

Practicing Reality: Play in the Montessori Environment

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Abstract

Play has been a controversial term in the Montessori classroom since Dr. Montessori claimed the word “work” as both a noun and a verb to describe her children’s activities. However, many activities that are termed “work” in the Montessori classroom might be called “play” in a traditional preschool. In addition, evidence of playful learning can be seen throughout the Montessori philosophy. Current research demonstrates that play is beneficial for children in a variety of developmental areas, and different types of play is expected and associated with different stages. The Montessori philosophy is dedicated to meeting all of the developmental needs of the “whole child” so that he or she may grow into an intellectually curious, compassionate, peaceful, and productive member of society. Montessori teachers must consider play as a developmental area, and observe and guide the children’s movement in the classroom to support their growth. This action research aims to introduce materials and activities that could be termed “play” or contain play-like qualities into the classroom with the same amount of preparation, analysis, and sequencing as all of the other Montessori materials, with an informed perspective based on knowledge and observation.

Keywords: *Montessori, play, work, children,*

“Play gives children a chance to practice what they are learning.”

-Fred Rogers

American television personality

1928–2003

Introduction

Like many of those involved within Montessori education, my first introduction to the philosophy included a vocabulary adjustment. Newly out of college and experiencing a sense of disillusionment with the traditional model of education, I applied at a Montessori Children's House hoping to find something more in-line with how I thought children should learn. On my first tour of the school, I saw children engaging in a variety of activities, many that I automatically termed as "play" - but was quickly corrected. Although much of what the children might do in the Montessori classroom might be perceived as "play" in any other circumstances, my director explained to me, we call it "work", in order to show them respect for their activities and efforts; it bestows a sense of seriousness and import upon the materials, boosting the children's self-confidence and sense of themselves as productive individuals. That explanation made sense to me, and I quickly made the linguistic switch.

As I continued on at my school, I began to notice that the preschool classrooms contained different sorts of materials: there were the Montessori materials, which were beautiful, carefully maintained, and required a specific type of use by the children, but there were also additional materials frequently in the classroom, such as LEGOS, a sensory table, play dough, and commercial games. In contrast to the Montessori materials, these "play" materials did not require a lesson, or presentation from a teacher. I noticed that the children used these materials in a way that was 1) more social 2) less careful, and 3) indicated a preference over the Montessori materials. After reading Angeline Lillard's (2012) research publication, *Preschool children's development in classic Montessori, supplemented Montessori, and conventional programs*, I realized that the preschool classrooms at my school most closely resembled the "supplemented"

classrooms. I wondered if there could be some sort of middle ground between the classic model - which clearly provides the best results, but perhaps disregards current psychological and educational research regarding play - and the supplemented model.

I was inspired to attempt this action research in the classroom by the words of Dr. Montessori in her description of teacher as scientist and researcher; “the teacher must bring not only the capacity, but the desire, to observe natural phenomena. In our system, she must become a passive, much more more than an active, influence, and her passivity shall be composed of anxious scientific curiosity, and for absolute respect for the phenomenon that she wishes to observe. The teacher must understand and feel her position as observer: the activity must lie in the phenomenon” (Montessori, 1964, p.126). I wanted to introduce extra materials into the classroom based on my observations of the children’s need to express through dramatic or imaginary play, but with the same philosophy of introduction and use granted to the Montessori materials. Given these circumstances, I hoped to observe and record the use of these specifically created materials, and their impact on the classroom.

Purpose and Goals of Action Research

My own observations have led me to believe that play is significant in children’s development of self-construction, abstraction, morality, and flexible thinking. Because play is not a widely accepted element of a Montessori environment, studies researching its use and effects are limited, and largely refer to "supplemented" classrooms; these are described as differing from “classic” Montessori classrooms in having interruptions during the work period, additional adults interacting with the children, and surplus materials such as “craft projects,

beads, puzzles, workbooks, commercial games like Memory, and commercial materials like LEGOs, on classroom shelves.” (Lillard, 2012, p.385). The research discussing "supplemented" classroom models indicates that many incorporate materials in a way that is not reflective of the classic Montessori model in integration, assessment, and direction (Lillard, 2012). With my action research, I wanted to find some sort of middle ground; the potential for extra materials to be integrated into the curriculum while imitating the purposefulness and specificity of the original Montessori materials.

The purpose of my action research was to observe the use of specialized play materials that connected to or enhanced the curricular areas of the classroom, as well as supported the developmental need of children to engage in dramatic or imaginary play. My goal was to use these materials to provide a specific resource for the children attempting to take part in pretend or imaginary play; in doing so, I hoped to preserve the integrity of the original autodidactic Montessori materials. Throughout my action research, I hoped to explore the following questions:

1. Can the inclusion of specialized play materials redirect inappropriate play in the classroom?
2. How does the inclusion of specialized play materials in the classroom affect engagement in other curricular areas? Can it increase academic interest?
3. Are children aware of the adult stratification of the terms “play”/”toy”and “work”? Do these terms affect the children’s perception of materials and concepts?
4. Can the adult presentation of play materials affect their use in the classroom?

Literature Review

Over one hundred years ago, Dr. Montessori pioneered an educational philosophy that is based on the scientific method; experimentation, observation, and analysis. Through her own research, she found that children, far from needing coaxing or bribes to engage intellectually, are naturally predisposed to learn joyfully and experientially. In order for children to fulfill this potential, however, certain essential conditions must be met that both satisfy their developmental needs, and support the behaviors that this “normalization” produces. One of these conditions is that the learning environment of the child be based on truth and reality. Dr. Montessori’s observations led her to conclude that children in the first plane of development are unable to distinguish between reality and fantasy. Furthermore, she found that children’s neurodevelopment is better supported by a dependable reality. Connections are strengthened by repetition; if a developing brain is sent varying or incorrect information about its environment, it is unable to create the type of deeply ingrained neural pathways that foster cognitive development and achievement . These observations led Dr. Montessori to create an educational environment based on the facts of existence to foster a concrete basis for development.

