The Social Effects Of Student-Selected Movement Activities In A Montessori Lower Elementary Class

Diana Haro Reynolds, M. Ed.

Institute for Montessori Innovation, Westminster College

BACKGROUND

Movement and physical activity is an inherent and important aspect within the design of the Montessori Method.

> *"One of the greatest mistakes of our day is to think of movement by itself, as something apart from the higher functions… Mental development must be connected with movement and be dependent on it."* (Montessori, 1967, p. 141)

Fine motor movement is a part of every work the student does from toddlerhood, through early childhood and into the elementary years. Gross motor movement is a major portion of toddler and early childhood years, as this is when the sensitive period for movement is greatest. In elementary and beyond, it becomes a secondary focus.

Through observations, I saw students showing a great need for gross motor movement and physical activity. Many students met this need by running in the room, jumping over classmates, throwing items across the room, wrestling, etc. These behaviors caused disruptions and sometimes injuries to other students.

RESEARCH QUESTION

What are the effects of student-selected gross motor movement activities on a Montessori lower elementary class?

LITERATURE REVIEW

Physical Activity in Montessori

The model for gross movement in Montessori classrooms is student-driven and incorporates physical activity in a seamless fashion. Maria Montessori believed that the emotional, physical, and social needs of children could be met in a true Montessori setting, and thus viewed recess as an arbitrary adult implemented break. However, her recommendations are based on children who lived in the 20th century, and the lives of children have changed drastically in last 110 years.

Physical Activity of Today's Children

Among some reasons for a decline in children's physical activity are the concerns of a "shortage of play spaces, unsafe neighborhoods, increased screen time, and increased demands of schooling" (Mahar, 2011, p. 60). Today's children spend most of their waking hours in school, making it the ideal place for students to engage in gross motor movement opportunities. It is time that educators recognize the large role we play in these statistics and acknowledge the need for and benefits of movement in the lives of the students at our care.

A New Integrated Paradigm

The integrated paradigm points to the dependency and relation among cognition, physical activity, and emotional well-being (Jensen, 2005). Movement for movement's sake doesn't have the same academic impact on students because it lacks the socialization and emotional connection that happens during recess. The literature lacked research on student-selected gross motor movement in the classrooms, as most studies were done under the direction of a teacher. The aim of this study was to understand the impact of student-selected movement within the work cycle, echoing Montessori's view of the classroom as being a place where all the needs of the student can be met.

COMPARTMENTALIZED PARADIGM	INTEGRATED PARADIGM
Cognition, emotions and physical activity are **independent and unrelated**.	Cognition, emotions and physical activity are **dependent and interrelated**.

METHODS

Phenomenological Action Research Study

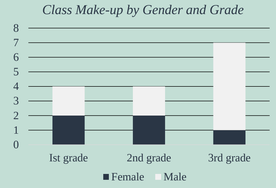
The study was based on humanistic learning theory and social constructivism. Consisting of seven student-selected movement activities (MA) available during the hours of instruction; chosen based on the students observed physical behaviors.

Movement activities: jump rope, balance board, soccer ball, workout routine,, ball toss, Chinese jump rope,, and balance board (not pictured).

Setting and Participants

It took place in over 12 weeks in a Lower Elementary classroom in a private Montessori school. The class consisted of fifteen students, grades 1st, 2nd & 3rd.

Class Make-up by Gender and Grade



Data Collection

- tracking daily usage of each movement activity
- parent surveys
- student interviews
- personal observations

Data Analysis

The analysis was based on Grounded Theory, due to the dynamic and multi-faceted nature of the class. This required that I utilize a wide field of vision and be open and flexible to all salient and emerging data, while maintaining the research question as the focus.

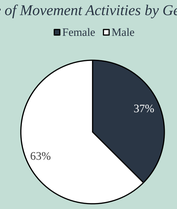
Validity and Trustworthiness

To ensure validity and demonstrate credibility of my action research, I relied on triangulation, a critical friend, a community of peers, prolonged engagement, rich, thick description, and researcher reflexivity.

