control, weight shifting, ankle stability
	Spatial Awareness	distance estimation, body–object orientation, obstacle recognition, movement timing

	Motor Variability	flexibility in movement, quick adjustment, non-linear responses, improvisation
	Injury Prevention	safe landing, joint protection, fall management
	Strength and Endurance	muscle conditioning, stamina building, explosive strength
2. Cognitive Flexibility	Problem-Solving in Movement	route selection, strategy adjustment, overcoming barriers
	Risk Assessment	judging difficulty, calculating safe choices, weighing speed vs. safety
	Focus and Attention	concentration, situational awareness, ignoring distractions
	Learning Transfer	applying techniques in new settings, adapting from practice to real tasks
	Creativity in Execution	novel moves, personal expression, breaking routines, alternative approaches
	Memory and Recall	remembering sequences, recalling past successes, repeating learned patterns
3. Social Interaction and Collaboration	Peer Learning	observing others, modeling behaviors, shared corrections
	Communication	verbal instruction, gesture use, signaling safety, supportive feedback
	Trust and Cooperation	mutual reliance, spotting each other, shared responsibility
	Motivation Through Group	encouragement, peer pressure, competitive drive, collective energy
	Cultural Sharing	shared values, team identity, school spirit
4. Emotional Regulation	Confidence Building	overcoming fear, mastering obstacles, pride in achievement
	Anxiety and Fear Management	dealing with heights, calming nerves, controlled breathing
	Resilience	retrying after failure, persistence, emotional toughness
	Enjoyment and Flow	immersion, fun, loss of time awareness, intrinsic satisfaction
	Self-Reflection	evaluating performance, learning from mistakes, personal growth
	Emotional Expression	joy through movement, frustration release, channeling energy

Physical Adaptability

Balance and Stability. Participants highlighted balance and stability as essential components of coordination learning in parkour-inspired school activities. Students described how maintaining core alignment and body control helped them manage unfamiliar obstacles. One participant noted: *"At first, I kept wobbling on the rail, but over time I learned how to keep my weight centered and control my body better."* Teachers also emphasized the importance of ankle stability and conscious weight shifting as foundations for safe performance.

Spatial Awareness. The development of spatial awareness was frequently mentioned, particularly in relation to estimating distances and orienting the body to surrounding objects. A student reflected: *"When you jump, you have to calculate the space and know exactly where to put your foot. It's like training your eyes and body to work together."* Recognizing obstacles and synchronizing movement timing emerged as recurring strategies for success.

Motor Variability. The ethnographic data indicated that learners developed flexibility and quick adjustments through diverse practice situations. Improvisation and non-linear responses to dynamic obstacles were common learning outcomes. As one participant expressed: *"No two jumps are the same. You always have to adapt—sometimes you change in the air, sometimes just before you land."*

Injury Prevention. Injury prevention strategies were integral to participants' narratives. Students emphasized mastering safe landings, joint protection, and fall management techniques. One student described: *"We learned how to roll when we fall. At first it looked strange, but then I realized it saved me from hurting my shoulder."* This emphasis reflected both physical adaptability and safety awareness.

Strength and Endurance. Participants also linked coordination to physical conditioning. Endurance, stamina, and muscle strength were consistently described as enablers of control. A teacher noted: *"You can see their coordination improve once they build more strength—suddenly the moves look smoother and less forced."*

Cognitive Flexibility

Problem-Solving in Movement. Problem-solving emerged as a core cognitive dimension. Participants explained how they had to select routes and adjust strategies on the spot. A student said: *"Sometimes the way you think you'll climb doesn't work, so you change and find a new way."*

Risk Assessment. Assessing risks was described as an ongoing cognitive task. Students reported weighing difficulty against safety, often balancing the desire for speed with the need to land safely. One participant stated: *"I always ask myself—can I actually make this jump, or should I step back and try something else?"*

Focus and Attention. Coordination learning was strongly tied to maintaining attention. Concentration and ignoring distractions were highlighted by several participants. A teacher explained: *"If they lose focus even for a second, they stumble. Parkour forces them to stay in the moment."*

Learning Transfer. Many students described transferring lessons from practice to everyday life situations. One participant said: *"After practicing, I noticed I walk differently. Like, I can step on uneven ground without losing balance."* This transferability reinforced the cognitive dimension of coordination learning.