However, this emphasis on reality, in combination with the vocabulary used to describe the activities in the Montessori environment, has led Montessori education to be connotated as overly strict or regimented. Although Montessori teachers use the term “work” with a lengthy rationale, its meaning is misinterpreted through a variety of connotations. This literature aims to examine the existence and function of play and work in the Montessori environment.

Politics of Language: Language is not a neutral medium

Because of children's greatest desire to do "real" things, and to be acknowledged as capable entities, Dr. Montessori called their activities "work" - just as what that their parents go off and do every day. This terminology has created a fallacious dichotomy between what we Montessorians label "work" and "play"; an idea that I will expand upon below.

According to Dr. Montessori, the children's "work" in her Children's Houses is purposeful, fulfills the cognitive, gross/fine motor, and the emotional/social developmental needs of children - but is also creative, spontaneous, and fulfilling. All of the "work" within a Montessori classroom is specifically created to be attractive and appealing to the children as well as educational. Paula Polk Lillard, longtime Montessori educator and author, writes in *Montessori in the Classroom: A Teacher's Account of How Children Really Learn*, "The most amazing phenomenon of all in the classroom is the child's response to work. The word "work" brings connotations to the adult mind that have no place in the lives of children" (Lillard, P. 1997, p.34). For the child, work and play are two sides of one coin. Unfortunately, outside of the Montessori environment, adult confusion over what activities constitutes "work", and what activities should be discouraged or diverted is widespread. A common misperception of the Montessori philosophy is that it is too strict or rigid, forcing children away from fun to only focus on regimented and planned activities. A quick internet search can provide a vast snapshot of the misinformation and misinterpretation that surrounds Montessori and its jargon.

So why did Dr. Montessori use the word "work" instead of simply calling the children's materials "purposeful activities?" The term stemmed from two important ideas in the Montessori philosophy. One, that the oppression of the child through denying him independence and reality, and instead "giving him foolish and degrading toys", has led to a "world of idleness which is

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suffocated by a badly conceived discipline”(Montessori, 1964, p. 397). Calling the children’s activity “work” is a referential sign of respect by Dr. Montessori, validating the children’s movement as important and consequential. Secondly, unlike today, the word “work” does not reference a mandatory job completed to satisfy monetary urgency, but rather a “vital instinct” in mankind, and “the source of true progress in civilization” (Montessori, 1966, p.186-187). Dr. Montessori was quick to condemn the type of purposeless activity participated in by children and adults alike, likening the experience of children in traditional education to that of adults, who “feel the dreadful emptiness of being compelled to "move without an object" (Montessori, 1967, p.150). The “work” referred to in the Montessori environment instead refers to the type of “toils of an inventor, the discoveries of explorers, and the paintings of artists”(Montessori, 1966, p.186); the child, like man, when under the influence of this work, “becomes possessed of an extraordinary power and experiences again that natural instinct that allows him to express his own individuality” (Montessori, 1966, p. 186).

Today, those involved in Montessori education use “work” in our daily language to describe the activities of children in our classrooms - the word pervades Montessori culture. We’ve accepted the definition given to us by Dr. Montessori, and try to satisfy others with explanations we received in our trainings. “The children do not play in our classroom”, we tell parents, “they work.” Of course, we are not trying to say that the children do not actually play, but rather that we recognize their activities and movements as meaningful, and towards a greater purpose. Although Dr. Montessori never specifically designated the word “play” to term the opposite of “work”, or the useless or destructive activity she observed children initially participate in (activities that she saw decrease and eventually altogether stop in the context of the Montessori environment) it has gradually become part of the Montessori vernacular by

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representing the inverse; if “work” is purposeful activity, then “play”, simply by not being “work”, must be purposeless.. The problem, however, is that this limited viewpoint of play does not reflect that body of research psychologists have conducted on this essential element of childhood, and seemingly of existence.

In the November 2014 edition of *Tomorrow's Child*, editor Joyce St. Giermaine reflects on this issue succinctly by positing "Maybe it all comes down to a definition of *play* and *work*" (p.10). The process of preparing an environment and materials that corresponds to the developmental needs of the child has been bogged down by what is essentially an exercise in semiotics. To cite another great manipulator of words, however, what's in a name? If the intent can be kept in primary consideration, then surely the description is of lesser consequence. As St. Giermaine asks, "If they were using toys instead of tools to do these actions, we'd call it 'play.' In Montessori, we call it 'work.' Is there really a difference?"(St. Giermaine, 2014, p.11)

The distinction between "play" and "work" has created problems for Montessorians; Those outside the Montessori sphere view the terminology as reflective of a strict or prohibitive environment - those within sometimes use the term indiscriminately. While play is connotative of useless activity in the Montessori classroom, it is a term that is used to describe most creative endeavors of children by adults. It is important to note, however, that it is a term that does not connote much value to the activity - but it is regarded as a pleasurable activity. In contrast, the term “work” as understood by most people within the mainstream culture, is an activity that does have a lot of value - but not something to be enjoyed! These juxtapositions of the societal and Montessori translation of these terms has led to confusion among those trying to learn about the Montessori method. These misunderstandings or misinterpretations are evident online on

Pinterest boards and “Montessori-inspired” blogs alike; unfortunately, these misrepresentations only hinder the advancement of this scientific movement.

