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Implementing Environmentally Conscious Skills into Toddlers' Routines

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Implementing Environmentally Conscious Skills into Toddlers' Routines

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in fulfillment of final requirements for the MAED degree

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Abstract

This action research aimed to determine the effects of implementing environmentally conscious skills in the daily routine of toddlers in a Montessori classroom. Evidence supports that routine helps normalize and internalize practiced skills. I collected quantitative and qualitative data from a mixed toddler class, over eight weeks at an independent school setting with 24, 18 months to 36 months. I utilized through pre- and post-questionnaires, tally sheets, and observational record-keeping. The results showed that toddlers were more successful with activities that were part of their daily routine, in increasing their purpose and coordination versus those found on the shelf. The data shows a correlation between younger and older toddlers and their abilities to follow a routine with purpose and repetition. Additional research should be conducted over an extended period to better study the effects of purposeful activities, movement, coordination, and behavior in the classroom.

Keywords: environmentally-conscious, toddlers, routine, normalization, coordination

Introduction

Observing a toddler classroom is watching little bodies engaged in individual activities some on tables some on rugs, exploring materials with all their senses, self-absorbed. Toddlers in a Montessori classroom, age 18-36 months of age, often have barely any expressive vocabulary but are willing to grasp and demonstrate their needs. The prepared environment plays a crucial piece in guiding them to meet their needs. They are learning to use the resources around them that become key for their independence in their environment. During this stage, toddlers practice what they see and hear in their surroundings, such as absorbing vocabulary and movements modeled by their peers and guides. In our environment, there is a lead teacher guide and three assistants, all Montessori trained, to help guide this group of 24 toddlers. Providing vocabulary to the materials they are using and allowing the toddlers to try hands-on activities permits them to practice a new skill and learn the action and name of the activity they are using. By providing language to their actions or materials that child saves it in their memory to later return and recognize the activity.

Toddlers need more movement to meet their needs and attraction to water activities allows the child to want to try new activities that will help them become independent in care of self-activities, such as washing hands and demonstrating how to turn off the water so that we do not let the water does not run. Will help the children become more conscious of waste. We do not let the children use a cloth towel and instead they use a paper towels to dry their hands. The child needs to be able to pull the handle twice to dispense the paper towels and they enjoy the strength they have to use in order to accomplish getting the paper towels. The children tend to imitate teachers' movement and their peers. If one child moves to an activity and starts ripping the newspaper, then another two want to join, it can become chaotic because toddlers may want

the same activity, they cannot control their compulsive behavior. Teacher interaction may be required to invite the toddlers to move to another activity. Lillard (1988) encouraged caregivers to guide their young toddlers to an environment of knowledgeable and loving adults who can guide and model positive activities.

Montessori (1964) believed that observation was key to set up an environment that met the needs of the child, not by the teacher leading, but by what it is necessary to meet the daily needs, allowing the child to experience with all their senses the activities set for them with a purpose. The prepared environment plays a big role in the skills and activities we want our toddlers to acquire. Observation allows the teacher to provide a modeled behavior on the next skill needed for the child to grow. Although toddlers are constantly moving, the activities in the environment must be purposeful for them to succeed. The environment needs to provide the opportunity for the child to be introduced to these activities. For example, when monitoring waste materials, the child needs to carry a basket with daily waste to sort into three different containers using picture cues of garbage, recycling, and compost. The materials necessary for the child to move purposefully and succeed are essential for growth and development.

At this stage in development, toddlers enjoy learning new vocabulary through music and books. Montessori teachers like to read books in which toddlers can relate to the world around them, with concrete pictures such as a garbage truck, an apple, a garbage man, etc. They want to learn the how and the why; books and music with movement allows them to make some of these connections to their brains creating a bridge to their next stage of development. Music plays a big part in their routine, singing to wash their hands to ensure they fully finish this task. Repetition is also key for them to eventually master these skills. Not only does repetition provide practice and refinement of their skills, but it also helps build confidence in their daily routines.

The action research aimed to consider the needs of our toddlers and put them into practice learning skills that will help them care for our planet Earth that one day they will inherit and their own generations to come. Although research is available for children in primary school, it is important to start in toddler years to create awareness in their daily routine through activities set in the environment, music, and books. This awareness can set the foundation for a sustainable future, building skills that will eventually grow to bigger actions for our planet Earth. To keep our planet Earth alive and existent for the next generations, we have to start educating our children in sustainability, allowing them to practice new skills that will lead them to the survival of our planet. The teacher's job is to prepare an environment in which the children can be presented with activities that will lead them to make ecologically conscious decisions.

Theoretical Framework

This research study uses constructivist learning theory as the theoretical foundation for understanding how toddlers learn. The basic principle in the constructivist learning theory is knowledge built on experience and existing knowledge. One aspect of the Montessori method that relates to constructivist theory is, Spiral Learning, is the idea that a child builds a new skill on what they already know (Montessori, 1972). Using this the constructivist theory, children of all ages learn skills and experiences, setting the foundation for continuous learning, actively engaging in the process of following and connecting to activities set in a prepared environment by following their daily routine. Three concepts are essential in the constructivist learning theory: 1) the background, 2) keeping the child engaged, and 3) motivating children and then adding a new skill. Background includes where the child is and how the environment will support their learning. Keeping the child engaged, ensures that concepts (skills) are being

grasped, which is via observation in this case. Lastly, children can be motivated by presenting and allowing them to practice until the skills are mastered and then adding a new skill that will connect their actions to their awareness for our planet earth.