Creativity in Execution. Students often experimented with personal styles and novel moves, reflecting creativity in execution. A student shared: *"I like finding my own way of getting over the box—it makes me feel like I'm not just copying but creating."*

Memory and Recall. Remembering movement sequences and recalling previously successful strategies were also identified. One student commented: *"I think about how I did it last time, and that helps me repeat the move with more confidence."*

Social Interaction and Collaboration

Peer Learning. Peer learning was widely observed. Students frequently watched each other and copied successful strategies. As one explained: *"I learned the wall run by watching my friend. Then I tried and he corrected me."*

Communication. Communication supported collaborative coordination. Participants mentioned verbal instructions, hand signals, and gestures to keep each other safe. A student said: *"We shout 'ready' before jumping so everyone knows what's happening."*

Trust and Cooperation. Trust among peers was seen as crucial, especially in spotting each other during difficult moves. One student shared: *"I only tried the high jump because my friend said he would catch me if I slipped. That gave me the courage."*

Motivation Through Group. The group environment also boosted motivation. Friendly competition, encouragement, and collective energy sustained persistence. A participant reflected: *"When I see others pushing harder, I want to keep up too."*

Cultural Sharing. Finally, participants emphasized cultural sharing and school spirit as outcomes of collaboration. A teacher stated: *"The activity creates its own little culture—students feel part of something special that goes beyond the classroom."*

Emotional Regulation

Confidence Building. Students repeatedly mentioned how parkour enhanced their confidence. One explained: *"At first, the wall looked impossible. When I finally made it over, I felt unstoppable."* Confidence was tied directly to overcoming fear.

Anxiety and Fear Management. Managing fear, especially of heights and falling, was a recurring theme. Controlled breathing and mental preparation were described. A participant said: *"I was shaking the first time, but after focusing on my breath, I felt calmer."*

Resilience. Resilience emerged in the form of retrying after failure. Students reported persistence as key to progress. One student emphasized: *"I fell many times, but I just kept trying until I nailed it."*

Enjoyment and Flow. Enjoyment and flow states shaped motivation and emotional well-being. A participant noted: *"When I'm moving, I forget time. It's just fun—I don't even feel tired."*

Self-Reflection. Learners frequently reflected on their performances, using mistakes as opportunities. As one explained: *"After each jump, I think about what went wrong and how I can fix it."*

Emotional Expression. Finally, parkour was described as a channel for emotional release. One student commented: *"When I'm frustrated, jumping helps me let it out. It's like putting my feelings into movement."*

Discussion and Conclusion

The findings of this ethnographic inquiry shed light on the complex and multifaceted dimensions of coordination learning in parkour-inspired school activities. By analyzing the experiences of students and teachers in Canadian schools, four major themes emerged: physical adaptability, cognitive flexibility, social interaction and collaboration, and emotional regulation. Each of these themes reflects not only the embodied aspects of movement but also the cognitive, cultural, and affective dimensions of learning. When considered in relation to previous research, these results contribute to a deeper understanding of how coordination learning unfolds in dynamic, non-traditional educational contexts.

The first theme, physical adaptability, underscored the significance of balance, spatial awareness, and motor variability in parkour-inspired school activities. Participants consistently described the importance of learning to adjust their bodies to shifting environments, a finding that resonates with previous research on the generalization of parkour skills across contexts (1). Skills such as safe landings, joint protection, and improvisational adjustments reflect the embodied learning that occurs when students are challenged to negotiate obstacles, echoing prior evidence that motor learning in parkour transfers effectively to less structured environments such as recess (2).

The emphasis on injury prevention strategies in this study also parallels findings from health and physical education contexts, where safety is integrated into coordination training. The notion that students become more adept at anticipating risks and protecting their bodies connects with broader ethnographic insights into how learners acquire tacit, embodied knowledge through practice (4). Ethnography is particularly effective at capturing these subtle but critical processes, since it illuminates how learners perceive and act in embodied ways that are not always visible through quantitative measures (5).

Strength and endurance, as components of coordination learning, reveal that physical conditioning is not separate from but integral to coordination. This aligns with comparative ethnographies of sport and health, where physical resilience and endurance are often identified as enablers of broader skills acquisition (7). In the parkour context, physical adaptability emerges as a dynamic interaction between body, environment, and practice, consistent with the view that coordination learning is both physical and cultural (18).

The second major theme, cognitive flexibility, highlighted how coordination learning requires constant problem-solving, risk assessment, and creativity. Students in this study frequently described how they adjusted strategies when faced with obstacles and developed individualized approaches to execution. These findings reflect existing work showing that parkour cultivates adaptability and strategic thinking among young learners (3). The role of risk assessment in this study is particularly

noteworthy, as it mirrors findings from broader ethnographic analyses that emphasize how learners balance risk and opportunity in educational contexts (6).

Focus and attention, as subdimensions of cognitive flexibility, align with literature documenting the capacity of embodied practices to sustain concentration and situational awareness (10). In parkour-inspired environments, attention is not merely cognitive but embodied, requiring learners to manage distractions and remain fully present in their movements. This resonates with visual ethnographic approaches that capture how embodied learning unfolds in real time (8).

The study also revealed that learning transfer occurred when students applied skills acquired during parkour practice to everyday contexts. Such findings are consistent with research on generalization and maintenance of physical education learning to recess and other settings (1). Creativity and memory further illustrate that coordination learning transcends repetition; students expressed pride in developing novel movements and recalling effective strategies, a phenomenon that echoes cross-cultural ethnographies of learning in non-traditional contexts (19).