Play as developmentally appropriate and beneficial for children’s growth

While some Montessorians may use the term “play” dismissively, it is held in high esteem by educational psychologists and researchers. Play helps children learn important social behaviors, such as sharing, turn-taking, cooperation, and compromise (Soundy, 2009) It also helps children learn to take on a someone else’s perspective, and to consider a different angle. In addition, play assists the child’s emotional development by increasing his ability to self-regulate and master his own behavior (Burriss, K. & Tsao, L., 2002). In fact, play is so essential to children’s development that it can be used as a marker of a healthy child; “Pretend play is *not* a maladaptive expression of imagination. In fact, it is the *absence* of early pretend play that may be maladaptive, as indicated by studies linking autism spectrum disorders with the absence or deficit of imaginative play¹” (Andrews, 2013, p.3). As educators, we are constantly observing and evaluating our students for a variety of characteristics; can Tommy accurately match the color tablets? Hear the sound cylinders? Recognize the letters in his name? An awareness of the importance of play in children’s development can only enhance a teacher’s ability to support each child individually.

Definitions of Play and Playful Learning: Is play already inherent in Montessori education?

According to both the action research of teachers and the results of many studies, one thing is very apparent: play is very clearly important in the development of children (Burriss, , &

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Tsao. (2002).; Flear (2011); .Farné, R. (2005).; Rushton, Juola-Rushton, & Larkin, (2010)).

Defining it however? Not quite so obvious.

The answer is reliant on how you choose to view play. Depending on the definitions of different psychologists and play therapists, play can have different characteristics and/or qualifications. (Flear, 2011; Eberle, 2014; Gray, 2013). There are some qualities of play, however, that can generally be agreed upon, such as being self-directed, intrinsically motivated, structured, creative, imaginative, active, and unstressed (Gray, 2013). Although it may appear at first that play is aimless, it usually holds “an abiding utility or deeper, more contingent objectives” (Eberle, 2014, p.216). There are many different types, and modes of play; although a Montessori classroom may not provide for every modality of play, it certainly meets the requirements for quite a few. (See Figure 1).

A type of play is “playful learning”, which encompasses both guided and free play (Lillard, 2013). Lillard compares Montessori “work” to “playful learning”, and found it is similar in the following categories :

- use of overall structure
- use of objects
- use of lessons
- ability of the child to choose his/her own activities
- possibility of peer involvement
- extrinsic vs. intrinsic rewards
- "fun" factor

She also found differences in “work”:

- use of structured materials

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- directed, specific use of material
- includes description of activity
- no inclusion/allowance of pretend play

Element of comparison	Like playful learning	Not like playful learning
Provides overall structure	x	
Involves objects	x	
Involves lessons	x	
Freely chosen/ child directed	x	x
Peer involvement possible	x	
Intrinsic, not extrinsic, rewards	x	
Fun	x	
Structured materials		x
Specific ways to interact with materials		x
Description of activity		x
Pretend play		x

Figure 1. How the Montessori method is and is not like playful learning

(Lillard, 2013)

Montessori “work” contains elements of play, and playful learning naturally. It is important for Montessori teachers to recognize how it is inherent in the curriculum to better support the children’s development. And whether we, as Montessorians, call it work or play, the answer as Lillard concludes, is this: “The hands-on, child-driven educational methods sometimes

referred to as ‘playful learning’ are the most positive means yet known to help young children’s development” (Lillard, et al., 2012).

Play as “Practicing Reality”

Although some people automatically associate play with fantasy and make-believe, it is, in fact, a tool that the child uses to process his experiences. Play allows children to think about, discuss, and try out real-life skills that will be important later on (Burriss & Tsao, 2002). The play process, which often involves some sort of dramatic narrative or role-playing/ perspective shift, is how the child internalizes many societal ideas and concepts - and beyond that, “It is a means by which the child can create personal symbols and assimilate reality to his own meaning structures.” (Torrence, *Why Play*, p. 21; Hedges, Adolph, Amso, et al. 2013)

One of the problems that Montessorians have with play is that they view it as inherently as tied to fantasy, and separate from work and reality; in truth, however, it is the mode in which children process reality. Especially when guided to echo the classroom curriculum, play can be a very useful tool in helping children to gain interest and understanding of complex issues and topics.

Conclusion of the Literature Review

The idea that Dr. Montessori was against play and creative expression is a misinterpretation of her philosophy and respect for all areas of children's development (Lillard, 2007, p.190). In fact, throughout the Montessori literature, there are numerous instances in which Dr. Montessori speaks out against those who would stifle also the dramatic or imaginary activities in addition to the useless ones; one notable excerpt from the Montessori Method recalls an incident in which a little girl had gathered a small group of children around her, and began