To create a prepared environment for toddlers, the teacher needs to recognize these sensitive periods of the child's development including movement, language, sensory, interest of small objects, order and social interaction. This theory explains the stages in which children have an intense interest in development from birth to age six. Movement motivates their mental development, it allows the child to move with intention and purpose (Lillard, 1988). In language development, the child absorbs language from birth to the explosion of language around two years of age. Language transforms sensory-motor reality into symbols by allowing children to grow and meet their sensitive period of language and sensorial experience (Montanaro, 1991, p. 143). In sensorial, the experience through all their senses: touch, taste, smell, visual, and auditory helps them map language and order. Toddlers are interested in small objects that can be held in their hands and appreciate all little things. Order is appreciated in their routine, knowing what comes next and where to find it. Lastly, social interaction occurs at 2.3 years of age. I considered all these sensitive periods when creating the activities to help them learn and develop these new skills based on their past sensory experiences. According to Montessori, sensitive periods are considered optimal times to learn specific skills. Learning happens best when the teachers and environment are prepared and supporting the skills necessary for the student to learn a new skill that will lead to life learning experiences—in this case, implementing environmentally conscious skills in the daily routine of toddlers.

Toddlers love nature, and through their prior experiences and knowledge, I planned lessons to teach them new skills using their senses, like the silence game, which is crucial for the

mind to register information from the natural world around them (Brown, 2019). Some of the conflicts are the abilities and capabilities of young children and the need for more resources for young toddlers. However, most resources are available for children in primary (3-6 years) and many articles list activities and write-ups for this age group. I used activities in the primary group setting, all using practical life skills that can be set up in a toddler environment. With younger children, the task might only include one or two steps; in primary, more steps might be encouraged (Kalama & Shen, 2023). I presented seven activities and modeled them to the children to help the children implement these skills in their daily routines. I took in consideration the information of toddlers' development, the theory of constructivist learning theory, and the toddler sensitive periods of movement, language and sensorial exposure. I conducted a study that aimed to help toddlers in the Montessori environment learn environmentally conscious skills.

Constructivist learning theory and Montessori's sensitive periods' theory are found frameworks for this action research. As children use their senses to explore and participate in everything in the environment, teachers can cultivate nature investigations with young children, offering toddlers natural objects to explore, improving their language, senses, movement, order, and curiosity in nature (McHenry et al., 2008). Allowing toddlers to practice skills in their daily routine will set the foundation for the appreciation of our planet.

Literature Review

Introduction

This literature review will discuss practical life activities that could be implemented in a toddler environment, considering their sensitive periods and building on skills they already know. While there is a lack of research available for toddlers' environmentally conscious activities in the Montessori classroom, practical

life is an essential area in the toddler environment, and more literature is needed on implementing methods to support the environmentally conscious skills in toddlers' daily routines.

Practical Life in a toddler Montessori environment

Montessori stressed that the length of time children spent at school addressing practical life skills remained consistent and was always a priority of the day (Montessori 1948). Children develop skills that will assist them in later tasks in the environment and the real world such as caring for oneself, the environment, and others. According to Jensen (2023), Practical life activities allow for repetition and mastering a skill that will prepare them for sustainability. To be impactful, the ideas that work best must be concrete and tied to – observable situations within the classroom. An example provided was sorting garbage, which supports the need for a toddler's movement like carrying an object (garbage) to make a difference on our planet. The child will grow a feeling of contribution to the environment and being part of a community that supports their growth and needs.

Practical life plays an essential role in the development of every child from the moment they start walking, coordinating movement for their next task. The activities in this area creates a sense of purpose in their brains from washing their hands and allowing the student to recognize the necessity to wash their hands when dirty. Creating a cycle of activity allows toddlers to practice as part of their daily routine. Montessori saw this cycle of activity as a pre-activity to the next step of learning. Practical life can be incorporated with children as soon as they become mobile (Lillard, 2003). The first two years of life are called the period of sensory-motor intelligence because, during this period, children use their senses and movements to get to know

themselves and the world. Then, when they learn to give a name to each piece of information they receive, they can transition from the concrete to the abstract.

According to Montanaro (1991), as children use their senses to explore and take part in everything in the environment, teachers can cultivate nature investigations with very young children, offering infants natural objects they can explore. Young children need exposure to activities and concrete objects where they can learn and explore with their senses. The Montessori environment allows the children to bring nature to experience with all their senses in a way they can relate to the outside world. The Practical Life area allows the Child to open, close, move and work on simple skills that will help them explore the world using and refining these skills and building on what they already know.

