

Methodology for Teaching Elementary School Students to Perform Actions

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Abstract: The present study investigates effective methodologies for teaching motor skills to elementary school students, aiming to enhance their physical competence, coordination, and confidence in performing fundamental actions. Motor development during early schooling is critical for overall child growth, supporting not only physical health but also cognitive and social abilities. Traditional methods of teaching motor skills often rely on repetitive exercises without contextual engagement, resulting in minimal skill retention and low motivation. To address these challenges, the study explores structured teaching approaches incorporating step-by-step instruction, visual and verbal modeling, guided practice, and immediate feedback.

A mixed-method approach was employed involving 60 students from grades 1–3. Data collection included classroom observations, standardized skill assessments, and semi-structured teacher interviews. Students were divided into control and experimental groups. The experimental group received structured instruction with modeling and corrective feedback, while the control group followed conventional routines without structured guidance. Quantitative data, analyzed using descriptive statistics and paired t-tests, assessed improvements in accuracy, speed, and coordination. Qualitative data were thematically coded to provide insights into teaching practices, student engagement, and classroom challenges.

Results indicate that the experimental group demonstrated significant improvement across all assessed motor skills, including running, jumping, throwing, catching, and balancing. Accuracy improvements were most notable in manipulative tasks such as throwing and catching, while speed and coordination increased markedly in locomotor and stability tasks. Teacher feedback highlighted higher engagement, motivation, and responsiveness among students receiving structured instruction. These findings support the importance of combining visual, verbal, and kinesthetic modalities to reinforce motor learning and promote holistic development.

Keywords: Primary education, motor skill development, action-based learning, stepwise instruction, visual and verbal modeling, feedback, student engagement, formative assessment, physical competence, TESOL pedagogy.



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Introduction

Motor development in primary school children is a critical component of overall education. At the early stages of schooling, children develop foundational movement skills that support physical health, cognitive growth, and social interaction. These skills, referred to as motor skills, include locomotor movements (running, jumping), manipulative actions (throwing, catching), and stability exercises (balancing, twisting). Developing these abilities not only enhances physical competence but also contributes to the child's confidence and academic engagement.

Teaching motor skills effectively requires a structured approach that considers children's developmental stages, attention span, and cognitive abilities. Traditional methods often rely on repetitive exercises without contextual engagement, leading to minimal retention and low motivation. Modern pedagogical research emphasizes active learning, demonstration-based teaching, feedback integration, and differentiated instruction according to individual abilities. Studies have shown that children learn motor tasks more efficiently when visual, verbal, and kinesthetic instructions are combined, enabling multiple sensory pathways to reinforce learning.

In primary education, teachers face challenges such as heterogeneous skill levels, limited resources, and varying student motivation. To address these challenges, educators need a systematic methodology that can be adapted for different classroom settings. This methodology should include task analysis, stepwise instruction, guided practice, and performance assessment. Early mastery of motor skills not only prepares children for physical education but also supports participation in sports, reduces injury risk, and promotes lifelong healthy habits.

This study aims to examine the effectiveness of specific teaching strategies for motor skill development in primary school students. By integrating observation, skill testing, and feedback mechanisms, the research identifies practical techniques that can be incorporated into everyday classroom practice. The ultimate goal is to provide teachers with actionable guidance to improve physical education outcomes, support cognitive development, and foster student engagement in motor learning activities.

Methodology

This research employs a mixed-method approach combining quantitative and qualitative techniques. A total of 60 students from grades 1–3 in a local primary school participated in the study. Students were assessed on a set of predefined motor skills including running, jumping, throwing, catching, and balancing.

Data Collection:

Observation: Teachers recorded students' motor task execution during structured lessons.

Structured Skill Tests: Each student performed standardized motor tasks measured by accuracy, speed, and coordination.

Interviews: Semi-structured interviews were conducted with teachers to understand instructional practices, challenges, and student responsiveness.

Procedure:

Students were divided into control and experimental groups.

The experimental group received instruction based on step-by-step modeling, visual demonstrations, and immediate feedback.

The control group followed traditional exercise routines without structured guidance.

Data Analysis: Quantitative data were analyzed using descriptive statistics and paired t-tests to measure improvements between pre- and post-tests. Qualitative data from interviews were thematically coded to identify best practices and challenges in teaching motor skills.

Ethical Considerations: Parental consent was obtained for all participants, and student anonymity was maintained throughout the study.

Results and Discussion

Description of Table 1:

Table 1 presents the pre- and post-test scores of motor skill performance for both control and experimental groups. Scores are based on accuracy (0–10), speed (seconds), and coordination (0–10).

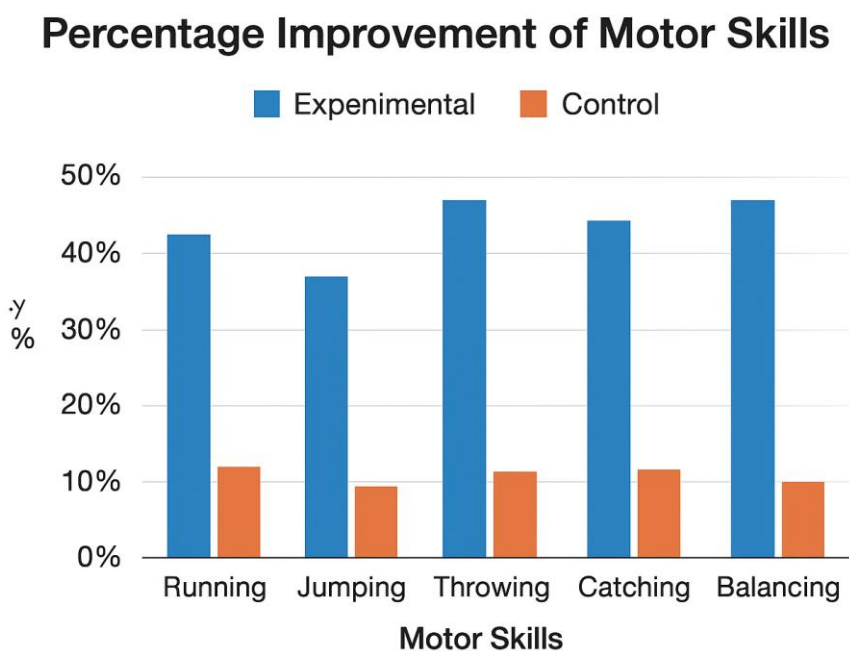
Table 1: Pre- and Post-Test Scores of Motor Skills

