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The Role of Egrang (Stilt Walking Game) in Improving Motor Balance in Elementary School Children

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ABSTRACT

Objective: *This study aims to explore the role of traditional stilt walking games (egrang) in enhancing motor balance among elementary school children.* ***Method***: *A Systematic Literature Review (SLR) approach was employed, utilizing secondary data sourced from theoretical texts, scientific publications, and national journals. Data collection was conducted through listening and note-taking techniques, and data validity was ensured using theory triangulation.* ***Results***: *The findings indicate that stilt games significantly contribute to the development of children's motor skills by: (1) improving body balance, (2) strengthening leg and arm muscles, (3) enhancing motor coordination, (4) cultivating courage and self-confidence, and (5) increasing focus and concentration. These elements collectively support both gross and fine motor development in a holistic manner.* ***Novelty***: *This study highlights the educational potential of integrating traditional games such as egrang into the school curriculum as an engaging and culturally relevant strategy for physical development. It offers a unique perspective by emphasizing the pedagogical and developmental benefits of local wisdom-based play in modern elementary education.*

INTRODUCTION

Motor skills refer to an individual's ability to move their body parts in a coordinated manner [1]. Furthermore, Azizah (2023) explains that motor skills involve the development of physical movements, which can be enhanced through various activities [2]. Similarly, Gulo (2019) defines motor skills as the ability to move body parts in a synchronized way. Thus, motor skills are bodily abilities to perform specific physical activities that involve the function of muscles, bones, and nerves to produce movement [3].

Motor skills are generally divided into two types: gross motor skills and fine motor skills. According to Yasmin (2010), gross motor skills are the ability to perform movements involving large muscles [4]. Hurlock (2015) also notes that gross motor development is essential for body balance [5]. On the other hand, fine motor skills involve smaller muscles and are used for tasks such as writing or stringing beads (Papalia, 2008). Therefore, fine motor skills refer to the ability to perform small muscle movements [6].

Both gross and fine motor skills can be developed through traditional games such as egrang. Egrang is one of Indonesia's traditional games that emphasizes balance and strength [7]. Gulo & Pardede (2016) describe egrang as a tool used for range-based play [3]. Additionally, Soedarsono (2002) defines egrang as a game using a pair of long

bamboo poles with footrests, enabling the player to walk above the ground [8]. Therefore, egrang is a traditional game that utilizes a pair of wooden stilts as supports for walking.

The egrang game aims to develop gross motor skills and build children's self-confidence through physically challenging activities [8]. Additionally, Hasan (2005) emphasizes that egrang is not merely a form of entertainment but also a tool for fostering courage in facing challenges [9]. Saryono (2000) notes that this traditional game also helps train body balance and agility. Therefore, egrang serves the purpose of enhancing physical endurance as well as sharpening focus and concentration [10].

Physically challenging games like egrang can significantly boost a child's self-confidence and bravery, as they require persistence in facing repeated failures and successes [11]. Anas (2023) also states that egrang can effectively develop gross motor skills [12]. Moreover, Suyanto (2010) highlights the game's role in training coordination and balance [13]. Thus, egrang encourages children to overcome obstacles (such as maintaining balance) and to be more persistent, as it demands repeated practice. Egrang is especially suitable for elementary school children.

Elementary school children, typically aged 6–12 years, are in a stage of formal education and social development [14]. Ningtyas (2023) explains that at this stage, children begin to think logically about concrete matters and can develop classification and conservation skills [15]. Morita (2021) adds that they possess a strong sense of curiosity in their growth process. Therefore, elementary-aged children are in a crucial period of development and discovery [16].

Their physical growth stabilizes compared to earlier childhood [17]. Sabani (2019) and Zakariyah et al. (2024) note that this stage is also essential for shaping character and personality [18]. Hence, the development of elementary school children encompasses both physical changes and the foundation of their personal identity.

RESEARCH METHOD

This study employs the Systematic Literature Review (SLR) method, an approach aimed at identifying, analyzing, and synthesizing various scholarly sources related to the research topic, including the central research questions to be addressed [19].

The data used in this study are secondary data. According to Umaroh and Hasanudin (2024), secondary data may include findings obtained from scientific articles, journals, reference books, theses, and other relevant sources that align with the research focus. In this context, the secondary data reviewed consist of words, clauses, phrases, and sentences sourced from theoretical books, scientific works, and national journals [20].

The data collection techniques applied were the "listening and note-taking" methods. Gani (2015) explains that this method involves actively listening to or observing information and then recording important findings. In this study, the listening technique involved a careful review of both oral and written data sources, while the note-taking technique involved systematically documenting information deemed relevant and necessary for observation [21].

The data validation technique used is triangulation. As described by Puspita and Hasanudin (2024), triangulation is a method of enhancing data validity by combining multiple sources or approaches [22]. This study specifically applies theoretical triangulation, utilizing various theories and expert opinions to support or contrast the arguments and concepts presented in the research.