Environmentally conscious skills

In our adult world, not all worry about the outcome of our planet. Still, as Montessori teachers, we have conscious minds for our environmentally conscious actions and try to be as mindful as possible. Our children observe us for guidance, and best mindful practices become key for their own mindful outcome. According to Koloszki et al. (2022), raising environmental awareness should begin during early childhood and continue throughout life. Early childhood educator Connie Redwine (1996) has designed several lessons appropriate for ages 3 through 8 to “help children understand that everyday activities impact the ecological process of life” (Wolf, 1996, p.103). Redwine urged the child to incorporate into their daily routine simple habits such as turning the water off when they brush their teeth, using both sides of their drawing paper, or turning the television off when no one is watching. While the lessons were designed for children three years and older, these are perfect examples of what a young toddler can learn through the

routine. Redwine's examples are concrete, which makes them developmentally appropriate for the teachers to present and for children to understand.

Building skills based on routine:

Education is not something the teacher does, but it is a natural process that develops spontaneously in the human being. It is not acquired by listening to words but by experiences in which the child acts in his environment. The teacher's task is not to talk but to prepare and arrange a series of motives for cultural activity in a unique environment for the child. As Montessori (1995) said, "the adult carefully prepares an environment designed to explore the senses without overstimulation to help create experiences that support and nurture the toddler's needs, natural growth, and development" (p. 8). The adults in the toddler environment must be skilled observers; they watch and observe the children as they interact with the environment. The guide must balance ever-changing needs of freedom and limits, exploration and structure, stimuli, and sanctuary. "The education of even a very small child, therefore, does not aim at preparing him for school, but for life" (Montessori, 1948 p.8). Preparing for life means providing the foundation for young toddlers to build skills. Not only does routine in the Montessori environment allow the child to predict what comes next, but the pattern in activities helps create a sense of security emotionally, cognitively, and socially (Jansen, 2023). Children's needs are met based on the routine they have been following since the beginning of the school year, such as washing hands when they first come into the classroom, participating in the morning circle, walking peacefully in the environment, and cleaning after themselves when completing a task.

Ernst et al. (2021) studied children in preschool ages 2 to 5 and found that demonstrating the importance of nature play, building their social skills, and contact with nature helps children with their appreciation for our planet. "Since today's children will inherit these sustainability

challenges, it is important to prepare them with the foundational knowledge, skills, attitudes, and values to understand and respond to these challenges" (Ernst et al., 2021). Suppose the development of environmental values, attitudes, skills, and behaviors begins early in childhood. In that case, it is particularly relevant in early childhood, allowing the children to set the foundation for their future.

Conclusion

More research on environmentally conscious activities in the Montessori classroom for toddlers needs to be conducted. Although prior research has been done in primary, the results have provided proof that early intervention in exposing young children to nature and activities that support our planet can be implemented in the practical life area in the Montessori environment. Montessori believed in the potential and ability for toddlers to grow using all senses and to build on their existing skills. Respect for nature and positive interaction with the outside world help grow the child's love for our world (Woyke, 2004). Toddlers have several developmental tendencies that allow them to start learning about the environment concretely through daily routines. As Montessori educators, we should build the education foundation during a toddler's informative years.

Methodology

This action research project explored the toddlers' response to implementing environmentally conscious activities in their daily routines. Using the toddlers' daily routine to implement ecologically conscious activities will develop skills that could be used in their next plane of development in primary school. This research aims to fill the gap in research available for toddlers' environmentally conscious actions in the Montessori classroom. The activities used in this study were activities currently practiced in the primary environment. The research

classroom consisted of 24 children in a toddler environment, ages 18-36 months. I will not identify the subjects; the school is a private Montessori school in the Bay Area of California.

The data collected included qualitative data, (see Appendix A) such as observations of toddler behavior affected behavior by the activities. I used a qualitative reflection journal to record the behaviors of the children who were practicing these skills; the data was analyzed to determine what worked and what changed over the time of this study, (see Appendix B). Quantitative data about the activities practiced by the toddlers and their frequency of participation were collected on a tally sheet, (see Appendix C). Lastly, three Montessori-trained teachers voluntarily participated in a pre-and-post survey (see Appendix D).

The action research project began with two weeks of the toddlers acquiring the internal freedom to initiate work, move independently, and adhere by choice to the rules of the environment for safety purposes.

These two weeks also allowed the children to make a safe and secure connection with their teachers and establishing a sense of belonging to the classroom. This was followed by the interventions starting on week 3 on Tuesdays and Thursdays for seven weeks. During the initial two-week period, the children were new to the environment and displayed separation anxiety. The children were welcomed into their daily routine, starting with being escorted into the classroom and then washing their hands. Simple lessons, such as three-object puzzles and other practical life activities, were presented to engage their attention. I also presented the pre-teacher survey to the three participants during this intervention period. At this point, the pre-intervention of observation using the tally sheet of subjects practicing activities, assistant teacher modeling, and guiding the children began. Concurrently, I used the observation journal to record daily

observations on the subjects' behavior and accomplishments while the toddlers practiced the activities. Lastly, I recorded reflections and changed in tasks for the toddlers.