“playing at being teacher or mother to the others” (, date, p.).(Montessori, did, however, speak out against the imposition of adult fantasy concepts on children, which she observed to be developmentally inappropriate for children at the preschool level). (Lillard, 2013) Based on the information gathered from these articles, the argument for play in the classroom is very persuasive. Luckily, given the diversity in play type and modality, the Montessori environment already meets many of the play specifications; much of what we do in the classroom could be qualified as guided play, or playful learning. Unfortunately, because play is generally a pejorative in the Montessori setting, learning and play are set up linguistically as dichotomous opposites. If Montessori teachers do not acknowledge the extended definition of play granted to it by researchers and institutions, some areas of development may be overlooked or negated in the classroom. By continuing to use terms that we insist we can redefine against the overwhelming force of cultural connotation, we ignore the problems they cause for us in the classroom, or within society. I do not mean to argue that Montessori teachers should cease the use of this vocabulary, but rather that we must acknowledge the power our linguistic choices have on the children we teach, and the cultural perception of the Montessori method; “As a result of the work done by all these stratifying forces in language, there are no "neutral" words and forms-words and forms that can belong to "no one"; language has been completely taken over, shot through with intentions and accents. For any individual consciousness living in it, language is not an abstract system of normative forms but rather a concrete heteroglot conception of the world. All words have the "taste" of a profession, a genre, a tendency, a party, a particular work, a particular person, a generation, an age group, the day and hour. Each word tastes of the context and contexts in which it has lived its socially charged life; all words and forms are populated by

intentions. Contextual overtones, (generic, tendentious, individualistic) are inevitable in the word” (Bakhtin, 1981, p.293).

Methodology

Participants and Setting

The participants in this study were 21 three, four, and five year old children in a private non-profit preschool classroom at a Montessori Children’s House in a mid-sized Midwestern city. I, the action researcher, am currently a student teacher in this preschool classroom. The Children’s House setting for this research study has 70 students total from age 2 to 6 (with the exception of the summer months, during which there is an elementary alumni class with children up to age 10). From 8:15-12:15, students are divided up into 4 classrooms; 1 toddler classroom, and 3 preschool classrooms. In the afternoon, the setting shifts to a less academically-focused program for the preschoolers in the two downstairs classrooms, while the kindergarten students meet in the upstairs preschool classroom for the Extended Day.

The group for this action research contained 9 three year olds, 7 four year olds, and 5 five year olds. There was a nearly equal gender ratio in the class, with 11 male students, and 10 female students. In terms of ethnic demographics, the class was represented by 13 Caucasian students, 6 Asian students (South Asian), and 2 Eastern European students. Out of the 21 students, 16 had attended at least 1 year of Montessori preschool, and the 5 students remaining

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were new to the Montessori preschool environment. Out of these 5, however, 2 children moved from the toddler classroom from the same Children's House into the preschool classroom. For 3 children, it was their first introduction in a Montessori group setting. Data was collected for these children during the months of November 2014 and April 2015.

The materials integrated throughout this action research were available for all of the children in the classroom; however, I focused on presenting/re-presenting the imaginary play materials to children who I observed seek out opportunities for dramatic/imaginary/pretend play in the classroom.

Materials

This action research project was implemented for seven months. Observations for this project began in October; parent permission slips were sent out and signed in November. The specialized play materials were integrated into the curriculum from November through April. Throughout the integration period, observations were made of the use of the materials, and the effects on both the individual students as well as the overall classroom behavior. Photos and video interviews were taken throughout this seven month period.

Materials were made to fit the play needs observed in the children's behavior, and sequenced on the shelf based on their connection to the curricular material, and the types of skills I expected they would need to use the material. Some materials, however, had to be placed in alternative areas of the classrooms.

The materials made for this research project were based on my observations of the children's behavior in the classroom, and connected to some curricular or thematic area of the classroom. These materials were intended to support the academic areas of the classroom,

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preserve the integrity of the Montessori materials, as well as meet the developmental needs of the children to engage in dramatic or imaginary play. These materials were sequenced on the shelf pertaining to the topic and skill level needed to use the material; some, however, had to be placed in alternative areas of the classroom due to spacing issues.

An essential element to these materials was that a lesson/presentation preceded use by the children. Other supplemental material in our classroom does not require a lesson, unlike the original Montessori materials, which is a cause of disruption and misbehavior by children lacking guidelines and boundaries. Like other Montessori materials, the use was conditional on the child's respect for the materials and classroom environment.

My observations of the classroom before the integration of materials indicated that many children were seeking out opportunities to use the Montessori materials as dramatic manipulatives. For instance, the knobless cylinders might become two opposing armies; the bead triangle a little "family." The use of the Montessori materials in those ways - while not bad, or wrong - simply cloud the original purpose of that material, which is to ground the child in reality and to impart a specific idea of concept. What the behavior of the children did reflect, to me, was a need to engage dramatically with an object or manipulative. My belief was that the fantastical nature of the pretend object play I was observing in the classroom was due to lack of characterization by the Montessori materials; a knobless cylinder could be a "Jedi" not because it resembled Obi Wan in any way, but because the meaning is purely symbolic. I wondered if I could redirect some of this object play activity with the integration of a very simple and reality-based dramatic manipulative.

Procedure

Snow plow play: Dramatic manipulatives.

October-November

The first material I integrated into the classroom was a small plastic box filled with artificial snow (made with shaving cream and baking soda, it felt cold to the touch). Inside was one toy snow plow. The autumn weather was transitioning into the winter, so the snow plow was chosen as a reality-based and topical object in order to support the children’s interest in winter-related subjects as well as provide a small object for dramatic play.

The presentation included naming the snow plow, demonstrating how to use it “plow” the snow to one side or another, and examining it/discussion (if appropriate). The material was placed on the practical life shelf, and while I attempted to give a lesson on how to use the

material in
the
classroom,
many
children
used it



based on their observations. (See Figure 2).



Figure 2. Snow plow play

Polar explorations: Thematic manipulatives .

December-January

As the winter months continued, our preschool classroom started to look closer at the Arctic and Antarctic regions of our earth. To support this exploration, I created a biome model of each polar region, and included the particular animals that lived within that region. These animals corresponded to 3-part nomenclature cards placed next to the biome. This material did not fit on the geography shelves, and so had to be housed on a shelf along a different wall. However, the shelf was separated from other curricular areas so as not to be too confusing for the children.