RESULTS AND DISCUSSION

Results

To gain the maximum benefits from the *egrang* (stilts) game described above, children need to understand and follow proper usage instructions. Below are the steps for using *egrang* safely and effectively for elementary school children:

1. **Prepare suitable egrang**

   Use two sturdy bamboo or wooden poles that are tall enough for the child, complete with footrests. Ensure that the equipment is safe to use (not sharp, not slippery, and structurally strong).

   For an illustration, see the following image.

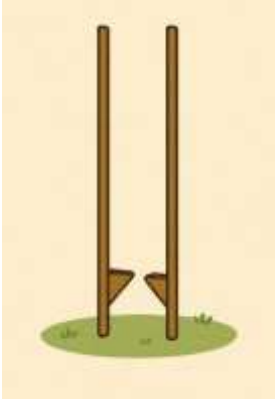

Figure 1.
Source: https://images.google.com/.

2. **Choose a safe practice area practice should be done on a flat, non-slippery, and spacious surface.**

Figure 2.
Source: https://images.google.com/.

3. **Hold the egrang in an upright position**
   The child should stand behind the stilts, holding both poles firmly and keeping them parallel to the body.

Figure 3.
Source: https://images.google.com/.

4. **Step onto the footrests**
   The child places one foot on the footrest of the *egrang*, followed by the other foot. The child stands upright while maintaining balance.

Figure 4.
Source: https://images.google.com/.

5. **Start walking slowly**
   Once the child feels balanced, they begin to walk by moving one stilt forward, followed alternately by the other.

Figure 5.
Source: https://images.google.com/.

Discussion

Stilt walking games (egrang) are highly beneficial for developing motor skills in elementary school children, as they involve physical activity that engages muscles—making them particularly suitable for children undergoing physical development. The following is a discussion of the role of stilt games in enhancing motor skills in elementary school children:

a. **Training body balance**
   Stilt games require children to maintain balance while standing and walking on two bamboo poles. This exercise stimulates muscle function and the nervous system to sustain posture, which is vital for gross motor development. Sujiono (2013) states that body balance is part of gross motor skills, essential for maintaining stability during physical activities [23]. Likewise, Sugiyanto (2010) defines body balance as the ability to maintain body position while standing, walking, or performing specific movements without falling [23].
b. **Strengthening leg and arm muscles**
   Climbing and moving with stilts demands strength in both the legs and arms. Regular practice with egrang naturally increases children's muscle strength in line with their physical growth. Syarifudin (2005) emphasizes that muscle strengthening involves repeated physical activity, while Harsono (2015) explains that regular exercise enhances strength, endurance, and posture [24].
c. **Developing motor coordination**
   When playing egrang, children must coordinate hand, foot, and visual movements simultaneously. This significantly supports the development of comprehensive gross motor coordination. Gallahue (2006) defines motor coordination as the ability to combine body movements efficiently and purposefully [25]. Similarly, Mutiah (2015) explains that motor coordination is the body's ability to manage precise movements, whether in specific body parts or as a whole [26].
d. **Fostering courage and self-confidence**
   This game often involves the risk of falling during the initial stages of practice. With encouragement and repetition, children learn to get back up and try again. This process nurtures perseverance and builds self-confidence. Winkel (2007) explains that courage is a mental attitude that enables a person to face challenges or difficult situations without excessive fear. Likewise, Hurlock (2015) defines self-confidence as the belief in one’s own abilities and judgment [5].
e. **Enhancing focus and concentration**
   Children must concentrate fully when using stilts. This becomes a valuable mental exercise to strengthen their focus and attention in completing challenging tasks. According to Muhibbin Syah (2003), improving focus and concentration requires consistent study habits and genuine interest in the activity [27]. Yusuf (2010) also notes that concentration develops with age and appropriate stimulation [28]. Children who are regularly trained to complete tasks to the end tend to develop better concentration skills.

CONCLUSION

Fundamental Finding : The research findings indicate that the traditional game of *egrang* plays a significant role in enhancing motor balance among elementary school children. Specifically, it contributes to **body balance**, **muscle strengthening** in the legs and arms, **motor coordination development**, **fostering courage and self-confidence**, and **improving focus and concentration**. **Implication :** These outcomes suggest that *egrang* can serve as an effective educational and physical development tool when integrated into school-based motor skills programs, particularly in promoting holistic physical and character development through culturally rooted activities. **Limitation :** However, the study's scope was limited to a specific age group and setting, which may restrict the generalizability of the findings to other regions or contexts with differing physical education infrastructures or cultural familiarity with *egrang*. **Future Research :** Further research should explore longitudinal impacts of *egrang* training, assess its effects across various age levels and developmental conditions, and investigate its potential integration with modern physical education curricula to support inclusive and adaptive motor learning strategies.

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