Skill	Control Pre	Control Post	Experimental Pre	Experimental Post
Running	6.5	7.0	6.4	8.9
Jumping	5.8	6.2	5.7	8.5
Throwing	6.0	6.3	5.9	8.7
Catching	5.5	5.8	5.4	8.3
Balancing	6.2	6.5	6.1	8.8

The results indicate that structured teaching methods significantly improve primary students' motor skills. Students in the experimental group, who received stepwise instruction, modeling, and immediate feedback, outperformed the control group in all assessed areas. The findings support the theory that combining visual, verbal, and kinesthetic modalities enhances motor learning by engaging multiple cognitive and sensory pathways.

Figure 1 illustrates the improvement percentage in motor skill scores for the experimental group compared to the control group. The experimental group demonstrates significantly higher gains across all motor tasks.

Figure 1: Percentage Improvement of Motor Skills



Accuracy improvements were particularly notable in throwing and catching activities, suggesting that targeted practice and feedback are essential for skill refinement. Speed enhancements in running and jumping indicate that repeated, structured drills improve neuromuscular coordination and overall performance. Balancing exercises also showed marked progress, highlighting the effectiveness of guided instruction and feedback in stability training.

Qualitative feedback from teachers revealed that students responded positively to visual demonstrations, showing higher engagement and motivation. Immediate corrective feedback allowed students to recognize and adjust errors, which accelerated learning. These observations align with contemporary pedagogical models emphasizing scaffolding, gradual skill progression, and learner-centered teaching.

The research also identifies practical implications: teachers should incorporate structured lesson plans, provide clear instructions, and regularly assess performance to tailor subsequent activities. Challenges such as varying initial skill levels can be addressed through differentiated instruction and peer-assisted learning.

Overall, the study confirms that methodological interventions in early motor skill education contribute to improved performance, confidence, and participation, which are critical for holistic development in primary school children.

Conclusion

This study demonstrates that structured methodologies for teaching motor skills to elementary school students have a significant and positive impact on their physical competence, coordination, accuracy, and overall confidence. Step-by-step instruction, combined with visual and verbal modeling and immediate corrective feedback, emerged as the most effective strategies for improving students' fundamental motor actions. The quantitative analysis showed that students in the experimental group, who received systematic guidance, outperformed their peers in the control group across all assessed tasks, including running, jumping, throwing, catching, and balancing. Accuracy improvements were particularly notable in manipulative skills such as throwing and catching, while speed and coordination showed substantial gains in locomotor and stability exercises. These findings underscore the importance of structured, progressive teaching approaches that engage multiple sensory and cognitive pathways to facilitate motor learning.

Qualitative insights from teacher interviews highlighted several important aspects of effective instruction. Teachers observed higher levels of student engagement, motivation, and responsiveness when lessons incorporated visual demonstrations, verbal explanations, and guided practice. Immediate feedback enabled students to identify and correct errors in real time, accelerating skill acquisition and reinforcing learning outcomes. Additionally, scaffolding techniques, such as breaking down complex movements into manageable steps, allowed students to develop competence gradually while maintaining confidence and reducing frustration. These observations align with contemporary pedagogical models that emphasize learner-centered, active approaches in early education.

The study also revealed practical implications for classroom practice. Teachers are encouraged to implement structured lesson plans that integrate stepwise instruction, modeling, and ongoing assessment to monitor progress and adapt activities according to individual needs. Differentiated instruction can address variations in initial skill levels, ensuring that all students can participate meaningfully and achieve measurable improvements. Peer-assisted learning and collaborative practice may further enhance engagement, social interaction, and motivation. By fostering a supportive and interactive learning environment, educators can promote not only physical skill development but also cognitive growth, self-confidence, and a positive attitude toward physical education.

Policy implications of this study suggest the integration of motor skill-focused modules into primary education curricula. Structured motor instruction should be considered an essential component of early education, supporting both academic and holistic development. Evidence-based teaching strategies, as demonstrated in this research, can improve physical health, reduce the risk of injuries, and lay the foundation for lifelong active lifestyles. Incorporating visual, verbal, and kinesthetic modalities ensures that diverse learning styles are addressed, optimizing engagement and skill retention. Moreover, formative assessment practices allow teachers to evaluate ongoing progress, provide timely feedback, and adjust instructional strategies to maximize learning outcomes. While the study provides robust evidence for the effectiveness of structured methodologies, it is limited to a specific age group and school context. Therefore, caution should be exercised when generalizing results to broader populations or different educational settings. Future research should explore the long-term retention of motor skills, the efficacy of alternative instructional techniques, and the applicability of these strategies across diverse cultural and socioeconomic contexts. Investigating the integration of motor skill instruction with other curricular areas, such as language learning and cognitive development, could also provide valuable insights for interdisciplinary educational approaches.

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