On weeks three through nine, I presented each activity, adding one new activity weekly. I presented the activity on Mondays to the three assistants working in the environment with the 24 toddlers, so that they would be aware of how to guide the toddlers throughout the week. The first activity presented on week three was *turning the water off* when washing hands; in week four, *using a cloth towel* to dry hands; on week five, *Recycling –sorting two kinds of waste*; on week six, *packing lunch containers back in their lunch bag*, lunch box with reusable containers as an activity on the shelf; on week seven, *composting food waste*; on week eight, *tearing newspaper for the compost bin* and lastly, on week nine, *eggshell grinding*. Using the presented plan, the Montessori assistant teachers and I began with two toddlers on the Tuesday. For the first task, those two toddlers were introduced to turn off the water when scrubbing their hands for 30 seconds. Then, I presented to the same two toddlers how to turn the water back on to rinse and close the water again. This first activity became part of their daily routine as they were encouraged to practice the hand washing lesson, the 24 children were introduced to turning the water off on the fourth week. As the children could complete the entire process of handwashing, which continued Wednesday and Thursday of the same week. In the ninth and final week, I tallied all actions the toddlers have demonstrated and activities they had practiced and mastered and qualitative behaviors recorded in the observation journal and all reflections in the reflection journal. The post-teacher survey was given to the same three assistant teachers in the study. All data was analyzed and synthesized for themes and trends. In the pre-and post-intervention teacher survey, the teachers were able to agree, maybe agree, or disagree on the following statements:

1. If I prepare the environment with environmentally conscious activities, toddlers will learn these skills.
2. I believe toddlers can learn environmentally conscious skills during this plane of development.
3. I can support toddlers in learning new skills by modeling tasks during our daily routine.
4. I can support our toddlers in gaining these skills in the Montessori environment by presenting these eight activities.

Data Analysis

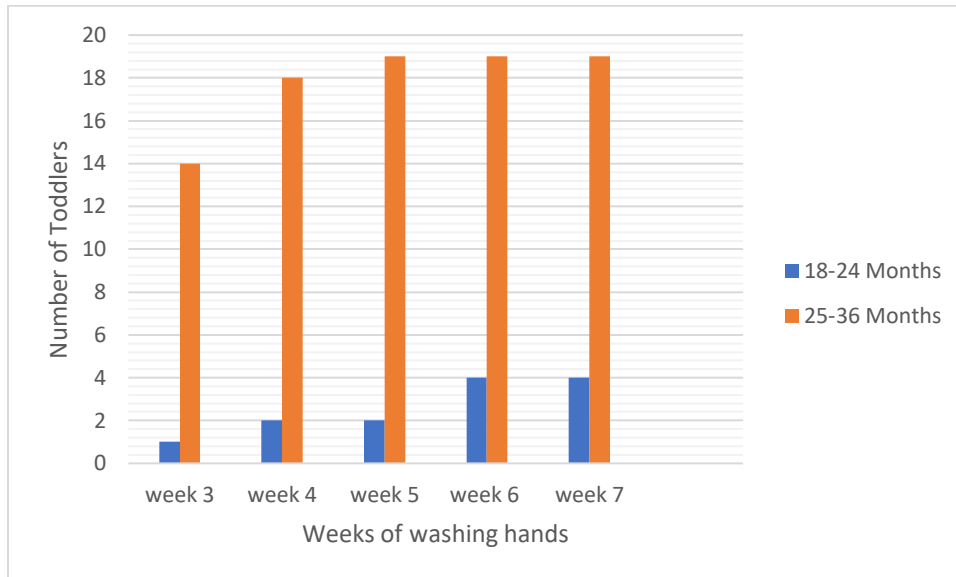
My goal was to understand and evaluate the support each assistant teacher was able to provide in helping our toddlers gain these skills during the work period and daily routine. All adults must be involved in this process to implement new skills in toddlers' daily routines. The pre-intervention allowed them to reflect on the possibility of these skills being adapted to our toddler environment. For me it was an opportunity to know where my assistants needed more support. One assistant teacher was unsure if toddlers would learn these skills if she prepared the environment with environmentally conscious activities. She believed that they were just too little to develop these skills. The assistant teacher needed to be more confident on the toddlers' abilities to control their movements while completing these activities. Two of our assistant teachers were unsure that toddlers could learn environmentally conscious skills during this plane of development. They felt that language was not yet developed and that they would not be able to follow verbal direction. I explained to them they have to match the words to the action for the toddlers to understand what they needed to do. All three assistants' teachers were on board

supporting toddlers learning new skills by modeling tasks during their daily routines. Lastly, all three assistant teachers were able to repeatedly present and reinforce these activities to toddlers during the work period.

