

MEANINGFUL MOVEMENT AND LITERACY CONTENT

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Abstract

Links among brain research, movement, and cognition suggest that integrating meaningful movement activities with content can foster elementary students' engagement in literacy learning. This manuscript describes an action research project of a module for teacher candidates' incorporation of meaningful movement in elementary classrooms. Activities and their alignment to the English Language Arts standards are described. Evidence of the impact of the module on teacher candidates' planning reflects that 41% of candidates' lessons showed intentional movement, specifically by encouraging children to move about the classroom, use body gestures, and rotate physically through centers.

Introduction

I did a gallery walk...I loved getting to listen to the groups share about their poster of the amendment they were assigned, and I feel like my lesson was meaningful. I got the students up and moving around the room... (Teacher candidate reflection, April 29, 2015)

Gallery walks are ways we consider that children not only interact cooperatively via verbal means, but also move meaningfully in the classroom. Shoval (2011) noted in her research that "movement-added learning" (p. 456) within cooperative learning was what most facilitated second and third graders' mathematical achievement of angles. She explained that "movement is an exterior stimulus, and as long as the learner is engaged in his or her learning task" (p. 456), motivational factors present within the movement spur attention toward learning. Such a finding supports Jensen's (1998/2005) argument that strong brain-body-linked-research between movement and learning exists and suggests that teachers "be purposeful about integrating movement activities into everyday learning" (1998, p. 88).

Movement is described as involving kinesthetic perceptions of information about one's body and its position relative to the environment. For us, specific integration relative to the teaching of English Language Arts is attained through relevant doings or kinesthetic procedures of learning that anchor academic concepts. Meaningful

movement could include purposeful movements, like gesturing to demonstrate vocabulary meanings or creative dramatizations that use bodily movements to communicate character traits. It may also involve seat-changing or walking the room to orally think/share and write ideas with others.

Our study of meaningful movement began from working with elementary pre-student teachers during their junior year of college. We noted their observations of children’s lack of physical activity in the classroom and their awareness of how getting “students up and moving” facilitated their students’ engagement or attentiveness to learning—which often led to increased literacy achievement. We intentionally researched and developed a module of strategies involving movement and then observed our teacher candidates’ planning of movement practices in field experience lesson plans. In this article, we share our “action research.”

Movement and Learning: Mind and Body Research

As the storyteller talks, other members listen and write summaries of the BME events on cars (which are then “parked” at each house). Recalling (memory) is aided by the context of the map (pictorial representation), as the details of the events are related to the overall structure (Jensen, 1998). The kinesthetic interaction of walking the road enables the storyteller to try out his/her thinking and verbalizations (Shoval, 2011).

Figure 1. Road Mapping Story Example

Walking the wall/Vocabulary and image connections To begin, our candidates learned that links of a positive relationship between physical activity and academic achievement are derived from brain-based theory research (Mullender-Wijnsma, Hartman, de Greeff, Bosker, Doolaard, & Visscher, 2015). Jensen (2005) maintains that the parts of the brain involved in memory, attention, and spatial perception are the same parts of the brain that process movement. With physical activity, biological changes in the brain increase and the neuron-increased activity improves cognition (Jensen, 1998). In particular, increases in oxygen intake affect the heart rate, leading to stimulated brain functions, thereby facilitating “a child’s ability to take in information and learn” (Reilly, Buskist, & Gross, 2012, p. 63). To exemplify what this means in the classroom, we share studies of movement linked to achievement, like Mullender-Wijnsma et al. (2015). They concluded that a significant interaction between the condition of movement and increased post-test reading (and math) achievement results occurred with repetitive activities that integrated physical activities.

Module of Meaningful Movement Activities and Literacy Content

In presenting meaningful movement content to our teacher candidates, we emphasized that integrating movement activities begins with the English Language Arts (ELA) content. Because the ELA standards emphasize critical thinking and analysis of texts, we encouraged them to consider how moving is a natural means for students' verbal and socio-kinesthetic interactions. Descriptions of sample activities and how each activity aligns to ELA standards are shown in Table 1.

