

Crossing the Midline: Rhythm, Regulation, and Readiness through Bal-A-Vis-X

Elnaz Ghorbani; Vickie E. Lake , PhD



Introduction

Balance, Auditory, Visual, eXercise (Bal-A-Vis-X; BAVX) is a movement-based educational program developed by Bill Hubert (1999) that integrates rhythm and coordination to enhance learning and self-regulation (Hubert, 2014). Rooted in the understanding that rhythm serves as a bridge between body and mind, BAVX uses patterned, repetitive movements involving beanbags and racquetballs to strengthen sensory integration, attention, and cognitive control (Hubert, 2007). Unlike music-driven rhythmic interventions, BAVX emphasizes self-generated rhythm through pendular motion, requiring constant auditory-motor feedback and bilateral coordination. Grounded in neuroscience and developmental theory, rhythm is increasingly recognized as foundational for executive function, emotional regulation, and academic readiness. However, limited qualitative research has examined educators’ perspectives on how BAVX’s rhythmic components support attention and regulation in classroom settings. This study explores how teachers perceive the effects of rhythmic movement in BAVX on children’s attention, regulation, and readiness to learn.

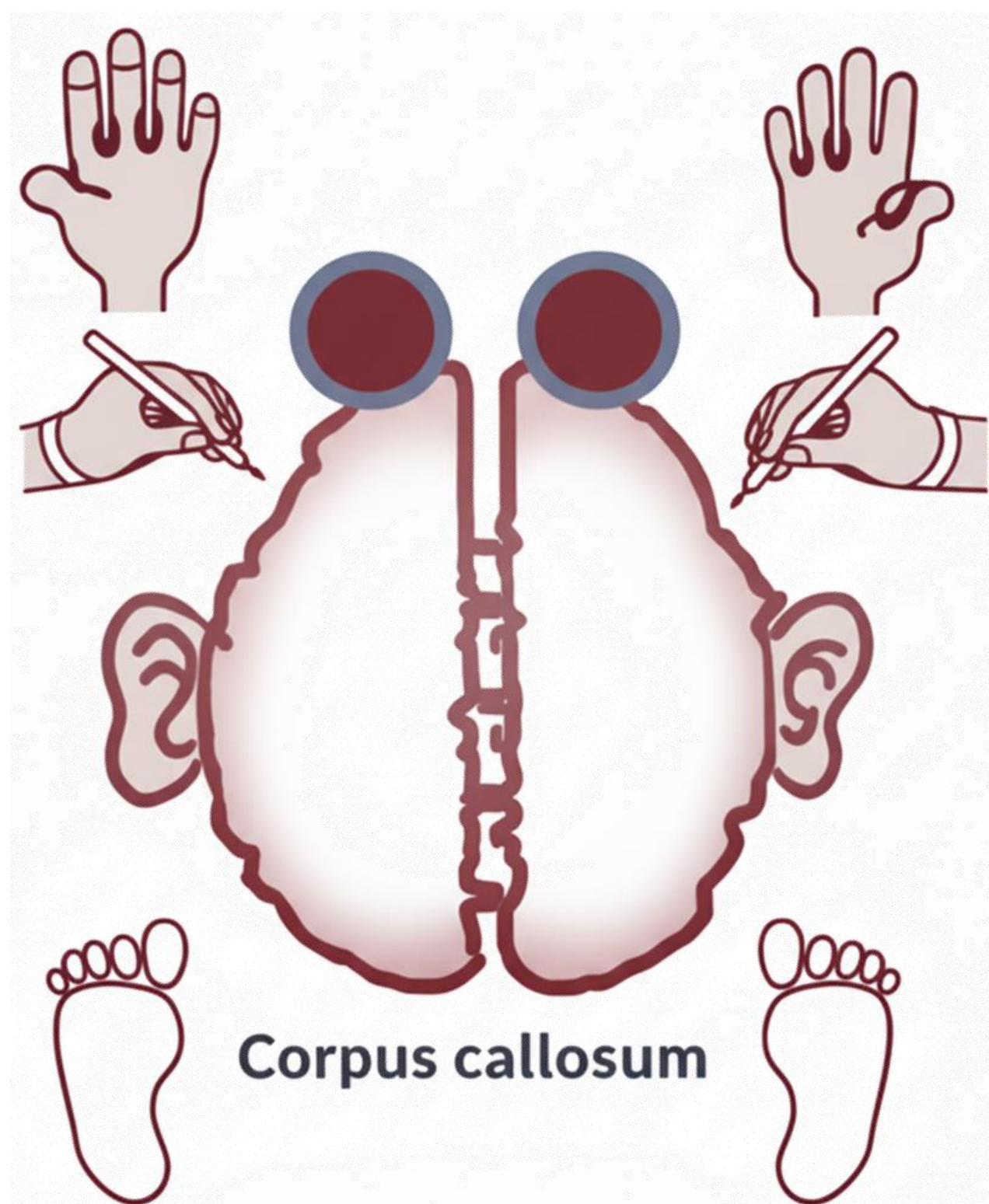


Figure 1: (Integrated Brain Ltd., n.d.).

Research Question:

How do educators perceive the role of rhythmic movement in Bal-A-Vis-X in supporting children’s attention, regulation, and readiness to learn?

Methods

This qualitative study employed a mixed-format data collection process involving (1) an online survey with 32 educators trained in BAVX, (2) an in-depth interview with a program administrator, and (3) a focus group with five participating teachers. Participants represented diverse educational contexts, including early childhood and elementary classrooms. Data was analyzed thematically to identify recurring patterns and shared meanings across educators’ experiences. The coding process emphasized language related to rhythm, attention, regulation, and social interaction. Reflexive thematic analysis was used to interpret how teachers conceptualized rhythmic movement as a pedagogical and regulatory tool. Triangulation across data sources ensured credibility and depth of interpretation, illuminating how BAVX practices function within real-world classroom dynamics.

Findings