Based on the third week of my findings the younger toddlers (18-24 months) were still choosing activities from the shelf and constantly running and being redirected by the assistant teachers. They enjoyed (the water falling on their hands) washing hands and turning the water on and off. The older toddlers (24-36 months) had a little more sense on control and needed less reminders to turn off the water when washing their hands, some even reminded each other “turn off the water, please”. Older toddlers were able to repeat complete phrases and words used by the assistant teachers and me. I introduced the toddlers to turn the water off when lathering their hands with soap to avoid wasting water. The toddlers were encouraged to sign *Twinkle, Twinkle, Little Star* and then turn the water back on to rinse their hands. Toddlers liked singing familiar songs, but not all could sing; the assistant teachers and I had to facilitate the singing and control their impulsiveness to turn the water back on. The age difference in toddlers and their maturity made a difference. Those with vocabulary and more self-control were more successful in turning off the water and lathering their hand with soap for 30 seconds compared to the younger toddlers who needed more help reaching to turn on and off the water. Based on the tally and observation, having an adult assist the first seven weeks and only help when difficulty was present helped the toddlers succeed and feel more accomplished at the end of the task (Figure 1). It took about three complete weeks for four younger toddlers to be successful turning the water off. The older toddlers were more successful because they were able to understand commands and connect it to the action.

Figure 1.

Toddlers able to turn off the water when washing hands



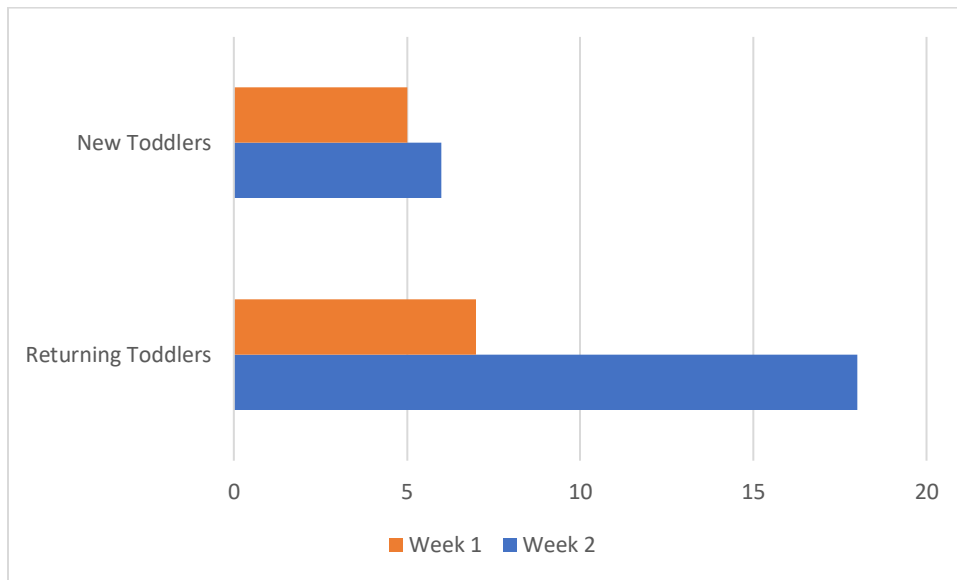
On week 4 the findings on toddlers using cloth towels were interesting to observe specially with the eighteen toddlers that were in the same classroom during the last module of summer. They were used to using paper towels. They enjoyed reaching over to pull the handle twice. Now the paper towel dispenser was empty and when I first offered the cloth towel from the basket, they looked at me unsure. Having to reiterate that the paper towel dispenser was empty. I repeated “Please use the cloth towel”. Most of the toddlers did not question it. They just grabbed the towel and dried their hands. According to the tally sheet it took at least a week for the returning toddlers to get in the habit of using the cloth towels. Based on my observations some even wiped their face with the cloth towel, I think the texture of being softer encouraged putting it on their face to wipe it.

The returning toddlers were more successful when learning a new skill for drying hands (Figure 2). Based on my data analysis the difference in returning toddlers from the summer program

looked at the paper towel dispenser and reached over to pull the handle. After analyzing the frequency of the toddlers utilizing the cloth towel from the first week until the second week, there was a big difference, by the second week of practicing.

Figure 2.

Frequency of toddlers using cloth towels



The findings of week five *Recycling –sorting two kinds of waste* was a popular activity. The younger toddlers enjoyed the movement from pick in up the basket of waste objects and walking over to the trashcan and the recycling can. Thirty percent of the toddlers engaged in this activity after being introduced by week six the toddlers were excited to see what would they find in the waste basket. This activity encouraged the toddlers to walk because they had to carry a basket with two hands and closed to their body to avoid falling. Based on my observational journal this was a great activity to encourage self-control and movement with purpose. The recycling can and trashcan were close to the sink area in the middle of the room, it required

effort from the toddlers to walk using quiet feet. I could also hear some repetitive words in the young toddlers like heavy and more, which were used by the older toddlers before.

My finding for week 6 *packing lunch containers back in their lunch bag*, occurred after serving their lunch on their plates and then putting lunch containers back in their lunch bag. Based on my weekly tally not all toddlers were successful, some were frustrated. A lot had small thermos containers that the assistant teachers helped open and then provided the opportunity to the toddler to pour on their plate and put the thermos back in the lunch bag. This activity became part of their daily routine. More assistance was needed from the assistants, but after two weeks more toddlers were observed trying to do it on their own. This lunch activity was an extension of a packing a lunch box activity on the practical life shelf. The toddlers could practice this activity as often as needed during their daily work period. According to my notes, some master closing and opening containers, zipping and velcroing a lunch box.