Teaching Module Activities

Give one, Get one. Marzano (2012) explains this activity as students' standing and walking the room to find and share oral responses with one another about a given topic or selected reading. The goal of students' receiving (get one) and giving information (give one) is extended by question-generation by the pairs, as well as by the students' recording of what they have learned from each other. We describe how students can be numbered into multiple groups of three or four members. As a whole group, they read informational text with the purpose of finding textual evidence to answer an essential question. The teacher scaffolds their thinking of specific chunks of text with focus questions. Students then walk to their assigned, numbered-corner groups to "give and get" information that they record as notes. Eventually, the students use these shared notes to explain their thinking and conclusions regarding the essential question.

Road Mapping Story. In this example, primary-aged students use their feet to "map" a story's plot structure. While walking a road (made out of butcher paper and taped to the classroom floor) (see Figure 1), the student retells a given story. This storyteller stops at three construction paper houses—the Beginning (B) house, the Middle (M) house, and the Ending (E) house—to recount the story sequence. Communities of three children can be grouped around the road and houses;. In this activity for primary or intermediate-aged students, posters of vocabulary from given informational text are displayed on the classroom walls. To deepen understanding of the words (labels of concepts), the students are each given images/illustrations/photos. Each student must first analyze and make real-life connections between the image and given vocabulary. Individually, the students then walk the walls and select a vocabulary poster that "connects" in some way. Their explanations of thinking or how they clarified the meanings of the vocabulary on the posters via the given images are shared verbally.

Table 1

Movement Activities Aligned to ELA Common Core Standards (2015) with Adaptations

Movement Activity	Content/Topic	Standard
Give one, get one	Text comprehension: Close reading	<i>Reading: Key Ideas and Details</i> Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
Road mapping story	Text comprehension: Story structure	<i>Reading: Craft and Structure</i> Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
Walking the wall	Vocabulary: Clarifying word meanings	<i>Language: Vocabulary Acquisition and Use</i> Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

Impact of Teaching Module

To seek the impact of our teaching module upon the pre-service candidates' literacy planning and preparation, we collected 83 lesson plans (from September to December of 2015), which we examined for evidence of meaningful movement activities. Forty-one percent of the lesson plans reflected how a teacher candidate in grades kindergarten through five intentionally planned a movement activity. Movement activities were reflective of three categories: (1) Walking the classroom; (2) Intentional body gesturing; and (3) Small group rotations. Table 2 shows evidence of movement observed in the pre-service candidates' ELA lessons.

Nearly 62% of the candidates' movement-planning depicted ways children walked or moved about in the classroom. To illustrate, instead of asking students to take notes from a teacher's lecture and powerpoint presentation, teacher candidates planned how the walls could provide worksheet instruction (www.yourtherapysource.com) and become visual displays of content that their students had to move to, read, and write notes from. Walking movement activities included games, like relay dictionary usage, or searching for partners to orally share or write

content. Secondly (20%), the candidates' plans reflected how they intentionally planned for their students to gesture or use their bodies (e.g., word meanings or letter recognition) to communicate literacy content. Thirdly (18%), the teacher candidates utilized literacy centers or structured rotations: an instructional framework that Hodges and McTigue (2014) say promotes students' attentiveness simply through seat-changing to stand, walk, and alternate locations in the classroom. Specifically, a second grade teacher candidate planned rotations to help her students view how print and non-print work together to make meaning. The children rotated through stations of materials with varying visual (picture/illustration) and text information. As they rotated, the children explored and talked about how the two systems supported their understanding of the life cycle of a butterfly.

Table 2 Elementary Teacher Candidates' Planning of Movement Activities in Literacy Lessons
Importance of Incorporating Meaningful Movement in the Classroom

Categories of Movement Activities in Literacy Lesson Plans				
Walking in classroom			Intentional gesturing	Group rotations
Partner search	Games	Walls/corners		
9/26%	6/18%	6/18%	7/20%	6/18%

The intent of this “action research” project was to facilitate pre-student teachers’ awareness of the connections between movement and literacy engagement. Acknowledging that only 41% of the candidates’ literacy lesson plans reflect movement activities indicates a need for increasing both the importance of movement and how to incorporate it within literacy instruction. While the sample activities in the instructional module reflect relatively small physical student movements, we believe, like Marzano (2012), that “every bit helps” (p. 89) in fostering elementary students’ engagement in learning. Preparing novice teachers to consider how they can get their students active and moving in many, creative ways is important to our elementary students’ engagement in learning, and potentially, their achievement.

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