Three major themes emerged from the data: (1) **Rhythm as a Core Mechanism**, (2) **Rhythm and Regulation**, and (3) **Social Connection and Readiness**.

Rhythm as a Core Mechanism

Teachers described rhythm as the foundation—or “scaffold”—that organizes movement, attention, and learning within BAVX. The repetitive, patterned exercises established internal timing and body–mind coordination, enabling children to sustain focus and engage more fully in classroom activities. Rhythm was not viewed as an accessory, but as the essential mechanism driving cognitive and emotional integration. This finding aligns with neurological theories emphasizing rhythm’s role in synchronizing neural networks involved in attention and executive function.

Rhythm and Regulation

Rhythmic movement was consistently linked to improvements in self-regulation and emotional balance. Teachers observed that structured, bilateral exercises helped students calm their bodies, sustain attention, and transition smoothly between tasks. Rhythm served as a nonverbal, sensory-based tool for supporting children with trauma histories or attentional challenges, reinforcing the connection between rhythmic predictability and emotional safety.

Social Connection and Readiness

Group-based rhythmic exercises promoted cooperation, empathy, and classroom cohesion. Through shared timing and synchronized motion, children developed peer awareness and collective rhythm, enhancing both social interaction and readiness for academic learning. These findings suggest that rhythmic movement not only supports individual regulation but also fosters a sense of belonging and relational attunement essential for holistic development.

Conclusion

Findings indicate that embedding rhythmic movement through BAVX provides both therapeutic and educational benefits by synchronizing sensory, cognitive, and emotional systems. Rhythm acts not only as a behavioral regulator but also as a neurological integrator, strengthening neural pathways that support executive function and learning readiness. Teachers viewed BAVX as an inclusive approach adaptable to diverse learners, fostering peer connection and emotional stability. This study highlights rhythm’s unique potential as a neuroeducation mechanism—linking body, brain, and behavior—and underscores the need for further interdisciplinary research connecting rhythmic movement practices with neuroscience and educational psychology.