While I made 2 biomes, I only introduced one at a time, starting with the Arctic biome as the children had a greater amount of prior knowledge about that region. I termed both models as polar biomes; i.e., “the polar biome of the Arctic”, or “the polar biome of Antarctica.” Prior to using this material, the child was required to have mastered the Sandpaper Globe and Continent Globe, and to be able to identify the Arctic as the northernmost region on the globe, and the

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Antarctic as the southernmost. I would have preferred for each child to have had an introduction to all of the biomes prior to this, but unfortunately this was not possible as I made that material available at the same time (it was not part of the classroom prior to this action research).

After a quick review of the location on the globe, I named each model in the biome. Some children wanted to talk about the models or region a little more, so sometimes discussion followed; however, others preferred to just be shown how to put the material away. After replacing the objects in their box, I would invite the child to “play” with this material whenever they would like (given its availability).

The purpose of this material was to provide the type of small manipulative that children like to use for dramatic or pretend play, while connecting it to a larger curricular topic. (See Figure 3).

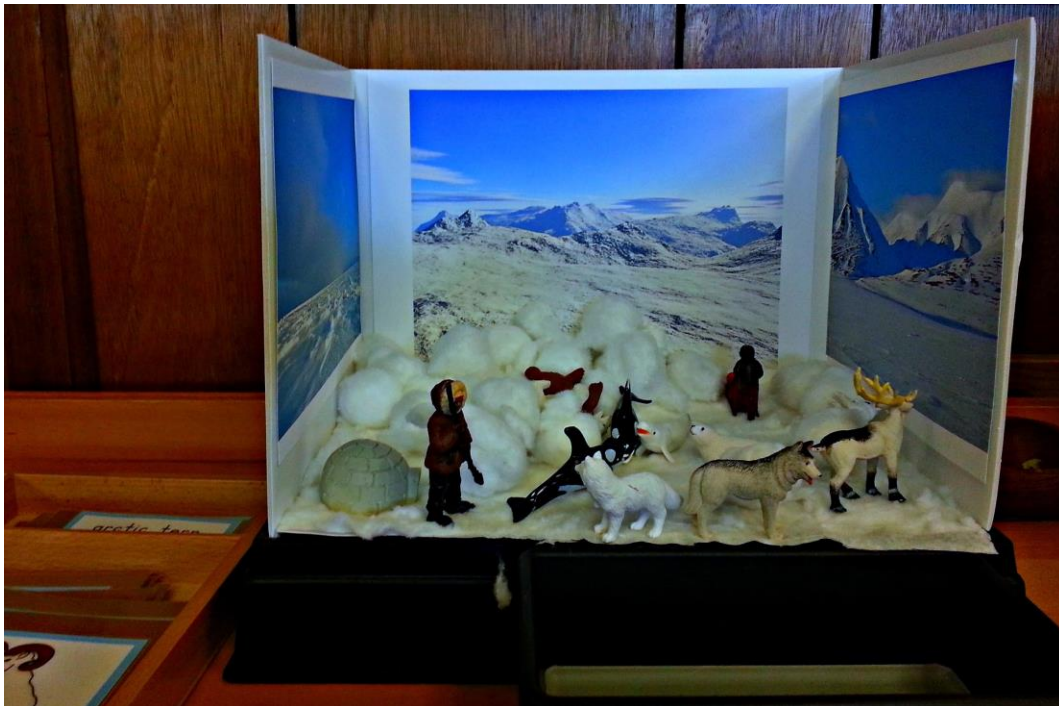




Figure 3. Polar biome exploration

Washing the baby: Dramatic narrative.

December-February

During December, I started to notice in my daily observations instances of children looking for opportunities to play “house”, or at least take on the pretend roles of family members in the classroom. Playing house is one of the most obvious ways that children “practice reality”; they gain social and emotional understandings as they explore perspective. In our classroom, however, these play incidences were creating disturbances and inappropriate behavior. My observations led me to believe that the disruptions in the class that this pretend play caused were not due to an innate chaotic tendency of play, but rather because the children were re-purposing other materials, or trying to sneak in pretend play when they had been asked to find some “work” in the classroom.

Baby washing is a part of many Montessori practical life albums - although not all. I felt some reservations in modifying an original material, but my rationale was that this activity already involved elements non-standard to the Montessori curriculum, and that it already included a traditional play prop (the baby). In this play extension I devised for my action research, the presentation involved: naming the baby as a model, naming the pretend baby/deciding on fictional narrative (optional), undressing the baby, washing/rinsing the baby, drying the baby, dressing the baby, and cleaning up the basin. Discussion might include why babies are sometimes washed in a smaller bath basin or the sink, rather than the larger bathtub; while this is pretend play, I did my best to connect it to real, concrete elements of the topic at hand. Although the baby washing material was limited for one person, other children enjoyed watching that child go through the steps of washing the baby. Sometimes, while observing, they joined in on the family narrative. This type of passive participation was something I had not expected, and had its benefits and downfalls. The children passively participating in the baby washing role play generally discussed how the primary child was washing the baby, and roles

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within their play group. Usually the children sat in chairs around the baby washing station, and usually maintained appropriate classroom behavior; however, sometimes they became loud and distracting to the other children. (See Figure 4).





Figure 4. Washing the baby

“Jumping on Australia”: Gross motor/imaginative play.