Findings of week seven on composting food waste was interesting and successful for most of our toddlers. They practiced this activity after snack and lunch to dispose their food waste. Based on my observations toddlers easily access the compost bin after snack and before washing their plate. The first week of presentation they needed guidance and repeated redirection. The assistant teachers commented that it was too challenging for them to know what to put in the compost container, so I added a picture of the food served that day for snack for the toddlers to match to the picture on the compost bin. The toddlers autocorrected each other and encourage each other not to bring food to the washing table to go back to the compost bin.

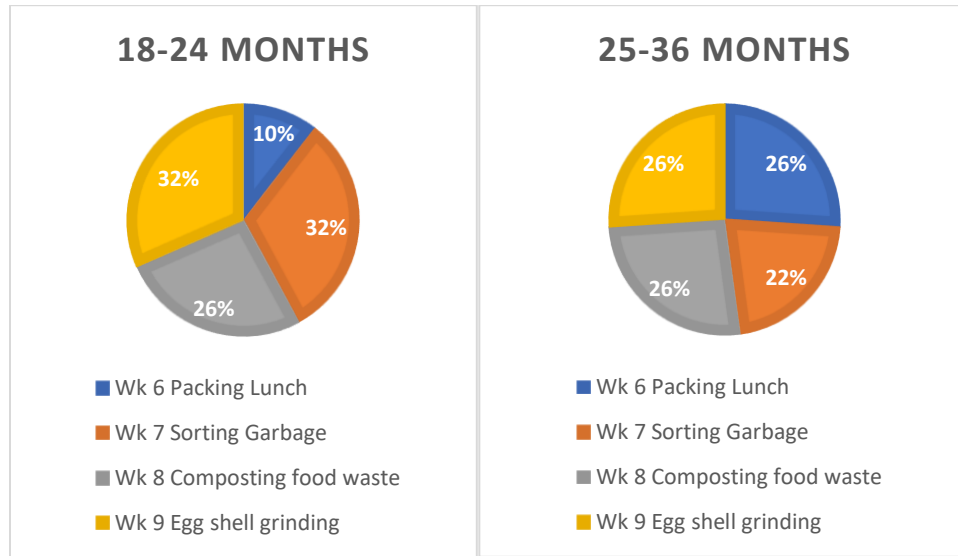
My Findings on week eight, *tearing newspaper for the compost bin* was a shelf activity that the toddlers had an opportunity to practice while their work period. I realized it was hard to find since not everyone receives the newspaper, but I was able to find a source to supply it

weekly for free in our Asian community. Based on my tally sheet this activity was being practiced daily by older toddlers. Some ripped in strips others in large pieces and a simple presentation was enough for their success. The toddlers discover ink on their fingers which encourage them to wash their hands. The young toddler did the activity once and then moved away, no repetition of action. The assistants reinforce putting the activity back on the shelf. Some young toddlers practiced tearing newspaper from the shelf and the assistants let them be. The last activity findings on week nine, *eggshell grinding was not as expected*. This activity aimed for the toddlers to develop a product that would help our garden using their whole hand strength. The older toddlers enjoyed and practiced this activity daily. For some toddlers, it helped develop concentration and putting their strength in grinding the eggshell. The toddlers were limited to one eggshell, after grinding it they had to poured using a large funnel to a jar. This helped with their eye hand coordination. I also provided a small broom and dustpan to clean after. Some younger toddlers enjoyed sweeping the eggshell dust from the floor. On my weekly analysis, I learned that this activity helped develop concentration, coordination and encourage our young toddlers to clean.

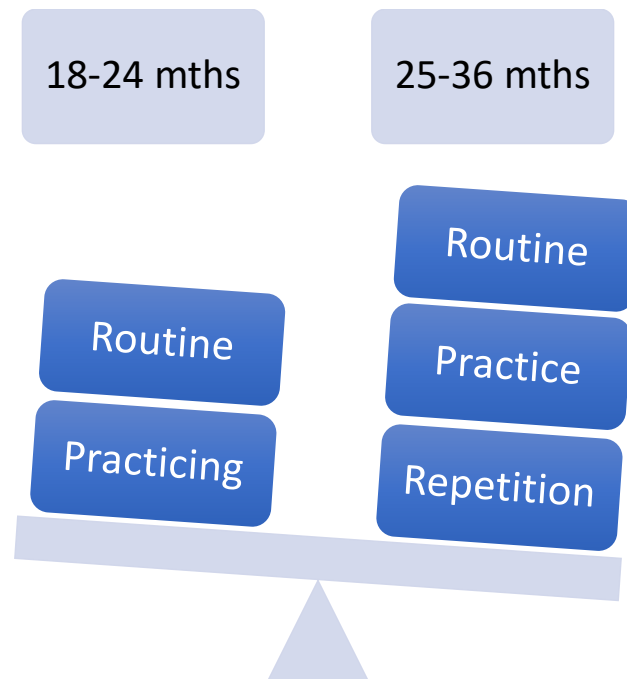
In Figure 3 it shows data findings from the tally sheet based on whom practiced which activities during weeks six through nine. It showed that toddlers 18-24 months were more attracted to weeks seven and nine activities eggshell grinding and sorting garbage versus packing a lunch box that required more steps. Toddlers 25-36 months were more likely to choose all activities during weeks six through nine.