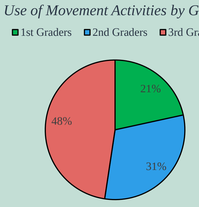
FINDINGS

After weeks of data analysis, I concluded that the movement intervention played a supporting role within the larger context of the class; and had a substantial effect on me, as I discovered previously unknown things about the students and myself. Gender and grade level distribution were also major factors in the findings, since the class was 67% male, and 48% third graders. Three overarching themes emerged: unique class dynamics, student developmental needs, and impact on practice.

Use of Movement Activities by Gender



Use of Movement Activities by Grade



UNIQUE CLASS DYNAMICS

As I started the study, it became clear to us that this group was unique; the struggles observed were stronger and more frequent than usual. Even my very experienced co-teachers had not had a group of students as challenging as this. Their struggles made it difficult for them to engage in meaningful academic work.

LOW ENROLLMENT and LACK OF COHESIVENESS led to:

- Increased teacher dependence
- Less peers with whom to make connections and form friendships
- Clashing personality traits
- Repeated physical displays of aggression
- Disregard for others' focus
- Minimal impulse control, etc.

STUDENT DEVELOPMETAL NEEDS

FOR SOCIALIZATION

…and meet their need for social connection, recreation, and gross motor movement; an **extension of recess.**

> "Without recess you'll die, and you will not be a friendly person!"

TO SELF-REGULATE

… and meet their need to calm their **emotions**, increase **focus**, and expend **energy**.

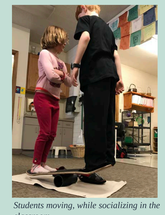
> "[Movement activities] help you cool down if you're really overwhelmed, and so it's like a new beginning of the day".

FINDINGS cont.

IMPACT ON PRACTICE

I came upon realizations that helped me to better understand my students: The students' needs for social connection and belonging ranked higher than everything, even movement needs. The students were constantly trying to balance the demands of school. Socialization would aid in normalization.

The students' driving force was their need for social connection, and thus the root of their behavior. Their focus became my focus as I realized that by helping the students meet their social needs would help their academic and physical aspects of school.



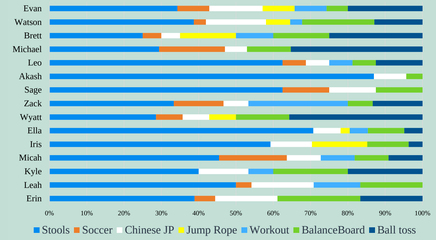
Students moving, while socializing in the classroom.

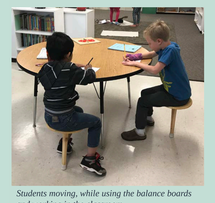
Common Student Behaviors Derived from Interval Observation Codes

Individual breaks/ transitions	Working Individually	Moving Individually	Moving & Working Individually	Moving & Working Socially	Moving Socially	Working Socially	Only Socializing
15%	23%	9%	3%	4%	8%	15%	21%

The students spent the same amount of time on independent and social gross motor movement. Total time spent time working individually was the same as the time spent socializing. Time taking independent breaks resulted was the same as for working socially.

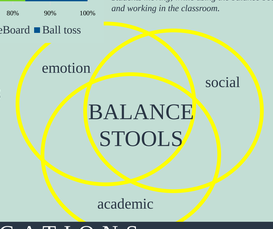
Total Use of Specific Movement Activities by Student





Students moving, while using the balance boards and working in the classroom.

The most widely used movement activity was the balance stools. This intervention provided an outlet for **emotional**, **social**, and **academic** needs.



IMPLICATIONS

Incorporation of similar movement activities into other Montessori classes could be simple. Most of the MA in the study did not take up a lot of room on the shelves and were mostly used unobtrusively, easily blending into the fabric of the class. I strongly suggest that teachers be willing to objectively evaluate the effects of any movement intervention on their students and class. It's important to remain open and flexible to class dynamics and individual student needs, and become aware of how students spent time outside of school. This was important to my understanding of their needs at school, since one setting usually informed the other.

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