February-March

In late January, our preschool classroom began focusing on Australia. In my observations around this time, I made notes of children seeking opportunities for gross motor movement in the classroom, in addition to the dramatic play. I decided to incorporate some type of movement into the the next play material to support those needs demonstrated by the children. I created the “Jumping on Australia” material to fulfill several purposes: 1) provide gross motor opportunities 2) allow imaginary play 3) reinforce concepts and terms about Australia. The activity included jumping on a brown felt cut-out of Australia while pretending to be a kangaroo (optional). After the child had concluded jumping (as long as he or she wants), a stethoscope was used to listen to the increase in heartbeat by the jumping child. To use this material, the children had to know the continent names and colors, as well as the animals of Australia. This material

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was very popular in the classroom! Some children were more interested in hearing their heartbeat than jumping, but many used it mostly to exert extra energy. (See Figure 5)



Figure 5. Jumping on Australia

“Shopping at the Australian store”: Dramatic narrative/ role-playing.

March-May

Throughout the year, I began to notice that children did not seem to be working independently in the math area very often. Especially around March, my invitations to the children to work with me in the math area were often met by a “We just want to play!” I wanted to create a material that increased engagement in the math area, while connecting thematically to the cultural area and supporting group dramatic play. This material was made for the older children in the classroom - not only because of the skills needed to be successful, but because it allowed the peer integration that they had been seeking so insistently.

Preparation of the child in the geography/cultural area included: knowing the names of the continents, the puzzle map of Australia, and Australian cultural artifact basket. Preparation of the child in the math area included: mastery of the numeral layout, exchange game, and bank game. This material was by far the most complicated, and included the following:

- ★ Golden Bead bank material
- ★ numeral layout
- ★ cards with images of Australian cultural items and prices
- ★ Australian flag
- ★ store sign
- ★ coin purse
- ★ shopping basket
- ★ small pieces of paper (for making “receipts”)
- ★ pencil

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The activity required two children to participate; one to be the “shopkeeper”, and the other child the “shopper.” The “shopkeeper” had to set up his “store” (lay out the cards with items and prices, put up the sign and Australian flag), while the “shopper” helped set up the small numeral layout to the side. When set-up was complete, a verbal exchange followed:

Shopkeeper: “Hi, welcome to my shop. Can I help you with anything?”

Shopper: “Yes, I’d like to buy the Vegemite.”

Shopkeeper: “That will be \$9.”

Shopper: (opens coin purse) “Oh no! I don’t have any money. I will be right back, I have to go to the bank.”

Before going to the bank to get the needed amount, the child first selected the corresponding numerals from the small numeral layout. He placed these numeral tiles in his basket, and used them while at the bank to place the correct amount of golden bead material in his basket, using the coin purse to hold the unit beads. Earlier in the year, I decorated the cabinet containing the bank material with brick scrapbook paper and made a small “Bank” sign. After gathering the correct amount, he then returned to the “Australia Store” to purchase the desired item. The child would then place the unit tile on the rug, and then count out the corresponding unit beads. This would continue through tens, hundreds, and thousands, depending on the price of the item. After the shopkeeper checked to make sure correct amount was paid, he wrote the shopper a “receipt” by copying the amount, and handing it to the shopper along with his purchase. The shopkeeper then took the money back to the bank, while the shopper returned the numeral tiles. The children then could opt to switch roles, continue on, or stop playing.

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Of all the play materials I brought into the classroom, this material was the most successful. Many of the older children who typically sought out pretend play enjoyed the activity, and welcomed the redirection opportunities. (See Figure 6).



“Welcome to the Australia Store!”

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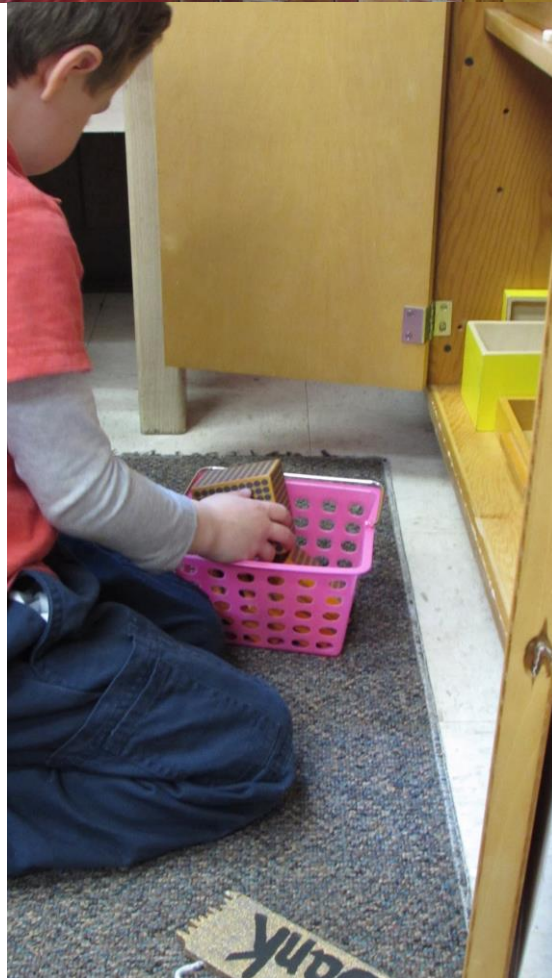


"Would you like to buy anything?"



(An "employee" sweeps the floor)

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Going to the bank/Collecting the right amount



Counting our money for the shopkeeper



Counting unit beads



Writing a receipt

Figure 6. Australia Store

Results and Limitations

Can the inclusion of specialized play materials redirect inappropriate play in the classroom?