These cognitive dimensions affirm the value of parkour-inspired activities as vehicles for cultivating higher-order thinking skills. They also illustrate how ethnography, as a methodological lens, makes visible the tacit strategies learners use to adapt, improvise, and create in response to environmental demands (15, 16).

The third theme, social interaction and collaboration, demonstrated how coordination learning in parkour-inspired school activities is inherently social. Peer learning emerged as a dominant process, as students observed and modeled behaviors from each other, a finding that aligns with ethnographic accounts of collaborative learning across diverse contexts (24). Communication, both verbal and non-verbal, was central to maintaining safety and supporting progress, paralleling findings from meta-ethnographies of collaborative educational practices (21).

Trust and cooperation were also salient, as students relied on one another for spotting, encouragement, and reassurance. Such findings echo collaborative ethnographies in post-pandemic classrooms, which emphasize co-construction of learning and shared vulnerability (11). The motivational role of group dynamics was evident, with participants reporting that collective energy and peer encouragement enhanced persistence. This reflects prior research on service-learning and accessible games, where community and group identity supported learning outcomes (24).

Finally, cultural sharing and the creation of group identity within school parkour activities align with broader ethnographic analyses of cultural learning in educational settings (25). By situating parkour as a shared practice that extends beyond individual performance, this study reinforces the notion that coordination learning is embedded in social and cultural contexts (12).

The fourth theme, emotional regulation, captured how parkour-inspired activities fostered confidence, resilience, and emotional expression. Students consistently described overcoming fear and experiencing pride after mastering difficult obstacles, findings that resonate with prior ethnographic insights into the affective dimensions of embodied practices (26). Anxiety management through breathing and mental preparation reflects parallels with simulation training and debriefing practices, where learners develop strategies to manage stress in performance-oriented environments (13).

Resilience was another key finding, as students reported retrying and persisting after failure. This aligns with meta-ethnographic syntheses of qualitative research that emphasize resilience as a critical outcome of experiential learning (21). Enjoyment and flow experiences were also frequently reported, supporting the view that embodied learning environments foster intrinsic motivation and immersion (22).

Self-reflection and emotional expression illustrate how learners used parkour not only as physical practice but also as a channel for personal growth and emotional release. This resonates with broader accounts of ethnography in cultural and media studies, where embodied practices are interpreted as expressive and identity-forming (20). In this way, emotional regulation

emerges as both a personal and social dimension of coordination learning, revealing the holistic nature of parkour as a pedagogical tool.

The results of this study highlight the importance of ethnographic inquiry in capturing the lived realities of coordination learning. Ethnography enables researchers to move beyond surface-level descriptions of motor skill acquisition to uncover the cultural, cognitive, and emotional layers of experience. This aligns with methodological innovations in ethnography, including synthetic ethnography (9), ethnography at a distance (6), and ethnography combined with machine learning (15, 16). Each of these methodological discussions reinforces the adaptability of ethnography to dynamic, embodied practices such as parkour.

The findings also suggest that coordination learning cannot be fully understood in isolation from the contexts in which it occurs. The interplay of physical adaptability, cognitive flexibility, social collaboration, and emotional regulation reflects the holistic nature of learning as conceptualized in contemporary educational ethnographies (17, 23). By situating parkour within this broader framework, this study contributes to both the theoretical and practical advancement of physical education pedagogy.

This study has several limitations that must be acknowledged. First, the sample size, although sufficient for reaching theoretical saturation, was relatively small and limited to Canadian schools. This may constrain the transferability of findings to other cultural or educational contexts. Second, the reliance on semi-structured interviews as the sole data collection method limited opportunities to capture embodied practices through direct observation or visual ethnography. Finally, as with all ethnographic inquiries, researcher interpretation played a central role in the analysis, raising the possibility of bias despite efforts to ensure credibility through member checking and peer debriefing.

Future research could expand on these findings by incorporating multi-sited or cross-cultural ethnographies to compare how coordination learning in parkour-inspired activities manifests in diverse educational settings. Longitudinal studies would also be valuable in examining how coordination skills and associated psychosocial outcomes are maintained over time. In addition, combining ethnographic methods with technological tools such as video analysis or machine learning could provide richer and more nuanced insights into the embodied and cultural dimensions of parkour in education.

In practice, educators and policymakers should consider integrating parkour-inspired activities into school curricula as a means of fostering coordination, creativity, and resilience. Teachers can design safe, scaffolded environments that balance challenge and support, encouraging students to take calculated risks and reflect on their experiences. Schools should also recognize the social and emotional benefits of these activities, promoting group learning, trust, and cultural identity through movement. By embracing innovative, embodied pedagogies, educators can contribute to more holistic and engaging approaches to physical education.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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