Figure 3.

Activities in weeks five through eight



Based on my notes I found that throughout weeks 3-9, all toddlers felt comfortable washing their hands; younger children needed to practice turning off the water, but enjoyed the sensory experienced. Older children enjoy the repetition of activities packing a lunch box, grinding eggshells, tearing newspaper and sorting waste; it helped meet their need of movement and baric in activity sorting garbage, matching it with the pictures in the container. Although younger toddlers are curious of trying new activities, they do not like to repeat the same activities on the shelf, they go for what they see first see (Table 1).

Table 1*Observational data younger toddlers vs. older toddlers*

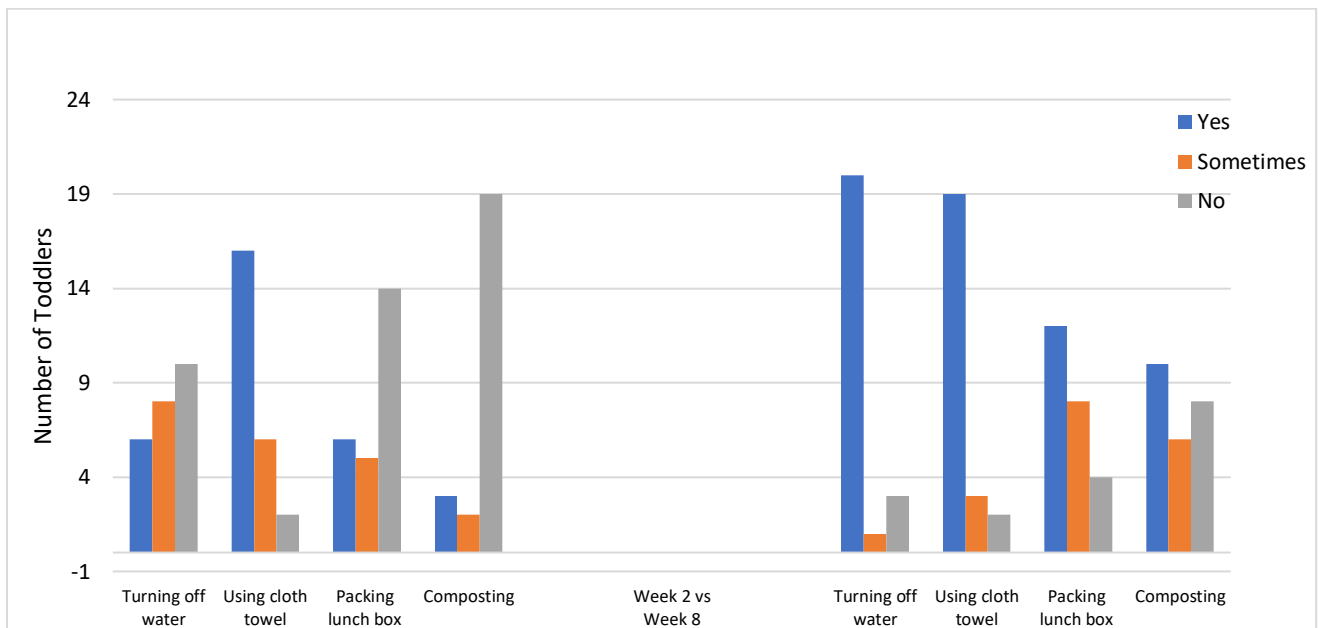
Another observational data is how successful were the toddlers on skills being practice based on being part of their routine versus just activities being on a shelf. Four of the seven activities were set as part of their daily routine: turning the water off when washing hands, use a cloth towel to dry hands, packing lunch back (lunch box with reusable containers) and composting food waste. I observed toddlers more consistent practicing with these activities because they were part of their daily routine (Figure 4). The other three activities are set as part of the shelf activities: recycling –sorting two kinds of waste, tearing newspaper for compost bins, and eggshell grinding. Finding: Integrating activities into the routine as part of the work period encourages the activities to be practiced in the toddler’s daily routine at their level and meets their need to move and accomplishment once the activity is mastered. Repetition was key in my

observations and data collected, specially with older toddlers that repetitive chose the same activities on a daily basis.

It was interesting to hear the other assistant teachers and sharing their answers on the post survey made them feel part of the study and being to asses in their own what they witnessed in the classroom the many changes of growth as toddlers went from running to walking, being more careful in reaching the faucet, and stepping on the stool to reach the sink. Their movement after four weeks became more concise and purposeful. Having the activities available in the practical life area encourages the toddlers to move with purpose, carrying their work from the shelf to the table or rug area. I also witnessed the benefit of presenting and guiding toddlers through their routines. If these findings occurred in nine weeks, I wonder what findings we could have been found in four more weeks.

Figure 4.