This question was perhaps the hardest for me to address through my action research. Angeline Lillard's 2012 publication *Preschool children's development in classic Montessori, supplemented Montessori, and conventional programs*, indicated that the classic Montessori model - that is, without any alternative materials brought into the classroom - produces better results for children in almost all domains of development. I felt dissatisfied with how extra materials were used and integrated into those "supplemented" Montessori classrooms. A shortfall of the study, however, is that it focused only the presence of supplemental materials, rather than on how they were used. Presentation method and teacher attitude are critical in the children's connection to the materials. My hope was to provide something more in the middle between the classic and supplemented approach; I wanted to create materials that while meeting the developmental need of children, were carefully thought out and integrated into the classroom in a way that was modeled after the purposefulness and precision of the original Montessori lessons. In the classroom that I conducted my action research, supplemental materials were consistently added to the classroom for the children's use. These materials, in contrast to play materials I created, did not require a lesson, were not necessarily connected to other curricular areas, and were available to all of the children at any time to use alone or with classmates. My observations led me to believe that this created an unfortunate and unfair schism between the supplemental materials. While I could attempt to redirect children to my materials, the option of an uncontrolled activity was often more appealing. My observations of the use of these other,

uncontrolled play materials indicated that they increased disruption and unwanted behavior in the classroom. Because of these alternative play materials, I felt that I was not able to fully answer this action research question.

How does the inclusion of specialized play materials in the classroom affect engagement in other curricular areas? Can it increase academic interest?/ Can the adult presentation of these play materials affect their use in the classroom?

As I observed in my classroom and others', the problem with supplemental play materials in a Montessori environment is that they are used in a different, more casual way than the Montessori materials. In addition, some supplemental play material is actually redundant in a Montessori classroom. For instance, a supplemented classroom might contain a sensory table, for the purpose of containing different materials for children to have sensory exploration through their hands. In the sensorial area of the classroom, however, a child can explore and hone all of his senses - not just his sense of touch, but his also sight, smell, hearing, taste, and sound. I wanted for the supplemental materials I created to not only enhance the curricular areas, but to serve a specific purpose or need that I observed in the classroom.

Several of the materials I created provoked an increased interest and attention in the curricular subject. For instance, the children who played with the animal models in the polar biomes could usually also name each of the animals, and indicate which pole was its natural habitat. Others who did not choose to use this material generally did not know as many names for the arctic and Antarctic animals. The children who used the "Jumping on Australia" activity could identify the continent of Australia and describe its color and location much more readily than those children who did not.

The material that was most successful in promoting increased interest and engagement was the Australia shopping activity. In my interviews with students, all those who participated in it reported favorably about that experience. In addition, I observed other favorable effects it had on the classroom. 2 four year old boys, after observing some older friends use the material, spontaneously took out the numeral layout material and taught themselves how to set up the ones, tens, hundreds, and thousands tiles. After completing the numeral layout, one immediately remarked, “let’s do it again!” Together, they completed that Montessori material six more times before deciding they were finished. I also observed children taking out the globe to trace the flight the United States to Australia, and from Australia to New Zealand after “buying” a plane ticket with the activity. My action research found that these materials, when presented in a way that was consistent with the way that the original Montessori materials are used in the classroom, can positively impact the curricular interest and engagement of children.

Are children aware of the adult stratification of the terms “play”/”toy”and “work”?

Do these terms affect the children’s perception of materials and concepts?

I began my action research with the idea that the language that adults use alters or affects children’s perception of ideas or objects. I theorized that by calling the Montessori materials “works”, and the supplemental materials “play”, or “toys”, we adults are qualifying one activity as meaningful, and the other meaningless. Between the months of November and May, I engaged the children in conversations and interviews about these two words.

I asked nearly all of the children for their input on the definition of play. According to the children, the categories generally included:

★ “Playing with works.”/ “Choosing a work.”

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- ★ “Finding something to do.”
- ★ “Playing with something or something you really like.”/ “Playing with a friend.”
- ★ “Making stuff.”
- ★ “Run. Jump.”
- ★ “Grabbing something.”

The children’s definition of play included: something with purpose; something that you enjoy/choose; ability to socialize; creativity; activity; and materials.

I also asked them about what work, or working, meant. According to the classroom, the qualities of work are:

- ★ “When you pick out a work and do it.”/ “When you find something to do.”
- ★ “I don’t know.”
- ★ “We put a rug on the ground and put a work on it.”/ “We get a place mat.”
- ★ “Math.”
- ★ “Hard.”

Although there was some overlap in these definitions - the idea of using a material purposefully is certainly present in both - I found it interesting that “work” provoked a slightly more negative response. In my work student teaching, I also noticed that children often answered an invitation to find a work with “But we want to play!” The materials that they gravitated towards to “play” with tended to be the non-curricular, uncontrolled, supplemental play materials in the classroom, such as the sensory table, blocks, or unrelated dramatic manipulatives.

Because of these responses, I felt compelled to begin asking children whether play and work were the same thing. I was surprised to find that although they provided different

definitions, many responded that play and work are in fact the same. (See Figure 7).