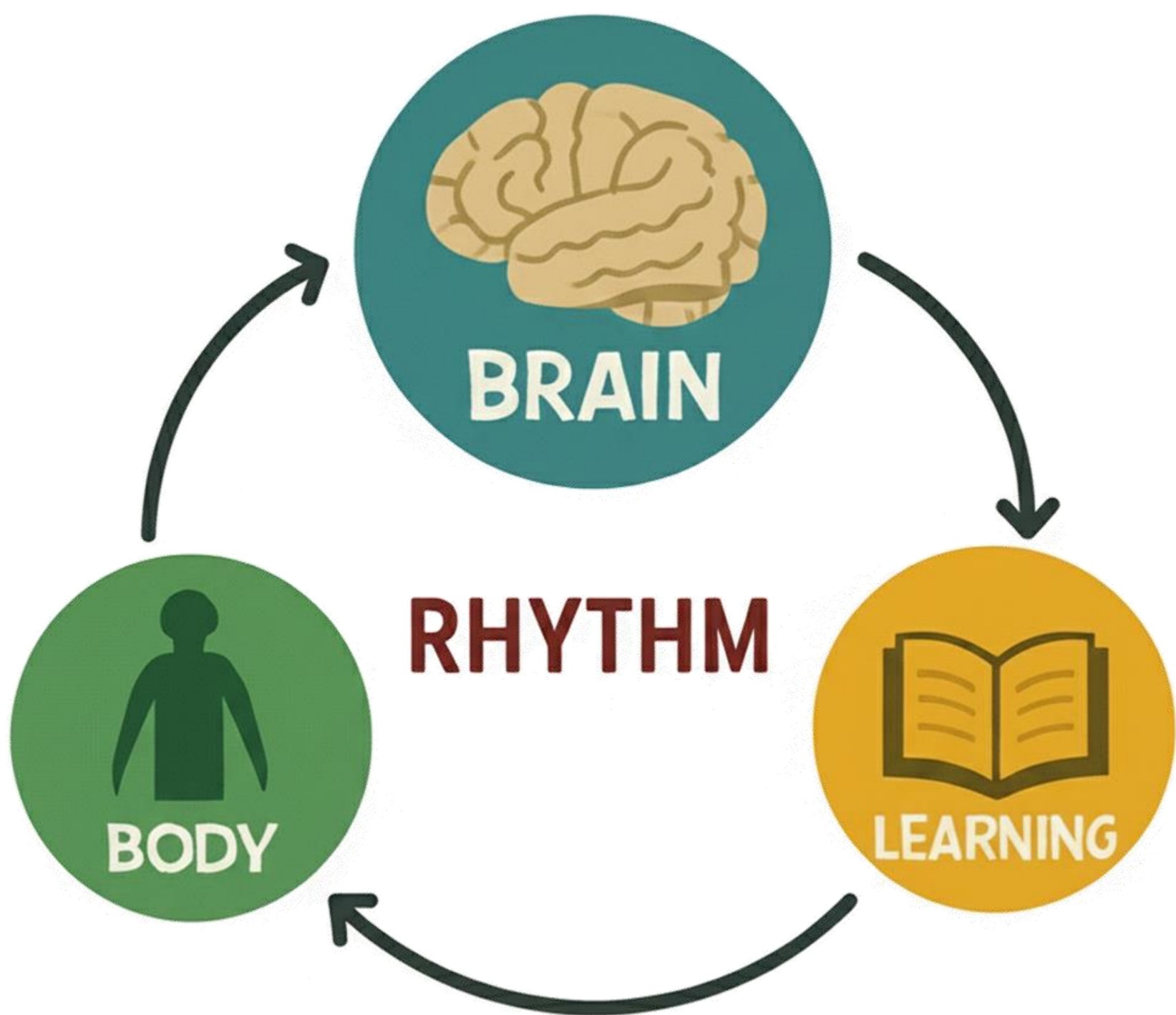


Figure 2: Importance of rhythm

Contact:

Elnaz Ghorbani
Doctoral Student
Elnaz.ghorbani@ou.edu
University of Oklahoma

Vickie Lake, PhD
vlake@ou.edu
University of Oklahoma



References