Toddlers skills based on daily activities



Action Plan

The action research project as implemented, was a positive learning experience for the toddlers and assistant teachers. The results of this study suggested implementing activities that required repetition in their daily routine. I observe the repetition and tenacity in toddlers wanting to try daily.

The practical life area is an important part of the Montessori curriculum in meeting young toddlers' sensitive period for movement, while also introducing new activities that will help develop and motivate environmental conscious skills. Exposing toddler to sequenced activities that will lead to successful daily routines are worth having available to young toddlers. Packing a lunch box, sorting garbage, and grinding eggshells will prepare them for more challenging activities such as gardening, washing clothes, and hanging clothes to dry, which will help our planet Earth. Teachers recognized when the children needed activities that promoted movement during the uninterrupted 2-hour work cycle in the classroom and offered to provide a presentation to guide them with purpose.

As a Montessori teacher and director of our school program, I plan to continue implementing activities in our toddler program that will contribute to caring for our planet. Taking this initiative will set the foundation for toddlers to continue environmental practices in their primary years and beyond. It will allow our toddlers to have a set routine to be successful by practicing these activities eventually results based on repetition, coordination, and concentration processes. I want both toddler and primary teachers to come together and brainstorm more meaningful and developmentally appropriate activities for the children to meet

their needs and help our planet Earth. The goal will be to have a set curriculum that begins in the toddler program and extends to the primary classrooms.

As a Montessori educator, the findings in this study will help me better understand the needs of the teachers in guiding them and their thoughts on toddler development and how I can support them to have an environmentally conscious curriculum that allows the toddlers to move with purpose and coordination. I will share my findings with my primary teachers to assess what other activities can become part of the daily routine of our toddlers in practical life areas as part of our curriculum, evaluate the sequence of lessons, and write-ups for our teachers to present this curriculum to our toddlers successfully. These findings will open conversations with our toddler assistant teachers to encourage activities in the toddler's daily routine and other classroom areas to create awareness of environmentally conscious skills. I will encourage more activities in other areas of the curriculum, like language activities for the toddlers using the vocabulary of the actions and tools they will be using. These discussions will help enrich our current curriculum by incorporating new ideas leading to environmentally conscious activities. Based on my findings, having a survey available and bringing the teachers on board made them feel part of the study, and how their support and actions helped lead to successful results. The assistant teachers were surprised how our routines were more successful with guidance and modeling. Having teachers onboard on changes and implementing routines allows them to assess, evaluate, and advocate for the needs and capabilities of our toddlers based on their observations for the curriculum to be successful.

More research should be done on toddlers' development in the Montessori classroom on other activities in environmental sustainability. I would like to encourage a longer study that starts at 18 months and ends in the last year of primary. This would help the toddlers to have

more time to be successful in practicing more skills and for the researcher to observe the changes and similarities within their toddler development and eventually in primary. This could help provide a better comparison and understanding of toddlers who are environmentally aware and skilled than those who do not have the opportunity to start in the toddler years in this program. Montessori teachers can use this study to set their curriculum, meeting their toddlers' needs and allowing them to learn new skills at an earlier stage. Montessori teachers will be able to use data collected from previous researchers to continue to discover new data in their own classrooms based on new activities not mentioned in this study. Early intervention for a sustainable planet is important, and what better way to begin with our youngest citizens in their toddler years.

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Appendix A

Observational Data- Twice a week (Tuesday and Thursday) narratives to document observation by researcher

Observation duration: 30 Minutes

Toddler Classroom: _____

Date: _____

General observation:

Observation: Movement with purpose

Young Toddlers Observation:

Older Toddlers Observation:

Appendix B

Journal Data Analysis

Analyzed Data Week _____

What worked?

What changed?

New behaviors:

What was different this week:

Patterns or Trends:

Appendix C

Tally Sheet of Activities

Activities practiced and frequency of participation in daily routine activities and activities setup in Practical Life.

Week of _____ **Lessons Presented** _____

Student # _____ **Young or Older Toddler** _____

P = Presented / = Practiced M = Mastered

Activity	Tuesday	Wednesday	Thursday
<i>Turning water off</i>			
<i>Using a cloth towel</i>			
<i>Recycling</i>			
<i>Packing Lunch Back</i>			
<i>Lunchbox Packing(PL)</i>			
<i>Composting</i>			
<i>Tearing newspaper</i>			
<i>Eggshell grinding</i>			

Notes:

Appendix D
Pre/Post Teacher's Survey

Name:

Date:

		YES	No	Maybe
1.	I believe toddlers are able to learn environmentally conscious skills at a young age			
2.	If the environment is prepared toddlers will learn skills			
3.	I can support toddlers learning new skills	How:		
4.	I model environmentally conscious skills in the Montessori environment	Example:		

Notes/Comments:

This data will be confidential

Post		Date:		
		Yes	No	Maybe
1.	I believe toddlers are able to learn environmentally conscious skills			
2.	If the environment is prepared toddlers will learn skills			
3.	I can support toddlers learning new skills			
4.	I model environmentally conscious skills in the Montessori environment			

Comments and Observations

This data will be confidential