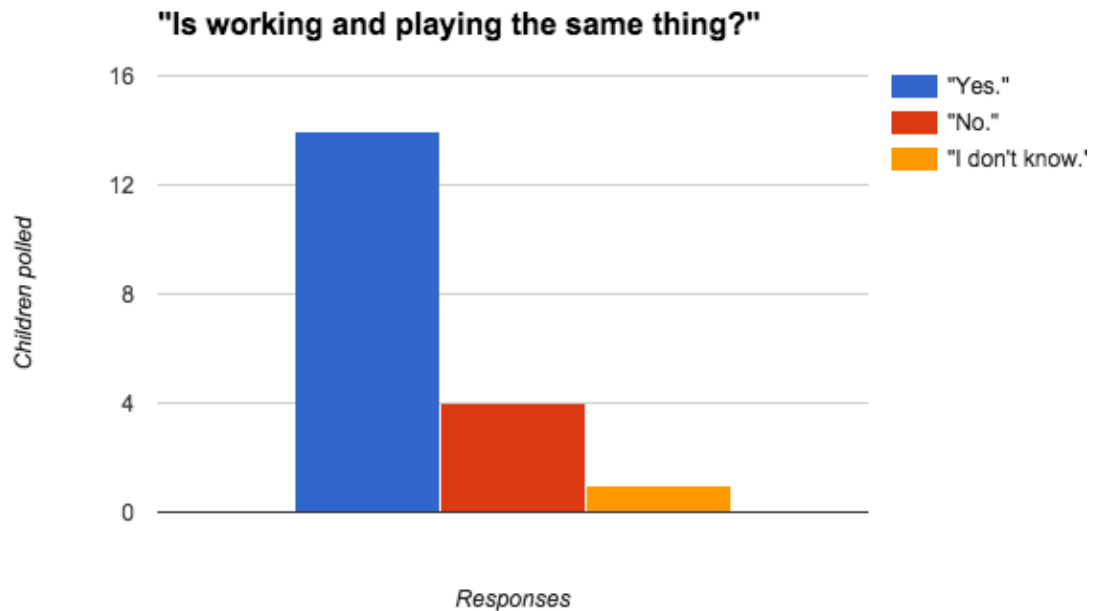


Figure 7. Is working and playing the same thing?

These responses indicate that while the children could give examples of play and work, they didn't necessarily understand the terms. Play seemed to be the word children used when they did not want to use the original Montessori materials, yet they also said that it was the same as work. My belief is that the presence of the supplemental play materials in the classroom, because they are not integrated into the classroom in a way that imitates the other Montessori materials, creates a schism within the classroom into regions of "play" and "work." I was ultimately unable to assess whether my controlled play materials affected the understanding of these terms; however, my research indicates that the term that we give an activity impacts the perception children have of it thereafter.

Future Action Plan and Conclusion

The results of my action research study indicate that extra play materials, when introduced to address specific developmental needs, and in a way that corresponds to the original Montessori materials, supports the children's creative and imaginative exploration, while supporting the goal of structure and purpose of the Montessori environment. These results were limited, unfortunately, by the presence of additional supplemental material in the classroom beyond the activities I created. The contrast of materials, and the terms associated with them, engineers a situation in which activities are unfairly dichotomized. This was frustrating, as I was attempting to address specific needs I observed in the classroom, but felt unable to successfully use those materials to redirect behavior with the alternative options present as well. In the next year, however, I will have an opportunity to make changes in the classroom content and curriculum. I plan to remove any extra non-Montessori materials that are redundant, or do not contain a control of error. In addition, any supplemental materials that I do introduce or keep in the classroom will be sequenced on the shelves relating to their thematic topic and skills needed for success. Just like the other Montessori materials, there will be a lesson or introduction for these materials. I will observe the classroom behavior for indications as to what type of play or creative need is being sought out, and then address that need through a specific material or activity. Although these materials might be created for "play", they will be referred to in the same language as the rest of the materials in the classroom.

This year was both challenging, and rewarding. I felt that the materials I created had a positive impact on the classroom, yet it was hard to quantify their impact with the inclusion of the additional supplemental materials. Throughout my action research, however, I reaffirmed my

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original belief that play is both a developmental need, and already partially present in the Montessori environment. I look forward to continue finding ways to support the “creative power” that is “the child’s true biological function.” (Montessori, 1995)

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Appendix A

Address and Email provided

Dear Families,

As part of working towards my Masters degree in Education at the University of Wisconsin - River Falls, I will be conducting action research in the classroom. This project is in the early stages, but it will focus on play in the classroom. Your children will be involved as I observe their play tendencies or subject interest, then plan for developmentally appropriate directed play materials. My goal is to introduce play materials that enhance or supplement curricular areas of the classroom, and to observe the classroom's interest and use of those materials. In the classroom, however, we will still refer to the materials as "work", so as to not influence the children's perception of the activities.

Your child's participation will include observations, pictures/video, and short interviews. I will use a pseudonym to to protect your child's privacy. Although all students will be participating in using these materials, your child's results will not be used in the study without your consent. If you have any questions about research procedure at UWRF, you may contact:

Molly Van Wagner, Director of Research, UWRF
(715) 425-3195, or molly.van-wagner@uwrf.edu

I would very much appreciate having your permission to use your child's results in this action research study. Please sign this form and return it at your earliest convenience.

If you have any questions or concerns, please feel free to call or email me. (Phone number and email provided). I very much appreciate your child's participation, and upon request, I will be happy to share the results with you.

Sincerely,

Caitlin O'Connor

Downstairs West Preschool Student Teacher

I grant permission for my child's results to be used in the research study as described above.

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Parent name (please print)_____

Parent signature (please sign)_____

Date _____

	
<p>Vegemite \$9</p>	<p>Weet-Bix Cereal \$5</p>

	
<p>Plane Ticket Chicago to Australia \$1127</p>	<p>Outback Hat \$49</p>

	
<p>Plane Ticket Chicago to New Zealand \$1935</p>	<p>Plane Ticket Australia to New Zealand \$458</p>

	
<p>Cork Hat \$34</p>	<p>Didgeridoo \$573</p>